



State of New Mexico  
OIL CONSERVATION COMMISSION

From

MICHAEL E. STOGNER  
PETROLEUM ENGINEER

Memo

To Wally

Admission tickets for the  
concert were taken at the home  
of the wife of the owner.

These are now being  
sent to the  
owner.

P.O. BOX 2088  
LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87501  
505-827-5811

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:

CASE NO. 6496  
Order No. R-5995

APPLICATION OF LLANO, INC. FOR  
RESCISSION OF POOL RULES, LEA  
COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

*also see  
R-6050*

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on March 14, 1979, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 2nd day of May, 1979, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Llano Inc., is the owner of five wells in the Grama Ridge-Morrow Gas Pool, Lea County, New Mexico.

(3) That said pool was created and defined by Division Order No. R-3006 on December 3, 1965, comprising all of Sections 3 and 4, Township 22 South, Range 34 East, NMPM, and made subject to the special pool rules promulgated by said order, which include a provision for 640-acre spacing and proration units, with well locations prescribed as being no closer than 1650 feet to the outer boundary of the unit and no closer than 330 feet to any quarter-quarter section line.

(4) That said pool was extended by Order No. R-3080, effective July 1, 1966, to include all of Section 34, Township 21 South, Range 34 East, NMPM; by Order No. R-3152, effective December 1, 1966, to include all of Section 10, Township 22 South, Range 34 East, NMPM; by Order No. R-3195, effective

March 1, 1967, to include all of Section 33, Township 21 South, Range 34 East, NMPM; and by Order No. R-5729, effective June 1, 1978, to include all of Section 2, Township 22 South, Range 34 East, NMPM.

(5) That the applicant seeks the rescission of the Special Rules and Regulations for the Grama Ridge-Morrow Gas Pool to provide that said pool would be governed by the 320-acre spacing and acreage dedication requirements and well location requirements of Rule 104 of the Division Rules and Regulations.

(6) That the evidence in this case indicates that the five Morrow gas wells owned by the applicant, namely the Grama Ridge Unit Wells Nos. 2 and 3, located in Sections 34 and 33, respectively, of Township 21 South, Range 34 East, NMPM, and Grama Ridge Unit Wells Nos. 1 and 4, and Government "A" Well No. 1, located in Sections 3, 4, and 10, respectively, of Township 22 South, Range 34 East, NMPM, are all located within an upthrust fault block bounded on the west by a northeast-southwest trending fault and on the east by a north-south trending fault, and that they are not in communication with other wells recently drilled in the area, namely the POGO State L-922 Well No. 2 located in Section 28, or the Getty 35 State Well No. 1 located in Section 35, both in Township 21 South, Range 34 East, NMPM, or the Getty 2 State Well No. 1 located in Section 2, Township 22 South, Range 34 East, NMPM.

(7) That the evidence in this case indicates that the horizontal limits of the Grama Ridge-Morrow Gas Pool, as heretofore defined, are excessive and contain lands which are not producible by wells completed within said pool.

(8) That the horizontal limits of the pool should be contracted to approximately the known productive limits of the above-described fault block, and the pool should be redefined as comprising the following-described lands:

TOWNSHIP 21 SOUTH, RANGE 34 EAST, NMPM

Section 33: E/2

Section 34: W/2

TOWNSHIP 22 SOUTH, RANGE 34 EAST, NMPM

Section 3: W/2

Section 4: All

Section 10: W/2

(9) That the applicant has established that the drainage characteristics of the reservoir in the wells completed within the aforesaid fault block are not such as to support 640-acre spacing, and that 320-acre spacing is more appropriate for the Morrow wells completed therein.

(10) That the Special Rules and Regulations for the Grama Ridge-Morrow Gas Pool, as promulgated by Division Order No. R-3006, should be rescinded, and the pool, as hereinabove redefined, should be spaced, drilled, operated, and produced in accordance with Rule 104 of the Division Rules and Regulations and with such other Division rules and orders as may be applicable.

(11) That the three recently completed wells described in Finding No. (6) above are not completed in the Grama Ridge-Morrow Gas Pool as redefined, and a separate new pool should be created and defined for the POGO well located in Section 28, and a separate new pool should be created for each or both of the Getty wells located in Sections 35 and 2.

(12) That the owner of the aforesaid wells in said Sections 35 and 2 should be given a reasonable period of time in which to apply to the Division for a hearing to consider the creation of a new pool for said wells, and the promulgation of special rules therefor, if said owner wishes to pursue spacing and proration units of other than 320 acres, and 30 days after the entry of this order is a reasonable period of time for such purpose.

(13) That during such 30-day period, and during the time an application for other than 320-acre spacing has been filed, and a hearing, or an order following hearing, is pending, the following described lands should be placed on temporary 640-acre spacing for the Morrow formation, and no Morrow gas well drilling permits should be approved for said lands unless such permits are for wells to which 640-acres (being a single governmental section) is dedicated and which are located at least 1650 feet from the outer boundary of the unit and at least 330 feet from any quarter-quarter section line, or unless an exception to the provisions of this finding and the derivative order therefrom has been obtained after notice and hearing; the lands are:

TOWNSHIP 21 SOUTH, RANGE 34 EAST, NMPM

Section 26: All

Section 34: E/2

Sections 35 and 36: All



TOWNSHIP 22 SOUTH, RANGE 34 EAST, NMPM  
Sections 1 and 2: All  
Section 3: E/2  
Section 10: E/2  
Sections 11 and 12: All

(14) That in the event the owner of the wells in Sections 35, Township 21 South, Range 34 East, NMPM, and 2, Township 22 South, Range 34 East, NMPM, has not filed an application for creation of a new pool for said wells and the promulgation of special rules for said pool, including a provision for other than 320-acre spacing, within the above-described 30-day period, or in the event that spacing and proration units of other than 320 acres are denied, then all the lands described in Finding No. (13) above should be governed by the provisions of Rule 104 of the Division Rules and Regulations.

(15) That an order based on the above findings is in the interest of conservation and will prevent waste and protect correlative rights and should be approved.

IT IS THEREFORE ORDERED:

(1) That the Grama Ridge-Morrow Gas Pool in Lea County, New Mexico, as heretofore classified and defined, is hereby redefined to include only the following described lands:

TOWNSHIP 21 SOUTH, RANGE 34 EAST, NMPM  
Section 33: E/2  
Section 34: W/2

TOWNSHIP 22 SOUTH, RANGE 34 EAST, NMPM  
Section 3: W/2  
Section 4: All  
Section 10: W/2

(2) That the Special Rules and Regulations for the Grama Ridge-Morrow Gas Pool, as promulgated by Division Order No. R-3006, are hereby rescinded, and said pool shall hereafter be spaced, drilled, operated, and produced in accordance with Rule 104 of the Division Rules and Regulations and with such other Division rules and orders as may be applicable.

(3) That the Morrow formation underlying all of Section 26, the E/2 of Section 34, and all of Sections 35 and 36, Township 21 South, Range 34 East, NMPM, and all of Sections 1 and 2, the E/2 of Section 3, the E/2 of Section 10, and all of

Order (3)  
Rescinded  
See  
R-6050  
Case 6557

Sections 11 and 12, Township 22 South, Range 34 East, NMPM, are hereby placed on temporary 640-acre spacing, and no drilling permit shall be approved for any Morrow gas well proposed to be drilled on said lands unless such permit is for a well to which 640 acres (being a single governmental section) is dedicated and which is located at least 1650 feet from the outer boundary of the unit and at least 330 feet from any quarter-quarter section line, or unless an exception to the provisions of this Order No. (3) has been obtained after notice and hearing.

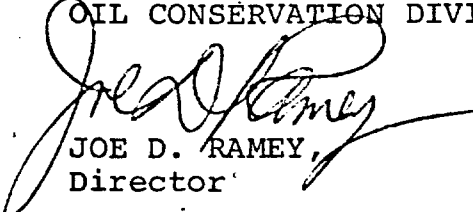
(4) That the provisions of Order No. (3) above shall be in force for a period of 30 days after the date of entry of this order, or provided Getty Oil Company has filed an application for creation of a new gas pool within the lands described in Order No. (3) above and for the promulgation of special rules for such new pool, including a provision for other than 320-acre spacing, for so long thereafter as a hearing, or an order following a hearing, is pending.

(5) That upon expiration of the acreage dedication and well location requirements provisions of Order No. (3) above, and in the absence of special pool rules to the contrary, all Morrow gas wells completed on the lands described in Order No. (3) above shall be spaced, drilled, operated, and produced in accordance with the provisions of Rule 104 of the Division Rules and Regulations.

(6) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year herein-above designated.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

  
JOE D. RAMEY,  
Director

S E A L

dr/

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:

CASE NO. 4896  
Order No. R-4491

APPLICATION OF LLANO, INC.,  
FOR GAS INJECTION, LEA  
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 17, 1973, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 16th day of March, 1973, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Llano, Inc., is the operator of the Grama Ridge Morrow Unit Area comprising some 1280 acres, more or less, of lands in Section 34, Township 21 South, Range 34 East, NMPM, and Section 3, Township 22 South, Range 34 East, NMPM, Lea County, New Mexico.

(3) That the applicant proposes to inject purchased gas for storage purposes into its State GRA Well No. 1 located in Unit E of the aforesaid Section 3 and its State GRB Well No. 1 located in Unit L of the aforesaid Section 34, injection to be into the perforated intervals from 12,827 to 12,847 feet, 12,984 to 12,985 feet, and 13,010 to 13,021 feet in said State GRA Well No. 1, and the perforated intervals from 12,921 to 12,934 feet, 13,020 to 13,022 feet, and 13,051 to 13,073 feet in said State GRB Well No. 1, all of said perforations being into irregular and non-continuous sands embedded in the shale matrix of the Morrow formation, Grama Ridge Morrow Gas Pool.

(4) That while there are other wells than the aforesaid State GRA Well No. 1 and State GRB Well No. 1 producing from the Morrow formation of said Grama Ridge-Morrow Gas Pool, the evidence indicates that said other wells are producing from separate sand stringers not in communication with the proposed injection zones.

(5) That the applicant proposes to initiate and conduct its gas storage operations in the subject wells in accordance with a 3-phase plan as follows:

Phase I - General conditioning of downhole well equipment and installation of surface, testing and metering facilities. Pilot test in order to determine by pressure analysis the limits of the Morrow reservoir and the compatability for gas storage.

Phase II - First installation of permanent compression equipment to expedite fill-up operation after soundness of underground Morrow reservoir is established.

Phase III - Installation of additional compression after evaluation of Phase II has corroborated the reservoir limits as determined in the Phase I evaluation and final fill-up to 2500 psig surface pressure.

(6) That the injection of gas into the subject wells for gas storage purposes, and the subsequent withdrawal of such gas for transportation to market, will not cause waste nor violate correlative rights, and should be approved.

IT IS THEREFORE ORDERED:

(1) That the applicant, Llano, Inc., is hereby authorized to inject gas for storage purposes, and to subsequently withdraw such gas, in the perforated intervals from 12,827 to 12,847 feet, 12,984 to 12,985 feet, and 13,010 to 13,021 feet in its State GRA Well No. 1 located in Unit E of Section 3, Township 22 South, Range 34 East, NMPM, and in the perforated intervals from 12,921 to 12,934 feet, 13,020 to 13,022 feet, and 13,051 to 13,073 feet in its State GRB Well No. 1 located in Unit L of Section 34, Township 21 South, Range 34 East, NMPM, Grama Ridge-Morrow Gas Pool, Lea County, New Mexico.

(2) That the applicant shall notify the Santa Fe and Hobbs offices of the Commission and the Commissioner of Public Lands for the State of New Mexico upon commencement of each phase of operations as outlined in Finding No. (5) above. Further, that the applicant shall file monthly reports of gas injected and gas withdrawn as required by Rule 405 of the Commission Rules and Regulations.

-3-

Case No. 4896

Order No. R-4491

(3) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

BRUCE KING, Chairman

S E A L

ALEX J. ARMIJO, Member

A. L. PORTER, Jr., Member & Secretary

dr/

CMD :  
OG5SECT

ONGARD  
INQUIRE LAND BY SECTION

02/04/02 11:01:  
OGOMES -TP  
PAGE NO:

Sec : 34 Twp : 21S Rng : 34E Section Type : NORMAL

D 40.00 CS V05683 0000 GREAT WESTERN DRI R 01/01/05	C 40.00 CS V05683 0000 GREAT WESTERN DRI R 01/01/05	B 40.00 CS V05683 0000 GREAT WESTERN DRI R 01/01/05	A 40.00 CS V05683 0000 GREAT WESTERN D R 01/01/0
E 40.00 CS V05683 0000 GREAT WESTERN DRI R 01/01/05	F 40.00 CS V05683 0000 GREAT WESTERN DRI R 01/01/05	G 40.00 CS V05683 0000 GREAT WESTERN DRI R 01/01/05	H 40.00 CS V05683 0000 GREAT WESTERN D R 01/01/0 A

PF01 HELP	PF02	PF03 EXIT	PF04 GoTo	PF05	PF06
PF07 BKWD	PF08 FWD	PF09 PRINT	PF10 SDIV	PF11	PF12

CMD :  
OG5SECT

ONGARD  
INQUIRE LAND BY SECTION

02/04/02 11:01:  
OGOMES -TP  
PAGE NO:

Sec : 34 Twp : 21S Rng : 34E Section Type : NORMAL

L 40.00 CS E09659 0000 CHEVRON U S A INC R 12/20/65 A	K 40.00 CS E09659 0000 CHEVRON U S A INC R 12/20/65	J 40.00 CS E09659 0000 CHEVRON U S A INC R 12/20/65	I 40.00 CS E09659 0000 CHEVRON U S A I R 12/20/6 A
M 40.00 CS E09659 0000 CHEVRON U S A INC R 12/20/65	N 40.00 CS E09659 0000 CHEVRON U S A INC R 12/20/65	O 40.00 CS E09659 0000 CHEVRON U S A INC R 12/20/65	P 40.00 CS E09659 0000 CHEVRON U S A I R 12/20/6

PF01 HELP	PF02	PF03 EXIT	PF04 GoTo	PF05	PF06
PF07 BKWD	PF08 FWD	PF09 PRINT	PF10 SDIV	PF11	PF12

CMD : ONGARD 02/04/02 11:01:  
OG6IWCM INQUIRE WELL COMPLETIONS OGOMES -TP

API Well No : 30 25 21717 Eff Date : 01-01-1900 WC Status : A  
Pool Idn : 77680 GRAMA RIDGE;MORROW (GAS)  
OGRID Idn : 13382 RAPTOR NATURAL PIPELINE LLC  
Prop Idn : 5927 GRM UNIT

Well No : 002  
GL Elevation: 99999

	U/L	Sec	Township	Range	North/South	East/West	Prop/Act (P/
	---	---	-----	-----	-----	-----	-----
B.H. Locn	: L	34	21S	34E	FTG 1980 F S	FTG 660 F W	A

Lot Identifier:  
Dedicated Acre: 320.00  
Lease Type : S  
Type of consolidation (Comm, Unit, Forced Pooling - C/U/F/O) :

M0025: Enter PF keys to scroll

PF01 HELP	PF02	PF03 EXIT	PF04 GoTo	PF05	PF06
PF07	PF08	PF09	PF10 NEXT-WC	PF11 HISTORY	PF12 NXTREC



CMD : ONGARD 02/04/02 11:01:  
 OG6ACRE C102-DEDICATE ACREAGE OGOMES -TP  
 Page No :

API Well No : 30 25 21717 Eff Date : 04-30-1991  
 Pool Idn : 77680 GRAMA RIDGE;MORROW (GAS)  
 Prop Idn : 5927 GRM UNIT Well No : 00  
 Spacing Unit : 23488 OCD Order : Simultaneous Dedication:  
 Sect/Twp/Rng : Acreage : 320.00 Revised C102? (Y/N) :  
 Dedicated Land:

S	Base	U/L	Sec	Twp	Rng	Acreage	L/W	Ownership	Lot	Idn
	I	34	21S	34E	40.00	N	ST			
	J	34	21S	34E	40.00	N	ST			
	K	34	21S	34E	40.00	N	ST			
	L	34	21S	34E	40.00	N	ST			
	M	34	21S	34E	40.00	N	ST			
	N	34	21S	34E	40.00	N	ST			
	O	34	21S	34E	40.00	N	ST			
	P	34	21S	34E	40.00	N	ST			

E0005: Enter data to modify or PF keys to scroll

PF01 HELP PF02 PF03 EXIT PF04 GoTo PF05 PF06 CONFIRM  
 PF07 BKWD PF08 FWD PF09 PF10 LAND PF11 NXTSEC PF12 RECONF

CMD : ONGARD 02/04/02 11:01:  
OG6IPRD INQUIRE PRODUCTION BY POOL/WELL OGOMES -TP  
Page No:

OGRID Identifier : 13382 RAPTOR NATURAL PIPELINE LLC  
Pool Identifier : 77680 GRAMA RIDGE;MORROW (GAS)  
API Well No : 30 25 21717 Report Period - From : 01 1996 To : 12 2001

API Well No	Property Name	Prodn. Days MM/YY Prod	Production Volumes Gas Oil Water St	We
30 25 21717	GRM UNIT	01 96		I
30 25 21717	GRM UNIT	02 96		I
30 25 21717	GRM UNIT	03 96		I
30 25 21717	GRM UNIT	04 96		I
30 25 21717	GRM UNIT	05 96		I
30 25 21717	GRM UNIT	06 96		I
30 25 21717	GRM UNIT	07 96		I

Reporting Period Total (Gas, Oil) :

M0025: Enter PF keys to scroll

PF01 HELP	PF02	PF03 EXIT	PF04 GoTo	PF05	PF06 CONFIRM
PF07 BKWD	PF08 FWD	PF09	PF10 NXTPOOL	PF11 NXTOGD	PF12

CMD : ONGARD 02/04/02 11:01:  
OG6IPRD INQUIRE PRODUCTION BY POOL/WELL OGOMES -TP  
Page No:

OGRID Identifier : 13382 RAPTOR NATURAL PIPELINE LLC  
Pool Identifier : 77680 GRAMA RIDGE;MORROW (GAS)  
API Well No : 30 25 21717 Report Period - From : 01 1996 To : 12 2001

API Well No	Property Name	Prod.	Days	Production Volumes	We
		MM/YY	Prod	Gas Oil Water	St
30 25 21717	GRM UNIT	08 96			I
30 25 21717	GRM UNIT	09 96			I
30 25 21717	GRM UNIT	10 96			I
30 25 21717	GRM UNIT	11 96	30		I
30 25 21717	GRM UNIT	12 96			I
30 25 21717	GRM UNIT	01 97	31	42	I
30 25 21717	GRM UNIT	02 97			I

Reporting Period Total (Gas, Oil) :

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PF01 HELP PF02 PF03 EXIT PF04 GoTo PF05 PF06 CONFIRM  
PF07 BKWD PF08 FWD PF09 PF10 NXTPOOL PF11 NXTOGD PF12

CMD : ONGARD 02/04/02 11:01:  
 OG6IPRD INQUIRE PRODUCTION BY POOL/WELL OGOMES -TP  
 Page No:

OGRID Identifier : 13382 RAPTOR NATURAL PIPELINE LLC  
 Pool Identifier : 77680 GRAMA RIDGE;MORROW (GAS)  
 API Well No : 30 25 21717 Report Period - From : 01 1996 To : 12 2001

API Well No	Property Name	Prodn. Days MM/YY Prod	Production Volumes Gas Oil Water St	We
30 25 21717	GRM UNIT	03 97		I
30 25 21717	GRM UNIT	04 97		I
30 25 21717	GRM UNIT	05 97		I
30 25 21717	GRM UNIT	06 97		I
30 25 21717	GRM UNIT	07 97		I
30 25 21717	GRM UNIT	08 97		I
30 25 21717	GRM UNIT	09 97		I

Reporting Period Total (Gas, Oil) :

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PF01 HELP PF02 PF03 EXIT PF04 GoTo PF05 PF06 CONFIRM  
 PF07 BKWD PF08 FWD PF09 PF10 NXTPOOL PF11 NXTOGD PF12

CMD : ONGARD 02/04/02 11:01:  
 OG6IPRD INQUIRE PRODUCTION BY POOL/WELL OGOMES -TP  
 Page No:

OGRID Identifier : 13382 RAPTOR NATURAL PIPELINE LLC  
 Pool Identifier : 77680 GRAMA RIDGE;MORROW (GAS)  
 API Well No : 30 25 21717 Report Period - From : 01 1996 To : 12 2001

API Well No	Property Name	Prod. Days MM/YY Prod	Production Volumes Gas Oil Water St	We
30 25 21717	GRM UNIT	10 97		I
30 25 21717	GRM UNIT	11 97		I
30 25 21717	GRM UNIT	12 97 31		I
30 25 21717	GRM UNIT	01 98		I
30 25 21717	GRM UNIT	02 98		I
30 25 21717	GRM UNIT	03 98		I
30 25 21717	GRM UNIT	04 98 30		I

Reporting Period Total (Gas, Oil) :

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PF01 HELP PF02 PF03 EXIT PF04 GoTo PF05 PF06 CONFIRM  
 PF07 BKWD PF08 FWD PF09 PF10 NXTPOOL PF11 NXTOGD PF12

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OG6IPRD INQUIRE PRODUCTION BY POOL/WELL OGOMES -TP  
Page No:

OGRID Identifier : 13382 RAPTOR NATURAL PIPELINE LLC  
Pool Identifier : 77680 GRAMA RIDGE;MORROW (GAS)  
API Well No : 30 25 21717 Report Period - From : 01 1996 To : 12 2001

API Well No	Property Name	Prod.	Days	Production Volumes	We
		MM/YY	Prod	Gas Oil Water	St
30 25 21717	GRM UNIT	05 98			I
30 25 21717	GRM UNIT	06 98			I
30 25 21717	GRM UNIT	07 98	31		I
30 25 21717	GRM UNIT	08 98	31		I
30 25 21717	GRM UNIT	09 98	30		I
30 25 21717	GRM UNIT	10 98	31		I
30 25 21717	GRM UNIT	11 98			I

Reporting Period Total (Gas, Oil) :

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PF07 BKWD PF08 FWD PF09 PF10 NXTPOOL PF11 NXTOGD PF12

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 OG6IPRD INQUIRE PRODUCTION BY POOL/WELL OGOMES -TP  
 Page No:

OGRID Identifier : 13382 RAPTOR NATURAL PIPELINE LLC  
 Pool Identifier : 77680 GRAMA RIDGE;MORROW (GAS)  
 API Well No : 30 25 21717 Report Period - From : 01 1996 To : 12 2001

API Well No	Property Name	Prodn. Days MM/YY Prod	Production Volumes Gas Oil Water St	We
30 25 21717	GRM UNIT	12 98		I
30 25 21717	GRM UNIT	01 99 31	11	I
30 25 21717	GRM UNIT	02 99		I
30 25 21717	GRM UNIT	03 99		I
30 25 21717	GRM UNIT	04 99		I
30 25 21717	GRM UNIT	05 99		I
30 25 21717	GRM UNIT	06 99		I

Reporting Period Total (Gas, Oil) :

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 PF07 BKWD PF08 FWD PF09 PF10 NXTPOOL PF11 NXTOGD PF12

CMD : ONGARD 02/04/02 11:02:  
 OG6IPRD INQUIRE PRODUCTION BY POOL/WELL OGOMES -TP  
 Page No:

OGRID Identifier : 13382 RAPTOR NATURAL PIPELINE LLC  
 Pool Identifier : 77680 GRAMA RIDGE;MORROW (GAS)  
 API Well No : 30 25 21717 Report Period - From : 01 1996 To : 12 2001

API Well No	Property Name	Prodn. Days MM/YY Prod	Production Volumes Gas Oil Water	We St
30 25 21717	GRM UNIT	07 99		I
30 25 21717	GRM UNIT	08 99		I
30 25 21717	GRM UNIT	09 99		I
30 25 21717	GRM UNIT	10 99 31	69	I
30 25 21717	GRM UNIT	11 99		I
30 25 21717	GRM UNIT	12 99		I
30 25 21717	GRM UNIT	01 00		I

Reporting Period Total (Gas, Oil) :

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PF01 HELP PF02 PF03 EXIT PF04 GoTo PF05 PF06 CONFIRM  
 PF07 BKWD PF08 FWD PF09 PF10 NXTPOOL PF11 NXTOGD PF12



CMD : ONGARD 02/04/02 11:02:  
OG6IPRD INQUIRE PRODUCTION BY POOL/WELL OGOMES -TP  
Page No:

OGRID Identifier : 13382 RAPTOR NATURAL PIPELINE LLC  
Pool Identifier : 77680 GRAMA RIDGE;MORROW (GAS)  
API Well No : 30 25 21717 Report Period - From : 01 1996 To : 12 2001

API Well No	Property Name	Prod.	Days	Production Volumes	We
		MM/YY	Prod	Gas Oil Water	St
30 25 21717	GRM UNIT	02 00			I
30 25 21717	GRM UNIT	03 00	31	47	I
30 25 21717	GRM UNIT	04 00			I
30 25 21717	GRM UNIT	05 00			I
30 25 21717	GRM UNIT	06 00			I
30 25 21717	GRM UNIT	07 00			I
30 25 21717	GRM UNIT	08 00	31	7	I

Reporting Period Total (Gas, Oil) :

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PF01 HELP PF02 PF03 EXIT PF04 GoTo PF05 PF06 CONFIRM  
PF07 BKWD PF08 FWD PF09 PF10 NXTPOOL PF11 NXTOGD PF12

CMD : ONGARD 02/04/02 11:02:  
OG6IPRD INQUIRE PRODUCTION BY POOL/WELL OGOMES -TP  
Page No:

OGRID Identifier : 13382 RAPTOR NATURAL PIPELINE LLC  
Pool Identifier : 77680 GRAMA RIDGE;MORROW (GAS)  
API Well No : 30 25 21717 Report Period - From : 01 1996 To : 12 2001

API Well No	Property Name	Prodn. Days MM/YY Prod	Production Volumes Gas Oil Water St	We
30 25 21717	GRM UNIT	09 00		I
30 25 21717	GRM UNIT	10 00		I
30 25 21717	GRM UNIT	11 00 30	138	I

Reporting Period Total (Gas, Oil) : 314

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PF01 HELP PF02 PF03 EXIT PF04 GoTo PF05 PF06 CONFIRM  
PF07 BKWD PF08 FWD PF09 PF10 NXTPOOL PF11 NXTOGD PF12

CMD : ONGARD 02/04/02 11:02:  
OG6IWCM INQUIRE WELL COMPLETIONS OGOMES -TP

API Well No : 30 25 34948 Eff Date : 03-07-2000 WC Status :  
Pool Idn : 77690 GRAMA RIDGE;MORROW, EAST (GAS)  
OGRID Idn : 15742 NEARBURG PRODUCING CO  
Prop Idn : 25382 GRAMA RIDGE EAST 34 STATE

Well No : 001  
GL Elevation: 3689

	U/L	Sec	Township	Range	North/South	East/West	Prop/Act (P/
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B.H. Locn : H	34	21S	34E	FTG 1548 F N	FTG 990 F E	A	
Lot Identifier:							
Dedicated Acre:							
Lease Type : S							
Type of consolidation (Comm, Unit, Forced Pooling - C/U/F/O) :							

M0025: Enter PF keys to scroll

PF01 HELP	PF02	PF03 EXIT	PF04 GoTo	PF05	PF06
PF07	PF08	PF09	PF10 NEXT-WC	PF11 HISTORY	PF12 NXTREC

CMD : ONGARD 02/04/02 11:02:  
OG6ACRE C102-DEDICATE ACREAGE OGOMES -TP  
Page No :

API Well No : 30 25 34948 Eff Date :  
Pool Idn : 77690 GRAMA RIDGE;MORROW, EAST (GAS)  
Prop Idn : 25382 GRAMA RIDGE EAST 34 STATE Well No : 00  
Spacing Unit : OCD Order : Simultaneous Dedication:  
Sect/Twp/Rng : 34 21S 34E Acreage : Revised C102? (Y/N) :  
Dedicated Land:

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S Base U/L Sec Twp Rng Acreage L/W Ownership Lot Idn  
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I6437: Change sect-twp-rng or <Enter> to continue

PF01 HELP PF02 PF03 EXIT PF04 GoTo PF05 PF06 CONFIRM  
PF07 BKWD PF08 FWD PF09 PF10 LAND PF11 NXTSEC PF12 RECONF

CMD : ONGARD 02/04/02 11:02:  
 OG6IPRD INQUIRE PRODUCTION BY POOL/WELL OGOMES -TP  
 Page No:

OGRID Identifier : 15742 NEARBURG PRODUCING CO  
 Pool Identifier : 77690 GRAMA RIDGE;MORROW, EAST (GAS)  
 API Well No : 30 25 34948 Report Period - From : 01 1999 To : 12 2001

API Well No	Property Name	Prod. Days MM/YY Prod	Production Volumes Gas Oil Water St
30 25 34948	GRAMA RIDGE EAST 34	06 00 22	52735 1110 6 F
30 25 34948	GRAMA RIDGE EAST 34	07 00 31	99393 1726 33 F
30 25 34948	GRAMA RIDGE EAST 34	08 00 31	131888 2300 52 F
30 25 34948	GRAMA RIDGE EAST 34	09 00 30	144637 1997 51 F
30 25 34948	GRAMA RIDGE EAST 34	10 00 30	121874 1368 68 F
30 25 34948	GRAMA RIDGE EAST 34	11 00 25	75411 794 32 F
30 25 34948	GRAMA RIDGE EAST 34	12 00 31	99028 745 57 F

Reporting Period Total (Gas, Oil) :

M0025: Enter PF keys to scroll

PF01 HELP PF02 PF03 EXIT PF04 GoTo PF05 PF06 CONFIRM  
 PF07 BKWD PF08 FWD PF09 PF10 NXTPOOL PF11 NXTOGD PF12

CMD : ONGARD 02/04/02 11:02:  
 OG6IPRD INQUIRE PRODUCTION BY POOL/WELL OGOMES -TP  
 Page No:

OGRID Identifier : 15742 NEARBURG PRODUCING CO  
 Pool Identifier : 77690 GRAMA RIDGE;MORROW, EAST (GAS)  
 API Well No : 30 25 34948 Report Period - From : 01 1999 To : 12 2001

API Well No	Property Name	Prod. Days MM/YY Prod	Production Volumes Gas Oil Water St
30 25 34948	GRAMA RIDGE EAST 34	01 01 31	77672 585 52 F
30 25 34948	GRAMA RIDGE EAST 34	02 01 28	60768 409 51 F
30 25 34948	GRAMA RIDGE EAST 34	03 01 29	55189 518 51 F
30 25 34948	GRAMA RIDGE EAST 34	04 01 29	50399 244 49 F
30 25 34948	GRAMA RIDGE EAST 34	05 01 31	44742 204 33 F
30 25 34948	GRAMA RIDGE EAST 34	06 01 28	32316 125 13 F
30 25 34948	GRAMA RIDGE EAST 34	07 01 23	13910 23 12 S

Reporting Period Total (Gas, Oil) :

E0049: User may continue scrolling.

PF01 HELP PF02 PF03 EXIT PF04 GoTo PF05 PF06 CONFIRM  
 PF07 BKWD PF08 FWD PF09 PF10 NXTPOOL PF11 NXTOGD PF12

CMD : ONGARD 02/04/02 11:02:  
OG6IPRD INQUIRE PRODUCTION BY POOL/WELL OGOMES -TP  
Page No:

OGRID Identifier : 15742 NEARBURG PRODUCING CO  
Pool Identifier : 77690 GRAMA RIDGE;MORROW, EAST (GAS)  
API Well No : 30 25 34948 Report Period - From : 01 1999 To : 12 2001

API Well No	Property Name	Prodn. Days MM/YY Prod	Production Volumes Gas Oil Water St	We
30 25 34948	GRAMA RIDGE EAST 34	08 01		S
30 25 34948	GRAMA RIDGE EAST 34	09 01		S
30 25 34948	GRAMA RIDGE EAST 34	10 01		S
30 25 34948	GRAMA RIDGE EAST 34	11 01		S

Reporting Period Total (Gas, Oil) : 1059962 12148 560

E0049: User may continue scrolling.

PF01 HELP PF02 PF03 EXIT PF04 GoTo PF05 PF06 CONFIRM  
PF07 BKWD PF08 FWD PF09 PF10 NXTPOOL PF11 NXTOGD PF12

CMD : ONGARD 02/04/02 11:03:  
OG6IWCM INQUIRE WELL COMPLETIONS OGOMES -TP

API Well No : 30 25 26318 Eff Date : 01-16-2002 WC Status : P  
Pool Idn : 77690 GRAMA RIDGE;MORROW, EAST (GAS)  
OGRID Idn : 7377 EOG RESOURCES INC  
Prop Idn : 27520 LLANO 34 STATE

Well No : 001  
GL Elevation: 3651

	U/L	Sec	Township	Range	North/South	East/West	Prop/Act(P/
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B.H. Locn	: I	34	21S	34E	FTG 1650 F S	FTG 660 F E	A
Lot Identifier:							
Dedicated Acre:							
Lease Type	: S						
Type of consolidation (Comm, Unit, Forced Pooling - C/U/F/O) :							

M0025: Enter PF keys to scroll

PF01 HELP	PF02	PF03 EXIT	PF04 GoTo	PF05	PF06
PF07	PF08	PF09	PF10 NEXT-WC	PF11 HISTORY	PF12 NXTREC



*Example of a like order*

*Section Order No. R-11652-A*

**STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION**

**IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:**

**APPLICATION OF SAPIENT ENERGY CORPORATION FOR CASE NO. 12587  
AN UNORTHODOX GAS WELL LOCATION AND: (i) TWO  
NON-STANDARD 160-ACRE GAS SPACING UNITS; OR IN  
THE ALTERNATIVE (ii) ONE NON-STANDARD 160-ACRE  
GAS SPACING UNIT AND PRORATION UNIT, LEA COUNTY,  
NEW MEXICO.**

**APPLICATION OF SAPIENT ENERGY CORPORATION FOR CASE NO. 12605  
SPECIAL POOL RULES, LEA COUNTY, NEW MEXICO.**

**ORDER NO. R-11652**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

These cases came on for a special hearing at 9:00 a.m. on March 1, 2001, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 13th day of September, 2001, the Division Director, having considered the testimony, the record and the recommendations of the Examiner,

**FINDS THAT:**

(1) Due public notice has been given, and the Division has jurisdiction of these cases and their subject matter.

(2) In Case No. 12587 the applicant, Sapient Energy Corporation ("Sapient"), seeks approval of an unorthodox Tubb gas well location for its Bertha J. Barber Well No. 12 (API No. 30-025-05978), located 330 feet from the North line and 660 feet from the East line (Unit A) of Section 7, Township 20 South, Range 37 East, NMPM, West Monument-Tubb Gas Pool (96968), Lea County, New Mexico. This well is to be dedicated to a non-standard 160-acre gas spacing unit consisting of either: (i) the E/2 E/2 of Section 7; or in the alternative (ii) the E/2 NE/4 of Section 7 and the W/2 NW/4 of Section 8, Township 20 South, Range 37 East, NMPM, Lea County, New Mexico. In either case, the applicant requests that the assigned spacing unit be made effective retroactive to the date of first

production from the West Monument-Tubb Gas Pool for this well. In addition, should the Division approve a non-standard 160-acre gas spacing unit comprising the E/2 E/2 of Section 7, then the applicant seeks the approval of a second 160-acre gas spacing unit for the West Monument-Tubb Gas Pool consisting of the W/2 E/2 of Section 7.

(3) In Case No. 12605, Sapient, in the alternative, seeks the promulgation of special rules for the West Monument-Tubb Gas Pool, including a provision for 80-acre spacing and designated well location requirements.

(4) At the time of the hearing, Division Cases No. 12587 and 12605 were consolidated for the purpose of presenting testimony. Also, because each application addresses the same factual issues and in order to provide a comprehensive decision in these cases, one order should be entered for both cases.

(5) By Order No. R-11304, issued in Case No. 12321 on January 12, 2000, the Division created and defined the West Monument-Tubb Gas Pool for the production of gas from the Tubb formation, based on its discovery by the above-described Bertha J. Barber Well No. 12. The horizontal limits for this pool currently comprise the same acreage originally forming the pool under Order No. R-11304, which include the following described lands in Lea County, New Mexico:

TOWNSHIP 20 SOUTH, RANGE 37 EAST, NMPM

Section 7: E/2.

(6) The West Monument-Tubb Gas Pool is an "unprorated gas pool" not subject to Part H of the Division's statewide rules and regulations entitled "*Gas Proration and Allocation*" (Rules 601 through 605). The West Monument-Tubb Gas Pool is subject to: (i) Division Rule 104.C (3), which requires standard 160-acre gas spacing units comprising a single governmental quarter section; and (ii) Division Rule 104.D (3), which restricts the number of producing wells within a single gas spacing unit within non-prorated pools to only one (see official notice to all operators submitted by the Division Director on October 25, 1999). Producing wells within this pool are allowed to produce at capacity.

(7) Chevron U.S.A. Production Company ("Chevron") is the north offsetting operator with 100% of the Tubb gas rights in the SE/4 of Section 6, Township 20 South, Range 37 East, NMPM, Lea County, New Mexico. Sapient owns 100% of the working interest in the E/2 E/2 of Section 7, Township 20 South, Range 37 East, NMPM, Lea County, New Mexico, with the royalty interest being fee. The working interest ownership of the W/2 E/2 of Section 7 is as follows:

Conoco, Inc.	37.41862%
Phillips Petroleum Company	25.00000%
Atlantic Richfield Company	
(ARCO), now BP/Amoco	18.70931%
Chevron	18.70931%
James Burr	0.06511%
Larry Nermyr	0.06511%
Ruth Sutton	0.03255%.

The royalty interest in the W/2 E/2 of Section 7 is Federal.

(8) Both Chevron and Conoco appeared in opposition to the applications of Sapiant and requested that the Bertha J. Barber Well No. 12 be shut-in and that Sapiant be required to form a standard 160-acre gas spacing unit comprising the NE/4 of Section 7. Neither Chevron nor Conoco opposed the requested unorthodox gas well location for the Bertha J. Barber Well No. 12.

(9) The Bertha J. Barber Well No. 12 was initially drilled by Sinclair Oil & Gas Company in December 1953/January 1954 to a total depth of 5,250 feet and was subsequently completed in the Monument-Paddock Pool at a standard oil well location within a standard 40-acre oil spacing and proration unit comprising the NE/4 NE/4 of Section 7. In 1993 ARCO Oil & Gas Company, successor operator to Sinclair Oil & Gas Company, sold this well to Cross Timbers Operating Company ("Cross Timbers"), which in December 1998 recompleted this well by deepening to a depth of 7,530 feet. From January, 1999 to August, 1999 this well produced as an oil well from the Monument-Abo Pool (production interval 6,892 feet to 7,380 feet), at a location considered to be standard for a 40-acre oil spacing and proration unit also comprising the NE/4 NE/4 of Section 7.

(10) As ascertained from the Division's records in Santa Fe, Cross Timbers filed with the Division's district office in Hobbs on August 18, 1999 Division Form C-103 (*Well Location and Acreage Dedication Plat*), as a notice of intent to recomplete this well from the Abo formation to the Tubb formation as an oil well. On September 10, 1999 the following items were submitted to the Hobbs district office of the Division:

(a) Division Form C-103 (*Sundry Notices and Reports on Wells*), filed as a subsequent report that this well was plugged back and recompleted in the Tubb interval as a gas well; this form was approved on September 20, 1999;

(b) Division Form C-104 (*Request for Allowable and Authorization to Transport*), which indicates the date of first gas delivery from the Tubb interval was **August 21, 1999**; this form was also approved on September 20, 1999;

(c) Division Form C-105 (*Well Completion or Recompletion Report and Log*), which gives specific information concerning this well's recompletion in the Tubb formation; and

(d) Division Form C-102 (*Well Location and Acreage Dedication Plat*), which indicates the 160 acres comprising the E/2 E/2 of Section 7 to be the dedicated acreage in the Tubb formation for the Bertha J. Barber Well No. 12.

(11) The information contained on the forms that were submitted to the Hobbs district office on September 10, 1999 showed the well location to be unorthodox and the assigned acreage as being non-standard. No application for approval of this unorthodox gas well location or the non-standard 160-acre unit comprising the E/2 E/2 of Section 7 was made pursuant to Division rules, nor was notice ever provided to the affected offsetting owners. The interest owners in the W/2 E/2 of Section 7 were denied an opportunity to object at the time the Bertha J. Barber Well No. 12 was recompleted into the Tubb formation as a gas well.

(12) Falcon Creek Resources, Inc. ("Falcon Creek") acquired this well from Cross Timbers on April 1, 2000 and Sapient acquired the well from Falcon Creek on July 14, 2000.

(13) Division Rule 104.B (2) provides that, "*if a well drilled as an oil well is completed as a gas well but does not conform to the applicable gas well location rules, the operator must apply for administrative approval for a non-standard location before the well can produce.*" Division Rule 104.D (2) provides that, "*any well that does not have the required amount of acreage dedicated to it for the pool or formation in which it is completed may not be produced until a standard spacing unit for the well has been formed and dedicated or until a non-standard spacing unit has been approved.*" In addition to this rule as it relates to the formation of non-standard units, the instructions found on the reverse side of the Division's Form C-102 provide that production of the well will not be authorized until a

non-standard unit has been approved by the Division.

(14) Sapient and its predecessors have failed to apply for and obtain administrative approval of the unorthodox location for the Bertha J. Barber Well No. 12, in violation of Division Rule 104.B (2), and are illegally producing this well. Further, Sapient and its predecessors have assigned the Bertha J. Barber Well No. 12 an unapproved non-standard 160-acre spacing unit, in violation of Division rules.

(15) Sapient should therefore be ordered to shut-in the Bertha J. Barber Well No. 12 until such time as all production from this well has been appropriately reallocated to all of the mineral interest owners in the standard 160-acre unit comprising the NE/4 of section 7 either by voluntary agreement of all such owners or by a compulsory pooling order.

(16) The geological and technical evidence presented in this matter supports the conclusions established by Division Order No. R-11304 in January, 2000 that the Bertha J. Barber Well No. 12 is producing from a gas reservoir in the Tubb formation that is a separate common source of supply. Further, the evidence supports the conclusion that this well will drain a large area and that 160-acre spacing units are appropriate for the West Monument-Tubb Gas Pool.

(17) The technical evidence presented shows that wells in the West Monument-Tubb Gas Pool are capable of draining in excess of 80 acres and adopting special rules that provide for 80-acre spacing will result in the drilling of unnecessary wells thereby causing waste.

(18) Adoption of special pool rules for the West Monument-Tubb Gas Pool that provide for 80-acre spacing, or the creation of a non-standard spacing unit for the Bertha J. Barber Well No. 12 comprising the E/2 E/2 of Section 7, will result in reserves being drained from offsetting tracts which could only be recovered by the owners of those reserves by the drilling of unnecessary wells.

(19) The requested unorthodox location of the Bertha J. Barber Well No. 12 was not a contention between Sapient and any other party in this matter. The issuance of Division Administrative Order NSL-3752-A, dated August 29, 2001, which authorized Chevron to recomplete its G. C. Matthews Well No. 12 (**API No. 30-025-05953**), located 330 feet from the South line and 990 feet from the East line (Unit P) of Section 6, Township 20 South, Range 37 East, NMPM, Lea County, New Mexico, into the Tubb formation serves to offset any advantage of the unorthodox location of the Bertha J. Barber Well No. 12 in accordance with Division Rule 104.F (6).

(20) The unorthodox gas well location of Sapien's Bertha J. Barber Well No. 12 should therefore be approved with the stipulation that a standard 160-acre gas spacing unit comprising the NE/4 of Section 7 be formed retroactive to the date of first production.

✱ (21) The application of Sapien in Case No. 12587 for approval of two non-standard 160-acre gas spacing units in the E/2 of Section 7 should be denied. Further, the application of Sapien in Case No. 12605 for the adoption of special pool rules for the West Monument-Tubb Gas Pool to include 80-acre gas well spacing should also be denied.

✱ (22) The allocation of past and future production from the Bertha J. Barber Well No. 12 to the unauthorized 160-acre unit comprising the E/2 E/2 of Section 7 is a violation of Division Rules 104.B (2), 104.C (3), and 104.D (2). A standard 160-acre gas spacing unit comprising the NE/4 of Section 7 is the proper spacing unit for the Bertha J. Barber Well No. 12. Production should be allocated to such unit retroactive to the date of first production from the West Monument-Tubb Gas Pool.

**IT IS THEREFORE ORDERED THAT:**

(1) The application of Sapien Energy Corporation ("Sapien") in **Case No. 12587** for an unorthodox gas well location in the West Monument-Tubb Gas Pool (96968) for its Bertha J. Barber Well No. 12 (**API No. 30-025-05978**), located 330 feet from the North line and 660 feet from the East line (Unit A) of Section 7, Township 20 South, Range 37 East, NMPM, Lea County, New Mexico is hereby **approved**.

(2) The NE/4 of Section 7 is hereby dedicated to this well to form a standard 160-acre gas spacing unit for gas production from the West Monument-Tubb Gas Pool.

**PROVIDED HOWEVER THAT:**

(3) Approval of the aforementioned unorthodox gas well location for the standard 160-acre unit shall be made retroactive to the date of first production from the Bertha J. Barber Well No. 12 (August 21, 1999).

(4) Sapien is hereby ordered to shut-in the Bertha J. Barber Well No. 12 until such time as all production from this well has been appropriately reallocated to all of the mineral interest owners in the standard 160-acre unit comprising the NE/4 of Section 7, either by voluntary agreement of all such owners or by a compulsory pooling order.

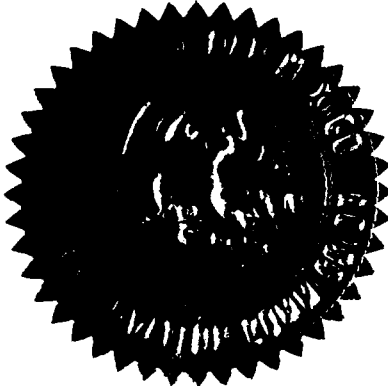
**IT IS FURTHER ORDERED THAT:**

(5) Sapiient's application in **Case No. 12587** for the above-described Bertha J. Barber Well No. 12 to be dedicated to a non-standard 160-acre gas spacing and proration unit consisting of either: (i) the E/2 E/2 of Section 7; or in the alternative (ii) the E/2 NE/4 of Section 7 and the W/2 NW/4 of Section 8, Township 20 South, Range 37 East, NMPM, Lea County, New Mexico, is hereby **denied**.

(6) The application of Sapiient in **Case No. 12605** for the promulgation of special rules for the West Monument-Tubb Gas Pool, including a provision for 80-acre spacing and designated well location requirements, is hereby **denied**.

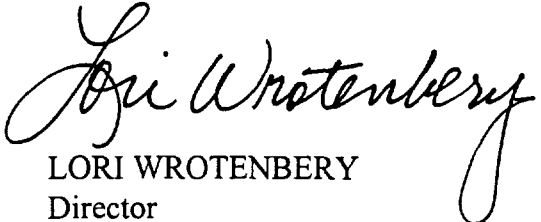
(7) Jurisdiction of this case is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



SEAL

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

  
LORI WROTENBERY  
Director

*See Also Order  
No. R-11652*

**STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION**

**IN THE MATTER OF THE HEARING  
CALLED BY THE OIL  
CONSERVATION DIVISION FOR THE  
PURPOSE OF CONSIDERING:**

**APPLICATION OF SAPIENT ENERGY CORPORATION FOR  
AN UNORTHODOX GAS WELL LOCATION AND: (i) TWO  
NON-STANDARD 160-ACRE GAS SPACING UNITS; OR IN  
THE ALTERNATIVE (ii) ONE NON-STANDARD 160-ACRE  
GAS SPACING UNIT AND PRORATION UNIT, LEA COUNTY,  
NEW MEXICO.**

**CASE NO. 12587**

**APPLICATION OF SAPIENT ENERGY CORPORATION FOR  
SPECIAL POOL RULES, LEA COUNTY, NEW MEXICO.**

**CASE NO. 12605**

**ORDER NO. R-11652-A**

**ORDER OF THE DIVISION  
DENYING MOTION FOR STAY OF DIVISION ORDER R-11652**

**BY THE DIVISION DIRECTOR:**

**THIS MATTER**, having come before the Division Director of the New Mexico Oil Conservation Division (hereinafter referred to as "the Director") pursuant to Rule 1220(B) of the Rules and Regulations of the Oil Conservation Division, 19 NMAC 15.N.1220(B) (7-15-99), on motion of Sapient Energy Corporation (hereinafter referred to as "Sapient") for partial stay of Division Order No. R-11652, which motion was opposed by Conoco Inc. (hereinafter referred to as "Conoco") and Chevron U.S.A. Production Company (hereinafter referred to as "Chevron"), all parties having submitted written memoranda and presented testimony during the evidentiary hearing of October 4, 2001, and the Director, having personally listened to the testimony at the hearing and being otherwise fully advised in the premises,

**FINDS:**

1. On September 13, 2001 the Oil Conservation Division (hereinafter referred to as "the Division") entered Order No. R-11652, which, in pertinent part, ordered Sapient to shut-in its Bertha J. Barber Well No. 12 (hereinafter referred to as "the well") until production from the well was reallocated by voluntary agreement or pooling order.



2. On September 19, 2001 Sapiant timely filed an application to have the matter heard *de novo* by the New Mexico Oil Conservation Commission (hereinafter referred to as "the Commission").

3. On September 19, 2001, Sapiant filed a motion to stay those provisions of Order No. R-11652 that required the well to be shut-in. As grounds for the motion, Sapiant argued the well would be damaged if shut-in. As further grounds, Sapiant argued the rights of Conoco and Chevron would be better protected by continued production, that Sapiant was likely to prevail on the merits before the Commission, and that Sapiant has relied on approval of the Division of various forms in connection with the drilling of the well and therefore was excused from applying for an unorthodox location and for a non-standard gas spacing unit.

4. Conoco and Chevron filed a response opposing the motion. Conoco and Chevron argued that the damage alleged by Sapiant was unlikely because fluids would be unlikely to cause damage if recovered. Conoco and Chevron also argued that a stay would permit Sapiant to produce natural gas despite the Division's finding that further production would be illegal. Chevron and Conoco argued in the alternative that a bond, escrow of payments from production, or refunding be imposed if the well is not shut-in.

5. During the evidentiary hearing of October 4, Sapiant presented testimony that in May of 2001 its well produced natural gas at the rate of approximately 1100 mcf/day.

6. Sapiant presented testimony that in late May and early June, 2001 its gas purchaser required Sapiant to reduce or "choke" natural gas production from the well to between 500 mcf/day and 750 mcf/day. The well produced natural gas at this reduced rate for some time.

7. Sapiant presented testimony that during June and July, 2001 the gas purchaser permitted removal of the choke, but, once removed, the well produced at a rate of 850 mcf/day rather than the previous rate of 1100 mcf/day.

8. Sapiant presented testimony that the reduced production was indicative of damage from scaling. Sapiant's witness testified such damage typically results when calcium carbonate or calcium sulfate is deposited, typically where a pressure gradient exists such as the formation face, in downhole equipment or pump, or sometimes at the surface.

9. Sapiant testified that scaling is reduced if not eliminated when a well is not produced.

10. Sapiant presented testimony that remedial work was performed to rid the well of scale; however, after this, the well ceased producing altogether. Subsequent treatment with "KCl water," hydrochloric acid and other chemicals restored production.

11. Sapiant presented testimony that once restored to production, the well began to produce at a rate of 600 mcf/day and that production rates have improved since. Sapiant presented testimony that it expected the well to return to producing at the rate of 1100 mcf/day in about two months.

12. Sapiant's witness testified that the well produced water at the rate of 2 barrels per day. Subsequent to the treatment applied by Sapiant, the rate of fluid production increased. The treatments themselves involved the introduction of various liquids into the well. In the opinion of the Sapiant witness, the fluids used to treat the well have now been mostly recovered.

13. Rule 1220(B) of the Rules and Regulations of the Oil Conservation Division, 19 NMAC 15.N.1220(B) (7-15-99), permits the Director to enter a stay of a Division order "... if a stay is necessary to prevent waste, protect correlative rights, protect public health and the environment *or prevent gross negative consequences to any affected party ...*" (emphasis added).

14. Sapiant failed to establish gross negative consequences would result from the Division's order.

15. In particular, Sapiant failed to establish to a reasonable degree of certainty that the well would be damaged if shut-in. Sapiant testified that its concerns about the well were based on the reduced production in June and July, 2001 that followed the period of choked production of May-June of 2001. However, this testimony failed to establish with any certainty that a complete cessation of production would damage the well, particularly in view of Sapiant's testimony that scaling is reduced if not eliminated when a well is not produced at all. Generalized concerns or suspicions are insufficient to establish entitlement to a stay under Rule 1220(B).

16. Nor is damage likely to result from fluid build up in the well. Sapiant's witness testified to the very modest water production from the well (2 bbl/day), and that the fluids used in restoring the well to productive status had been largely recovered.

17. The success Sapiant has achieved in addressing the scaling incident argues that any damage resulting from a production cessation can be addressed by prudent and judicious use of treatment.

18. The parties urged the Director to consider the likelihood of success on the merits of the *de novo* application when considering the motion for stay. *See, e.g.*, Motion to Stay at 3; Transcript of Proceedings, pages 68-70 (the Director is urged to consider Rule 62 of the New Mexico Rules of Civil Procedure). Nothing in Rule 1220(B) leads to the conclusion that likelihood of success is relevant, and the application of the Rules of Civil Procedure where a specific rule like Rule 1220(B) exists is doubtful.

19. It is however unnecessary to reach this issue, as Sapient has failed to establish a likelihood of success on the merits. Although Sapient claims its application to alternative spacing will be granted by the Commission, the present rules require that wells be located on spacing units consisting of 160 contiguous surface acres, substantially in the form of a square which is a quarter section and a legal subdivision of the U.S. Public Lands Surveys. 19 NMAC 15.C.104 (2-1-96). Sapient refers to general principles of correlative rights, but fails to specify any of the usual factors upon which the Commission would base a modification of the statewide rule. See 19 NMAC 15.C.104(D)(2)(b), (D)(2)(c), (D)(2)(d). Sapient also relies upon the Division's approval of various filings made in connection with the drilling of the well, but these approvals do not relieve Sapient of the responsibility to comply with the Rules and Regulations. Finally, Sapient argues that the retroactive order of the Division exceeds the Division's authority, thereby claiming a likelihood of success on this point before the Commission; but this argument doesn't address the likelihood of success because it goes solely to the remedy in an *adverse* order.

20. As a result of the foregoing, the Motion to Stay of Sapient should be denied.

21. As a result of the foregoing, it is unnecessary to reach the arguments of Chevron and Conoco concerning bonding, escrowing payments from production, or refunding.

**IT IS THEREFORE ORDERED** that the Motion to Stay Division Order No. R-11652 filed herein by Sapient Energy Corporation is denied. Order No. R-11652 shall remain in force until the Commission has had occasion to issue an Order in this matter.

**DONE** at Santa Fe, New Mexico, on the fifteenth day of October 2001.



**STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION**

  
**LORI WROTENBERG**  
Director

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 South First, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Form C-104  
March 19, 20

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Submit 1 copy of the final affected well  
list along with 1 copy of this form p  
number of wells on that list  
appropriate District Office

### Change of Operator Name

OGRID: 13382  
Effective Date: 12/05/00

#### Previous Operator Name and Information:

Name: LG&E Natural Pipeline Co.  
Address: c/o Conoco Inc, NG&GP  
Address: 600 North Dairy Ashford  
City, State, Zip: Houston, Texas 77079-1175

#### New Operator Name and Information:

New Name: Raptor Natural Pipeline L  
Address: c/o Conoco Inc, NG&GP  
Address: 600 North Dairy Ashford  
City, State, Zip: Houston, Texas 77079-1175

I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given on this form and the attached list of wells is true and complete to the best of my knowledge and belief.

Signature: Michael T Swenson  
Printed name: MICHAEL T SWENSON  
Title: U-P  
Date: 5/2/01 Phone: (281) 293-1152

#### NMOCD Approval

Signature: Gary W. Wink  
Printed Name: GARY W. WINK  
District: FIELD REPRESENTATIVE II  
Date: MAY 24 2001

WELLS INVOLVED IN NAME CHANGE  
FINAL LIST WITH C-104B

APR 13, 2001

OPERATOR: 13382 LG&E NATURAL PIPELINE CO.

OCD DISTRICT: HOBBS

PROP-  
ERTY  
5927  
WELL NAME  
GRM UNIT #001  
GRM UNIT #002  
GRM UNIT #003  
GRM UNIT #004

ULSTR  
E-03-228-34E  
L-34-218-34E  
J-33-218-34E  
F-04-228-34E

OCD  
UNIT LTR  
E  
L  
J  
F

API  
30-025-21336  
30-025-21717  
30-025-21746  
30-025-21334

OPERATOR INITIALS: MNS  
5/2/01



I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

1 Operator name and address <b>LG&amp;E NATURAL PIPELINE CO. 921 W. Sanger Hobbs, New Mexico 88240</b>		2 OGRID Number <b>013382</b>
3 reason for Filing Code <b>Company Name Change</b>		<b>4/1/96</b>
4 API Number <b>30 - 025-21717</b>	5 Pool Name <b>Grama Ridge Morrow</b>	6 Pool Code <b>77680</b>
7 Property Code <b>005927</b>	8 Property Name <b>GRM Unit</b>	9 Well Number <b>#2</b>

II. 10 Surface Location

UL or lot no. <b>L</b>	Section <b>34</b>	Township <b>21S</b>	Range <b>34E</b>	Lot.Idn	Feet from the <b>1980</b>	North/South Line <b>S</b>	Feet from the <b>660</b>	East/West Line <b>W</b>	County <b>Lea</b>
---------------------------	----------------------	------------------------	---------------------	---------	------------------------------	------------------------------	-----------------------------	----------------------------	----------------------

11 Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot.Idn	Feet from the	North/South Line	Feet from the	East/West Line	County
12 Lse Code <b>S</b>	13 Producing Method Code	14 Gas Connection Date	15 C-129 Permit Number	16 C-129 Effective Date	17 C-129 Expiration Date				

III. Oil and Gas Transporters

18 Transporter OGRID	19 Transporter Name and Address	20 POD	21 O/G	22 POD ULSTR Location and Description
015694	Navajo Refining Co. P.O. Drawer 159 - Artesia, NM 88210	1185610	O	L-34-21S-34E Lea County, NM
007440	EOTT Energy Corp. P.O. Box 4666, Houston, TX. 77210	1185610	O	L-34-21S-34E Lea County, NM
013382	LG&E Natural Pipeline Co. 921 W. Sanger - Hobbs, NM 88240	1185630	O G	L-34-21S-34E Lea County, NM

IV. Produced Water

23 POD	24 POD ULSTR Location and Description
--------	---------------------------------------

V. Well Completion Data

25 Spud Date	26 Ready Date	27 TD	28 PBTD	29 Perforations
30 Hole Size	31 Casing & Tubing Size	32 Depth Set	33 Sacks Cement	

VI. Well Test Data

34 Date New Oil	35 Gas Delivery Date	36 Test Date	37 Test Length	38 Tbg. Pressure	39 Csg. Pressure
40 Choke Size	41 Oil	42 Water	43 Gas	44 AOF	45 Test Method

46 I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: *Alice M. Major*  
Printed name: Alice M. Major  
Title: Production Clerk  
Date: 2/19/97  
Phone: (505) 393-2153

**OIL CONSERVATION DIVISION**  
Approved by: *[Signature]*  
Title: **DISTRICT 1 SUPERVISOR**  
Approval Date: **MAR 04 1997**

47 If this is a change of operator fill in the OGRID number and name of the previous operator				
<i>Alice Major</i>	Effective 4-1-96	Llano, Inc.	013382	Production Clerk
Previous Operator Signature	Printed Name	Title	Date	

Submit 3 Copies  
to Appropriate  
District Office

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-103  
Revised 1-1-89

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

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

**OIL CONSERVATION DIVISION**  
310 Old Santa Fe Trail, Room 206  
Santa Fe, New Mexico 87503

WELL API NO.

5. Indicate Type of Lease

STATE ☒

FEE ☐

6. State Oil & Gas Lease No.

7. Lease Name or Unit Agreement Name

GRMSU #2

8. Well No.

2

9. Pool name or Wildcat

**SUNDRY NOTICES AND REPORTS ON WELLS**  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A  
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT"  
(FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:

OIL  
WELL ☐

GAS  
WELL ☐

OTHER BLOW DOWN PIT

2. Name of Operator

LIANO INC

3. Address of Operator

921 WEST SANGER HOBBS, NEW MEXICO

4. Well Location

Unit Letter L : 1980 Feet From The SOUTH Line and 660 Feet From The WEST Line

Section 34

Township 21 S

Range 34 E

NMPM

NEW MEXICO, LEA County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

**NOTICE OF INTENTION TO:**

PERFORM REMEDIAL WORK ☐

PLUG AND ABANDON ☐

TEMPORARILY ABANDON ☐

CHANGE PLANS ☐

PULL OR ALTER CASING ☐

OTHER: ☐

**SUBSEQUENT REPORT OF:**

REMEDIAL WORK ☒

ALTERING CASING ☐

COMMENCE DRILLING OPNS. ☐

PLUG AND ABANDONMENT ☐

CASING TEST AND CEMENT JOB ☐

OTHER: ☐

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

BLEND AND MIX MATERIAL IN BLOW DOWN PIT TO MEET  
OLD SPECIFICATIONS

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

SIGNATURE

Joe Frank Dean

TITLE

OPERATIONS MANAGER

DATE

8-25-95

TYPE OR PRINT NAME

JOE FRANK DEAN CEI

TELEPHONE NO.

505-397-6388

(This space for State Use)

APPROVED BY

Gay W. Wink

TITLE

GAY W. WINK  
FIELD REPRESENTATIVE

DATE

8-25-95

CONDITIONS OF APPROVAL, IF ANY:



# ARDINAL LABORATORIES

PHONE (815) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

PHONE (505) 326-4889 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

## FINAL ANALYSIS REPORT

Company: BBC International  
Address: P.O. Box 297  
City, State: Hobbs, NM

Date: 8/23/95  
Lab #: H2151

Project Name: Llano Hudson  
Location: not given  
Sampled by: JD  
Analyzed by: JA  
Sample Type: Soil

Date: not given Time: not given  
Date: 8/23/95 Time: Various  
Sample Condition: Intact Units: ppm

\*\*\*\*\*  
Samp  
#

FIELD CODE

TRPHC

1 GRN SU #2  
2 GRN SU #4

746.0  
1,740.0

QC Recovery  
QC Spike  
Accuracy

1469.0  
1300.0  
113.0%

Methods - INFRARED SPECTROSCOPY  
- EPA SW-846; 418.1, 3540 OR 3510

Manuel Garbalena  
Manuel Garbalena

8-23-95  
Date



Submit 5 Copies  
Appropriate District Office  
DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-104  
Revised 1-1-89  
See Instructions  
at Bottom of Page

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

OIL CONSERVATION DIVISION

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

OIL CONSERVATION DIVISION  
RECEIVED

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

REQUEST FOR ALLOWABLE AND AUTHORIZATION  
TO TRANSPORT OIL AND NATURAL GAS

Operator Llano, Inc.	Well API No. 30-025-21717
Address 921 W. Sanger Hobbs, NM 88240-4917	
Reason(s) for Filing (Check proper box) <input checked="" type="checkbox"/> Other (Please explain)	
New Well <input type="checkbox"/>	Change in Transporter of:
Recompletion <input type="checkbox"/>	Oil <input type="checkbox"/> Dry Gas <input type="checkbox"/> To Add Additional Transporter of Condensate
Change in Operator <input type="checkbox"/>	Casinghead Gas <input type="checkbox"/> Condensate <input type="checkbox"/>

If change of operator give name and address of previous operator \_\_\_\_\_

II. DESCRIPTION OF WELL AND LEASE

Lease Name GRM Unit	Well No. #2	Pool Name, Including Formation Grama Ridge Morrow	Kind of Lease <input checked="" type="checkbox"/> State <input type="checkbox"/> Federal or Fee	Lease No. E-9659
Location Unit Letter L : 1980 Feet From The South Line and 660 Feet From The West Line Section 34 Township 21S Range 34E, NMPM, Lea County				

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input type="checkbox"/> or Condensate <input checked="" type="checkbox"/> R & K Oil Company, Inc.	Address (Give address to which approved copy of this form is to be sent) P.O. Box 1229, -- Andrews, Tx. 79714
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input checked="" type="checkbox"/> Llano, Inc.	Address (Give address to which approved copy of this form is to be sent) 921 W. Sanger -- Hobbs, NM 88240
If well produces oil or liquids, give location of tanks.	Unit   Sec.   Twp.   Rge.   Is gas actually connected? <input checked="" type="checkbox"/> INDEX ? L   34   21S   34E   Yes-Gas Storage & Withdrawal Well

If this production is commingled with that from any other lease or pool, give commingling order number: \_\_\_\_\_

IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v	Diff Res'v
Date Spudded	Date Compl. Ready to Prod.		Total Depth			P.B.T.D.		
Elevations (DF, RKB, RT, GR, etc.)	Name of Producing Formation		Top Oil/Gas Pay			Tubing Depth		
Perforations						Depth Casing Shoe		

TUBING, CASING AND CEMENTING RECORD

HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT

V. TEST DATA AND REQUEST FOR ALLOWABLE

OIL WELL (Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours.)

Date First New Oil Run To Tank	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas - MCF

GAS WELL

Actual Prod. Test - MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pilot, back pr.)	Tubing Pressure (Shut-in)	Casing Pressure (Shut-in)	Choke Size

VI. OPERATOR CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature Steve Pfaff  
Printed Name Steve Pfaff Supervisor Contract Admin.  
Date 4/23/91 Telephone No. (505) 393-2153

OIL CONSERVATION DIVISION

Date Approved APR 24 1991

By Paul J. [Signature]  
Title Geologist

INSTRUCTIONS: This form is to be filed in compliance with Rule 1104

- 1) Request for allowable for newly drilled or deepened well must be accompanied by tabulation of deviation tests taken in accordance with Rule 111.
- 2) All sections of this form must be filled out for allowable on new and recompleted wells.
- 3) Fill out only Sections I, II, III, and VI for changes of operator, well name or number, transporter, or other such changes.
- 4) Separate Form C-104 must be filed for each pool in multiply completed wells.

## OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-104  
Revised 10-1-78

NO. OF COPIES DESIRED	
DISTRIBUTION	
SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
TRANSPORTER	OIL
	GAS
OPERATOR	
PRODUCTION OFFICE	

REQUEST FOR ALLOWABLE  
AND  
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

1. Operator	
Llano, Inc.	
Address	
P. O. Box 1320, Hobbs, New Mexico 88240	
Reason(s) for filing (Check proper box)	Other (Please explain)
New Well <input type="checkbox"/>	12
Recompletion <input type="checkbox"/>	
Change in Ownership <input type="checkbox"/>	
Change in Transporter of:	
Oil <input type="checkbox"/>	Dry Gas <input type="checkbox"/>
Casinghead Gas <input type="checkbox"/>	Condensate <input checked="" type="checkbox"/>

If change of ownership give name  
and address of previous owner \_\_\_\_\_

## II. DESCRIPTION OF WELL AND LEASE

Lease Name	Well No.	Pool Name, including Formation	Kind of Lease	Lease No.
GRM Unit	2	Gramma Ridge Morrow	State, Federal or Fee State	E-9659
Location				
Unit Letter <u>L</u> : <u>1980</u> Feet From The <u>south</u> Line and <u>660</u> Feet From The <u>west</u>				
Line of Section <u>34</u> Township <u>21S</u> Range <u>34E</u> , NMPM, Lea County				

## III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input type="checkbox"/> or Condensate <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)
NAVAJO CRUDE OIL PURCHASING CO.	P. O. Box 159, Artesia, New Mexico 88210
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)
Llano, Inc.	P. O. Box 1320, Hobbs, New Mexico 88240
If well produces oil or liquids, give location of tanks.	Is gas actually connected? When
Unit <u>L</u> Sec. <u>34</u> Twp. <u>21S</u> Rge. <u>34E</u>	Yes-Gas Storage & withdrawal well

If this production is commingled with that from any other lease or pool, give commingling order number: \_\_\_\_\_

## IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v.	Diff. Res.
Date Spudded	Date Compl. Ready to Prod.		Total Depth		P.B.T.D.			
Elevations (DF, RKB, RT, GR, etc.)	Name of Producing Formation		Top Oil/Gas Pay		Tubing Depth			
Perforations					Depth Casing Shoe			

## TUBING, CASING, AND CEMENTING RECORD

HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT

## V. TEST DATA AND REQUEST FOR ALLOWABLE OIL WELL

(Test must be after recovery of total volume of load oil and must be equal to or exceed top oil able for this depth or be for full 24 hours)

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil-Bbls.	Water-Bbls.	Gas-MCF

## GAS WELL

Actual Prod. Test-MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pilot, back pr.)	Tubing Pressure (Shut-in)	Casing Pressure (Shut-in)	Choke Size

## VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.



Vice President

(Title)

November 14, 1984

(Date)

## OIL CONSERVATION DIVISION

APPROVED NOV 19 1984 19BY [Signature]  
DISTRICT SUPERVISOR

TITLE

This form is to be filed in compliance with RULE 1104.

If this is a request for allowable for a newly drilled or deeper well, this form must be accompanied by a tabulation of the deviate tests taken on the well in accordance with RULE 111.

All sections of this form must be filled out completely for all able on new and recompleted wells.

Fill out only Sections I, II, III, and VI for changes of own well name or number, or transporter, or other such change of condition.

Separate Forms C-104 must be filed for each pool in multi-



STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION  
HOBBS DISTRICT OFFICE

August 8, 1980

BRUCE KING  
GOVERNOR

LARRY KEHOE  
SECRETARY

POST OFFICE BOX 1980  
HOBBS, NEW MEXICO 88240  
(505) 393-6161

Llano, Inc.  
P. O. Drawer 1320  
Hobbs, New Mexico 88240

Attention Mr. Al Klaar

Re: Exception to Rule 402

Gentlemen:

As requested in your letter of August 6, 1980, and for the reasons outlined therein, the wells listed below will be exempt from the 1980 shut-in pressure tests required by Division Rule 402.

LUSK MORROW GAS POOL

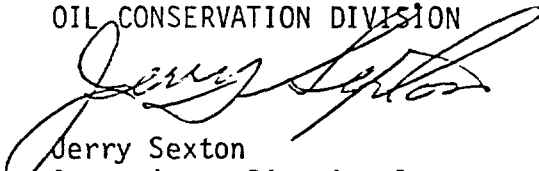
Plains Unit Federal	No. 2	Unit E	Sec. 28, T-19-S, R-32-E
Southern California Federal	No. 1	Unit H	Sec. 29, T-19-S, R-32-E

GRAMA RIDGE MORROW GAS POOL

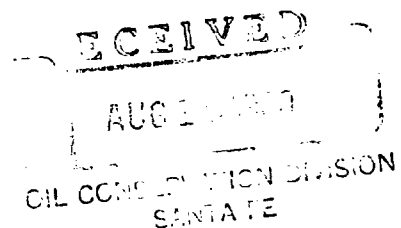
GRM Unit	No. 1	Unit E	Sec. 3, T-22-S, R-34-E
GRM Unit	No. 2	Unit L	Sec. 34, T-21-S, R-34-E
GRM Unit	No. 3	Unit J	Sec. 33, T-21-S, R-34-E
GRM Unit	No. 4	Unit F	Sec. 4, T-22-S, R-34-E

Yours very truly,

OIL CONSERVATION DIVISION

  
Jerry Sexton  
Supervisor, District 1

mc  
cc- R. L. Stamets  
OCD, Santa Fe



**NEW MEXICO OIL CONSERVATION COMMISSION**  
**WELL LOCATION AND ACREAGE DEDICATION PLAT**

FORM C-128  
 Revised 5/1/57

**SEE INSTRUCTIONS FOR COMPLETING THIS FORM ON THE REVERSE SIDE**

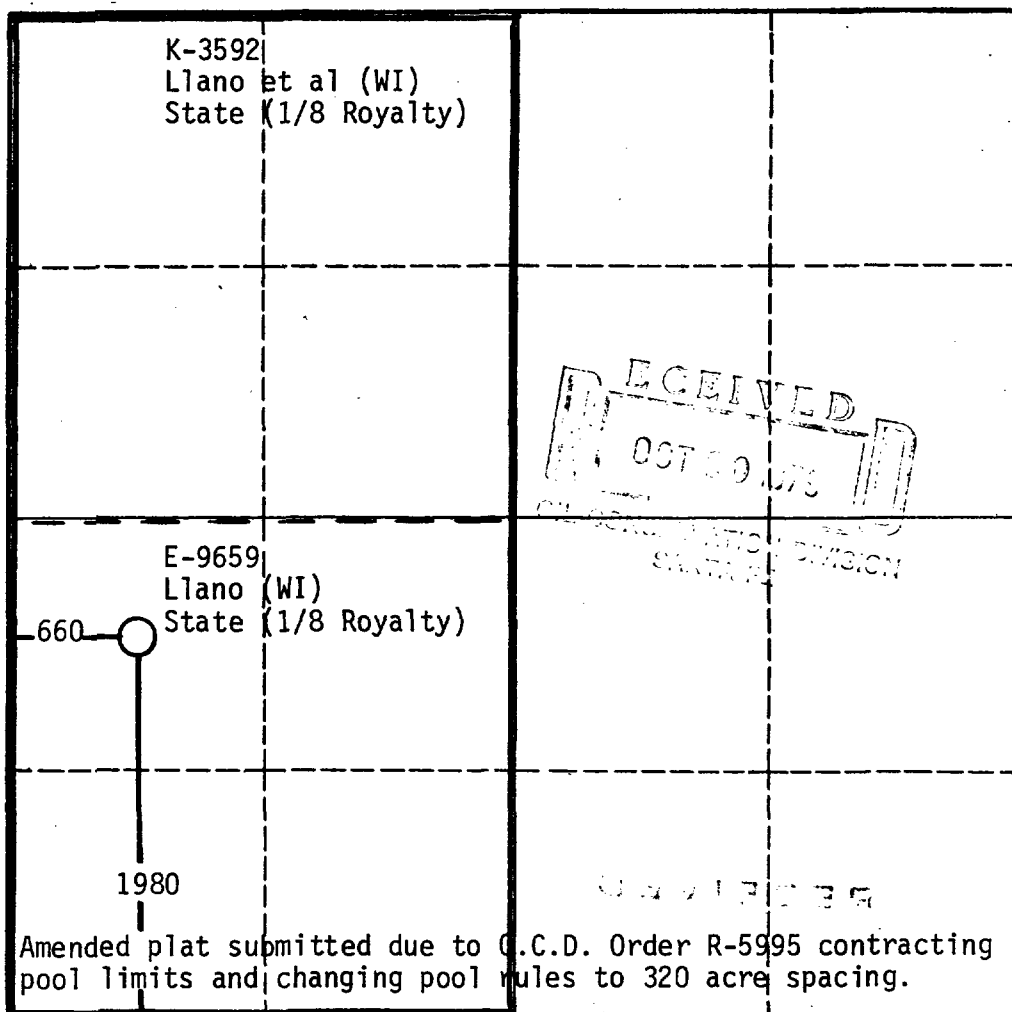
**SECTION A**

Operator <b>Llano, Inc.</b>		Lease <b>Gramma Ridge Morrow Unit</b>		Well No. <b>2</b>
Unit Letter <b>L</b>	Section <b>34</b>	Township <b>21 South</b>	Range <b>34 East</b>	County <b>Lea</b>
Actual Footage Location of Well: <b>1980</b> feet from the <b>South</b> line and <b>660</b> feet from the <b>West</b> line				
Ground Level Elev. <b>3641</b>	Producing Formation <b>Morrow</b>	Pool <b>Gramma Ridge Morrow (Gas)</b>	Dedicated Acreage: <b>320</b> Acres	

1. Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES ☐ NO ☒ ("Owner" means the person who has the right to drill into and to produce from any pool and to appropriate the production either for himself or for himself and another. (65-3-29 (e) NMSA 1935 Comp.)
2. If the answer to question one is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? YES ☒ NO ☐ . If answer is "yes," Type of Consolidation Unit Agreement
3. If the answer to question two is "no," list all the owners and their respective interests below:

Owner	Land Description

**SECTION B**



**CERTIFICATION**

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

Name Al Klaar  
 Position Mgr. Pet. & N.G. Engr.  
 Company Llano, Inc.  
 Date May 2, 1979

I hereby certify that the well location shown on the plat in SECTION B 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 9-30-65  
 Registered Professional Engineer and/or Land Surveyor  
T. E. Chapman, Jr.

Certificate No.

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0

STATE LAND OFFICE  
COMMUNITIZATIONS

4-19-66

COMMUNITIZATION NAME: SHELL GRB STATE COM WELL NO. 1

OPERATOR: SHELL OIL COMPANY

DATE APPROVED: April 19, 1966  
DATE EFFECTIVE: April 19, 1966  
COUNTY: Lea County

TOTAL ACREAGE: 640.00

STATE ACREAGE: All

DEDICATED TO: Grama Ridge-Morrow Gas Pool

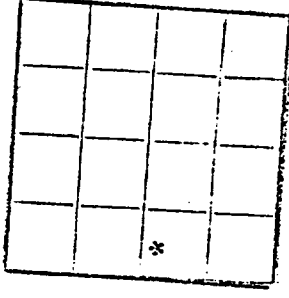
INSTITUTION: Common Schools

TERM OF COMMUNITIZATION: So long as

WELL LOCATION: NW/4SW/4

SEC.	TWP.	RGE.	SUBDIVISION	LEASE NO.	LESSEE	ACREAGE
34	21S	34E	N/2	K-3592-1	Shell Oil Company	320.00
34	21S	34E	S/2	E-9659-0	Gulf Oil Corporation	320.00
						640.00

Sec 34 T21SR34E -All



*These acreage went into the  
Grama Ridge Unit*

TERMINATED

2-20-78

Eff: 4-25-73

NO. OF COPIES RECEIVED	
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SANITARY	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

# NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103  
Supersedes Old  
C-102 and C-103  
Effective 1-1-65

5a. Indicate Type of Lease  
State ☒ Fee ☐  
5. State Oil & Gas Lease No.  
E-9659

## SUNDRY NOTICES AND REPORTS ON WELLS

DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO RE-OPEN OR PILE BACK TO A DIFFERENT RESERVOIR.  
USE "APPLICATION FOR PERMIT TO DRILL" (FORM C-101) FOR SUCH PROPOSALS.

1. OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER- <b>Gas Storage Well</b>	7. Unit Agreement Name <b>Grama Ridge Morrow</b>
2. Name of Operator <b>Llano, Inc.</b>	8. Farm or Lease Name <b>GRM Unit</b>
3. Address of Operator <b>P. O. Box 1320, Hobbs, New Mexico 88240</b>	9. Well No. <b>2</b>
4. Location of Well UNIT LETTER <b>L</b> <b>1980</b> FEET FROM THE <b>South</b> LINE AND <b>660</b> FEET FROM THE <b>West</b> LINE, SECTION <b>34</b> TOWNSHIP <b>21-S</b> RANGE <b>34-E</b> NMPM.	10. Field and Pool, or Wildcat <b>Grama Ridge Morrow</b>
15. Elevation (Show whether DF, RT, CR, etc.) <b>3651 DF</b>	12. County <b>Lea</b>

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input type="checkbox"/>
OTHER <input type="checkbox"/>	OTHER <input type="checkbox"/>
	<b>Status Report</b> <input checked="" type="checkbox"/>

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Pursuant to the "Amendment to Unit Agreement for Operation of the Grama Ridge Morrow Unit Area, Lea County, New Mexico," the GRM Unit Well No. 2 is being utilized as a gas storage well for purposes of injecting and withdrawing natural gas volumes from the Morrow Formation.

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

SIGNED *W. K. Klear*

TITLE Manager of Petroleum and  
Natural Gas Engineering

DATE 5-19-78

APPROVED BY *[Signature]*

TITLE SUPERVISOR DISTRICT I

DATE MAY 22 1978

CONDITIONS OF APPROVAL, IF ANY:

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NEW MEXICO OIL CONSERVATION COMMISSION  
REQUEST FOR ALLOWABLE  
AND  
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Form C-104  
Supersedes Old C-104 and C-105  
Effective 1-1-65

Operator

Llano, Inc.

Address

P. O. Box 1320, Hobbs, New Mexico 88240

Reason(s) for filing (Check proper box)

New Well ☐

Recompletion ☐

Change in Ownership ☐

Change in Transporter of:

Oil ☐

Casinghead Gas ☐

Dry Gas ☐

Condensate ☐

Other (Please explain) NAME CHANGE -

From: State GRB Com. No. 1

TO: GRM Unit No. 2

If change of ownership give name  
and address of previous owner

II. DESCRIPTION OF WELL AND LEASE

Lease Name	Well No.	Pool Name, Including Formation	Kind of Lease	Lease No.
GRM Unit	2	Grama Ridge Morrow	State, Federal or Fee State	E-9659
Location				
Unit Letter	L	1980 Feet From The South	Line and 660 Feet From The West	
Line of Section	34	Township 21S	Range 34E	NMPM, Lea County

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input type="checkbox"/> or Condensate <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)
Navajo Crude Oil Purchasing Co.	N. Freeman Ave., Artesia, New Mexico 88210
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)
Llano, Inc.	P. O. Box 1320, Hobbs, New Mexico 88240
If well produces oil or liquids, give location of tanks.	Unit Sec. Twp. Rge. Is gas actually connected? <input checked="" type="checkbox"/>
L 34 21S 34E	Yes - Gas Storage & Withdrawal Well

If this production is commingled with that from any other lease or pool, give commingling order number:

IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Stim. Res.	Env. Res.
Date Spudded	Date Compl. Ready to Prod.	Total Depth	P.B.T.D.					
Elevations (DF, RKB, RT, GR, etc.)	Name of Producing Formation	Top Oil/Gas Pay	Tubing Depth					
Perforations	Depth Casing Shoe							
TUBING, CASING, AND CEMENTING RECORD								
HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT					

V. TEST DATA AND REQUEST FOR ALLOWABLE OIL WELL

(Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil-Bbls.	Water-Bbls.	Gas-MCF

GAS WELL

Actual Prod. Test-MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pilot, back pr.)	Tubing Pressure (shut-in)	Casing Pressure (shut-in)	Choke Size

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

LLANO, INC.

*E. Edwards*  
(Signature)

Executive Vice President

(Title)

February 28, 1978

(Date)

OIL CONSERVATION COMMISSION

APPROVED

MAR 15 1978

BY

TITLE

SUPERVISOR DISTRICT I

This form is to be filed in compliance with RULE 1104.

If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviator tests taken on the well in accordance with RULE 111.

All sections of this form must be filled out completely for allowable on new and recompleted wells.

Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter or other such change of condition.

NEW MEXICO OIL CONSERVATION COMMISSION  
REQUEST FOR ALLOWABLE  
AND  
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Form C-104  
Supersedes Old C-104 and C-11  
Effective 1-1-65

ILLEGIBLE

Llano, Inc.

P.O. Box 1320 Hobbs, New Mexico

Reason(s) for filing (Check proper box)		Other (Please explain)	
New Well <input type="checkbox"/>	Change in Transporter of:		
Recompletion <input type="checkbox"/>	Oil <input type="checkbox"/>		
Change in Ownership <input type="checkbox"/>	Casinghead Gas <input type="checkbox"/>	Dry Gas <input type="checkbox"/>	Condensate <input checked="" type="checkbox"/>

Effective August 8, 1975

If change of ownership give name  
and address of previous owner

II. DESCRIPTION OF WELL AND LEASE

Lease: State GRB Com.	Well No. 1	Pool Name, including Formation Grama Ridge Morrow (gas)	Kind of Lease State, Federal or Fee state	Lease No. E-9659
Location: Unit Letter L, 1980 Feet From The South Line and 660 Feet From The West				
Line of Section 34 Township 21-S Range 34-E, NMPL, Lea County				

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input type="checkbox"/> or Condensate <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)			
Navajo Crude Oil Purchasing Co.	N. Freeman, Artesia, N. M. 88210			
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)			
Llano, Inc.				
If well produces oil or liquids, give location of tanks.	Unit L	Sec. 34	Twp. 21-S	Rge. 34-E
Is gas actually connected?		When		

If this production is commingled with that from any other lease or pool, give commingling order number:

IV. COMPLETION DATA

Designate Type of Completion - (X)		Oil Well	Gas Well	Refr. Well	Workover	Deepen	Plug Back	Same Res'v.	Diff. Res'v.
Date Spudded	Date Compl. Ready to Prod.	Total Depth		P.B.T.D.					
Elevations (DF, RKB, RT, GR, etc.)	Name of Producing Formation	To, Oil/Gas Pay		Tubing Depth					
Perforations		Depth Casing Shoe							
TUBING, CASING, AND CEMENT RECORD									
HOLE SIZE	CASING & TUBING SIZE	DEPTH SET		SAC - C					

V. TEST DATA AND REQUEST FOR ALLOWABLE OIL WELL

(Test must be taken at a depth of at least 24 hours and must be taken at a depth of at least 24 hours)

Date First New Oil Run To Tanks	Date of Test	Production Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Choke size	
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas - MCF

GAS WELL

Actual Prod. Test - MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pitot, back pr.)	Tubing Pressure (shut-in)	Casing Pressure (shut-in)	Choke size

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

*[Signature]*  
(Signature)

Vice President

(Title)

August 8, 1975

(Date)

OIL CONSERVATION COMMISSION

AUG 11 1975

APPROVED BY *[Signature]* 19  
BY *[Signature]*  
Geologist

This form is to be filed in compliance with RULE 1104.

If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.

All sections of this form must be filled out completely for allowable on new and recompleted wells.

Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter or other change of condition.



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NEW MEXICO OIL CONSERVATION COMMISSION  
REQUEST FOR ALLOWABLE  
AND  
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Form C-104  
Supersedes Old C-104 and C-110  
Effective 1-1-65

I.

Operator Llano, Inc.	
Address P. O. Drawer 1320, Hobbs, New Mexico 88240	
Reason(s) for filing (Check proper box)	This well is now an injection well; however, the condensate to be transported was produced prior to reclassification.
New Well <input type="checkbox"/>	Change in Transporter of:
Recompletion <input type="checkbox"/>	Oil <input type="checkbox"/> Dry Gas <input type="checkbox"/>
Change in Ownership <input type="checkbox"/>	Casinghead Gas <input type="checkbox"/> Condensate <input checked="" type="checkbox"/>
Effective October 1, 1973	

If change of ownership give name  
and address of previous owner \_\_\_\_\_

II. DESCRIPTION OF WELL AND LEASE

Lease Name GRB Comm	Well No. 1	Pool Name, Including Formation Grama Ridge Morrow (Gas)	Kind of Lease State, Federal or Fee	Lease No. E-9659
Location				
Unit Letter L ; 1980 Feet From The South Line and 660 Feet From The West				
Line of Section 34 Township 21-S Range 34-E , NMPM, Lea County				

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input type="checkbox"/> or Condensate <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)
Minerals, Inc.	P. O. Drawer 1320, Hobbs, New Mexico 88240
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)
If well produces oil or liquids, give location of tanks.	Unit Sec. Twp. Rge. Is gas actually connected? When

If this production is commingled with that from any other lease or pool, give commingling order number: \_\_\_\_\_

IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v.	Diff. Res'v.
Date Spudded	Date Compl. Ready to Prod.		Total Depth		P.B.T.D.			
Elevations (DF, RKB, RT, GR, etc.)	Name of Producing Formation		Top Oil/Gas Pay		Tubing Depth			
Perforations					Depth Casing Shoe			
TUBING, CASING, AND CEMENTING RECORD								
HOLE SIZE	CASING & TUBING SIZE		DEPTH SET		SACKS CEMENT			

V. TEST DATA AND REQUEST FOR ALLOWABLE OIL WELL

(Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)


Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas - MCF

GAS WELL

Actual Prod. Test - MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pitot, back pr.)	Tubing Pressure (shut-in)	Casing Pressure (shut-in)	Choke Size

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

  
(Signature)  
Vice President-Planning and Development  
(Title)  
November 2, 1973  
(Date)

OIL CONSERVATION COMMISSION

APPROVED NOV 14 1973, 19\_\_\_\_  
BY [Signature]  
TITLE SUPERVISOR DISTRICT I

This form is to be filed in compliance with RULE 1104.

If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.

All sections of this form must be filled out completely for allowable on new and recompleted wells.

Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter, or other such change of condition.

Separate Forms C-104 must be filed for each pool in multiply completed wells.

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# NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103  
Supersedes Old  
C-102 and C-103  
Effective 1-1-65

5a. Indicate Type of Lease	
State <input checked="" type="checkbox"/>	Fee <input type="checkbox"/>
5. State Oil & Gas Lease No. E-9659	

## SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)

1. <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER- Injection	7. Unit Agreement Name Grama Ridge Morrow
2. Name of Operator Llano, Inc.	8. Farm or Lease Name State GRB Com
3. Address of Operator P. O. Box 1320, Hobbs, New Mexico 88240	9. Well No. One
4. Location of Well UNIT LETTER <u>L</u> , <u>1980</u> FEET FROM THE <u>South</u> LINE AND <u>660</u> FEET FROM THE <u>West</u> LINE, SECTION <u>34</u> TOWNSHIP <u>21-S</u> RANGE <u>34-E</u> NMPM.	10. Field and Pool, or Wildcat Grama Ridge
15. Elevation (Show whether DF, RT, GR, etc.)	12. County Lea

### Check Appropriate Box To Indicate Nature of Notice, Report or Other Data NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input checked="" type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOBS <input type="checkbox"/>	OTHER <input type="checkbox"/>

### 17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

- Plugged off tbq and pressured to 1200 psi. Bradenhead sqzd thru 13-3/8 x 9-5/8 annulus w/2000 sx cmt while holding 1200 psi on 9-5/8 x 2-1/2 annulus.
- Ran temp survey: Top of cement at 600', btm of cement at 8950'.
- Ran Baker Mod. "F" pkr to 12,680'.
- Lost seal assembly off btm of tbq. Blanking plug fell out at seal assembly and along side of seal assembly mandrel. Pushed to 12,764' and leave in hole.
- Ran Baker Lok-Set pkr to 12,636' with "on-off" tool on top.
- Swbd well in and prepare for injection well.

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

SIGNED <u>Donald L. Darcy</u>	TITLE <u>Vice President</u>	DATE <u>9/11/73</u>
APPROVED BY <u>[Signature]</u>	TITLE <u>SUPERVISOR DISTRICT I</u>	DATE <u>SEP 17 1973</u>
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# NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103  
Supersedes Old  
C-102 and C-103  
Effective 1-1-65

5a. Indicate Type of Lease  
State ☒ Fee ☐

5. State Oil & Gas Lease No.  
E-9659

## SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER- Injection	7. Unit Agreement Name Grama Ridge Morrow
2. Name of Operator Llano, Inc.	8. Farm or Lease Name State GRB Com
3. Address of Operator P. O. Box 1320, Hobbs, New Mexico 88240	9. Well No. 1
4. Location of Well UNIT LETTER L, 1980 FEET FROM THE South LINE AND 660 FEET FROM THE West LINE, SECTION 34 TOWNSHIP 21-S RANGE 34-E NMPM.	10. Field and Pool, or Wildcat Grama Ridge
15. Elevation (Show whether DF, RT, GR, etc.)	12. County Lea

### Check Appropriate Box To Indicate Nature of Notice, Report or Other Data NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER Casing Test & Cement Job <input checked="" type="checkbox"/>	CASING TEST AND CEMENT JOBS <input type="checkbox"/>	OTHER <input type="checkbox"/>

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

### Begin Work 8/20/73

- Drop blank-off plug in 2-1/2" tubing and load tubing and tubing-9-5/8" annulus w/KCL water.
- Maintain pressure on tubing 9-5/8" annulus and squeeze 2000 sx of cement down 9-5/8" - 13-3/8" annulus in order to shut-off leak in 9-5/8" casing at approx. 1500' and cover 9-5/8" not protected by cement.
- Run temp. survey down tubing to locate top and/or bottom of cement squeeze.
- Pressure-up on 2-1/2" - 9-5/8" annulus to test cement squeeze.
- Swab tubing dry and pull blank-off plug.
- Prepare for injection.

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

SIGNED Donald L. Farley TITLE Vice President DATE 8/17/73

APPROVED BY [Signature] TITLE COMMISSIONER DISTRICT I DATE 8/17/73

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OPERATOR	

# NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103  
Supersedes Old  
C-102 and C-103  
Effective 1-1-65

5a. Indicate Type of Lease  
State ☒ Fee ☐

5. State Oil & Gas Lease No.  
**E-9659**

## SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)

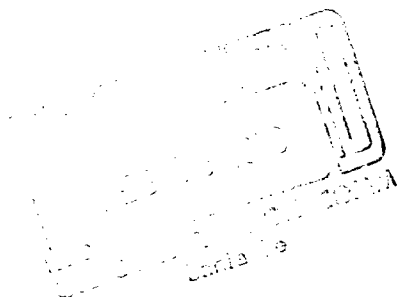
1. OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER- <input type="checkbox"/>	7. Unit Agreement Name <b>***</b>
2. Name of Operator <b>Llano, Inc.</b>	8. Farm or Lease Name <b>State GRB <i>Can</i></b>
3. Address of Operator <b>P. O. Drawer 1320, Hobbs, New Mexico 88240</b>	9. Well No. <b>1</b>
4. Location of Well UNIT LETTER <b>L</b> <b>1980</b> FEET FROM THE <b>South</b> LINE AND <b>660</b> FEET FROM THE <b>West</b> LINE, SECTION <b>34</b> TOWNSHIP <b>21-S</b> RANGE <b>34-E</b> NMPM.	10. Field and Pool, or Wildcat <b>Grama Ridge Morrow (Gas)</b>
15. Elevation (Show whether DF, RT, GR, etc.) <b>3651 DF</b>	12. County <b>Lea</b>

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input checked="" type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOBS <input type="checkbox"/>	OTHER <input type="checkbox"/>

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Test casing for leak with retrievable plug and packer. After finding leak the casing will be squeezed with 750 sacks cement and drilled out. The tubing will be re-run to 12,788' (equipped with an "on-off" tool) and the annulus will be filled with potassium chloride water.



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

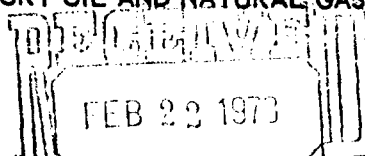
SIGNED <b><i>Donald L. Darcy</i></b>	TITLE <b>Vice President-Planning and Development</b>	DATE <b>2/22/73</b>
APPROVED BY <b><i>John A. Dancy</i></b>	TITLE <b>SUPERVISOR DISTRICT I</b>	DATE <b>FEB 23 1973</b>

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NEW MEXICO OIL CONSERVATION COMMISSION  
REQUEST FOR ALLOWABLE  
AND  
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Form C-104  
Supersedes Old C-104 and C-105  
Effective 1-1-65



I. Operator Llano, Inc.  
Address P. O. Drawer 1320, Hobbs, New Mexico 88240  
Reason(s) for filing (Check proper box)  
New Well ☐ Change in Transporter of:  
Recompletion ☐ Oil ☐ Dry Gas ☐  
Change in Ownership ☒ Casinghead Gas ☐ Condensate ☒  
Other (Please explain) Effective: February 1, 1973  
If change of ownership give name and address of previous owner Bettis, Boyle & Stovall, Box 1168, Graham, Texas 76046

II. DESCRIPTION OF WELL AND LEASE

Lease Name <u>State GRB Com</u>	Well No. <u>1</u>	Pool Name, including Formation <u>Grama Ridge Morrow (Gas)</u>	Kind of Lease <u>State, Federal or Fee</u>	State <u>State</u>	Lease No. <u>E-9659</u>
Location Unit Letter <u>L</u> ; <u>1980</u> Feet From The <u>South</u> Line and <u>660</u> Feet From The <u>West</u> Line of Section <u>34</u> Township <u>21-S</u> Range <u>34-E</u> , NMPM, <u>Lea</u> County					

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input type="checkbox"/> or Condensate <input checked="" type="checkbox"/> <u>To be determined.</u>	Address (Give address to which approved copy of this form is to be sent)					
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input checked="" type="checkbox"/> <u>Phillips Petroleum Corporation</u>	Address (Give address to which approved copy of this form is to be sent) <u>Room B-2, Phillips Bldg., Odessa, Texas 79760</u>					
If well produces oil or liquids, give location of tanks.	Unit <u>L</u>	Sec. <u>34</u>	Twp. <u>21-S</u>	Rge. <u>34-E</u>	Is gas actually connected? <u>Yes</u>	When <u>3/17/66</u>

If this production is commingled with that from any other lease or pool, give commingling order number: \_\_\_\_\_

IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v.	Diff. Res'v.
Date Spudded	Date Compl. Ready to Prod.		Total Depth		P.B.T.D.			
Elevations (DF, RKB, RT, GR, etc.)	Name of Producing Formation		Top Oil/Gas Pay		Tubing Depth			
Perforations					Depth Casing Shoe			
TUBING, CASING, AND CEMENTING RECORD								
HOLE SIZE	CASING & TUBING SIZE		DEPTH SET		SACKS CEMENT			

V. TEST DATA AND REQUEST FOR ALLOWABLE OIL WELL

(Test must be after recovery of total volume of load oil and must be equal to or exceed top all able for this depth or be for full 24 hours)

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil-Bbls.	Water-Bbls.	Gas-MCF

GAS WELL

Actual Prod. Test-MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pitot, back pr.)	Tubing Pressure (shut-in)	Casing Pressure (shut-in)	Choke Size

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Donald L. Barry  
(Signature)  
Vice President-Planning and Development  
(Title)  
February 16, 1973  
(Date)

OIL CONSERVATION COMMISSION

APPROVED FEB 19 1973, 19\_\_\_\_  
BY [Signature]  
TITLE SUPERVISOR DISTRICT I

This form is to be filed in compliance with RULE 1104.  
If this is a request for allowable for a newly drilled or deeper well, this form must be accompanied by a tabulation of the deviate tests taken on the well in accordance with RULE 111.  
All sections of this form must be filled out completely for all able on new and recompleted wells.  
Fill out only Sections I, II, III, and VI for changes of well name or number, or transporter, or other such change of condition.  
Separate Forms C-104 must be filed for each pool in multi-

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NEW MEXICO OIL CONSERVATION COMMISSION  
REQUEST FOR ALLOWABLE  
AND  
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Form C-104  
Supersedes Old C-104 and C-11  
Effective 1-1-65

RECEIVED

JAN - 3 1972

OIL CONSERVATION COMM.  
SANTA FE

I.

Operator

Bettis, Boyle & Stovel

Address

Box 1168, Graham, Texas 76046

Reason(s) for filing (Check proper box)

New Well ☐

Change in Transporter of:

Recompletion ☐

Oil ☐

Dry Gas ☐

Change in Ownership ☒

Casinghead Gas ☐

Condensate ☐

Effective November 1, 1971

If change of ownership give name  
and address of previous owner

Shell Oil Company, Box 1509, Midland, Texas 79701

II. DESCRIPTION OF WELL AND LEASE

Lease Name	Well No.	Pool Name, Including Formation	Kind of Lease	State
State GRB Com	1	Grama Ridge (Morrow Gas)	State, Federal or Fee	E-9659
Location				
south				
Unit Letter	L	1980	Feet From The	Line and 660 Feet From The West
Line of Section	34	Township	21-S	Range 34-E, NMPM, Lea County

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input type="checkbox"/> or Condensate <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)
Famariss Oil & Refining Company	Box 980, Hobbs, New Mexico 88240
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)
Phillips Petroleum Company	Phillips Bldg., Odessa, Texas 79760
If well produces oil or liquids, give location of tanks.	Unit Sec. Twp. Rge.
L 34 21-S 34-E	Is gas actually connected? When
yes	March 17, 1966

If this production is commingled with that from any other lease or pool, give commingling order number:

IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v.	Diff. Res'v.
Date Spudded	Date Compl. Ready to Prod.	Total Depth	P.B.T.D.					
Pool	Name of Producing Formation	Top Oil/Gas Pay	Tubing Depth					
Perforations	Depth Casing Shoe							
TUBING, CASING, AND CEMENTING RECORD								
HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT					

V. TEST DATA AND REQUEST FOR ALLOWABLE OIL WELL

(Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)


Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas - MCF

GAS WELL

Actual Prod. Test-MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pitot, back pr.)	Tubing Pressure	Casing Pressure	Choke Size

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

  
H. M. Bettis  
(Signature)

Co-owner

(Title)

December 20, 1971

(Date)

OIL CONSERVATION COMMISSION

APPROVED

DEC 27 1971

BY

TITLE

SUPERVISOR DISTRICT I

This form is to be filed in compliance with RULE 1104.

If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.

All sections of this form must be filled out completely for allowable on new and recompleted wells.

Fill out Sections I, II, III, and VI only for changes of owner, well name or number, or transporter, or other such change of condition.

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OPERATOR	

# NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103  
Supersedes Old  
C-102 and C-103  
Effective 1-1-65

5a. Indicate Type of Lease  
State ☒ Fee ☐

5. State Oil & Gas Lease No.  
E-9659

## SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT - 1" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>	7. Unit Agreement Name ---
2. Name of Operator Shell Oil Company (Western Division)	8. Farm or Lease Name State GRB Com.
3. Address of Operator Post Office Box 1509, Midland, Texas 79701	9. Well No. 1
4. Location of Well UNIT LETTER <u>L</u> <u>1980</u> FEET FROM THE <u>South</u> LINE AND <u>660</u> FEET FROM THE <u>West</u> LINE, SECTION <u>34</u> TOWNSHIP <u>21-S</u> RANGE <u>34-E</u> NMPM.	10. Field and Pool, or Wildcat Grama Ridge (Morrow Ga)
15. Elevation (Show whether DF, RT, GR, etc.) 3651' DF	12. County Lea

### Check Appropriate Box To Indicate Nature of Notice, Report or Other Data NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK <input checked="" type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input type="checkbox"/>	

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1703.

1. RUPU.
2. Perforate with one Jet Shot (Ceramic) at 13,050', 13,054', 13,064', 13,071', 13,073', 13,074'.

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

SIGNED N.W. Harrison N.W. Harrison TITLE Staff Exploitation Engineer DATE February 7, 1968

APPROVED BY [Signature] TITLE SURVEILLANCE DISTRICT DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

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NEW MEXICO OIL CONSERVATION COMMISSION  
REQUEST FOR ALLOWABLE  
AND  
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Form C-104  
Supersedes Old C-104 and C-110  
Effective 1-1-65

AUG 29 11 51 AM '67

022 09 '67

I. Operator  
Shell Oil Company (Western Division)  
Address  
P. O. Box 1509, Midland, Texas 79701  
Reason(s) for filing (Check proper box)  
New Well ☐ Change in Transporter of:  
Recompletion ☐ Oil ☐ Dry Gas ☐  
Change in Ownership ☐ Casinghead Gas ☐ Condensate ☒  
Other (Please explain)  
From: The Permian Corporation  
To: Famariss Oil & Refining Co., Inc.  
Effective September 1, 1967  
If change of ownership give name and address of previous owner

II. DESCRIPTION OF WELL AND LEASE  
Lease Name State GRB Com Well No. 1 Pool Name, Including Formation Grama Ridge (Morrow Gas) Kind of Lease State, Federal or Fee State Lease No. E-9659  
Location  
Unit Letter L : 1980 Feet From The South Line and 660 Feet From The West  
Line of Section 34 Township 21-S Range 34-E, NMPM, Lea County

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS  
Name of Authorized Transporter of Oil ☐ or Condensate ☒ Address (Give address to which approved copy of this form is to be sent)  
Famariss Oil & Refining Co., Inc. P. O. Box 980, Hobbs, New Mexico 88240  
Name of Authorized Transporter of Casinghead Gas ☐ or Dry Gas ☒ Address (Give address to which approved copy of this form is to be sent)  
Phillips Petroleum Company Room B-2, Phillips Bldg., Odessa, Texas 79760  
If well produces oil or liquids, give location of tanks. Unit L Sec. 34 Twp. 21-S Rge. 34-E Is gas actually connected? Yes When March 17, 1966

If this production is commingled with that from any other lease or pool, give commingling order number:  
IV. COMPLETION DATA  
Designate Type of Completion - (X) Oil Well Gas Well New Well Workover Deepen Plug Back Same Res'v. Diff. Res'v.  
Date Spudded Date Compl. Ready to Prod. Total Depth P.B.T.D.  
Elevations (DF, RKB, RT, GR, etc.) Name of Producing Formation Top Oil/Gas Pay Tubing Depth  
Perforations Depth Casing Shoe  
TUBING, CASING, AND CEMENTING RECORD  
HOLE SIZE CASING & TUBING SIZE DEPTH SET SACKS CEMENT

V. TEST DATA AND REQUEST FOR ALLOWABLE OIL WELL (Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)  
Date First New Oil Run To Tanks Date of Test Producing Method (Flow, pump, gas lift, etc.)  
Length of Test Tubing Pressure Casing Pressure Choke Size  
Actual Prod. During Test Oil-Bbls. Water-Bbls. Gas-MCF

GAS WELL  
Actual Prod. Test-MCF/D Length of Test Bbls. Condensate/MMCF Gravity of Condensate  
Testing Method (pitot, back pr.) Tubing Pressure (Shut-in) Casing Pressure (Shut-in) Choke Size

VI. CERTIFICATE OF COMPLIANCE  
I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.  
K.W. Lagrone  
Division Production Superintendent  
August 28, 1967

OIL CONSERVATION COMMISSION  
APPROVED  
BY  
TITLE  
This form is to be filed in compliance with RULE 1104.  
If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.  
All sections of this form must be filled out completely for allowable on new and recompleted wells.  
Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter, or other such change of condition.  
Separate Forms C-104 must be filed for each pool in multiply completed wells.



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TRANSPORTER	OIL	
	GAS	
OPERATOR		
PRORATION OFFICE		

NEW MEXICO OIL CONSERVATION COMMISSION  
REQUEST FOR ALLOWABLE  
AND BBS OFFICE O.C.C.  
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Form C-104  
Supersedes Old C-104 and C-110  
Effective 1-1-65

FEB 27 9 29 AM '67

I.

Operator Shell Oil Company, (Western Division)	
Address P.O. Box 1509, Midland, Texas 79701	
Reason(s) for filing (Check proper box)	
New Well <input type="checkbox"/>	Change in Transporter of:
Recompletion <input type="checkbox"/>	Oil <input type="checkbox"/> Dry Gas <input type="checkbox"/>
Change in Ownership <input type="checkbox"/>	Casinghead Gas <input type="checkbox"/> Condensate <input checked="" type="checkbox"/>
Other (Please explain) From: McWood Corporation To: The Permian Corporation Effective March 1, 1967	

If change of ownership give name  
and address of previous owner \_\_\_\_\_

II. DESCRIPTION OF WELL AND LEASE

Lease Name State GRB Com	Well No. 1	Pool Name, Including Formation Grama Ridge (Morrow Gas)	Kind of Lease State, Federal or Fee	State	Lease No. E-9659
Location Unit Letter L ; 1980 Feet From The south Line and 660 Feet From The west Line of Section 34 Township 21S Range 34E , NMPM, Lea County					

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input type="checkbox"/> or Condensate <input checked="" type="checkbox"/> The Permian Corporation	Address (Give address to which approved copy of this form is to be sent) P.O. Box 3119, Midland, Texas 79701					
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input checked="" type="checkbox"/> Phillips Petroleum Company	Address (Give address to which approved copy of this form is to be sent) Room B-2, Phillips Building, Odessa, Texas 79706					
If well produces oil or liquids, give location of tanks.	Unit L	Sec. 34	Twp. 21S	Rge. 34E	Is gas actually connected? Yes	When March 17, 1966

If this production is commingled with that from any other lease or pool, give commingling order number: \_\_\_\_\_

IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Rest'v.	Diff. Rest'v.
Date Spudded	Date Compl. Ready to Prod.		Total Depth		P.B.T.D.			
Elevations (DF, RKB, RT, GR, etc.)	Name of Producing Formation		Top Oil/Gas Pay		Tubing Depth			
Perforations					Depth Casing Shoe			
TUBING, CASING, AND CEMENTING RECORD								
HOLE SIZE	CASING & TUBING SIZE		DEPTH SET		SACKS CEMENT			

V. TEST DATA AND REQUEST FOR ALLOWABLE OIL WELL

(Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas - MCF

GAS WELL

Actual Prod. Test - MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pitot, back pr.)	Tubing Pressure (Shut-in)	Casing Pressure (Shut-in)	Choke Size

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

K W Lagrone  
(Signature)  
Division Production Superintendent  
(Title)  
February 22, 1967  
(Date)

OIL CONSERVATION COMMISSION

APPROVED \_\_\_\_\_, 19\_\_\_\_  
BY \_\_\_\_\_  
TITLE \_\_\_\_\_

This form is to be filed in compliance with RULE 1104.  
If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.  
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Separate Forms C-104 must be filed for each pool in multiply completed wells.

Form C-102  
Supersedes C-128  
Effective 1-1-65

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

Shell State (WI) (1/8 Royalty)

Gulf State (WI) (1/8 Royalty)

660'

1980'

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0

# CERTIFICATION

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

*J. D. Duran* J. D. Duran  
None

Staff Exploitation Engineer

Position

Shell Oil Company

Company

March 29, 1966

Date

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.

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NEW MEXICO OIL CONSERVATION COMMISSION  
REQUEST FOR ALLOWABLE  
AND  
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS  
APR 4 AM 8:05

Form C-104  
Supersedes Old C-104 and C-110  
Effective 1-1-65

I.

Operator Shell Oil Company (Western Division)	
Address P.O. Box 1509, Midland, Texas 79701	
Reason(s) for filing (Check proper box)	
New Well <input checked="" type="checkbox"/>	Change in Transporter of:
Recompletion <input type="checkbox"/>	Oil <input type="checkbox"/>
Change in Owner <input type="checkbox"/>	Casinghead Gas <input type="checkbox"/>
	Dry Gas <input type="checkbox"/>
	Condensate <input type="checkbox"/>
Other (Please explain)	
If change of owner, give name and address of previous owner	

II. DESCRIPTION OF WELL AND LEASE

Lease Name GRB State Com	Well No. 1	Pool Name, Including Formation Grama Ridge-Morrow Gas	Kind of Lease State, Federal or Fee State
Location Unit Letter L, 1980 Feet From The south Line and 660 Feet From The west			
Line of Section 34, Township 21S, Range 34E, NMPM, Lea County			

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input type="checkbox"/> or Condensate <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)		
McWood Corporation (Trucks)	2003 Wilco Building, Midland, Texas 79701		
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)		
Phillips Petroleum Company	Rm. B-2, Phillips Building, Odessa, Texas		
If well produces oil or liquids, give location of tanks.	Unit	Sec.	Twp.
	L	34	21S
			Rge.
			34E
Is gas actually connected?	When		
Yes	March 17, 1966		

If this production is commingled with that from any other lease or pool, give commingling order number:

IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v.	Diff. Res'v.
		X	X					
Date Spudded October 27, 1965	Date Compl. Ready to Prod. March 18, 1966	Total Depth 14,603'	P.B.T.D. 13,194'					
Pool Grama Ridge-Morrow	Name of Producing Formation Morrow Gas	Top Oil/Gas Pay 13,921'	Tubing Depth 12,788'					
Perforations 12,921', 12,922', 12,924', 12,926', 12,928', 12,930', 12,932', 12,934', 13,020', 13,022', 13,051', 13,056'		Depth Casing Shoe 11,897'						
TUBING, CASING, AND CEMENTING RECORD								
HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT					
26"	20"	362'	500					
17 1/2"	13 3/8"	5726'	900					
12 1/4"	9 5/8"	11897'	1000					
8 5/8"	7" liner	11,571'-14,082'	860					

V. TEST DATA AND REQUEST FOR ALLOWABLE (Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil-Bbls.	Water-Bbls.	Gas-MCF

GAS WELL

Actual Prod. Test-MCF/D 31,753	Length of Test 24 hours	Bbls. Condensate/MMCF 8	Gravity of Condensate 48.8° API
Testing Method (pitot, back pr.) Back Pressure	Tubing Pressure 5890-5609	Casing Pressure --	Choke Size 12/64"

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

K. W. Lagrone  
(Signature)  
Division Production Superintendent  
(Title)  
March 23, 1966  
(Date)

OIL CONSERVATION COMMISSION

APPROVED \_\_\_\_\_, 19\_\_\_\_  
BY \_\_\_\_\_  
TITLE Engineer District 1

This form is to be filed in compliance with RULE 1104.  
If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.  
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Fill out Sections I, II, III, and VI only for changes of owner, well name or number, or transporter, or other such change of condition.  
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Form C-105  
Revised 1-1-65

NEW MEXICO OIL CONSERVATION BOARD  
WELL COMPLETION OR RECOMPLETION REPORT AND LOG

MAR 25 3 58 PM '66  
APR 4

5a. Indicate Type of Lease  
State ☒ Fee ☐  
5. State Oil & Gas Lease No.  
E 0659

ILLEGIBLE

1a. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> DRY <input type="checkbox"/> OTHER <input type="checkbox"/>				7. Unit Agreement Name -			
b. TYPE OF COMPLETION NEW WELL <input checked="" type="checkbox"/> WORK OVER <input type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> OTHER <input type="checkbox"/>				8. Farm or Lease Name GRB State			
2. Name of Operator Shell Oil Company -(Western Division)				9. Well No. 1			
3. Address of Operator P. O. Box 1509, Midland, Texas 79701				10. Field and Pool, or Wildcat Gramma Ridge-Morrow Gas			
4. Location of Well UNIT LETTER <u>L</u> LOCATED <u>1980</u> FEET FROM THE <u>south</u> LINE AND <u>660</u> FEET FROM THE <u>West</u> LINE OF SEC. <u>34</u> TWP. <u>21S</u> RGE. <u>34E</u> NMPM				12. County Lea			
15. Date Spudded 10-27-65		16. Date T.D. Reached 2-23-66		17. Date Compl. (Ready to Prod.) 3-18-66		18. Elevations (DF, RKB, RT, GR, etc.) 3651' DF	
20. Total Depth 14,603'		21. Plug Back T.D. 13,194'		22. If Multiple Compl., How Many -		23. Intervals Drilled By Rotary Tools 0-14,603'	
24. Producing Interval(s), of this completion - Top, Bottom, Name 13,921'-13,056' Morrow-Pennsylvanian						25. Was Directional Survey Made Yes	
26. Type Electric and Other Logs Run GR/N, BHC/Sonic-GR, Proximity-Micro Log, Micro Log, DI-L						27. Was Well Cored No	
28. CASING RECORD (Report all strings set in well)							
CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD		AMOUNT PULLED	
20"	94#	362'	26"	500		-	
13 3/8"	72#	68#	17 1/2"	900		-	
9 5/8"	53.5#	11897'	12 1/4"	1000		-	
29. LINER RECORD							
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	30. TUBING RECORD		
7"	11571'	14082'	860	2111'	SIZE	DEPTH SET	PACKER SET
					2 1/2"	12,788'	12,788'
31. Perforation Record (Interval, size and number) 12,921', 12,922', 12,924', 12,926', 12,928' 12,930', 12,932', 12,934', 13,020', 13,022' 13,051', 13,056' 1 JSPF 2"				32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC. DEPTH INTERVAL AMOUNT AND KIND MATERIAL USED			
33. PRODUCTION Date First Production <u>3-18-66</u> Production Method (Flowing, gas lift, pumping - Size and type pump) <u>Flowing</u> Well Status (Prod. or Shut-in) <u>Producing</u>							
Date of Test 3-21-66	Hours Tested 24	Choke Size 12/64"	Prod'n. For Test Period 60	Bbl. Cond. 31,753	Water - Bbl. -	Gas - Bbl. 142 MCF/bbl	
Flow Tubing Press. 5890-5609	Casing Pressure -	Calculated 24-Hour Rate 60	Bbl. Cond. 31,753	Gas - MCF -	Water - Bbl. -	Grav. - API (Corr.) 48.8°	
34. Disposition of Gas (Sold, used for fuel, vented, etc.) Sold						Test Witnessed By A. L. Ellerd	
35. List of Attachments Drill Stem Tests							
36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.							
SIGNED <u>J. D. Duren</u> J. D. Duren				TITLE <u>Staff Exploitation Engineer</u> DATE <u>March 23, 1966</u>			

This form is to be filed with the appropriate District Office of the Commission not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 30 through 34 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

**INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE**

## Southeastern New Mexico

## Northwestern New Mexico

T. Anhy	T. Canyon	T. Ojo Alamo	T. Penn. "B"
T. Salt 1706' (+1945')	T. Strawn	T. Kirtland-Fruitland	T. Penn. "C"
B. Salt	T. Atoka	T. Pictured Cliffs	T. Penn. "D"
T. Yates 3950' (-299')	T. Miss Ls. 13828' (-10,177')	T. Cliff House	T. Leadville
T. 7 Rivers 4423' (-772')	T. Devonian	T. Menefee	T. Madison
T. Queen	T. Silurian 14,444' (-10,793')	T. Point Lookout	T. Elbert
T. Grayburg	T. Montoya	T. Mancos	T. McCracken
T. San Andres	T. Simpson	T. Gallup	T. Ignacio Qtzte
T. Glorjeta	T. McKee	T. Base Greenhorn	T. Granite
T. Paddock	T. Ellenburger	T. Dakota	T.
T. Blinbry	T. Gr. Wash	T. Morrison	T.
T. Tubb	T. Granite	T. Todilto	T.
T. Drinkard	T. Delaware Sand	T. Entrada	T.
T. Abo	T. Bone Springs 8240' (-4589')	T. Wingate	T.
T. Wolfcamp 11,277' (-7626')	T. Delaware Mtn. 5567' (-1916')	T. Chalk	T.
T. Penn.	T.	T. Permian	T.
T. Cisco (Bough C)	T. Des Moines 11,680' (-8029')	T. Penn. "A"	T.
Atoka 11,963' (-8312')	T. Woodford 14,288' (-10,637')		
Morrow Clastics 12,750' (-9099')			

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	1700	1700	Red Beds				
1700	5560	3860	Anhydrite, Salt, & Limestone				
5560	8970	3410	Limestone & Sandstone				
8970	11890	2920	Limestone, Sandstone, Chert & Shale				
11890	12520	630	Limestone & Shale				
12520	12720	200	Limestone, Shale, Sandstone & Chert				
12720	12840	120	Limestone & Shale				
12840	13100	260	Sandstone, Siltstone, & Shale				
13100	14450	1350	Shale & Limestone				
14450	14600	150	Dolomite				

ILLEGIBLE

APR 52 3 29 PM '00

U.S. GEOLOGICAL SURVEY

Attachment for NMOCC Form C-105  
Dated March 23, 1966

HOBBS OFFICE O. C. C. Company

GRB State #100  
MAR 25 8:58 PM '66  
APR 4 AM 8:05  
Section 34, T-21-S, R-34-E,  
NMPM Survey, Lea County, New Mexico

DST #1: 12,680'-12,937' (257' Morrow). Nitrogen valve at 10,487'. 2450' Nitrogen blanket pressured to 1535 psi surface pressure. Tool open 247 minutes, including 17 minutes pre-flow, thru 5/8" BC, 1" TC, 4 1/2" DP w/strong blow. Nitrogen to surface 4 minutes. Mud to surface 14 minutes. GTS 15 minutes. Flowed to pits 20 minutes. Turned thru separator and flowed at following rates: (Variable choke not operating properly).

<u>Flow Time</u>	<u>Flowing Surface Pressure</u>	<u>Rate</u>
15 minutes	3000 psi	-
30 minutes	5500 psi	-
45 minutes	5100 psi	-
55 minutes	5000 psi	-
75 minutes	4700 psi	11 MMCFPD
90 minutes	4500 psi	13 MMCFPD
110 minutes	4200 psi	-
125 minutes	4000 psi	15 MMCFPD
130 minutes	4000 psi	-

Total liquid recovered while flowing 3.3 BC + 3 bbls BS&W.

Gas Gr. 0.592 w/no CO<sub>2</sub> or H<sub>2</sub>S. Condensate Gr. 51.8° API.

Total pipe recovery 50' (0.51 bbls.) condensate. No water recovery.

Pit mud filtrate titration 1500 ppm Cl<sup>-</sup>. 100 minutes ISIBHP 7682 psi.

FBHP 5648-6784 psi. 208 minutes FSIBHP 7682 psi. HMP 8460-8341 psi.

BHT 177°F. Positive Test. (Cook)

DST #2: 14,475'-14,603' (128' Silurian Dolomite). 1000' Nitrogen blanket pressured to 1475 psi. Tool open 150 minutes, 5 minutes preflow, thru 5/8" BC, 1" TC, 3 1/2" & 4 1/2" DP with fair to medium blow increased to strong in 10 minutes & decreased to no blow in 45 minutes. NGTS. Recovered 670' (10 bbls.) slightly gas cut mud + 5000' (45 bbls.) salty sulfur water. 150 minutes ISIBHP 6162 psi. FBHP 2319-2270 psi. 150 minutes FSIBHP 6162 psi. HMP 7198-7198 psi. Positive Test. (Cook)

HOBBBS OFFICE O.C.C.  
NEW MEXICO OIL CONSERVATION COMMISSION OFFICE 000


OPERATOR Shell Oil Company  
(Western Division) ADDRESS P. O. Box 15090 Midland, Texas 79701  
FIELD Grama Ridge - Morrow Gas LEASE "GRB" State WELL NO. 1  
LOCATION 1980' FSL & 660' FWL, Section 34, T-21-S, R-34-E, NMPM Survey, Lea County, New Mexico

DEVIATION RECORD

362' = $1\frac{1}{2}^{\circ}$	3178' = $3\frac{1}{4}^{\circ}$	9465' = $1\frac{3}{4}^{\circ}$
425' = $3\frac{1}{4}^{\circ}$	3227' = $3\frac{1}{4}^{\circ}$	9822' = $1\frac{3}{4}^{\circ}$
485' = $1^{\circ}$	3287' = $3\frac{1}{4}^{\circ}$	10860' = $3^{\circ}$
545' = $1\frac{1}{2}^{\circ}$	3347' = $3\frac{3}{4}^{\circ}$	11521' = $3^{\circ}$
673' = $1^{\circ}$	3407' = $3\frac{3}{4}^{\circ}$	12118' = $1\frac{3}{4}^{\circ}$
762' = $1\frac{1}{2}^{\circ}$	3466' = $3^{\circ}$	12327' = $2\frac{3}{4}^{\circ}$
846' = $1\frac{1}{4}^{\circ}$	3520' = $4^{\circ}$	12410' = $2\frac{3}{4}^{\circ}$
930' = $1^{\circ}$	3567' = $2\frac{3}{4}^{\circ}$	12500' = $2\frac{1}{4}^{\circ}$
1010' = $1^{\circ}$	3629' = $2\frac{1}{2}^{\circ}$	12665' = $2^{\circ}$
1096' = $1^{\circ}$	3730' = $2^{\circ}$	12810' = $2^{\circ}$
1180' = $2\frac{1}{4}^{\circ}$	3830' = $1\frac{1}{2}^{\circ}$	13133' = $2^{\circ}$
1231' = $3^{\circ}$	4133' = $1^{\circ}$	13270' = $1\frac{1}{2}^{\circ}$
1269' = $2\frac{1}{4}^{\circ}$	4328' = $3\frac{1}{4}^{\circ}$	13646' = $1\frac{1}{2}^{\circ}$
1328' = $1^{\circ}$	4530' = $1^{\circ}$	13827' = $1\frac{1}{2}^{\circ}$
1600' = $1\frac{1}{4}^{\circ}$	4815' = $3\frac{1}{4}^{\circ}$	13893' = $1\frac{1}{2}^{\circ}$
1765' = $3\frac{1}{4}^{\circ}$	5120' = $1\frac{1}{4}^{\circ}$	14003' = $2\frac{3}{4}^{\circ}$
1885' = $1\frac{1}{4}^{\circ}$	5383' = $3\frac{1}{4}^{\circ}$	14084' = $2\frac{1}{2}^{\circ}$
2032' = $2\frac{1}{4}^{\circ}$	5629' = $1\frac{3}{4}^{\circ}$	14200' = $2\frac{1}{4}^{\circ}$
2102' = $2\frac{1}{4}^{\circ}$	6271' = $1^{\circ}$	14500' = $2^{\circ}$
2193' = $1\frac{1}{4}^{\circ}$	6828' = $1^{\circ}$	14600' = $2^{\circ}$
2312' = $1^{\circ}$	7135' = $3\frac{1}{4}^{\circ}$	
2463' = $1\frac{1}{2}^{\circ}$	7476' = $1\frac{1}{2}^{\circ}$	
2612' = $1\frac{1}{2}^{\circ}$	7740' = $1\frac{1}{2}^{\circ}$	
2822' = $1\frac{1}{4}^{\circ}$	8445' = $1^{\circ}$	
3002' = $1^{\circ}$	8663' = $1^{\circ}$	
3108' = $3\frac{1}{4}^{\circ}$	8952' = $2^{\circ}$	

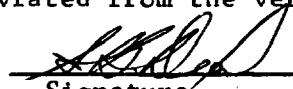
Certification of personal knowledge of Deviation Record:

I hereby certify that I have personal knowledge of the data and facts placed on this form, and that such information is true and complete.

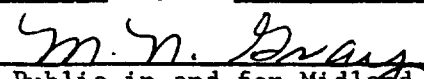
  
\_\_\_\_\_  
Signature  
Shell Oil Company  
\_\_\_\_\_  
Company

STATE OF TEXAS  
COUNTY OF MIDLAND

Before me, the undersigned authority, on this day personally appeared S. B. Deal, known to me to be the person whose name is subscribed hereto, who, after being duly sworn, on oath states that he is acting at the direction and on behalf of the operator of the well identified in this instrument and that such well was not intentionally deviated from the vertical.

  
\_\_\_\_\_  
Signature  
Division Drilling Superintendent  
\_\_\_\_\_  
Title

Sworn and Subscribed to before me, this the 23rd day of March, 1966

  
\_\_\_\_\_  
Notary Public in and for Midland County,  
Texas,

2

OIL CONSERVATION COMMISSION

BOX 2045

HOBBS, NEW MEXICO

MAIN OFFICE OCC

MAR 21 AM 7:58

NOTICE OF GAS CONNECTION

DATE March 17, 1966

This is to notify the Oil Conservation Commission that connection for  
the purchase of gas from the Shell Oil Company, GRB State Well No. 1,  
Operator Lease

L, 34-21S-34E, Gamma Ridge Morrow, Phillips Petroleum Company  
Well Unit S.T.R. Pool Name of Purchaser

was made on March 17, 1966.

1

PHILLIPS PETROLEUM COMPANY  
Purchaser

R. C. Mason  
Representative  
R. C. Mason

Regional Production Manager  
Title

cc: To operator  
Oil Conservation Commission - Santa Fe

3/21/66



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	GAS	
OPERATOR		
PRORATION OFFICE		

NEW MEXICO OIL CONSERVATION COMMISSION  
REQUEST FOR ALLOWABLE D.C.C.  
MAIN OFFICE AND  
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS  
MAR 18 1966

Form C-104  
Supersedes Old C-104 and C-110  
Effective 1-1-65

I. Operator  
Shell Oil Company (Western Division)  
Address  
P. O. Box 1509, Midland, Texas 79701  
Reason(s) for filing (Check proper box)  
New Well ☐ Change in Transporter of:  
Recompletion ☐ Oil ☐ Dry Gas ☐  
Change in Ownership ☐ Casinghead Gas ☐ Condensate ☐  
Other (Please explain)  
To run CAOFP potential on well.

If change of ownership give name  
and address of previous owner

## II. DESCRIPTION OF WELL AND LEASE

Lease Name GRB State	Well No. 1	Pool Name, including Formation Grama Ridge-Morrow Gas	Kind of Lease State, Federal or Fee State
Location Unit Letter L ; 1980 Feet From The south Line and 660 Feet From The west Line of Section 34 , Township 21S Range 34E , NMPM, Lea County			

## III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input type="checkbox"/> or Condensate <input checked="" type="checkbox"/> McWood Corporation (Trucks)	Address (Give address to which approved copy of this form is to be sent) 2003 Wilco Building, Midland, Texas 79701					
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input checked="" type="checkbox"/> Phillips Petroleum Company	Address (Give address to which approved copy of this form is to be sent) Rm. B-2, Phillips Building, Odessa, Texas					
If well produces oil or liquids, give location of tanks.	Unit L	Sec. 34	Twp. 21S	Rge. 34E	Is gas actually connected? Yes	When March 17, 1966

If this production is commingled with that from any other lease or pool, give commingling order number:

## IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v.	Diff. Res'v.
Date Spudded	Date Compl. Ready to Prod.		Total Depth		P.B.T.D.			
Pool	Name of Producing Formation		Top Oil/Gas Pay		Tubing Depth			
Perforations					Depth Casing Shoe			
TUBING, CASING, AND CEMENTING RECORD								
HOLE SIZE	CASING & TUBING SIZE		DEPTH SET		SACKS CEMENT			

## V. TEST DATA AND REQUEST FOR ALLOWABLE OIL WELL

(Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil-Bbls.	Water-Bbls.	Gas-MCF

## GAS WELL

Actual Prod. Test-MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pitot, back pr.)	Tubing Pressure	Casing Pressure	Choke Size

## VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

K. W. Lagrone K. W. Lagrone  
(Signature)  
Division Production Superintendent  
(Title)  
March 7, 1966  
(Date)

## OIL CONSERVATION COMMISSION

APPROVED MAR 14 1966  
BY [Signature]  
TITLE SUPERVISOR DISTRICT 1

This form is to be filed in compliance with RULE 1104.  
If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.  
All sections of this form must be filled out completely for allowable on new and recompleted wells.  
Fill out Sections I, II, III, and VI only for changes of owner, well name or number, or transporter, or other such change of condition.  
Separate Forms C-104 must be filed for each pool in multiply completed wells.

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NEW MEXICO OIL CONSERVATION COMMISSION  
HOBBS OFFICE O. C. C.

MAIN OFFICE

FEB 15 1 05 PM '66

FEB 13 AM 10

Form C-103  
Supersedes Old  
C-102 and C-103  
Effective 1-1-65

5a. Indicate Type of Lease  
State ☒ Fee ☐  
Oil & Gas Lease No.  
E-9659

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR.  
USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER- 2. Name of Operator Shell Oil Company (Western Division) 3. Address of Operator Box 1509, Midland, Texas 79701 4. Location of Well UNIT LETTER L, 1980 FEET FROM THE south LINE AND 660 FEET FROM THE west LINE, SECTION 34 TOWNSHIP 21 RANGE 34 NMPM.	7. Unit Agreement Name - 8. Farm or Lease Name GRB State 9. Well No. 1 10. Field and Pool, or Wildcat Falcon Area 12. County Lea
15. Elevation (Show whether DF, RT, GR, etc.) 3651' DF	

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐ OTHER ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐  
CASING TEST AND CEMENT JOB ☒ OTHER ☐

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Ran 2111' of 7" (32#, 24#, N-80 & P-110) liner, and cemented at 14,082' with 860 sx Class B plus 0.2% HR-12. Top of liner at 11,571'. Plug down at 3:07 a.m. (CST), February 9, 1966. After WOC 24 hours, tested with 4000 psi for 30 minutes - no pressure drop.

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

SIGNED R. J. Doubek R. J. Doubek TITLE Division Mechanical Engineer DATE February 11, 1966

APPROVED BY [Signature] TITLE [Signature] DATE FEB 13 1966

CONDITIONS OF APPROVAL, IF ANY:

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OPERATOR	

# NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103  
Supersedes Old  
C-102 and C-103  
Effective 1-1-65

MAIN OFFICE CCC  
FEB 7 9 47 AM '66  
FEB 11 AM 8:23

5a. Indicate Type of Lease	State <input checked="" type="checkbox"/> Fee <input type="checkbox"/>
5. State Oil & Gas Lease No.	E-9659

## SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER-	7. Unit Agreement Name
2. Name of Operator	8. Farm or Lease Name
Shell Oil Company (Western Division)	"GRB" State
3. Address of Operator	9. Well No.
P. O. Box 1509, Midland, Texas 79701	1
4. Location of Well	10. Field and Pool, or Wildcat
UNIT LETTER L, 1980 FEET FROM THE south LINE AND 660 FEET FROM THE west LINE, SECTION 34 TOWNSHIP 21S RANGE 34E NMPM.	Wildcat
15. Elevation (Show whether DF, RT, GR, etc.)	12. County
3651' DF	Lea

## Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

### NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input checked="" type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>

### SUBSEQUENT REPORT OF:

REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER <input type="checkbox"/>	

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Well has been drilled to a depth of 13,800' and the following casing has been set:

26" hole, 20", 94# casing cemented at 362' w/500 sx.  
17 1/2" hole, 13 3/8", 72#, 68#, 61# casing cemented at 5726' w/900 sx.  
12 1/4" hole, 9 5/8", 53.5# casing cemented at 11,897' w/800 sx.

We propose to test the Silurian-Devonian at a depth of 14,600'.  
Drill 8 5/8" hole, cement 7" liner, 32# & 26# at 14,100' w/750 sx. Estimated top 11,700'.  
Drill 6" hole, cement 4 1/2" liner, 9.5# & 11.6# at 14,600' w/100 sx. Estimated top 14,000'.

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

SIGNED <u>J. D. Duren</u>	TITLE <u>Staff Exploitation Engineer</u>	DATE <u>February 4, 1966</u>
APPROVED BY <u></u>	TITLE <u></u>	DATE <u>FEB 11 1966</u>

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# NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE O.C.C.  
JAN 5 11 50 AM '66

Form C-103  
Supersedes Old  
C-102 and C-103  
Effective 1-1-65

5. Indicate Type of Lease	State <input checked="" type="checkbox"/> Fee <input type="checkbox"/>
5. State Oil & Gas Lease No.	E-9659

## SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>	7. Unit Agreement Name
2. Name of Operator Shell Oil Company (Western Division)	8. Farm or Lease Name GRB State
3. Address of Operator P. O. Box 1509, Midland, Texas	9. Well No. 1
4. Location of Well UNIT LETTER <u>L</u> <u>1980</u> FEET FROM THE <u>south</u> LINE AND <u>660</u> FEET FROM THE <u>west</u> LINE, SECTION <u>34</u> TOWNSHIP <u>21</u> RANGE <u>34</u> NMPM.	10. Field and Pool, or Wildcat <u>Falcon Area</u>
15. Elevation (Show whether DF, RT, GR, etc.) 3651' DF	12. County Lea

### 16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK	<input type="checkbox"/>
TEMPORARILY ABANDON	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>
OTHER	<input type="checkbox"/>

PLUG AND ABANDON	<input type="checkbox"/>
CHANGE PLANS	<input type="checkbox"/>
OTHER	<input type="checkbox"/>

SUBSEQUENT REPORT OF:	
REMEDIAL WORK	<input type="checkbox"/>
COMMENCE DRILLING OPNS.	<input type="checkbox"/>
CASING TEST AND CEMENT JOB	<input checked="" type="checkbox"/>
OTHER	<input type="checkbox"/>
ALTERING CASING	<input type="checkbox"/>
PLUG AND ABANDONMENT	<input type="checkbox"/>

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1703.

Ran 11,885' of 9-5/8" (53-1/2#, N-80) casing and cemented at 11,897' with 1000 sacks' Trinity Inferno Neat. Plug down at 12:55 A.M. (CST), December 23, 1965. After WOC 72 hours, tested with 6000 psi for 30 minutes - no pressure drop.

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

SIGNED R. J. Doubek R. J. Doubek TITLE Division Mechanical Engr. DATE January 3, 1966

APPROVED BY Engineer District 1 TITLE Engineer District 1 DATE JAN 6 1966

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DEC 3 12 54 PM '65

Form C-103  
Supersedes Old  
C-102 and C-103  
Effective 1-1-65

5a. Indicate Type of Lease	
State <input checked="" type="checkbox"/>	Fee <input type="checkbox"/>
5. State Oil & Gas Lease No. E-9659	

**SUNDRY NOTICES AND REPORTS ON WELLS**  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER- <input type="checkbox"/>	7. Unit Agreement Name -
2. Name of Operator Shell Oil Company - Western Division	8. Farm or Lease Name GRB State
3. Address of Operator P. O. Box 1509 -Midland, Texas	9. Well No. 1
4. Location of Well UNIT LETTER <u>L</u> , <u>1980</u> FEET FROM THE <u>south</u> LINE AND <u>660</u> FEET FROM THE <u>west</u> LINE, SECTION <u>34</u> TOWNSHIP <u>21</u> RANGE <u>34</u> NMPM.	10. Field and Pool, or Wildcat <u>Wildcat</u> <u>Falcon Area</u>
15. Elevation (Show whether DF, RT, GR, etc.) 3651' DF	12. County Lea

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data			
NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOBS <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Ran 5736' of 13 3/8" (72#, 68#, 61#, N-80) casing, and cemented at 5726' with 900 sx Incor neat. Plug down at 10:30 AM (CST), November 29, 1965. Ran temperature survey and found top of cement at 3995'. After WOC 24 hours, tested with 2000 psi for 30 minutes - no pressure drop.

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

SIGNED R. J. Doubek TITLE Division Mechanical Engineer DATE December 1, 1965

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
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OPERATOR		

HOBBBS OFFICE O.C.C.  
NEW MEXICO OIL CONSERVATION COMMISSION

Nov 18 11 26 AM '65

Form C-103  
Supersedes Old  
C-102 and C-103  
Effective 1-1-65

5a. Indicate Type of Lease	
State <input checked="" type="checkbox"/>	Fee <input type="checkbox"/>
5. State Oil & Gas Lease No.	
E-9659	

**SUNDRY NOTICES AND REPORTS ON WELLS**  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR.  
USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		7. Unit Agreement Name
2. Name of Operator		8. Farm or Lease Name
Shell Oil Company - Western Division		GRB State
3. Address of Operator		9. Well No.
Box 1509 - Midland, Texas		1
4. Location of Well		10. Field and Pool, or Wildcat
UNIT LETTER L, 1980 FEET FROM THE south LINE AND 660 FEET FROM		Falcon Area
THE west LINE, SECTION 34 TOWNSHIP 21 RANGE 34 NMPM.		
15. Elevation (Show whether DF, RT, GR, etc.)		12. County
3650' DF (est.)		Lea

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Spudded at 12:45 p.m. (MST), October 27, 1965.  
Ran 347' of 20" (94# H-40) casing and cemented at 362' w/500 sx. Class C Neat plus 2% CaCl<sub>2</sub>. Plug down at 7:15 a.m., October 29, 1965. Circulated cement. After WOC 48 hours, tested with 500 psi - no pressure drop.

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

SIGNED R. J. Doubek R. J. Doubek TITLE Division Mechanical Engr. DATE November 15, 1965

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

NO. OF COPIES RECEIVED	
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SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

# NEW MEXICO OIL CONSERVATION COMMISSION

Oct 6 11 30 AM '65

MAIN OFFICE  
'65 Oct 11 PM 12

Form C-101  
Revised 1-1-65

5A. Indicate Type of Lease	
STATE <input checked="" type="checkbox"/>	FEE <input type="checkbox"/>
5. State Oil & Gas Lease No.	
E-9659	

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work		7. Unit Agreement Name	
b. Type of Well OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>		8. Farm or Lease Name GRB State	
2. Name of Operator Shell Oil Company - Western Division		9. Well No. 1	
3. Address of Operator P. O. Box 1509, Midland, Texas 79704		10. Field and Pool, or Wildcat Wildcat	
4. Location of Well UNIT LETTER <u>L</u> LOCATED <u>1980</u> FEET FROM THE <u>South</u> LINE AND <u>660</u> FEET FROM THE <u>west</u> LINE OF SEC. <u>34</u> TWP. <u>21S</u> RGE. <u>34E</u> NMPM		12. County Lea	
19. Proposed Depth 13,800'		19A. Formation Pennsylvanian	
20. Rotary or C.T. Rotary		21. Elevations (Show whether DF, RT, etc.) 3650' DF estimated	
21A. Kind & Status Plug. Bond Blanket		21B. Drilling Contractor undetermined	
22. Approx. Date Work will start October 10, 1965			

23.

## PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
26"	20"	94#	350'	500	Surface
17 1/2"	13 3/8"	61#, 68#, 72#	5700'	900	4200'
12 1/4"	9 5/8"	43.5# & 47#	11925'	800	10000'
8 5/8"	5 1/2" lnr.	20#	13800'	700	11500'

We propose to drill to a total depth of 13,800' and test to the Pennsylvanian (Morrow).

We plan to run two drill stem tests 11,925' to total depth.

APPROVAL VALID  
FOR 90 DAYS UNLESS  
DRILLING COMMENCED,  
EXPIRES 9-6-66

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE, GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

Acting District

Signed C. R. Coffey C. R. Coffey Title Exploitation Engineer Date October 5, 1965

(This space for State Use)

APPROVED BY [Signature] TITLE [Signature] DATE Oct 7 1965

CONDITIONS OF APPROVAL, IF ANY:

# NEW MEXICO OIL CONSERVATION COMMISSION WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102  
Supersedes C-128  
Effective 1-1-65

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

Operator Shell Oil Company - Western Division		Lease GRB State		Well No. 11 30 11 651	
Unit Letter L	Section 34	Township 21S	Range 34E	County Lea	
Actual Footage Location of Well: 1980 feet from the south line and 660 feet from the west line					
Ground Level Elev: not available	Producing Formation Pennsylvanian	Pool Wildcat	Dedicated Acreage: 40 320 Acres		

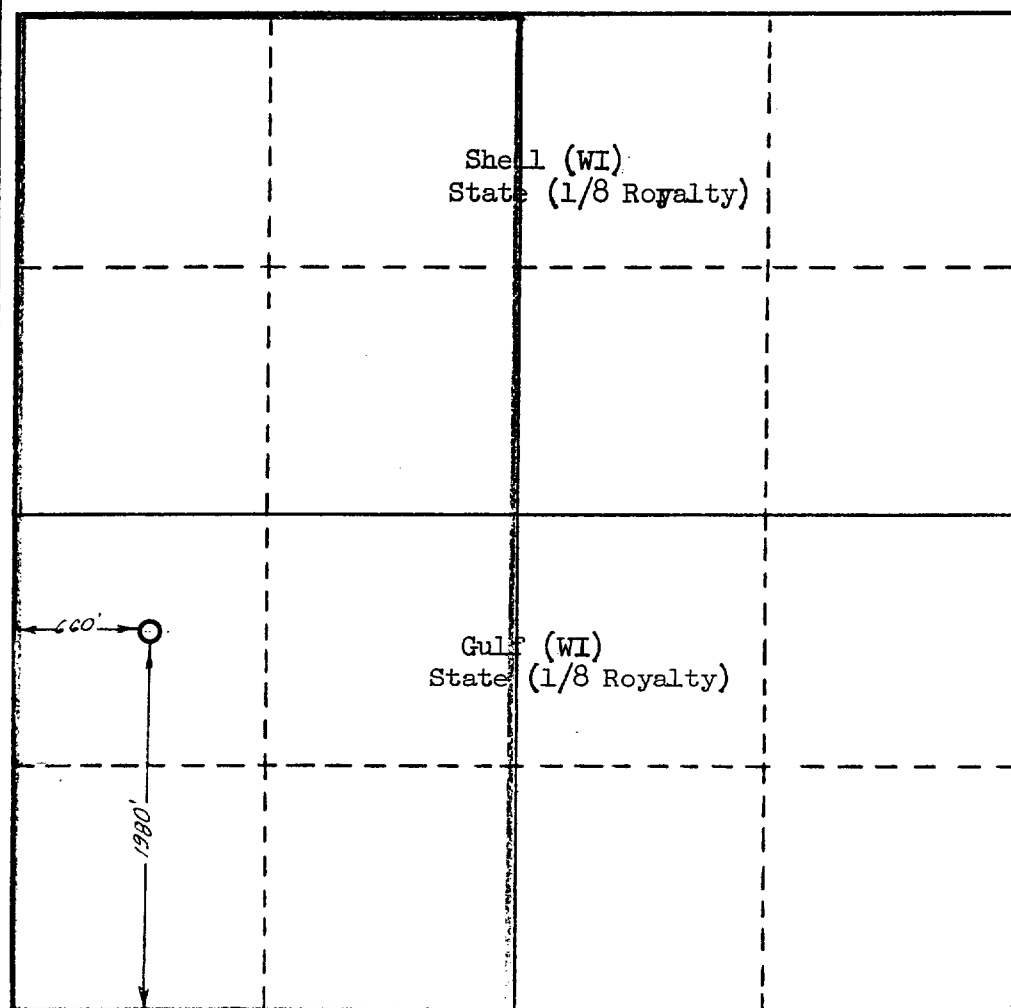
1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is 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 Joint Venture-Working Interest Unit

Unit Participation: Shell's Share 89.51%  
Gulf's Share 10.49%

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.



## CERTIFICATION

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

Name  
C. R. Coffey C. R. Coffey

Position Acting  
District Exploitation Engineer

Company  
Shell Oil Company

Date  
October 5, 1965

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  
Sept. 30, 1965

T. J. Chapman, Jr., Chief Surveyor  
Shell Oil Company

T. J. Chapman, Jr.



COUNTY	LEA	FIELD	Granna Ridge	STATE	NM
OPR	SHELL OIL COMPANY			MAP	
1	GRS State				
Sec.	34, T-21-S, R-34-E			CO-ORD	
1980' FSL	660' FWL of Sec.			W	21717
Spd	10-27-65	CLASS		EL	
Cmp	3-18-66	FORMATION	DATUM	FORMATION	DATUM
CSG & SX - TUBING					
20"	362'				
13 3/8"	5726' 900				
9 5/8"	11897'				
7" 1hr	11571-14082' 860				
LOGS	EL GR RA IND HC A				
		TD 14603', PBD 13194'			

IP Morrow Perfs 12921-13056' CACF 31,753 MCFGPD. Pot. Based on 4-point test; Gravity (Cond.) 48.8, SIIP 6037#.

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CONT. McFarland Drilg. Co. PROP. DEPTH 13,800' TYPE  
DATE

# ILLEGIBLE

F.R. 10-10-65  
PD 13,800' - Pennsylvanian  
Contractor - McFarland Drilg. Co.  
11-1-65 TD 1357', fshg.  
11-8-65 Drilg. 3905'.  
11-15-65 TD 4878', fshg.  
11-22-65 Drilg. 5014'.  
11-29-65 TD 5726', rmg 13 3/8" casing.  
12-6-65 Drilg. 7968'.  
12-13-65 Drilg. 9819'.  
12-20-65 Drilg. 11743'.  
1-3-66 Drilg. 12492'.  
1-10-66 Drilg. 12908'.  
1-17-66 TD 13133', prep to BSC.

ILLEGIBLE

LEA                  Gramercy Place  
SHELL OIL CO., #1 REFINERY

Soc. 34-218-5440

Page #2

66 Continued  
DST (Mar. 11) 1500-1515, pos 4 hrs 7 mins.  
MIS 14 mins, 1500-1515.  
Flwd to pos 1500-1515.  
Flwd to pos 1500-1515, MIS PD, S/P 4700#,  
1500-1515, S/P 4700#.  
1500-1515, S/P 4700# (var. various chks,  
rec 3 S/P 4700# (gravity 51.8) + 3 E 3S&W  
1 hr 40 min, S/P 661#, 2P 5648-6784#,  
3 hr 28 min, S/P 661#.

1-24-66 Dr. J. L. ...  
 EST ... per ...  
 has been ...

1-31-66 Doc. # 100-100000

2-7-66      DUE      1000

2-14-66 Dr. J. J. ...

[illegible][illegible]

# ILLEGIBLE

LEA                      Gamma Ridge                      NM                      Sec. 34-21S-34E  
SHELL OIL CO., #1 GR3 Stage                      Page #3

3-14-66      TD 14603', PED 13194', SI.  
Perf (Morrow) @ 12921', 12922', 12924',  
12926', 12928', 12930', 12932', 12934',  
13020', 13022', 13051', 13056'W/L SPI  
Flwd 11.2 MCFGPD in 18 hrs thru various  
chokes + 57 3 Cond., TP 5500#.

3-21-66      TD 14603', PED 1094', SI.

3-28-66      TD 14603', PED 13194', COMPLETED.  
FOUR-POINT TEST:                      (Holding for tops)

Gas Volume	Choke	TP	Time
3641 MCFGPD	8/64"	5890#	2 hrs
6717 MCFGPD	10/64"	5673#	2 hrs
9101 MCFGPD	12/64"	5419#	2 hrs
11483 MCFGPD	14/64"	5075#	2 hrs

4-4-66      TD 14603', PED 13194', Completion Reported.

SAMPLE TOP: Mor = 12750' (-9099')  
LOG TOPS: Yates 3950', Seven Rivers  
4423', Delaware Mountain 3567', Bone Spring  
8240', Wolfcamp 11277', Des Moines 11680',  
Morrow Clastics 12750', Mississippian lime  
13828', Woodford 14288', Siluro-Devonian  
14444'.

COUNTY	LEA	FIELD Undesignated	STATE NM
OPR	SHELL OIL COMPANY		MAP
	1 GRB State		
	Sec. 34, T-21-S, R-34-E		CO-ORD
	1980' fr S Line & 660' fr W Line of Sec.		

	CLASS		EL	
	FORMATION	DATUM	FORMATION	DATUM
CSG & SX - TUBING				
LOGS EL GR RA IND HC A				

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CONT.	PROP DEPTH 13,800'	TYPE
DATE		

F.R. 10-14-65  
PD 13,800' - Pennsylvanian

✓ District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-104A  
March 19, 2001

Submit 1 copy of the final affected wells  
list along with 1 copy of this form per  
number of wells on that list to appropriate  
District Office

### Change of Operator

#### Previous Operator Information:

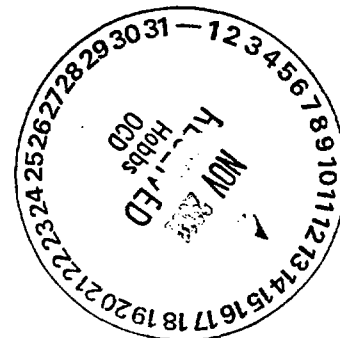
OGRID: 7377  
Name: EOG RESOURCES, INC.  
Address: P. O. BOX 2267  
Address:  
City, State, Zip: MIDLAND, TX 79702

#### New Operator Information:

Effective Date: April 1, 1999  
New Ogrid: 015742  
New Name: NEARBURG PRODUCING COMPANY  
Address: 3300 N. "A" STREET  
Address: BUILDING 2, SUITE 120  
City, State, Zip: MIDLAND, TX 79702

I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information on this form and the attached list of wells is true and complete to the best of my knowledge and belief.

New Operator  
Signature: [Signature]  
Printed name: ROBERT G. SHELTON  
Title: LAND MANAGER  
Date: 11/19/01 Phone: (915) 686-8235



#### Previous operator complete below:

Previous  
Operator: EOG RESOURCES, INC.  
Previous  
OGRID: 7377  
Signature: [Signature]  
Printed  
Name: BEVERLY HATFIELD

<b>NMOCD Approval</b>	
Signature: <u>[Signature]</u>	
Printed Name: <u>PAUL F. KAUTE</u>	
District: <u>PETROLEUM ENGINEER</u>	
Date: <u>NOV 15 2001</u>	

\*\*\* Llano "34" State Well #1 API # : 30 025 26318  
29054 Property Code: 27520; Pool Name & Code: Gramma Ridge Morrow, East 77690  
LOCATION: Unit I, Sec 34, T21S, R34E; 1650 FSL 660 FEL, Lea Co., NM

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

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

## OIL CONSERVATION DIVISION

2040 Pacheco St.  
Santa Fe, NM 87505

WELL API NO. 30-025-26318
Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
State Oil & Gas Lease No.
Lease Name or Unit Agreement Name LLano "34" State
Well No. 1
Pool name or Wildcat Grama Ridge Morrow; East

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
Type of Well: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>	
Name of Operator Nearburg Producing Company	
Address of Operator 3300 North "A" Street, Building 2, Suite 120, Midland, TX 79705	
Well Location Unit Letter <u>I</u> : <u>1650</u> Feet From The <u>South</u> Line and <u>660</u> Feet From The <u>East</u> Line Section <u>34</u> Township <u>21S</u> Range <u>34E</u> NMPM <u>Lea</u> County	
Elevation (Show whether DF, RKB, RT, GR, etc.) 3651' GR	

11

Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

### NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☒  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐  
OTHER: ☐

### SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐  
CASING TEST AND CEMENT JOB ☐  
OTHER: ☐

Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Nearburg Producing Company requests to Plug and Abandon the above referenced well as follows:

- 1.) Set CIBP @ 12,750'. Cap w/ 35' of cement. Circ w/ mud. -TAG
- 2.) Set 100' plug f/11,650' to 11,550'. (Top of Strawn 11,626')
- 3.) Set 100' plug f/ 8400' to 8300'. (Top of Bone Spring 8348')
- 4.) Set 100' plug f/ 5450' to 5550' (Top of Delaware Sd 5498')
- 5.) Cut 7-5/8" csg @ 5000' and pull.
- 6.) Spot 100' plug f/ 50' to 50' out of csg stub. -TAG
- 7.) Spot 100' plug f/ 4000' to 4100'. (Top of Yates 4104')
- 8.) Spot 100' plug f/ 1150' to 1250'. (Base surface csg 1200') -TAG
- 9.) Set 30' surface plug & dry hole marker.

TERMINATE E/2, SECTION 34, 320 ACRE SPACING UNIT.

THE COMMISSION MUST BE NOTIFIED 24 HOURS PRIOR TO THE BEGINNING OF PLUGGING OPERATIONS FOR THE C-103 TO BE APPROVED.

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

SIGNATURE Kim Stewart TITLE Regulatory Analyst DATE 11-19-2001

TYPE OR PRINT NAME TELEPHONE NO.

(This space for State Use)

APPROVED BY Gay W. Wink TITLE NATURAL SCIENCE MANAGER DATE NOV 28 2001

CONDITIONS OF APPROVAL, IF ANY

District I  
1625 N. French Dr., Hobbs, NM 88240

District II  
811 South First, Artesia, NM 88210

District III  
1000 Rio Brazos Rd., Aztec, NM 87410

District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Form C-104  
Revised March 25, 1999

Submit to Appropriate District Office  
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

<sup>1</sup> Operator name and Address EOG Resources, Inc. P.O. Box 2267 Midland, TX 79702		<sup>2</sup> OGRID Number 7377
<sup>4</sup> API Number 30-025-26318		<sup>3</sup> Reason for Filing Code Change of Operator <b>4-1-99</b>
<sup>7</sup> Property Code <b>27520</b>	<sup>5</sup> Pool Name Gramma Ridge Morrow, East	<sup>6</sup> Pool Code 77690
<sup>8</sup> Property Name Llano "34" State		<sup>9</sup> Well Number 1

II. <sup>10</sup>Surface Location

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
I	34	21S	34E		1650	South	660	East	Lea

<sup>11</sup>Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
<sup>12</sup> Lse Code <b>S</b>	<sup>13</sup> Producing Method Code SI	<sup>14</sup> Gas Connection Date	<sup>15</sup> C-129 Permit Number	<sup>16</sup> C-129 Effective Date	<sup>17</sup> C-129 Expiration Date				

III. Oil and Gas Transporters

<sup>18</sup> Transporter OGRID	<sup>19</sup> Transporter Name and Address	<sup>20</sup> POD	<sup>21</sup> O/G	<sup>22</sup> POD ULSTR Location and Description

IV. Produced Water

<sup>23</sup> POD	<sup>24</sup> POD ULSTR Location and Description

V. Well Completion Data

<sup>25</sup> Spud Date	<sup>26</sup> Ready Date	<sup>27</sup> TD	<sup>28</sup> PBTD	<sup>29</sup> Perforations	<sup>30</sup> DHC, MC
<sup>31</sup> Hole Size	<sup>32</sup> Casing and Tubing Size	<sup>33</sup> Depth Set	<sup>34</sup> Sacks Cement		

VI. Well Test Data

<sup>35</sup> Date New Oil	<sup>36</sup> Gas Delivery Date	<sup>37</sup> Test Date	<sup>38</sup> Test Length	<sup>39</sup> Tbg. Pressure	<sup>40</sup> Csg. Pressure
<sup>41</sup> Choke Size	<sup>42</sup> Oil	<sup>43</sup> Water	<sup>44</sup> Gas	<sup>45</sup> AOF	<sup>46</sup> Test Method
<sup>47</sup> I hereby certify that the rules of the Oil Conservation Division have been compiled with and that the information given above is true and complete to the best of my knowledge and belief. Signature: <i>Mike Francis</i>			OIL CONSERVATION DIVISION		
Printed Name: Mike Francis			Approved by: <i>Larry W. Wink</i>		
Title: Agent			Title: FIELD REPRESENTATIVE		
Date: 11/27/00 Phone: 915-686-3714			Approval Date: MAR 02 2001		

<sup>48</sup>If this is a change of operator fill in the OGRID number and name of the previous operator

<i>Bill Huck</i> Previous Operator Signature	<i>William R. Huck</i> Printed Name	<i>VP - OPERATIONS</i> Title	<i>11-28-00</i> Date
---	--	---------------------------------	-------------------------

District I  
P.O. Box 1980, Hobbs, NM 88241-1980  
District II  
P.O. Drawer DD, Artesia, NM 88211-0719

District III  
1000 Rio Brazos Rd., Aztec, NM 87410

District IV  
P.O. Box 2088, Santa Fe, NM 87504-2088

Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088  
2040 South Pacheco  
Santa Fe, NM 87505

Form C-104

Revised February 10, 1994

Instructions on back

Submit to Appropriate District Office

5 Copies

AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

<sup>1</sup> Operator name and Address Pecos River Operating, Inc. P O Box 1675 Roswell, NM 88202		<sup>2</sup> OGRID Number 017081
<sup>4</sup> API Number 30-025-26318		<sup>3</sup> Reason for Filing Code CH effective March 1, 1998
<sup>5</sup> Pool Name Grama Ridge Morrow, East	<sup>6</sup> Pool Code 77690	
<sup>7</sup> Property Code 23260	<sup>8</sup> Property Name Llano '34' State	<sup>9</sup> Well Number 1

<sup>10</sup> Surface Location

Ul or lot no. I	Section 34	Township 21S	Range 34E	Lot. Idn	Feet from the 1650	North/South line S	Feet from the 660	East/West line E	County Lea
--------------------	---------------	-----------------	--------------	----------	-----------------------	-----------------------	----------------------	---------------------	---------------

<sup>11</sup> Bottom Hole Location

Ul or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	County
<sup>12</sup> Lse Code S	<sup>13</sup> Producing Method Code Shut in		<sup>14</sup> Gas Connection Date	<sup>15</sup> C-129 Permit Number	<sup>16</sup> 29 Effective Date	<sup>17</sup> C-129 Expiration Date			

III. Oil and Gas Transporters

<sup>18</sup> Transporter OGRID 138648	<sup>19</sup> Transporter Name and Address Amoco Pipeline ICT P O Box 1725 Midland, TX 79702	<sup>20</sup> POD 1046310	<sup>21</sup> O/G O	<sup>22</sup> POD ULSTR Location and Description

IV Produced Water

<sup>23</sup> POD 2806903	<sup>24</sup> POD ULSTR Location and Description
------------------------------	--


V. Well Completion Data

<sup>25</sup> Spud Date	<sup>26</sup> Ready Date	<sup>27</sup> TD	<sup>28</sup> PBTD	<sup>29</sup> Perforations
<sup>30</sup> Hole Size	<sup>31</sup> Casing & Tubing Size	<sup>32</sup> Depth Set	<sup>33</sup> Sacks Cement	


VI Well Test Data

<sup>34</sup> Date New Oil	<sup>35</sup> Gas Delivery Date	<sup>36</sup> Test Date	<sup>37</sup> Test Length	<sup>38</sup> Tbg. Pressure	<sup>39</sup> Csg. Pressure
<sup>40</sup> Choke Size	<sup>41</sup> Oil	<sup>42</sup> Water	<sup>43</sup> Gas	<sup>44</sup> AOF	<sup>45</sup> Test Method

<sup>46</sup> I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature:   
Printed Name: Rex Corey Jr.  
Title: Vice-President  
Date: 2/25/98  
Phone:

OIL CONSERVATION DIVISION

Approved by:   
Title: DISTRICT 1 SUPERVISOR  
Approval Date: MAY 11 1998

<sup>47</sup> If this is a change of operator fill in the OGRID number and name of the previous operator  
OGRID #000873 Apache Corporation

Previous Operator Signature:   
Printed Name: Pamela M. Leighton  
Title: Sr Regulatory Analyst  
Date: 2/17/98



District I  
PO Box 1900, Hobbs, NM 88241-1900

District II

811 South First, Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Form C-104

Revised October 18, 1994

Instructions on back

Submit to Appropriate District Office

5 Copies

'96 NO 7 00 8 52

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

Operator name and Address Apache Corporation 2000 Post Oak Blvd - Ste 100 Houston, TX 77056-4400		OGRID Number 00873
		Reason for Filing Code CO eff: 10/1/96
API Number 30 - 0 25-26318	Pool Name Grama Ridge Morrow East	Pool Code 77690
Property Code 18742	Property Name LLano -34- State Com	Well Number 001

II. Surface Location

UL or lot no. I	Section 34	Township 21S	Range 34E	Lot Idn	Feet from the 1650	North/South Line South	Feet from the 660	East/West line East	County Lea
--------------------	---------------	-----------------	--------------	---------	-----------------------	---------------------------	----------------------	------------------------	---------------

Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Lee Code S	Producing Method Code	Gas Connection Date	C-129 Permit Number	C-129 Effective Date	C-129 Expiration Date				

III. Oil and Gas Transporters

Transporter OGRID	Transporter Name and Address	POD	O/G	POD ULSTR Location and Description
138648	Amoco Pipeline ICT PO Box 1725 Midland, TX 79702	1046310	0	

IV. Produced Water

POD	POD ULSTR Location and Description
-----	------------------------------------

V. Well Completion Data

Spud Date	Ready Date	TD	PBTD	Perforations	DHC, DC, MC
Hole Size	Casing & Tubing Size	Depth Set	Sacks Cement		

VI. Well Test Data

Date New Oil	Gas Delivery Date	Test Date	Test Length	Tbg. Pressure	Csg. Pressure
Choke Size	Oil	Water	Gas	AOF	Test Method

I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature:

Printed name:

Julia North

Title:

Sr Production Analyst

Date: 10/25/96

Phone: 713-296-7122

OIL CONSERVATION DIVISION

Approved by:

Title:

Geologist

Approval Date:

NOV 04 1996

If this is a change of operator fill in the OGRID number and name of the previous operator

Previous Operator Signature

Printed Name

Title

Date

District I  
PO Box 1980, Hobbs, NM 88241-1980  
District II  
811 South First, Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Form C-104  
Revised October 18, 1994  
Instructions on back  
Submit to Appropriate District Office  
5 Copies  
AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

Operator name and Address Apache Corporation 2000 Post Oak Blvd - Ste 100 Houston, TX 77056-4400		OGRID Number 00873
		Reason for Filing Code CH eff:1/1/96
API Number 30 - 0 25-26318	Pool Name Grama Ridge Morrow, East	Pool Code 77690
Property Code 18742	Property Name Llano '34' State Com	Well Number 001

II. Surface Location

UL or lot no. I	Section 34	Township 21S	Range 34E	Lot Idn	Feet from the 1650	North/South Line S	Feet from the 660	East/West line E	County Lea
--------------------	---------------	-----------------	--------------	---------	-----------------------	-----------------------	----------------------	---------------------	---------------

Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Lse Code S	Producing Method Code Shut in	Gas Connection Date	C-129 Permit Number	C-129 Effective Date	C-129 Expiration Date				

III. Oil and Gas Transporters

Transporter OGRID	Transporter Name and Address	POD	O/G	POD ULSTR Location and Description
		1046310	0	
		1046330	6	

IV. Produced Water

POD 2806903	POD ULSTR Location and Description
----------------	------------------------------------

V. Well Completion Data

Spud Date	Ready Date	TD	PBTD	Perforations	DHC, DC, MC
Hole Size	Casing & Tubing Size	Depth Set	Sacks Cement		

VI. Well Test Data

Date New Oil	Gas Delivery Date	Test Date	Test Length	Tbg. Pressure	Csg. Pressure
Choke Size	Oil	Water	Gas	AOF	Test Method

I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: *Julia North*  
Printed name: Julia North  
Title: Sr Regulatory Analyst  
Date: 3/12/96 Phone: 713-296-7122

OIL CONSERVATION DIVISION  
Approved by: *James Sept*  
Title: DISTRICT 1 SUPERVISOR  
Approval Date: MAR 20 1996

If this is a change of operator fill in the OGRID number and name of the previous operator

#09761 Apache Energy Resources Corporation  
Previous Operator Signature: *Julia North* Printed Name: Julia North Title: Sr Regulatory Analyst Date: 3/12/96

ILLEGIBLE

STRICT I  
P.O. Box 1980, Hobbs, NM 88241-1980  
STRICT II  
P.O. Box Drawer DD, Artesia, NM 88211-0719  
STRICT III  
200 Rio Brazos Rd., Aztec, NM 87410  
STRICT IV  
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals and Natural Resources Department  
OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

Form C-104  
Revised February 10, 1994  
Instructions on back  
Submit to Appropriate District Office  
5 Copies  
☐ AMENDED REPORT

REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

Operator Name and Address APACHE ENERGY RESOURCES CORP. 200 POST OAK BLVD., SUITE 100 HOUSTON, TX 77056-4400		OGRID Number 9761
		Reason for Filing Code CH
API Number 30-125-26318 225	Pool Name GRAMA RIDGE MORROW, EAST	Pool Code 77690
Property Code 004863	Property Name LLANO 34 STATE COM	Well No. 1

10 Surface Location									
UL or lot no. I	Section 34	Township 21S	Range 34E	Lot.Idn	Feet From The 1650	North/South Line S	Feet From The 660	East/West Line E	County LEA

11 Bottom Hole Location									
UL or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
12 Lse Code S	13 Producing Method Code Shut-In		14 Gas Connection Date		15 C-129 Permit Number		16 C-129 Effective Date		17 C-129 Expiration Date

Oil and Gas Transporters					
18 Transporter OGRID	19 Transporter Name and Address		20 POD	21 O/G	22 POD ULSTR Location and Description

IV. Produced Water	
23 POD 2806903	24 POD ULSTR Location and Description

Well Completion Data				
25 Spud Date	26 Ready Date	27 Total Depth	28 PBTD	29 Perforations
30 HOLE SIZE		31 CASING & TUBING SIZE	32 DEPTH SET	33 SACKS CEMENT

Well Test Data					
34 Date New Oil	35 Gas Delivery Date	36 Date of Test	37 Length of Test	38 Tubing Pressure	39 Casing Pressure
40 Choke Size	41 Oil - Bbls.	42 Water - Bbls.	43 Gas - MCF	44 AOF	45 Test Method

46 I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.		OIL CONSERVATION DIVISION	
Signature <i>Pamela M. Leighton</i>		Approved By: <i>[Signature]</i> Geologist	
Printed Name PAMELA M. LEIGHTON		Title: _____	
Title CLERK		Approval Date: <u>AUG 23 1995</u>	
Date		Telephone (713) 296-7120	
47 If this is a change of operator fill in the OGRID number and name of the previous operator 9761 HADSON ENERGY RESOURCES CORP PAMELA M. LEIGHTON CLERK 7/3/95			
Previous Operator Signature <i>Pamela M. Leighton</i>		Printed Name PAMELA M. LEIGHTON Title CLERK Date	

Submit 5 Copies  
Appropriate District Office  
DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico  
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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

Form C-104  
Revised 1-1-89  
See Instructions  
at Bottom of Page

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'93 MAY 21 AM 9 46

REQUEST FOR ALLOWABLE AND AUTHORIZATION  
TO TRANSPORT OIL AND NATURAL GAS

Operator <u>Hadson Energy Resources Corporation</u>		Well API No. <u>30-025-26318</u>
Address <u>P.O. Box 25956, Oklahoma City, OK 73125-0956</u>		
Reason(s) for Filing (Check proper box) <input type="checkbox"/> Other (Please explain)		
New Well <input type="checkbox"/>	Change in Transporter of:	
Recompletion <input type="checkbox"/>	Oil <input type="checkbox"/>	Dry Gas <input type="checkbox"/>
Change in Operator <input checked="" type="checkbox"/>	Casinghead Gas <input type="checkbox"/>	Condensate <input type="checkbox"/>
If change of operator give name and address of previous operator <u>Hadson Petroleum (USA), Inc., P.O. Box 26770, Oklahoma City, OK 73126</u>		

II. DESCRIPTION OF WELL AND LEASE

Lease Name <u>Llano "34" State Com.</u>	Well No. <u>1</u>	Pool Name, Including Formation <u>Crama Ridge Morrow East</u>	Kind of Lease State, Federal or Fee <u>State</u>	Lease No. <u>E-9659</u> <u>K-3592</u>
Location Unit Letter <u>I</u> : <u>1650</u> Feet From The <u>South</u> Line and <u>660</u> Feet From The <u>East</u> Line Section <u>34</u> Township <u>21S</u> Range <u>34E</u> , NMPM, Lea County				

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input type="checkbox"/> or Condensate <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent) <u>P.O. Box 2256, Wichita, KS 67201</u>					
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent) <u>921 W Sanger, Hobbs, NM 88240</u>					
If well produces oil or liquids, give location of tanks.	Unit <u>I</u>	Sec. <u>34</u>	Twp. <u>21S</u>	Rge. <u>34E</u>	Is gas actually connected? <u>Yes</u>	When? <u>10/26/79</u>

If this production is commingled with that from any other lease or pool, give commingling order number: \_\_\_\_\_

IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v	Diff Res'v
Date Spudded	Date Compl. Ready to Prod.		Total Depth		P.B.T.D.			
Elevations (DF, RKB, RT, GR, etc.)	Name of Producing Formation		Top Oil/Gas Pay		Tubing Depth			
Perforations					Depth Casing Shoe			
TUBING, CASING AND CEMENTING RECORD								
HOLE SIZE	CASING & TUBING SIZE		DEPTH SET		SACKS CEMENT			

V. TEST DATA AND REQUEST FOR ALLOWABLE

OIL WELL (Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours.)

Date First New Oil Run To Tank	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas- MCF

GAS WELL

Actual Prod. Test - MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pilot, back pr.)	Tubing Pressure (Shut-in)	Casing Pressure (Shut-in)	Choke Size

VI. OPERATOR CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Bruce E. Hankins  
Signature  
Bruce E. Hankins Engineering Technician  
Printed Name  
04/06/93 (405) 232-2212  
Date Telephone No.

OIL CONSERVATION DIVISION

Date Approved MAY 18 1993

By [Signature]  
Title DISTRICT I SUPERVISOR

INSTRUCTIONS: This form is to be filed in compliance with Rule 1104

- 1) Request for allowable for newly drilled or deepened well must be accompanied by tabulation of deviation tests taken in accordance with Rule 111.
- 2) All sections of this form must be filled out for allowable on new and recompleted wells.
- 3) Fill out only Sections I, II, III, and VI for changes of operator, well name or number, transporter, or other such changes.
- 4) Separate Form C-104 must be filed for each pool in multiply completed wells.

```

#####
Termcoms      #      68
#####
ORIG. Com Operator:  MINERALS INC.
Com name:           LLANO ST 34 COM WELL #1
CURRENT Well Operator:  HADSON PETROLEUM (USA)
Pun:                17623
Z-code:             Z-1252
Inst.:              CS
Active communitizations: E2
U-s-t-r:            21S-34E-34-I
County:             LEA
Eff. date:          5/1/79
App. date:          5/1/79
Acreage:            320
State:              320
Federal:            0
Other:              0
Pool:               GRAMA RIDGE MORROW, EAST
Leases:             K3592-3, E9659*
Last prod.:         3/91
Remarks: TERMINATED EFF:3/31/91 APP:11/5/92; LACK OF PRODUCTION
#####

```

OIL CONSERVATION DIVISION  
 RECEIVED  
 26. 92 NOV 6 AM 9 49

11-05-1992

## SECTION 34 TOWNSHIP 21 South RANGE 34 East

D HADSON  U  09 73 K3592-3	C HADSON  U  09 73 K3592-3	B HADSON  U  09 73 K3592-3	A HADSON  U  09 73 K3592-3
E HADSON  U  09 73 K3592-3	F HADSON  U  09 73 K3592-3	G HADSON  U  09 73 K3592-3	H HADSON  U  09 73 K3592-3
L CHEVRON  U  12 65 E9659	K CHEVRON  U  12 65 E9659	J CHEVRON  U  12 65 E9659	I CHEVRON  U  12 65 E9659
M CHEVRON  U  12 65 E9659	N CHEVRON  U  12 65 E9659	O CHEVRON  U  12 65 E9659	P CHEVRON  U  12 65 E9659

Submit 5 Copies  
Appropriate District Office  
DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico  
Energy, Minerals and Natural Resources Department

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

Form C-104  
Revised 1-1-89  
See Instructions  
4 Pages

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'92 JUN 19 AM 9 28

REQUEST FOR ALLOWABLE AND AUTHORIZATION  
TO TRANSPORT OIL AND NATURAL GAS

Operator Hadson Petroleum (USA), Inc.	Well API No. 30-025-26318
Address P.O. Box 26770, Oklahoma City, OK 73126	
Reason(s) for Filing (Check proper box) <input type="checkbox"/> Other (Please explain)	
New Well <input type="checkbox"/>	Change in Transporter of:
Recompletion <input type="checkbox"/>	Oil <input type="checkbox"/> Dry Gas <input type="checkbox"/>
Change in Operator <input type="checkbox"/>	Casinghead Gas <input type="checkbox"/> Condensate <input checked="" type="checkbox"/>
If change of operator give name and address of previous operator	

II. DESCRIPTION OF WELL AND LEASE

Lease Name Llano 34 St. Com	Well No. 1	Pool Name, Including Formation Grama Ridge Morrow, East	Kind of Lease <u>State</u> Federal or Fee	Lease No.
Location Unit Letter <u>I</u> : <u>1650</u> Feet From The <u>South</u> Line and <u>660</u> Feet From The <u>East</u> Line Section <u>34</u> Township <u>21S</u> Range <u>34E</u> , NMPM, <u>Lea</u> County				

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input type="checkbox"/> or Condensate <input checked="" type="checkbox"/> Koch Oil Company	Address (Give address to which approved copy of this form is to be sent) P.O. Box 2256, Wichita, KS 67201					
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input checked="" type="checkbox"/> Llano, Inc.	Address (Give address to which approved copy of this form is to be sent) 921 W. Sanger, Hobbs, NM 88240					
If well produces oil or liquids, give location of tanks.	Unit <u>I</u>	Sec. <u>34</u>	Twp. <u>21S</u>	Rge. <u>34E</u>	Is gas actually connected? Yes	When ?

If this production is commingled with that from any other lease or pool, give commingling order number:

IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v	Diff Res'v
Date Spudded	Date Compl. Ready to Prod.		Total Depth			P.B.T.D.		
Elevations (DF, RKB, RT, GR, etc.)	Name of Producing Formation		Top Oil/Gas Pay			Tubing Depth		
Perforations						Depth Casing Shoe		
TUBING, CASING AND CEMENTING RECORD								
HOLE SIZE	CASING & TUBING SIZE		DEPTH SET			SACKS CEMENT		

V. TEST DATA AND REQUEST FOR ALLOWABLE

OIL WELL (Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours.)

Date First New Oil Run To Tank	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas- MCF

GAS WELL

Actual Prod. Test - MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pilot, back pr.)	Tubing Pressure (Shut-in)	Casing Pressure (Shut-in)	Choke Size

VI. OPERATOR CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature  
Darrel Hardy  
Printed Name  
6/4/92  
Date  
Adm. Mgr  
Title  
(405) 235-9531  
Telephone No.

OIL CONSERVATION DIVISION  
JUN 16 92

Date Approved

By

Title

OIL & GAS INSPECTOR

INSTRUCTIONS: This form is to be filed in compliance with Rule 1104

- Request for allowable for newly drilled or deepened well must be accompanied by tabulation of deviation tests taken in accordance with Rule 111.
- All sections of this form must be filled out for allowable on new and recompleted wells.
- Fill out only Sections I, II, III, and VI for changes of operator, well name or number, transporter, or other such changes.
- Separate Form C-104 must be filed for each pool in multiply completed wells.

Submit 5 Copies  
Appropriate District Office  
DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico  
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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

OIL CONSERVATION  
Form C-104  
Revised 1-1-89  
See Instructions  
at Bottom of Page

'92 JAN 10 AM 9 18

REQUEST FOR ALLOWABLE AND AUTHORIZATION  
TO TRANSPORT OIL AND NATURAL GAS

Operator Hadson Petroleum (USA), Inc.		Well API No. 30-025-26318
Address P.O. Box 26770 Okla. City, OK 73126		
Reason(s) for Filing (Check proper box) <input type="checkbox"/> Other (Please explain)		
New Well <input type="checkbox"/>	Change in Transporter of:	
Recompletion <input type="checkbox"/>	Oil <input type="checkbox"/>	Dry Gas <input type="checkbox"/>
Change in Operator <input type="checkbox"/>	Casinghead Gas <input type="checkbox"/>	Condensate <input checked="" type="checkbox"/>
If change of operator give name and address of previous operator		

II. DESCRIPTION OF WELL AND LEASE

Lease Name Llano 34 St. Com.	Well No. #1	Pool Name, Including Formation Grama Ridge Morrow, East	Kind of Lease <u>State</u> , Federal or Fee	Lease No.
Location Unit Letter <u>I</u> : <u>1650</u> Feet From The <u>South</u> Line and <u>660</u> Feet From The <u>East</u> Line Section <u>34</u> Township <u>21S</u> Range <u>34E</u> , NMPM, Lea County				

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input type="checkbox"/> or Condensate <input checked="" type="checkbox"/> Scurlock Permian Corporation	Address (Give address to which approved copy of this form is to be sent) 333 Clay, P.O. Box 4648, Houston, TX 77210					
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input checked="" type="checkbox"/> Llano, Inc.	Address (Give address to which approved copy of this form is to be sent) 921 W. Sanger, Hobbs, NM 88240					
If well produces oil or liquids, give location of tanks.	Unit <u>I</u>	Sec. <u>34</u>	Twp. <u>21S</u>	Rge. <u>34E</u>	Is gas actually connected? Yes	When ?

If this production is commingled with that from any other lease or pool, give commingling order number:

IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v	Diff Res'v
Date Spudded	Date Compl. Ready to Prod.		Total Depth		P.B.T.D.			
Elevations (DF, RKB, RT, GR, etc.)	Name of Producing Formation		Top Oil/Gas Pay		Tubing Depth			
Perforations					Depth Casing Shoe			

TUBING, CASING AND CEMENTING RECORD

HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT

V. TEST DATA AND REQUEST FOR ALLOWABLE

OIL WELL (Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours.)

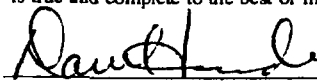
Date First New Oil Run To Tank	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas- MCF

GAS WELL

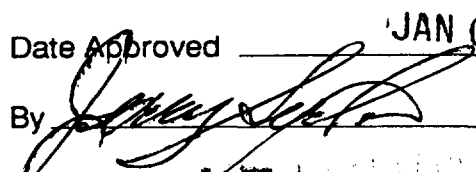
Actual Prod. Test - MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pilot, back pr.)	Tubing Pressure (Shut-in)	Casing Pressure (Shut-in)	Choke Size

VI. OPERATOR CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

  
Signature  
Darrel Hardy  
Printed Name  
1/2/92  
Date  
Manager of Administration  
(405) 235-9531  
Telephone No.

OIL CONSERVATION DIVISION

Date Approved JAN 07 '92  
By   
Title

INSTRUCTIONS: This form is to be filed in compliance with Rule 1104

- 1) Request for allowable for newly drilled or deepened well must be accompanied by tabulation of deviation tests taken in accordance with Rule 111.
- 2) All sections of this form must be filled out for allowable on new and recompleted wells.
- 3) Fill out only Sections I, II, III, and VI for changes of operator, well name or number, transporter, or other such changes.
- 4) Separate Form C-104 must be filed for each pool in multiply completed wells.

Submit 5 Copies  
Appropriate District Office  
DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-104  
Revised 1-1-89  
See Instructions  
at Bottom of Page

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

REQUEST FOR ALLOWABLE AND AUTHORIZATION  
TO TRANSPORT OIL AND NATURAL GAS

Operator Hudson Petroleum (USA), Inc.	Well API No. 30-025-26318
Address P.O. Box 26770 Okla. City, OK 73126	
Reason(s) for Filing (Check proper box) <input type="checkbox"/> Other (Please explain)	
New Well <input type="checkbox"/>	Change in Transporter of:
Recompletion <input type="checkbox"/>	Oil <input type="checkbox"/> Dry Gas <input type="checkbox"/>
Change in Operator <input type="checkbox"/>	Casinghead Gas <input type="checkbox"/> Condensate <input checked="" type="checkbox"/>
If change of operator give name and address of previous operator	

II. DESCRIPTION OF WELL AND LEASE

Lease Name Llano 34 St. Com.	Well No. #1	Pool Name, Including Formation Grama Ridge Morrow, East	Kind of Lease (State, Federal or Fee)	Lease No.
Location Unit Letter I : 1650 Feet From The South Line and 660 Feet From The East Line Section 34 Township 21S Range 34E, NMPM, Lea County				

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input type="checkbox"/> or Condensate <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)
Mustang Fuel Corporation	2000 Classen Center 800E Okla. City, OK 73106
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)
Llano, Inc.	921 W. Sanger Hobbs, NM 88240
If well produces oil or liquids, give location of tanks.	Unit Sec. Twp. Rge. Is gas actually connected? When ?
	I 34 21S 34E Yes

If this production is commingled with that from any other lease or pool, give commingling order number:

IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v	Diff Res'v
Date Spudded	Date Compl. Ready to Prod.		Total Depth		P.B.T.D.			
Elevations (DF, RKB, RT, GR, etc.)	Name of Producing Formation		Top Oil/Gas Pay		Tubing Depth			
Perforations					Depth Casing Shoe			
TUBING, CASING AND CEMENTING RECORD								
HOLE SIZE	CASING & TUBING SIZE		DEPTH SET		SACKS CEMENT			

V. TEST DATA AND REQUEST FOR ALLOWABLE

OIL WELL (Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours.)

Date First New Oil Run To Tank	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas - MCF

GAS WELL

Actual Prod. Test - MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pilot, back pr.)	Tubing Pressure (Shut-in)	Casing Pressure (Shut-in)	Choke Size

VI. OPERATOR CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature  
Darrel Hardy  
Printed Name  
12/16/91  
Date  
Manager of Administration  
(405) 235-9531  
Telephone No.

OIL CONSERVATION DIVISION

Date Approved DEC 23 1991  
By  
Title DISTRICT I SUPERVISOR

INSTRUCTIONS: This form is to be filed in compliance with Rule 1104

- Request for allowable for newly drilled or deepened well must be accompanied by tabulation of deviation tests taken in accordance with Rule 111.
- All sections of this form must be filled out for allowable on new and recompleted wells.
- Fill out only Sections I, II, III, and VI for changes of operator, well name or number, transporter, or other such changes.
- Separate Form C-104 must be filed for each pool in multiply completed wells.



Submit 5 Copies  
Appropriate District Office  
DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico  
Energy, Minerals and Natural Resources Department  
OIL CONSERVATION DIVISION  
OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088  
APR 25 AM 11 48

Form C-104  
Revised 1-1-89  
See Instructions  
at Bottom of Page

REQUEST FOR ALLOWABLE AND AUTHORIZATION  
TO TRANSPORT OIL AND NATURAL GAS

Operator Hadson Petroleum (USA) Inc.	Well API No. 30-025-26318
Address 921 W. Sanger Hobbs, NM 88240	
Reason(s) for Filing (Check proper box) New Well <input type="checkbox"/> Change in Transporter of: Recompletion <input type="checkbox"/> Oil <input type="checkbox"/> Dry Gas <input type="checkbox"/> Additional Transporter of Condensate Change in Operator <input type="checkbox"/> Casinghead Gas <input type="checkbox"/> Condensate <input type="checkbox"/>	

If change of operator give name  
and address of previous operator

II. DESCRIPTION OF WELL AND LEASE

Lease Name Llano 34 St. Com.	Well No. #1	Pool Name, Including Formation Grama Ridge Morrow, East	Kind of Lease <input checked="" type="checkbox"/> State <input type="checkbox"/> Federal or Fee	Lease No. E-9659 K-3592
Location Unit Letter I : 1650 Feet From The SOUTH Line and 660 Feet From The EAST Line Section 34 Township 21S Range 34E, NMPM, Lea County				

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil R & K Oil Company, Inc.	or Condensate <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent) P.O. Box 1229--Andrews, TX 79714				
Name of Authorized Transporter of Casinghead Gas Llano, Inc.	or Dry Gas <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent) 921 W. Sanger--Hobbs, NM 88240				
If well produces oil or liquids, give location of tanks.	Unit I	Sec. 34	Twp. 21S	Rge. 34E	Is gas actually connected? Yes	When?

If this production is commingled with that from any other lease or pool, give commingling order number:

IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v	Diff Res'v
Date Spudded	Date Compl. Ready to Prod.		Total Depth			P.B.T.D.		
Elevations (DF, RKB, RT, GR, etc.)	Name of Producing Formation		Top Oil/Gas Pay			Tubing Depth		
Perforations						Depth Casing Shoe		
TUBING, CASING AND CEMENTING RECORD								
HOLE SIZE	CASING & TUBING SIZE		DEPTH SET			SACKS CEMENT		

V. TEST DATA AND REQUEST FOR ALLOWABLE

OIL WELL (Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours.)

Date First New Oil Run To Tank	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas - MCF

GAS WELL

Actual Prod. Test - MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (prior, back pr.)	Tubing Pressure (Shut-in)	Casing Pressure (Shut-in)	Choke Size

VI. OPERATOR CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature Steve Pfaff Supervisor- Contract Admin  
Printed Name Steve Pfaff Title  
Date 4/23/91 Telephone No. (505) 393-2153

OIL CONSERVATION DIVISION

Date Approved

APR 24 1991

By

Title Geologist

INSTRUCTIONS: This form is to be filed in compliance with Rule 1104

- 1) Request for allowable for a newly drilled or deepened well must be accompanied by tabulation of deviation tests taken in accordance with Rule 111.
- 2) All sections of this form must be filled out for allowable on new and recompleted wells.
- 3) Fill out only Sections I, II, III, and VI for changes of operator, well name or number, transporter, or other such changes.
- 4) Sep. rate Form C-104 must be filed for each pool in multiply completed wells.

# OIL CONSERVATION DIVISION

**Hobbs**  
P.O. Box 1980  
Hobbs, NM 88240

**Artesia**  
P.O. Drawer DD  
Artesia, NM 88210

**Astec**  
1000 Rio Brazos  
Aztec, NM 87410

## NOTICE OF GAS WELL - CONNECTION / RECONNECTION / DISCONNECTION

This is to notify the Oil Conservation Division of the following:

Connection	_____	First Delivery	_____	Date	Initial Potential
Reconnection	_____	First Delivery	_____	Date	Initial Potential
Disconnection	XX				

for delivery of gas from the \_\_\_\_\_  
Hadson Petroleum USA Inc.  
Operator

\_\_\_\_\_ LLano 34 State Com  
Lease

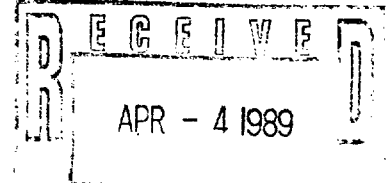
27523	680	1	I	34/21/34
Meter Code	Site Code	Well No.	Unit Letter	S-T-R

\_\_\_\_\_ Grama Ridge Morrow, Lower East  
Pool

was made on 2/21/89  
date

\_\_\_\_\_ AOF

\_\_\_\_\_ Choke



\_\_\_\_\_ Phillips 66 natural Gas Company  
Transporter

**OCD use only**

County Lea

Land Type lt

Liq. Transporter Navajo

J. M. Hastings Production Records Supervisor  
Representative Name/Title  
(Please type or print)

\_\_\_\_\_ J. M. Hastings  
Representative Signature

Submit in duplicate to the appropriate district office.

# OIL CONSERVATION DIVISION

**Hobbs**  
P.O. Box 1980  
Hobbs, NM 88240

**Artesia**  
P.O. Drawer DD  
Artesia, NM 88210

**Astec**  
1000 Rio Brazos  
Astec, NM 87410

## NOTICE OF GAS WELL - CONNECTION / RECONNECTION / DISCONNECTION

This is to notify the Oil Conservation Division of the following:

*Changed  
Transporter*

Connection	<u>XX</u>	First Delivery	<u>02-22-89</u>	
		Date		Initial Potential
Reconnection	<u>      </u>	First Delivery	<u>02-22-89</u>	
		Date		Initial Potential
Disconnection	<u>      </u>			

for delivery of gas from the Hadson Petroleum (USA) Inc.

**Operator**

STATION NUMBER 456  
LEA COUNTY, NM

Llano "34" State Com. #1

**Lease**

               
Meter Code      Site Code

<u>#1</u>	<u>I</u>	<u>Sec. 34, T21S, R34E</u>
Well No.	Unit Letter	S-T-R

Grama Ridge Morrow, East

**Pool**

was made on        date       

        
**AOF**

        
**Choke**

LLANO, INC.

**Transporter**

### OCD use only

County Lea

Land Type State

Liq. Transporter Navajo

Steve Pfaff-Supervisor-Contract Administration

        
Representative Name/Title  
(Please type or print)

Steve Pfaff

Representative Signature

Submit in duplicate to the appropriate district office.

Submit 5 Copies  
Appropriate District Office  
DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico  
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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

Form C-104  
Revised 1-1-89  
See Instructions  
at Bottom of Page

REQUEST FOR ALLOWABLE AND AUTHORIZATION  
TO TRANSPORT OIL AND NATURAL GAS

Operator HADSON PETROLEUM (USA) INC.		Well API No.
Address 921 W. SANGER, HOBBS, NM 88240		
Reason(s) for Filing (Check proper box) <input type="checkbox"/> Other (Please explain)		
New Well <input type="checkbox"/>	Change in Transporter of:	
Recompletion <input type="checkbox"/>	Oil <input type="checkbox"/> Dry Gas <input checked="" type="checkbox"/>	
Change in Operator <input type="checkbox"/>	Casinghead Gas <input type="checkbox"/> Condensate <input type="checkbox"/>	
If change of operator give name and address of previous operator		

II. DESCRIPTION OF WELL AND LEASE

Lease Name LLANO "34" STATE COM.	Well No. 1	Pool Name, Including Formation GRAMA RIDGE MORROW EAST	Kind of Lease State, <del>Leasehold</del>	Lease No. E-9659 R-3592
Location Unit Letter <u>I</u> : <u>1,650</u> Feet From The <u>SOUTH</u> Line and <u>660</u> Feet From The <u>EAST</u> Line Section <u>34</u> Township <u>21S</u> Range <u>34E</u> , <u>NMPM</u> LEA County				

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input type="checkbox"/> or Condensate <input checked="" type="checkbox"/> NAVAJO CRUDE OIL PURCHASING CO.	Address (Give address to which approved copy of this form is to be sent) P.O. BOX 175, ARTESIA, NM 88210
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input checked="" type="checkbox"/> LLANO, INC.	Address (Give address to which approved copy of this form is to be sent) 921 W. SANGER, HOBBS, NM 88240
If well produces oil or liquids, give location of tanks.	Unit <u>I</u> Sec. <u>34</u> Twp. <u>21S</u> Rge. <u>34E</u> Is gas actually connected? <u>YES</u> When? <u>2/22/89</u>

If this production is commingled with that from any other lease or pool, give commingling order number:

IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v	Diff Res'v
Date Spudded	Date Compl. Ready to Prod.		Total Depth			P.B.T.D.		
Elevations (DF, RKB, RT, GR, etc.)	Name of Producing Formation		Top Oil/Gas Pay			Tubing Depth		
Perforations						Depth Casing Shoe		
TUBING, CASING AND CEMENTING RECORD								
HOLE SIZE	CASING & TUBING SIZE		DEPTH SET			SACKS CEMENT		

V. TEST DATA AND REQUEST FOR ALLOWABLE

OIL WELL (Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or 60 for full 24 hours.)			
Date First New Oil Run To Tank	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas - MCF

GAS WELL

Actual Prod. Test - MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pilot, back pr.)	Tubing Pressure (Shut-in)	Casing Pressure (Shut-in)	Choke Size

VI. OPERATOR CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Clyton R. Reed  
Signature CLYTON R. REED ENGR.  
Printed Name 2/22/89 Title 505-393-2153  
Date Telephone No.

OIL CONSERVATION DIVISION

FEB 27 1989

Date Approved  
By [Signature]  
Title DISTRICT I SUPERVISOR

INSTRUCTIONS: This form is to be filed in compliance with Rule 1104

- 1) Request for allowable for newly drilled or deepened well must be accompanied by tabulation of deviation tests taken in accordance with Rule 111.
- 2) All sections of this form must be filled out for allowable on new and recompleted wells.
- 3) Fill out only Sections I, II, III, and VI for changes of operator, well name or number, transporter, or other such changes.
- 4) Separate Form C-104 must be filed for each pool in multiply completed wells.

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT

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

Form C-104  
Revised 10-01-78  
Format 06-01-83  
Page 1

REQUEST FOR ALLOWABLE  
AND  
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

I. Operator  
**HADSON PETROLEUM (USA) Inc.**

Address  
**921 West Sanger, Hobbs, NM 88240**

Reason(s) for filing (Check proper box)

<input type="checkbox"/> New Well	Change in Transporter of:	<input type="checkbox"/> Dry Gas
<input type="checkbox"/> Recompletion	<input type="checkbox"/> Oil	<input type="checkbox"/> Condensate
<input checked="" type="checkbox"/> Change in Ownership	<input type="checkbox"/> Casinghead Gas	

Other (Please explain)

If change of ownership give name and address of previous owner **MINERALS, INC., 921 W Sanger, Hobbs, NM 88240**

II. DESCRIPTION OF WELL AND LEASE

Lease Name <b>LLANO "34" STATE COM.</b>	Well No. <b>1</b>	Pool Name, including Formation <b>Gramma Ridge Morrow East</b>	Kind of Lease State, Federal or Fee	State <b>Lea</b>	Lease No. <b>E-9659 K-3592</b>
Location Unit Letter <b>I</b> : <b>1650</b> Feet From The <b>South</b> Line and <b>660</b> Feet From The <b>East</b> Line of Section <b>34</b> Township <b>21S</b> Range <b>34E</b> , NMPM, <b>Lea</b> County					

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input type="checkbox"/> or Condensate <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)
<b>Navajo Crude Oil Purchasing Company</b>	<b>P. O. Box 175, Artesia, NM 88210</b>
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)
<b>Phillips Petroleum Company</b>	<b>4001 Penbrook, Odessa, TX 79762</b>
If well produces oil or liquids, give location of tanks.	Unit Sec. Twp. Rge. Is gas actually connected? When
<b>I 34 21S 34E</b>	<b>Yes 10-26-79</b>

If this production is commingled with that from any other lease or pool, give commingling order number:

NOTE: Complete Parts IV and V on reverse side if necessary.

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given is true and complete to the best of my knowledge and belief.

OIL CONSERVATION DIVISION

**JUN 11 1987**

APPROVED \_\_\_\_\_ 19  
BY **Paul J. Roberts**  
TITLE **Geologist**

**C.M. Burt**

(Signature)

**Drilling & Production Engineer**

(Title)

**6-5-87**

(Date)

This form is to be filed in compliance with RULE 1104.  
If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.  
All sections of this form must be filled out completely for allowable on new and recompleted wells.  
Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter, or other such change of condition.  
Separate Forms C-104 must be filed for each pool in multiply completed wells.

#### IV. COMPLETION DATA

Designate Type of Completion - (X)		Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v.	Diff. Res'v.
Date Spudded	Date Compl. Ready to Prod.		Total Depth			P.B.T.D.			
Elevations (DF, RKB, RT, GR, etc.)	Name of Producing Formation		Top Oil/Gas Pay			Tubing Depth			
Perforations						Depth Casing Shoe			

#### TUBING, CASING, AND CEMENTING RECORD

HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT

#### V. TEST DATA AND REQUEST FOR ALLOWABLE OIL WELL

*(Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)*

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas - MCF

#### GAS WELL

Actual Prod. Test - MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pilot, back pr.)	Tubing Pressure (Shut-in)	Casing Pressure (Shut-in)	Choke Size

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OIL CONSERVATION DIVISION

P. O. BOX 2088  
SANTA FE, NEW MEXICO 87501

Form C-103  
Revised 10-1-

3a. Indicate Type of Lease  
State ☒ Fee ☐  
3. State Oil & Gas Lease No.  
E-9659

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR.  
USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>	7. Unit Agreement Name
Name of Operator MINERALS, INC.	8. Farm or Lease Name Llano "34" St. Com
Address of Operator P.O. Box 1320, Hobbs, New Mexico 88240	9. Well No. 1
Location of Well UNIT LETTER I 1650 FEET FROM THE South LINE AND 660 FEET FROM East LINE, SECTION 34 TOWNSHIP 21 S RANGE 34 E NMPM.	10. Field and Pool, or Whicat Grama Ridge Morrow Eas
11. Elevation (Show whether DF, RT, GR, etc.) 3651' GL, 3671 DF	12. County LEA

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input checked="" type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
WELL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input type="checkbox"/>	

Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1703.

1/12/84 thru 4/6/84 --- Total gross Morrow perf. 12,824- 13,170 not producing. Set Baker 1.81" FSG blanking plug in Baker 'F' nipple in lower tbg string @ 12,000' to isolate lower Morrow. Set Otis 1.85" DD BP in collar of upper tbg string @ 10,466'. Acidized Morrow perf. 12,824-12,838' w/1000 gal 10% HCl acid & 1000 gals. methanol blend containing 4 gals HAI-50, 2 gals LoSurf 259, 1 gal. Musol & 3 gal ENWAR 288 foamed to 70 quality w/N2. Followed trt. w/80,000 SCF N2 flush. Max press. 5100 psig, avg. press. 3400 psig, ISIP 5100 psig. Acid job unsuccessful. ---Retrieved OTIS DD BP @ 10,466' & pulled upper tbg string. Released Baker duel pkr & attempted to release on-off tool & seal assembly from Model 'D' set @ 12,875' with no results. Ran free point & cut 2 3/8" tbg @ 12,841' w/chemical cutter. TOH w/lower tbg. string & dual pkr. TIH w/Baker Model 'R' double grip pkr. on 411 jts 2 3/8" O.D. N-80 tbg & set pkr @ 12,692' w/3 jts. tailpipe, SN below pkr. Perf possibly plugged w/scale from backside. Acidized upper Morrow perf. 12,824-12,838 w/750 gals. MOD 202 acid containing 2 gals HAI-50 & 2 gals. LoSurf 259. Displaced w/50 bbls 2% KCL wtr. Max pressure 3700 psig, avg. pressure 2950 psig, ISIP - vacuum. Swabbed well in on sales to Phillips pipeline on 4/6/84 w/400 MCFPD rate, FTP 260 psig. on 24/64" ck.

8/31/84 ---FTP-270 psig, F 700 MCFPD to pipeline on 24/64" ck.

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

SIGNED OKleer TITLE Vice President DATE 9-18-84  
APPROVED BY Gerrig TITLE DISTRICT 1 SUPERVISOR DATE SEP 27 1984

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NEW MEXICO OIL CONSERVATION COMMISSION  
REQUEST FOR ALLOWABLE  
AND  
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Form O-101  
Supersedes Old O-101 and O-102  
Effective 1-1-65

I. OPERATOR  
Minerals, Inc.  
Address  
P. O. Box 1320, Hobbs, NM 88241

Reason(s) for filing (check proper box)  
New Well ☐ Change in Transporter of: Oil ☐ Dry Gas ☐  
Recompletion ☐ Casinghead Gas ☐ Condensate ☒  
Change in Ownership ☐

Other (Please explain)

If change of ownership give name and address of previous owner

II. DESCRIPTION OF WELL AND LEASE

Lease Name Llano "34" State Com.	Well No. 1	Pool Name, including Formation Grama Ridge Morrow East	Kind of Lease State, Federal or Fee State	E-9659 K-3592
Location Unit Letter I ; 1650 Feet From The South Line and 660 Feet From The East Line of Section 34 Township 21 South Range 34 East , NMPM, Lea County				

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input type="checkbox"/> or Condensate <input checked="" type="checkbox"/> Navajo Refining Company	Address (Give address to which approved copy of this form is to be sent) P. O. Box 159, Artesia, NM 88210			
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input checked="" type="checkbox"/> Phillips Petroleum Company	Address (Give address to which approved copy of this form is to be sent) Bartlesville, OK 74004			
If well produces oil or liquids, give location of tanks.	Unit I	Sec. 34	Twp. 21S	Rge. 34E
Is gas actually connected? When yes October 26, 1979				

If this production is commingled with that from any other lease or pool, give commingling order number:

IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'ty.	Drill, Res'ty.
		X						
Date Spudded May 21, 1979	Date Compl. Ready to Prod. October 10, 1979	Total Depth 13,280'		P.B.T.D. 13,188'				
Elevations (D.F., RKB, RT, GR, etc.) 3651' GL	Name of Producing Formation Morrow	Top Oil/Gas Pay 12,824'		Tubing Depth 12,875'				
Perforations 12,824-38, 12,986-99, 13,002-04, 13,008-18, 13,020-26, 13,033-36, 13,038-44, 13,165-70				Depth Casing Shoe 13,279'				
TUBING, CASING, AND CEMENTING RECORD								
HOLE SIZE 20"	CASING & TUBING SIZE 16" 65#		DEPTH SET 1,200'		SACKS CEMENT 1,300			
14-3/4"	10-3/4" 45.5#		5,773'		5,700			
9 1/2"	7-5/8" 29.7#		11,200'		1,500			
6 1/2"	4 1/2" 13.3# liner		13,279'		500			

V. TEST DATA AND REQUEST FOR ALLOWABLE OIL WELL

(Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas - MCF

GAS WELL

Actual Prod. Test-MCF/D 3,980 MCF/D	Length of Test 4 hours	Bbls. Condensate/MMCF 34 Bbls./MMCF	Gravity of Condensate 51° API
Testing Method (pilot, back pr.) Back Pressure	Tubing Pressure (shut-in) 4825 psig	Casing Pressure (shut-in) Racker	Choke Size 16/64"

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Minerals, Inc.

Al Klaar  
Vice President

8-14-84  
(Date)

OIL CONSERVATION COMMISSION  
APPROVED DISTRICT 1 SUPERVISOR AUG 16 1984

BY  
TITLE DISTRICT 1 SUPERVISOR

This form is to be filed in compliance with RULE 1194.

If this is a request for allowable for a newly drilled or deepen well, this form must be accompanied by a tabulation of the desired tests taken on the well in accordance with RULE 111.

All sections of this form must be filled out carefully for all wells on the property except 1 well.

Fill out only Sections I, II, III, and VI for change of own well name or number, or transporter or other such change of condition.



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OPERATION	

OIL CONSERVATION DIVISION

P. O. BOX 2088  
SANTA FE, NEW MEXICO 87501

Form C-103  
Revised 10-1-

RECEIVED  
DEC 31 1979  
OIL CONSERVATION DIVISION

5a. Indicate Type of Lease  
State ☒ For ☐  
5. State Oil & Gas Lease No.  
E-9659 & K-3592

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO REPERF OR PLUG BACK TO A DIFFERENT RESERVOIR.  
USE "APPLICATION FOR PERMIT" (FORM C-101A FOR SUCH PROPOSALS.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>	7. Unit Agreement Name
2. Name of Operator Minerals, Inc.	8. Farm or Lease Name Llano "34" State Com.
3. Address of Operator P. O. Box 1320, Hobbs, New Mexico 88240	9. Well No. 1
4. Location of Well UNIT LETTER I 1650 FEET FROM THE South LINE AND 660 FEET FROM THE East LINE, SECTION 34 TOWNSHIP 21S RANGE 34E N.M.P.M.	10. Field and Pool, or Wildcat Grama Ridge (Morrow) East
15. Elevation (Show whether DF, RT, GR, etc.) 3651 GL, 3671 DF	12. County Lea

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data  
NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input checked="" type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input type="checkbox"/>	OTHER <input type="checkbox"/>

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

- 10-30-79: Morrow perfs (12,824'-12,838') would not produce. Acidized (12,824'-12,838') with 2500 gallons 7½% MS acid & flushed to top of perfs with 2% KCl water. Used 1000 SCF N₂ in acid and flush. Max pressure 5250 psig, ISIP 4650 psig. Recovered load water, would not flow. Acid job unsuccessful.
- 11-8-79: Morrow perfs (12,986'-13,170', gross) flow 350 MCF, 26 BO, 0 BW in 24 hrs., TPF 120 psig. Acidized (12,986'-13,170') with 5700 gallons 10% Mor-Flo acid and 16 tons of CO₂ and 90 ball sealers. Flushed with KCl water containing CO₂. Max pressure 5100 psig, ISIP 3800 psig. Flow 430 MCF, 7 BO, 24 BW in 24 hrs., TPF 95 psig.
- 11-20-79: Reperf Morrow perf (12,986'-13,170', gross) at 12,986'-12,999'; 13,002'-13,004'; 13,008'-13,018'; 13,020'-13,026'; 13,033'-13,036'; 13,038'-13,044'; 13,165'-13,170' with a thru-tubing and 2 jet shots per foot. Flow 470 MCF, 7 BO, 18 BW in 24 hrs., TPF 925 psig.
- 11-29-79: Morrow perfs (12,986'-13,170') acidized with 1,000 gallons 15% HCl containing 12 gallons Mor-Flo II, 8 gallons INH., 110 gallons Musol followed by 3,000 gallons methanol flushed with 2% KCl water. Treatment and flush contained 1500 SCF N₂ per bbl. of liquid. Max pressure 5200 psig, ISIP 4800 psig. Used tree-saver isolation tool during treatment. Perforated long tubing string with thru-tubing across from Morrow perfs 12,824'-12,838'. Total gross Morrow perfs 12,824'-13,170' now flowing through long tubing string. Flow 3,425 MCF, 22 BO, 12 BW in 24 hrs., TPF 2,800 psig, 13/64" choked.

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

SIGNED Ronald L. Lacey TITLE President DATE December 18, 1979

APPROVED BY [Signature] TITLE SUPERVISOR DISTRICT DATE DEC 28 1979

CONDITIONS OF APPROVAL, IF ANY:

OIL CONSERVATION COMMISSION

BOX 1980

HOBBS, NEW MEXICO

NOTICE OF GAS CONNECTION

DATE November 7, 1979



This is to notify the Oil Conservation Commission that connection for  
the purchase of gas from the Minerals, Inc.,  
Operator

Llano "34" State Com, I, 34-21-34, Grama Ridge/Morrow (Upper),  
Lease Well Unit S.T.R. Pool

Phillips Petroleum Company, was made on October 26, 1979.  
Name of Purchaser

Phillips Petroleum Company  
Purchaser

*KE Moore*  
Representative  
K. E. Moore

Gas Tester Supervisor  
Title

cc: To Operator

Oil Conservation Commission - Santa Fe

OIL CONSERVATION COMMISSION

BOX 1980

HOBBS, NEW MEXICO

NOTICE OF GAS CONNECTION

DATE November 7, 1979

OIL CONSERVATION COMMISSION  
SANTA FE

This is to notify the Oil Conservation Commission that connection for  
the purchase of gas from the Minerals, Inc.,  
Operator

Ilano "34" State Com, I, 34-21-34, Grana Ridge/Morrow (Lower),  
Lease Well Unit S.T.R. Pool

Phillips Petroleum Company, was made on October 26, 1979.  
Name of Purchaser

Phillips Petroleum Company  
Purchaser

K. E. Moore

Representative  
K. E. Moore

Gas Tester Supervisor  
Title

cc: To Operator

Oil Conservation Commission - Santa Fe

## OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

REQUEST FOR ALLOWABLE  
AND  
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

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LAND OFFICE	
TRANSPORTER	OIL
	NATURAL GAS
OPERATOR	
PRODUCTION OFFICE	

Minerals, Inc.

Address

P. O. Box 1320, Hobbs, New Mexico 88240

Reason(s) for filing (Check proper box)

New Well ☒Recompletion ☐Change in Ownership ☐

Change in Transporter of:

Oil ☐Casinghead Gas ☐Dry Gas ☐Condensate ☐

Other (Please explain)

If change of ownership give name  
and address of previous owner

## I. DESCRIPTION OF WELL AND LEASE

Lease Name	Well No.	Pool Name, including Formation	Kind of Lease	Lease No.
Llano "34" State Com.	1	Gramma Ridge Morrow East	State, Federal or Fee State	E-9659 K-3592
Location				
Unit Letter	I	1650 Feet From The	South Line and	660 Feet From The
Line of Section	34	Township	21-S	Range
			34-E	NMPM, Lea County

## II. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input type="checkbox"/> or Condensate <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)					
Southern Union Refining Company	P. O. Box 980, Hobbs, New Mexico 88240					
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)					
Phillips Petroleum Company	Bartlesville, Oklahoma 74004					
If well produces oil or liquids, give location of tanks.	Unit	Sec.	Twp.	Rge.	Is gas actually connected?	When
	I	34	21-S	34-E	No	

If this production is commingled with that from any other lease or pool, give commingling order number:

## III. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v.	Diff. Res'v.
		X	X					
Date Spudded	Date Compl. Ready to Prod.	Total Depth	P.B.T.D.					
May 21, 1979	October 10, 1979	13,280'	13,188'					
Elevations (DF, RKB, RT, GR, etc.)	Name of Producing Formation	Top Oil/Gas Pay	Tubing Depth					
3651' GL	Morrow	12,824'	12,875'					
Perforations	12,824-38, 12,986-99, 13,002-04, 13,008-18, 13,020-26, 13,033-36, 13,038-44, 13,165-70	Depth Casing Shoe						
		13,279'						
TUBING, CASING, AND CEMENTING RECORD								
HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT					
20"	16" 65#	1,200'	1300					
14-3/4"	10-3/4" 45.5#	5,773'	5700					
9 1/2"	7-5/8" 29.7#	11,200'	1500					
6 1/2"	4 1/2" 13.3#Liner	13,279'	500					

## IV. TEST DATA AND REQUEST FOR ALLOWABLE OIL WELL (Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

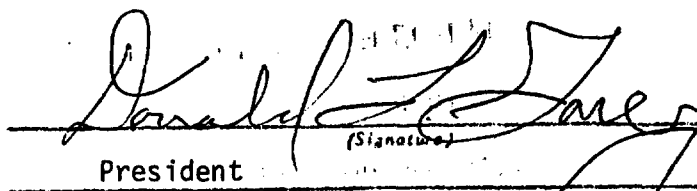
Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas - MCF

## GAS WELL

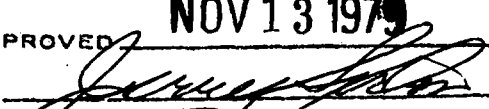
Actual Prod. Test-MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
3,980 MCF/D	4 hrs.	34 bbls./MMCF	51° API
Testing Method (pilot, back pr.)	Tubing Pressure (shut-in)	Casing Pressure (shut-in)	Choke Size
Back pressure	4825 PSIG	Packer	16/64"

## V. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

  
President  
October 16, 1979  
(Date)

## OIL CONSERVATION DIVISION

APPROVED NOV 13 1979  
BY   
TITLE SUPERVISOR DISTRICT I

This form is to be filed in compliance with RULE 1104.

If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.

All sections of this form must be filled out completely for allowable on new and recompleted wells.

Fill out only Sections I, II, III, and VI for changes of owner well name or number, or transporter, or other such change of condition. Separate Forms C-104 must be filed for each pool in multiple.

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Form C-105  
Revised 11-1-78

# NEW MEXICO OIL CONSERVATION COMMISSION WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5a. Indicate Type of Lease	
State <input checked="" type="checkbox"/>	Fee <input type="checkbox"/>
5. State Oil & Gas Lease No.	
E-9656; K-3592	

1a. TYPE OF WELL	
OIL WELL <input type="checkbox"/>	GAS WELL <input checked="" type="checkbox"/> DRY <input type="checkbox"/> OTHER <input type="checkbox"/>
b. TYPE OF COMPLETION	
NEW WELL <input checked="" type="checkbox"/>	WORK OVER <input type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> OTHER <input type="checkbox"/>
2. Name of Operator	
Minerals, Inc.	
3. Address of Operator	
P. O. Box 1320, Hobbs, New Mexico 88240	
4. Location of Well	
UNIT LETTER <u>I</u>	LOCATED <u>1650</u> FEET FROM THE <u>South</u> LINE AND <u>660</u> FEET FROM
THE <u>East</u> LINE OF SEC. <u>34</u> TWP. <u>21-S</u> RGE. <u>34-E</u> NMPM	

7. Unit Agreement Name
8. Farm or Lease Name
Llano "34" State Com.
9. Well No.
1
10. Field and Pool, or Wildcat
Grama Ridge Morrow East
12. County
Lea

15. Date Spudded	16. Date T.D. Reached	17. Date Compl. (Ready to Prod.)	18. Elevations (DF, RKB, RT, GR, etc.)	19. Elev. Casinghead
May 21, 1979	9-1-79	October 10, 1979	3651' GL; 3672' KB	-
20. Total Depth	21. Plug Back T.D.	22. If Multiple Compl., How Many	23. Intervals Drilled By	Rotary Tools
13,280'	13,188'		0-T.D.	Cable Tools
24. Producing Interval(s), of this completion - Top, Bottom, Name				25. Was Directional Survey Made
12,824'-13,170'; Morrow				Yes
26. Type Electric and Other Logs Run				27. Was Well Cored
CNL-FDC, GR, CAL, DLL				No

28. CASING RECORD (Report all strings set in well)					
CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
16"	65	1,200'	20"	1100 sx. Lite + 200 sx. Class "C" Circ.	
10-3/4"	45.5	5,773'	14-3/4"	5400 sx. Lite + 300 sx. Class "C" Circ.	
7-5/8"	29.7	11,200'	9 1/2"	900 sx. Lite + 600 sx. Class "H" Top	
					cmt. @ 5250'

29. LINER RECORD				30. TUBING RECORD			
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
4 1/2"	10,728'	13,279'	500 sx. Class "H" Circ.		2-3/8"	10,573	10,573
					2-3/8"	12,875	12,875

31. Perforation Record (Interval, size and number) 12,824-38, 12,986-99, 13,002-04, 13,008-18, 13,020-26, 13,033-36, 13,038-44, 13,165-70, 2 shots per foot.	32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
	DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
	12,824'-13,170'	Natural completion

33. PRODUCTION							
Date First Production		Production Method (Flowing, gas lift, pumping - Size and type pump)				Well Status (Prod. or Shut-in)	
10-6-79		Flowing				SI-WOPC	
Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period	Oil - Bbl.	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
10-9-79	4	16/64"		23	663	0	28,826:1
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API (Corr.)	
1,524 PSIG	Packer		140	3980	0	51° API	

34. Disposition of Gas (Sold, used for fuel, vented, etc.)	Test Witnessed By
To be connected to Phillips Petroleum Company	Al Klaar & J.B. Swinney

35. List of Attachments
DST Summary, Deviation Record, Logs, Multipoint, Bottom Hole Pressure

36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

SIGNED <u>Donald L. Bailey</u>	TITLE <u>President</u>	DATE <u>October 16, 1979</u>
--------------------------------	------------------------	------------------------------

This form is to be filed with the appropriate District Office of the Commission not later than 30 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radioactivity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 30 through 31 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

### Southeastern New Mexico

T. Anhy	T. Canyon
T. Salt 1,856	T. Strawn 11,626
B. Salt 3,810	T. Atoka 11,908
T. Yates 4,104	T. Miss
T. 7 Rivers 4,459	T. Devonian
T. Queen	T. Silurian
T. Grayburg	T. Montoya
T. San Andres	T. Simpson
T. Glorieta	T. McKee
T. Paddock	T. Ellenburger
T. Blinberry	T. Gr. Wash
T. Tubb	T. Granite
T. Drinkard	T. Delaware Sand 5,498
T. Abo	T. Bone Springs 8,348
T. Wolfcamp	T. Morrow Clastic 12,713
T. Penn.	T. Barnett 13,235
T. Cisco (Bough C)	T.

T. Ojo Alamo _____	T. Penn. "B" _____
T. Kirtland-Fruitland _____	T. Penn. "C" _____
T. Pictured Cliffs _____	T. Penn. "D" _____
T. Cliff House _____	T. Leadville _____
T. Menefee _____	T. Madison _____
T. Point Lookout _____	T. Elbert _____
T. Mancos _____	T. McCracken _____
T. Gallup _____	T. Ignacio Qtzte _____
T. Base Greenhorn _____	T. Granite _____
T. Dakota _____	T. _____
T. Morrison _____	T. _____
T. Todilto _____	T. _____
T. Entrada _____	T. _____
T. Wingate _____	T. _____
3 T. Chinle _____	T. _____
5 T. Permian _____	T. _____
T. Penn. "A" _____	T. _____

No. 1, from 12,824 to 13,170 No. 4, from to  
No. 2, from to No. 5, from to  
No. 3, from to No. 6, from to

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from ..... to ..... feet. ....

No. 2, from ..... to ..... feet. ....

No. 3, from ..... to ..... feet. ....

No. 4, from ..... to ..... feet. ....

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation

RECEIVED  
OCT 18 1970  
Q.C.D. HOBBS, OFFICE

RECEIVED  
OCT 18 1973  
Q.C.D. MOBBIS, OFFICE

Llano 34 State Com. No. 1

DST No. 1 - Bone Springs: 10,730' - 10,800' (70'). Tool open 1 hr. 35 mins., 5 min. preflow, 1½ hrs., initial shut-in, 1½ hrs. final flow, 3 hrs. final shut-in. Tool opened w/fair blow of air and decreased to zero blow in 1 hr. Rec. 6,170' gas and 330' gas cut mud w/trace of oil. Sample chamber recovered: 0.48 cu. ft. of gas, 10 c.c. of oil, 40 c.c. mud at 100 psi pressure. Pressures: initial hydrostatic 5793, preflow 18-18, initial shut-in 1873, final flow 12-18, final shut-in 940, final hydrostatic 5789, BHT 154° F.

DST No. 2: 11,110' - 11,155' (45'). Tool open 1 hr. 35 mins., 5 min. preflow, 1 hr. 5 mins. initial shut-in, 1½ hrs. final flow, 3 hrs. final shut-in. Tool opened with weak blow of air - steady throughout test. Rec. 4665' gas, 180' gas cut mud. Sample chamber recovered: 0.39 cu. ft. gas, 20 c.c. mud @ 85 PSI. Pressures: initial hydrostatic 5980, preflow 12-12, initial shut-in 305, final flow 10-17, final shut-in 398, final hydrostatic 5998, BHT 150° F.

DST No. 3: 11,265'-11,421' (156'). Tool open 40 mins., 10 min. preflow, 30 min. initial shut in, 30 min. final flow, 1 hr. final shut-in. Tool opened with no blow at surface throughout test. Recovered 1500' of water blanket. Sample chamber recovered: 3.8 cu. ft. gas, 15 c.c. mud @ 550 psi. Pressures: initial hydrostatic 6,089, preflow 749 - 749, initial shut-in 1,277, final flow 749 - 749, final shut-in 1,040, final hydrostatic 6,107, BHT 186° F.

DST No. 4: Strawn 11,690' - 11,792' (102'). Tool open 3 hrs., 10 min. preflow, 2 hr. initial shut-in, 2 hrs. 50 mins. final flow, 6 hrs. final shut-in. GTS in 1 hr. 5 mins., flow max 50 MCFPD @ 23 PSI on ¼" choke. Recovered 2000' water-blanket & 630' gas & dist. Pressures: Initial hydrostatic 6,838, Initial flow 958 - 940, initial shut-in 7,062, final flow 921 - 1201, final shut-in 6,932, final hydrostatic 6,857, BHT 170°.

DST No. 5: Atoka 12,173' - 12,278' (105'). Tool open 2 hrs. 50 mins., 10 min. preflow, 1½ hrs. initial shut-in, 2 hrs. 40 mins. final flow, 5 hrs. final shut-in. Tool opened with fair blow of air. Gas to surface in 1 hr. 10 mins., flow max 40 MCFPD @ 16 PSI on ¼" choke prior to declining to zero flow @ end of final flow period. Recovered 3000' of gas cut water blanket plus 200' of gas cut mud. Pressures: Initial hydrostatic 7,405, initial flow 1436 - 1491, Initial shut-in 6658, final flow 1509 - 1509 final shut-in 6879, final hydrostatic 7401, BHT 178°.

DST No. 6: Atoka 12,396' - 12,630' (234'). Tool open 2 hrs. 10 mins., 1 min. preflow, 1½ hrs. initial shut-in, 2 hrs. final flow, 4 hrs. final shut-in. Tool opened with fair blow of air. Gas to surface 24 mins. After tool opened on preflow. Max flow 60 MCFPD on ¼" choke @ 29 psi. Recovered 1000' water blanket gas cut and 280' distillate and gas cut mud. Sample chamber: 1.25 cu. ft. gas @ 425 psi, 185 cc distillate, 140 cc mud. Pressures: Initial hydrostatic 8059, initial flow 599 - 599, initial shut-in 7596, final flow 506 - 599, final shut-in 6893, final hydrostatic 7966, BHT 178°.

DST No. 7: 12,644' - 12,733' (89') Atoka. Tool open 1 hr. 20 mins. 10 min. preflow, 1 hr. 2nd flow, 10 min. 3rd flow, 1½ hr. initial shut-in, 15 min. 2nd shut-in, 2 hr. final shut-in. Open tool with very weak air blow on preflow. No blow during 2nd & 3rd flow periods. Recovered 3000' water blanket plus 30' mud. Sample Chamber: 0.3 cu. ft. gas, trace oil, 500 cc mud @ 75 psig. Pressures: Initial hydrostatic 8148, initial flow 1472-1472, initial shut-in 2410, 2nd flow 1472-1472, 2nd shut-in 1528, final flow 1454-1454, final shut-in 1822, final hydrostatic 8056, BHT 179°.

WELL NAME AND NUMBER Llano State "34" Com #1

LOCATION Section 34, T21S, R34E, Lea County, New Mexico  
(New Mexico give U.S.T&R: Texas give S, BLK, SURV. and TWP)

OPERATOR Minerals, Inc.

DRILLING CONTRACTOR MORANCO

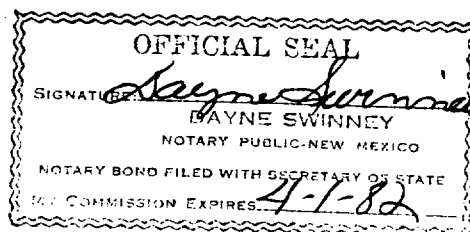
The undersigned hereby certifies that he is an authorized representative of the drilling contractor who drilled the above-described well and that he has conducted deviation tests and obtained the following results:

Degrees and Depth	Degrees and Depth	Degrees and Depth	Degrees and Depth
<u>1/2 217</u>	<u>1 1/2 3670</u>	<u>3/4 8639</u>	<u>1 1/2 12,180</u>
<u>1/2 519</u>	<u>1 3784</u>	<u>1 9125</u>	<u>1 12,425</u>
<u>1/2 922</u>	<u>1 4182</u>	<u>1 1/4 9128</u>	<u>3/4 12,630</u>
<u>1 1200</u>	<u>1 1/2 4650</u>	<u>1 1/4 9437</u>	<u>1/2 12,902</u>
<u>1/2 1475</u>	<u>3/4 5150</u>	<u>1/4 9747</u>	<u>3/4 13,275</u>
<u>1/2 1741</u>	<u>3/4 5638</u>	<u>1/2 10,251</u>	
<u>3/4 1970</u>	<u>1 6130</u>	<u>1 1/4 10,665</u>	
<u>1 2200</u>	<u>3/4 6593</u>	<u>1 10,800</u>	
<u>3/4 2488</u>	<u>1 7087</u>	<u>1 3/4 10,951</u>	
<u>3/4 2830</u>	<u>3/4 7568</u>	<u>1 1/4 11,200</u>	
<u>1 3108</u>	<u>3/4 7858</u>	<u>1 1/4 11,421</u>	
<u>1 1/4 3455</u>	<u>3/4 8148</u>	<u>1 11,792</u>	

Drilling Contractor MORANCO

By Jerry Gilbert  
Jerry Gilbert, Vice-President Engineering

Subscribed and sworn to before me this 1st day of October 1979





NO. OF COPIES RECEIVED		
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SANTA FE		
FILE		
U.S.G.S.		
LAND OFFICE		
OPERATOR		

# NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103 *Lands*  
Supersedes Old  
C-102 and C-103  
Effective 1-1-65

5a. Indicate Type of Lease	State <input checked="" type="checkbox"/> Fee <input type="checkbox"/>
5. State Oil & Gas Lease No.	E-9659

## SUNDRY NOTICES AND REPORTS ON WELLS

DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO RE-OPEN OR PLUG BACK TO A DIFFERENT RESERVOIR.  
USE APPLICATION FOR PERMIT - (FORM C-101, FOR SUCH PROPOSALS.)

1. <input type="checkbox"/> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER-	7. Unit Agreement Name
2. Name of Operator Minerals, Inc.	8. Form or Lease Name Llano "34" State Com.
3. Address of Operator P. O. Box 1320, Hobbs, New Mexico 88240	9. Well No. 1
4. Location of Well UNIT LETTER <u>I</u> <u>1650</u> FEET FROM THE <u>South</u> LINE AND <u>660</u> FEET FROM THE <u>East</u> LINE, SECTION <u>34</u> TOWNSHIP <u>21S</u> RANGE <u>34E</u> NMPM.	10. Field and Pool, or Wildcat Undesignated
15. Elevation (Show whether DF, RT, GR, etc.) 3651' GL, 3671' DF	12. County Lea

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

### NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐  
TEMPORARILY ABANDON ☐  
PULL OR ALTER CASING ☐  
OTHER ☐

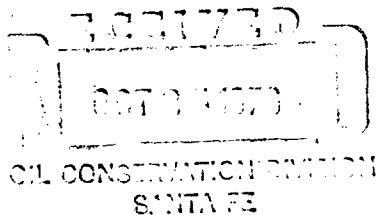
PLUG AND ABANDON ☐  
CHANGE PLANS ☐

### SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐  
COMMENCE DRILLING OPS. ☐  
CASING TEST AND CEMENT JOBS ☐  
OTHER Strawn completion attempt

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

9-17-79 - 9-25-79 Perf. Strawn w/2 JSPF @ 11,712-14, 11,717-19, 11,723-25, 11,730-36, 11,742-44, 11,746-52, 11,759-61, 11,770-72, 11,784-86. Acidize with 7000 gals. 20% HCL and ball sealers. Recovered 204 bbls. load water. Acidized perf. 11,712 to 11,786 with 15,000 gals. 20% acid in 3 stages containing 25# of XR-2 plus 5# FR-16 plus 1.5 gal. LT-22 & 1 gal. I-15 for each 5000 gal. stage. Recovered 680 bbls. load water with trace of oil and gas. Squeezed Strawn perfs. w/200 sx. Class "H" neat cmt. containing .2% HR-4 & .9% Halad 9 per sx. Tested squeeze perf. to 1000 lbs. for 30 minutes with no pressure loss. Drill out and clean out to PBTD 13,188. Prep. to complete in Morrow.



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

SIGNED Donald J. Casler TITLE President

DATE October 12, 1979

APPROVED BY [Signature]  
CONDITIONS OF APPROVAL, IF ANY:

SUPERVISOR DISTRICT 1

DATE OCT 22 1979

State of New Mexico



ALEX J. ARMIJO  
COMMISSIONER



Commissioner of Public Lands  
October 19, 1979

P. O. BOX 1148  
SANTA FE, NEW MEXICO 87501

Minerals, Inc.  
P. O. Box 1320  
Hobbs, New Mexico 88240

Re: Minerals, Inc.-  
Llano State "34" Com Well No. 1  
E/2 Sec 34-T21S-R34E  
Lea County, New Mexico

ATTENTION: Mr. G. W. Edwards

Gentlemen:

The Commissioner of Public Lands has this date approved your communitization agreement covering the E/2 of Section 34, Tosnship 21 South, Range 34 East, Lea County, New Mexico. Such agreement covers the MORROW formation. The effective date to be as of May 1, 1979, being the date of your agreement.

Enclosed are Five (5) Certificates of approval.

Your Ten (\$10.00) Dollar filing fee has been received.

Very truly yours,

ALEX J. ARMIJO  
COMMISSIONER OF PUBLIC LANDS

BY:  
RAY D. GRAHAM, Director  
Oil and Gas Division

AJA/RDG/s  
encl.  
cc:

OCD-Santa Fe, New Mexico ✓

NEW MEXICO OIL CONSERVATION COMMISSION  
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122  
Revised 9-1-66

# ILLEGIBLE

<input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special				Date: 10/9/79	
Company: Minerals, Inc.				Production: Phillips Petr. Co.	
Well: Undesignated (East Grama Ridge)				Formation: Upper Morrow	
Completion Date: 10/6/79		Total Depth: 13,280		Plug Back To: 13,188	
Elevation: 3672 KB		Form or Lease Name: Llano "34" State Cor			
Casing Size: 4 1/2"	Wt.: 13.5	ID: 3.920	Set At: 13,279	Perforations: From 12,824 To 12,838	
Tubing Size: 2-3/8"	Wt.: 4.6	ID: 1.995	Set At: 10,600	Perforations: From - To -	
Type well - Single - Protobhead - G.G. or G.O. Multiple Single				Packoff Set At: 10,573	
Producing thru TBG		Reservoir Temp. °F: 177 @ 13,280		Mean Annual Temp. °F: 60	
State: New Mexico					
L: 12,831	H: 12,831	Gg: 0.591	% CO <sub>2</sub> : -	% N <sub>2</sub> : -	% H <sub>2</sub> S: -
Prover: -		Meter Run: 4"		Flange	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Grillage Size	Press. p.s.i.g.	Diff. h <sub>w</sub>	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI	90 hours						4635		Packer		
1.	4 x 2.250			42	5.5	65	3060	70			1 hour
2.	4 x 2.250			80	9.5	79	2660	68			1 hour
3.	4 x 2.250			160	17.0	83	1810	64			1 hour
4.	4 x 2.250			200	19.5	86	1453	64			1 hour
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P <sub>m</sub>	Flow Temp. Factor F <sub>t</sub>	Gravity Factor F <sub>g</sub>	Super Compress. Factor F <sub>sp</sub>	Rate of Flow Q, Mcfd
1	28.23	17.42	55.2	0.9952	1.301	1.004	639
2	28.23	29.76	93.2	0.9822	1.301	1.006	1,080
3	28.23	54.26	173.2	0.9786	1.301	1.013	1,976
4	28.23	64.48	213.2	0.9759	1.301	1.015	2,346
5							

NO.	P <sub>r</sub>	Temp. °R	T <sub>r</sub>	Z	Gas Liquid Hydrocarbon Ratio	35	Mcf/bbl.
1	0.08	525	1.48	0.993	A.P.I. Gravity of Liquid Hydrocarbons	50	Deg.
2	0.14	539	1.52	0.988	Specific Gravity Separator Gas	0.591	X X X X X X X X
3	0.26	543	1.53	0.975	Specific Gravity Flowing Fluid	X X X X X	
4	0.32	546	1.54	0.970	Critical Pressure	672	P.S.I.A.
5					Critical Temperature	354	°R

P <sub>r</sub> 4,648.2    P <sub>w</sub> 21,606			
NO.	P <sub>r</sub>	P <sub>w</sub> *	P <sub>r</sub> ² - P <sub>w</sub> ²
1		4,179.2	17,466
2		3,923.2	15,391
3		3,347.2	11,204
4		2,392.2	5,723
5			

$$(1) \frac{P_r^2}{P_r^2 - P_w^2} = 1.36032$$

$$\left[ \frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 3.173$$

$$(2) \left[ \frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.35239$$

Angle of Slope: 3,173	Angle of Slope: 45°33'	Slope: 0.981
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Remarks: \*Bottom-hole pressure bomb utilized.

Approved:	Conducted By: J. B. Swinney & Jarrel Serv. Inc.	Calculated By: A1 Klaar	Checked By: GWE
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MINERALS, INC.

LLANO 34" STATE COM. No. 1

ILLEGIBLE

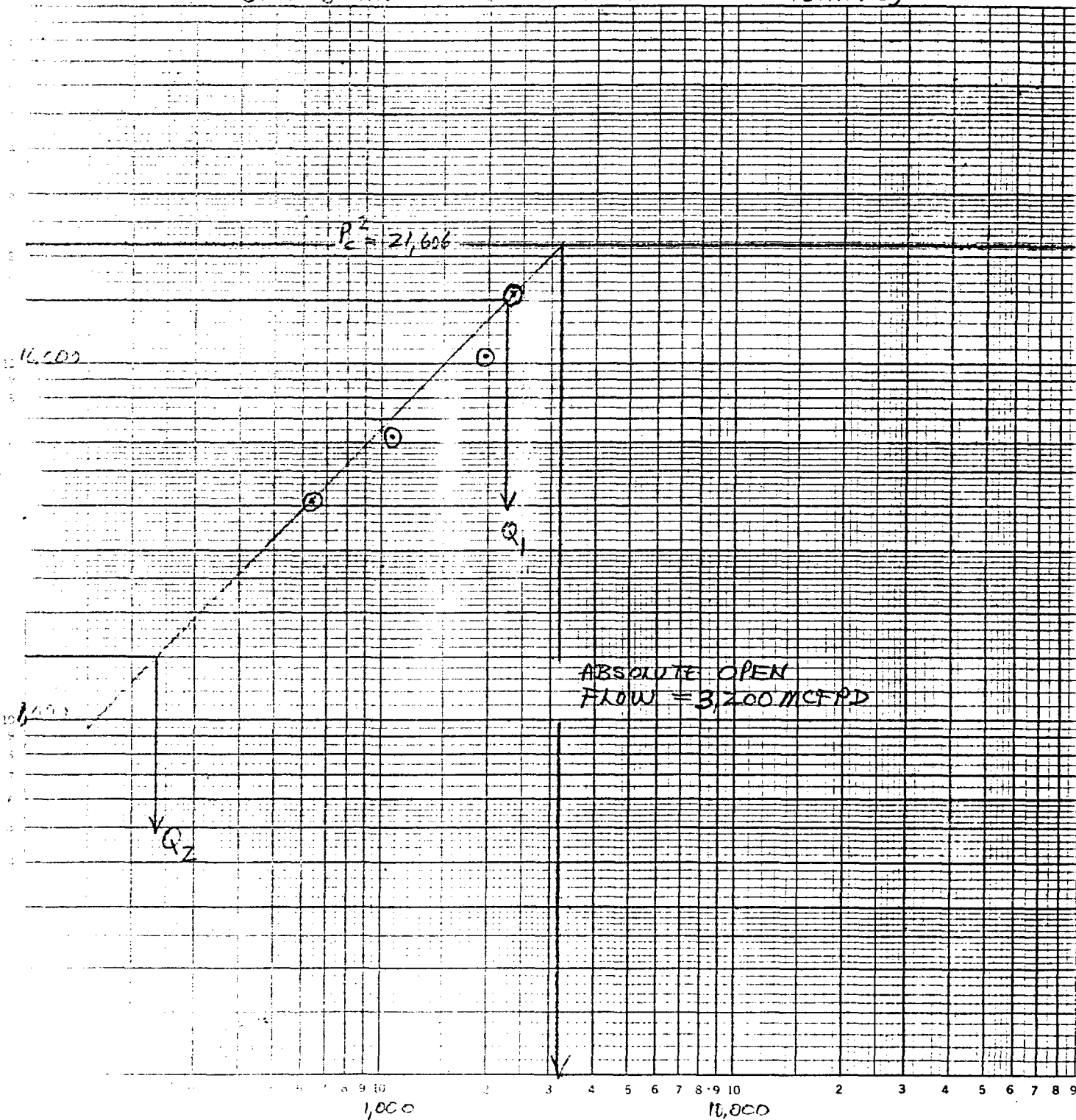
I - 34 - 215 - 34E  
LEA COUNTY, NEW MEXICO

UPPER MORROW

UNDESIGNATED (LAST GRAMA RIDGE MORROW)

40,7400

LOG ARITHMIC 3 X 3 CYCLES  
RUFFLE R. PAPER CO. 1961



$Q_1 = 2,400 \text{ MCFD}$

$\log Q_1 = 3.352183$

$Q_2 = 235 \text{ MCFD}$

$\log Q_2 = 2.371068$

$m = 0.981115 = 0.981$

# JARREL SERVICES, INC.

POST OFFICE BOX 1654

PHONE 505 393-5396

HOBBS, NEW MEXICO 88240

ILLEGIBLE

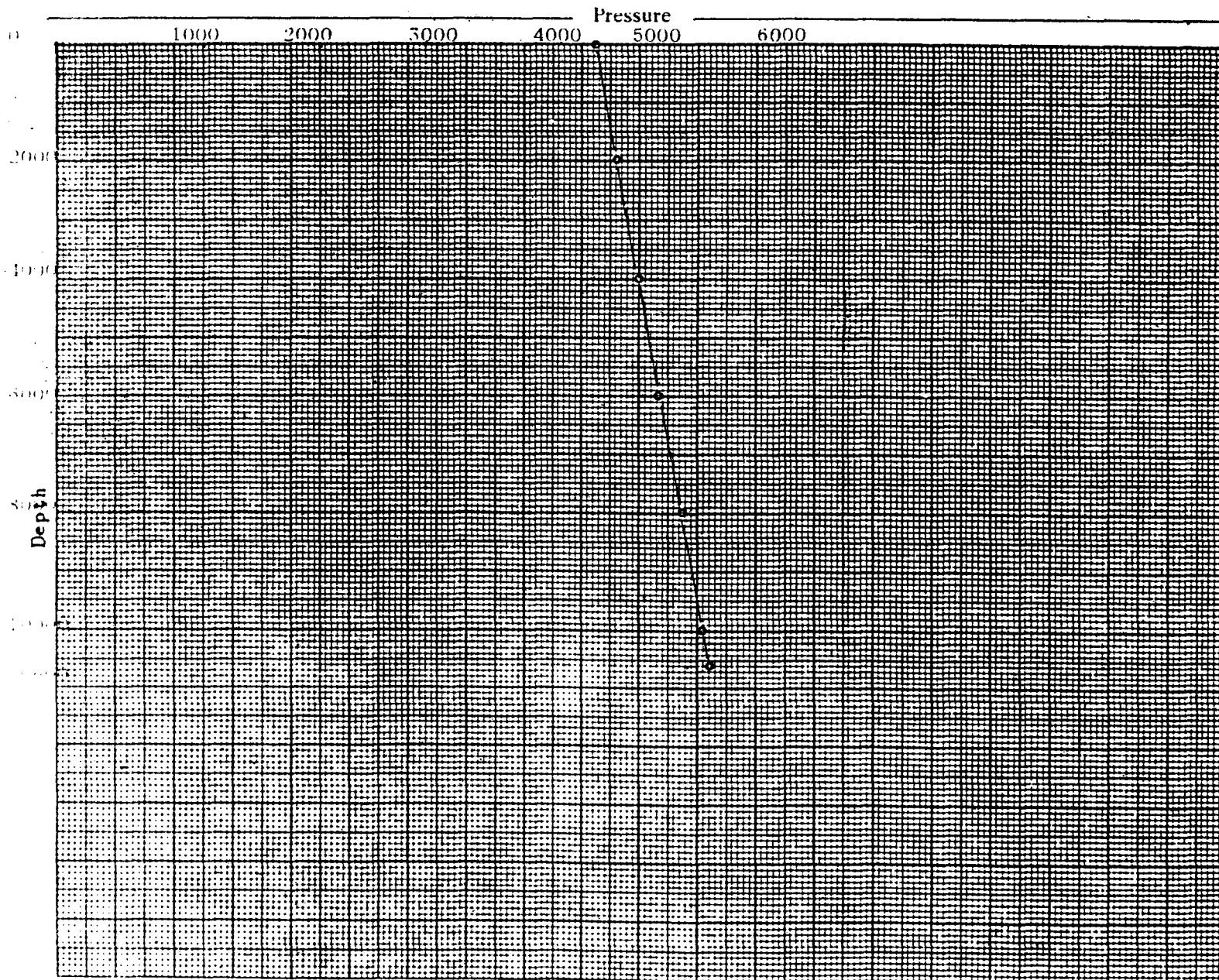
## BOTTOM HOLE PRESSURE RECORD

OPERATOR Minerals Inc.  
 FIELD Undesignated  
 FORMATION Morrow-A  
 LEASE Llano 31 State Com WELL #1  
 COUNTY Lea STATE New Mexico  
 DATE October 9, 1979 TIME 9:25 AM  
 Status Shut in  
 Test Depth 10600'  
 Time S. I. 90.0 hrs. Last test date -  
 Tub Pres. 4635 DWT BHP last test -  
 Cas. Pres. Dual BHP change -  
 Elev. 3072' KB-21 Fluid top None  
 Datum (-9159) \*\* Water top None  
 Temp. @ 168°F Run by JSI #20  
 Cal. No. A 18478 N Chart No. 1

Depth	Pressure	Gradient
0	4635	-
2000	4800	.083
4000	4984	.092
6000	5170	.093
8000	5358	.094
10000	5546	.094
10600	5603	.095
12831 (-9159).	5815 * **	(.095)

\* EXTRAPOLATED PRESSURE

\*\* MIDPOINT OF CASING PERFORATIONS



**NEW MEXICO OIL CONSERVATION COMMISSION**  
**MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL**

Form C-122  
 Revised 9-1-66

Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special				Test Date 10/8/79	
Company Minerals, Inc.			Connection Phillips Petr. Co.		
Pool Undesignated (East Grama Ridge)			Formation Lower Morrow		
Completion Date 10/6/79		Total Length 13,280		Perforations From 12,896 To 13,170	
Casing Size 4 1/2		Set At 13,279		Elevation 3672 KB	
Tub. Size 2-3/8		Set At 12,870		Well No. 1	
Type Well - Single - Brodenhead - G.G. or G.O. Multiple Single				Packer Set At 12,870	
Producing thru TBG		Reservoir Temp. °F 177 @ 13,280		Mean Annual Temp. °F 60°	
Baro. Press. - P <sub>g</sub> 13.2		County Lea		State New Mexico	
L 12,870	H 12,870	G <sub>g</sub> 0.675	% CO <sub>2</sub> NIL	% N <sub>2</sub> NIL	% H <sub>2</sub> S -
Provor 4"				Meter Run 4"	
Flange					

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
NO.	Provor Line Size	X	Griffice Size	Press. p.s.i.g.	Diff. h <sub>w</sub>	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
51	36 hours						5,014		Packer		
1.	4 x 2.250			130	7.8	93	2,710	72			1 hour
2.	4 x 2.250			148	8.5	99	2,120	69			1 hour
3.	4 x 2.250			160	9.0	99	1,890	67			1 hour
4.	4 x 2.250			200	11.0	100	1,595	67			1 hour
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P <sub>m</sub>	Flow Temp. Factor Ft.	Gravity Factor F <sub>g</sub>	Super Compress. Factor, F <sub>pv</sub>	Rate of Flow Q, Mhd
1	28.23	33.42	143.2	0.9697	1.217	1.012	1,127
2	28.23	37.02	161.2	0.9645	1.217	1.013	1,243
3	28.23	39.48	173.2	0.9645	1.217	1.015	1,328
4	28.23	48.43	213.2	0.9636	1.217	1.019	1,634
5.							

NO.	P <sub>g</sub>	Temp. °R	T <sub>g</sub>	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1	0.21	553	1.44	0.976	14	
2	0.24	559	1.46	0.974	52	
3	0.26	559	1.46	0.971		
4	0.32	560	1.46	0.963		
5						

A.P.I. Gravity of Liquid Hydrocarbons 52 Specific Gravity Separator Gas 0.675 Specific Gravity Flowing Fluid X X X X X Critical Pressure 669 P.S.I.A. Critical Temperature 383 R			
--	--	--	--

P <sub>g</sub> 5,027.2    P <sub>w</sub> 25,273 (1) $\frac{P_g^2}{P_g^2 - P_w^2} = 1.49784$ (2) $\left[ \frac{P_g^2}{P_g^2 - P_w^2} \right]^n = 1.47026$ A <sub>0</sub> = Q $\left[ \frac{P_g^2}{P_g^2 - P_w^2} \right]^n = 2402$
--

NO.	P <sub>g</sub>	P <sub>w</sub> *	P <sub>w</sub> <sup>2</sup>	P <sub>g</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup>
1	4,648.2	21,606	3,667	
2	3,686.2	13,588	11,685	
3	3,289.2	10,819	14,454	
4	2,898.2	8,400	16,873	
5				

Absolute Open Flow 2,402 Mhd @ 15,025 Angle of Slope @ 46°21'    Slope, n 0.954
--

\*Bottom-hole pressure bomb utilized for pressure calculations.

Approved by:	Conducted By: J. B. Swinney & Jarrel Serv. Inc.	Calculated By: Al Klaar	Checked By: GWE
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MINERALS, INC.

LLANO 34" STATE COM. No. 1

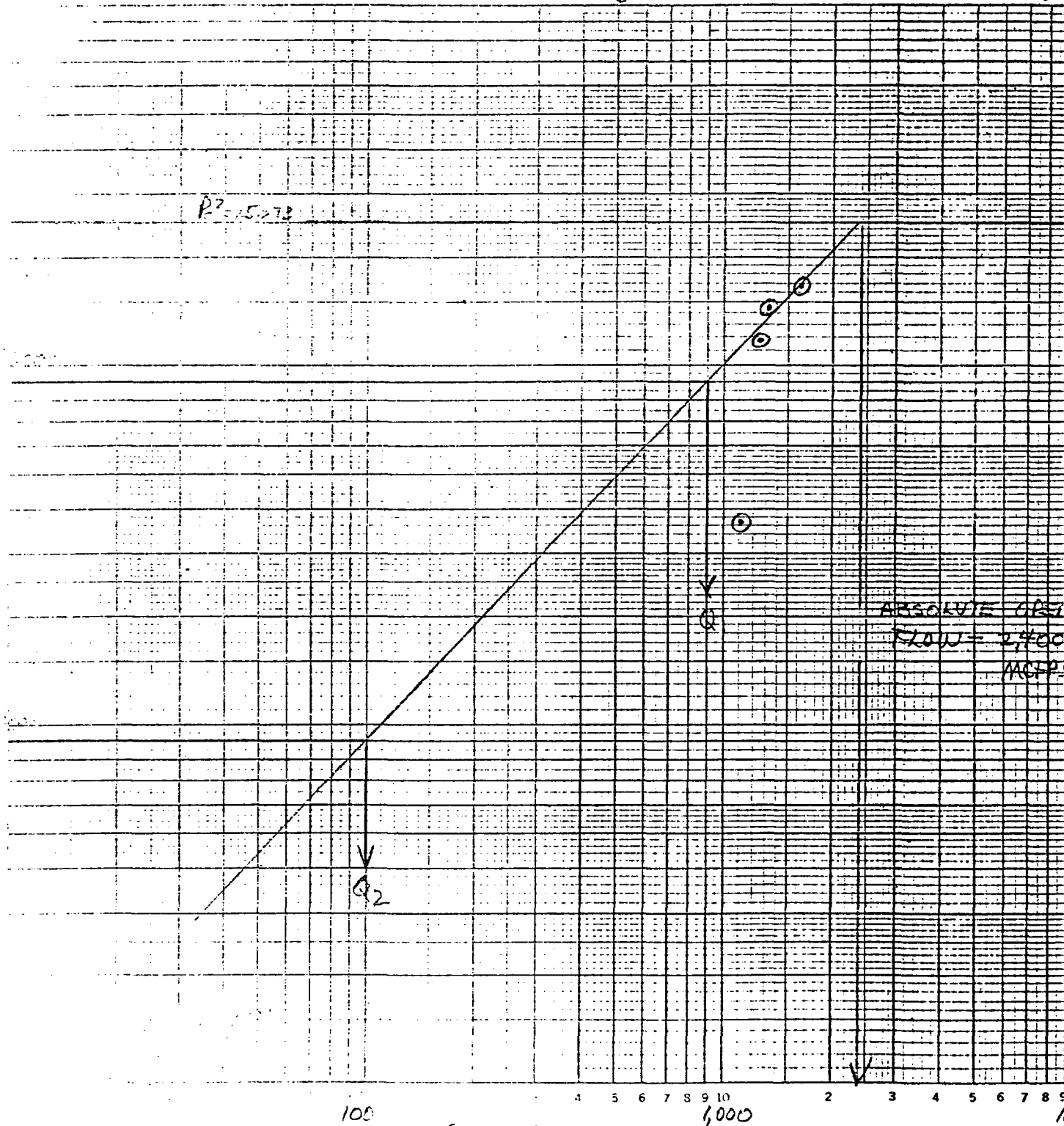
I, 34-215-34E

LEA COUNTY, NEW MEXICO

LOWER MORROW

UNDESIGNATED (EAST GRAMA RIDGE MORROW)

ILLEGIBLE



$\log Q_1 = 2.954243$   
 $\log Q_2 = 2.000000$   
 $n = \frac{2.954243}{2.000000} = 0.954$



# JARREL SERVICES, INC.

POST OFFICE BOX 1654

PHONE 505 393-5396

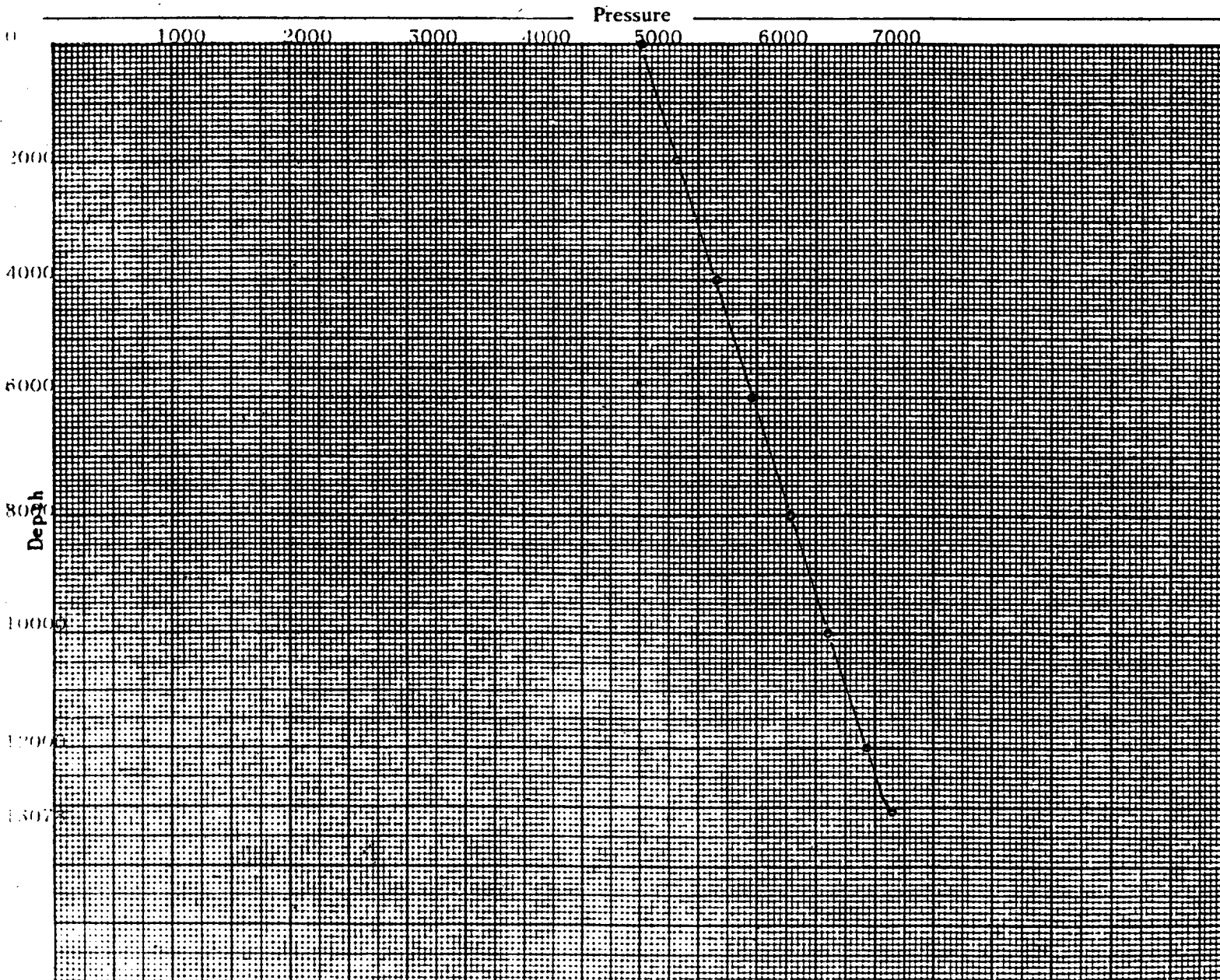
HOBBS, NEW MEXICO 88240

## BOTTOM HOLE PRESSURE RECORD

OPERATOR Minerals Inc.  
 FIELD Undesignated  
 FORMATION Morrow-Lower  
 LEASE Llano 34 State Com WELL #1  
 COUNTY Lea STATE New Mexico  
 DATE October 8, 1979 TIME 12:50 PM  
 Status Shut in  
 Test Depth 13078'  
 Time S. I. 36 hrs. Last test date -  
 Tub Pres. 5014 DWT BHP last test -  
 Cas. Pres. Dual BHP change -  
 Elev. 3651' GL Fluid top 12865  
 Datum (-9427) \*\* Water top None  
 Temp. @ 188° F Run by JSI #20  
 Cal. No. A 18478 N Chart No. 1

Depth	Pressure	Gradient
0	5014	-
2000	5322	.154
4000	5644	.161
6000	5966	.161
8000	6288	.161
10000	6612	.162
12000	6936	.162
13078 (-9427)	7140 **	.189

\*\* MIDPOINT OF CASING PERFORATIONS





STATE OF NEW MEXICO  
STATE LAND OFFICE  
ACTIVE COMMUNITIZATIONS

COMMUNITIZATION NAME:

Minerals, Inc.-Llano State "34" Com Well No. 1

OPERATOR:

Minerals, Inc.

DATE APPROVED:

October 19, 1979

EFFECTIVE DATE:

May 1, 1979

COUNTY:

Lea

TOTAL ACREAGE:

320.00

STATE ACREAGE:

All

DEDICATED TO:

MORROW FORMATION

INSTITUTION:

Common Schools

TERM OF COMMUNITIZATION:

1 yr. and so long as

WELL LOCATION:

NE/4SE/4 (1)

SEC. TWP. RGE.

SUBDIVISION

LEASE NO.

LESSEE

34 21S 34E

SE/4

E-9659

Gulf Oil Corporation

ACREAGE  
160.00

34 21S 34E

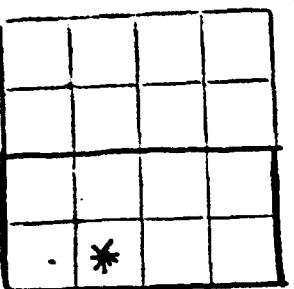
NE/4

K-3592-2

Llano, Inc.

160.00  
320.00

THIS ACREAGE IS WITHIN THE GRAMA RIDGE UNIT.



E/2 Sec. 34-21S-34E

NO. OF COPIES RECEIVED		
DISTRIBUTION		
SANTA FE		
FILE		
U.S.G.S.		
LAND OFFICE		
OPERATOR		

# NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103  
Supersedes Old  
C-102 and C-103  
Effective 1-1-65

5a. Indicate Type of Lease  
State ☒ Fee ☐  
5. State Oil & Gas Lease No.  
E-9659

## SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO RE-OPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT -" (FORM C-101, FOR SUCH PROPOSALS.)

1. OIL WELL ☐ GAS WELL ☒ OTHER ☐  
2. Name of Operator  
Minerals, Inc.  
3. Address of Operator  
P. O. Box 1320, Hobbs, New Mexico 88240  
4. Location of Well  
UNIT LETTER I 1650 FEET FROM THE South  
East LINE, SECTION 34 TOWNSHIP 21S RANGE 34E NMPM.

7. Unit Agreement Name  
8. Farm or Lease Name  
Llano "34" State Com.  
9. Well No.  
1  
10. Field and Pool, or Wildcat  
Undesignated Morrow

15. Elevation (Show whether DF, RT, GR, etc.)  
3651 GL, 3671 DF

12. County  
Lea

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

9-2-79 TD 13,280', Ran 2543' of 4½", 13.3#, P-110 liner and Brown Oil Tool liner hanger in 6½" hole. Set liner at 13,279'. Top of liner at 10,728'. Cemented with 500 sx. Class "H" w/.8% Halad 22 plus .4% CFR-2 and 5# KCL/sx. Plug down at 3:40 p.m. 9-3-79. WOC 24 hrs. Drilled out cement to 13,188'. Tested liner, OK. Ran cement bond log. Log indicated cement to top of liner. PBTD 13,188'.

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

SIGNED Donald L. Daryl TITLE President

DATE September 19, 1979

APPROVED BY [Signature] TITLE SUPERVISOR DISTRICT

DATE SEP 24 1979

CONDITIONS OF APPROVAL, IF ANY:

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FILE		
U.S.G.S.		
LAND OFFICE		
OPERATOR		

# NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103  
Supersedes Old  
C-102 and C-103  
Effective 1-1-65

## SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO RE-OPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT TO DRILL" (FORM C-101) FOR SUCH PROPOSALS.)

1. <input type="checkbox"/> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER-	5a. Indicate Type of Lease State <input checked="" type="checkbox"/> Fee <input type="checkbox"/>
2. Name of Operator Minerals, Inc.	5. State Oil & Gas Lease No. E-9659
3. Address of Operator P. O. Box 1320, Hobbs, New Mexico 88240	7. Unit Agreement Name
4. Location of Well UNIT LETTER <u>I</u> <u>1650</u> FEET FROM THE <u>SOUTH</u> LINE AND <u>660</u> FEET FROM THE <u>East</u> LINE, SECTION <u>34</u> TOWNSHIP <u>21S</u> RANGE <u>34E</u> NMPM.	8. Form or Lease Name Llano "34" State Com.
15. Elevation (Show whether DF, RT, CR, etc.) 3651 GL, 3671 DF	9. Well No. 1
	10. Field and Pool, or Wildcat Undesignated Morrow
	12. County Lea

## Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

### NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐  
TEMPORARILY ABANDON ☐  
PULL OR ALTER CASING ☐

PLUG AND ABANDON ☐  
CHANGE PLANS ☐

OTHER ☐

### SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐  
COMMENCE DRILLING OPNS. ☐  
CASING TEST AND CEMENT JOB ☒

ALTERING CASING ☐  
PLUG AND ABANDONMENT ☐

OTHER ☐

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1503.

7-6-79 Ran 251 joints, 11,200' of 7-5/8", 29.7# S-95 casing in 9 1/2" hole, set at 11,200'. DV tool at 8,202' and float collar at 11,157'. Cemented 1st stage (11,200' - 8,202') w/400 sx. Lite cmt. containing .6% Halad-22, 1/4# Flocele per sx. followed by 300 sx. Class "H" Containing .8% Halad-22 and 4% CFR-2 plus 5# KCL/sx. Plug down and open stage tool 9:00 p.m. 7-6-79. WOC 6 hrs., circ. 50 sx. off top of first stage. Cemented 2nd stage w/500 sx. Lite cmt. w/.6% Halad-22, plus 1/4# Flocele per sx., followed by 300 sx. Class "H" w/.8% Halad-22, 4% CFR-2 plus 5# KCL/sx. Plug down 4:45 a.m. 7-7-79. WOC 4 1/4 hrs. Top cement behind 7-5/8" csg. at 5,250' by temperature survey. Total WOC 24 hrs. Nippled up, installed BOP and yellow jacketed. Drilled DV tool and tested with 1250 PSI 30 mins. - OK. Drilled cement and shoe. Test shoe with 1170 PSI 30 mins. - OK. Job completed 7-9-79. Drilling ahead.

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

SIGNED Donald L. Barely TITLE President

DATE July 10, 1979

APPROVED BY [Signature]  
CONDITIONS OF APPROVAL, IF ANY:

TITLE SUPERVISOR DISTRICT I

DATE JUL 10 1979

**NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section

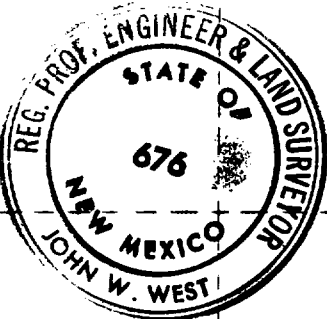
Operator <b>Minerals, Inc.</b>			Lease <b>Llano "34" State Com.</b>		Well No. <b>1</b>
Unit Letter <b>I</b>	Section <b>34</b>	Township <b>21 South</b>	Range <b>34 East</b>	County <b>Lea</b>	
Actual Footage Location of Well: <b>1650</b> feet from the <b>South</b> line and <b>660</b> feet from the <b>East</b> line					
Ground Level Elev. <b>3651.3</b>	Producing Formation <b>Morrow</b>		Pool <b>Gramma Ridge Morrow, East</b>		Dedicated Acreage: <b>320</b> Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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 Communitization

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.

	<p align="center">K-3592 W.I. = Minerals, et al (Same as Lease E-9659) R.I. = State of N. M.</p>
	<p align="center"><b>RECEIVED</b> <b>AUG-3 1979</b> OIL CONSERVATION DIVISION SANTA FE E-9659</p> <p align="center">W.I. = Minerals, et al (Same as Lease K-3592) R.I. = State of N. M.</p>

**CERTIFICATION**

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

Name: *Ronald J. Carey*  
Position: **President**

Company: **Minerals, Inc**

Date: **July 25, 1979**

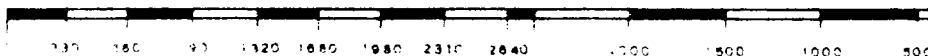
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed: **February 16, 1979**

Registered Professional Engineer and/or Land Surveyor

*John W. West*  
Certificate No. **John W West 676**

Ronald J. Edson 3239



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LAND OFFICE	
OPERATOR	

# NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103  
Supersedes Old  
C-102 and C-103  
Effective 1-1-65

5a. Indicate Type of Lease
State <input checked="" type="checkbox"/> Fee <input type="checkbox"/>
5. State Oil & Gas Lease No. E-9659

## SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>	7. Unit Agreement Name
2. Name of Operator Minerals, Inc.	8. Farm or Lease Name Llano "34" State Com.
3. Address of Operator P. O. Box 1320, Hobbs, New Mexico 88240	9. Well No. 1
4. Location of Well UNIT LETTER I 1650 FEET FROM THE South LINE AND 660 FEET FROM THE East LINE, SECTION 34 TOWNSHIP 21S RANGE 34E NMPM.	10. Field and Pool, or Wildcat Undesignated Morrow
15. Elevation (Show whether DF, RT, GR, etc.) 3651 GL, 3671 DF	12. County Lea

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>	CASING TEST AND CEMENT JOB <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

6-9-79 Ran 182 joints, 5773' of 14-3/4", 45.5# J-55 casing in 14-3/4" hole, set at 5773'. DV tool at 3863'. Cemented 1st stage with 1000 sx. Litewater cmt. containing 6# salt, 3# Gilsonite & 1/4" Flocele per sx. followed by 300 sx. Class "C" with 1/4" Flocele per sx. Circulated 300 sx. WOC 7 1/2 hrs., open DV tool & cmt. second stage with 4400 sx. Litewater cmt. containing 15# salt, 3# Gilsonite & 1/4" Flocele per sx. Plug down 10:20 p.m. 6-9-79. Cement circulated. WOC 24 hrs., drld. out DV tool, tested csg. to 500 psi - 30 min. No pressure drop. Drld. out float and csg. shoe, tested csg. to 500 psi - 30 min. No pressure drop. Job completed 6-12-79. Drilling ahead.

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

SIGNED Donald L. Farley TITLE President DATE June 14, 1979

APPROVED BY Jerry [Signature] TITLE SUPERVISOR DISTRICT I DATE JUN 20 1979

CONDITIONS OF APPROVAL, IF ANY:

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LAND OFFICE	
OPERATOR	

# NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103  
Supersedes Old  
C-102 and C-103  
Effective 1-1-65

## SUNDRY NOTICES AND REPORTS ON WELLS

DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO RE-OPEN OR PUMP BACK TO A DIFFERENT RESERVOIR.  
USE APPLICATION FOR PERMIT - (FORM C-101) FOR THE ABOVE PURPOSES.

1. OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER-	2. Name of Operator Minerals, Inc.	3. Address of Operator P. O. Box 1320, Hobbs, New Mexico 88240	4. Location of Well UNIT LETTER I 1650 FEET FROM THE South LINE AND 660 FEET FROM East LINE, SECTION 34 TOWNSHIP 21S RANGE 34E NMPM.	5. Elevation (Show whether DF, RT, GR, etc.) 3651 GL, 3671 DF
--	---------------------------------------	---	---	--

RECEIVED  
JUN 7 - 1979

5a. Indicate Type of Lease State <input checked="" type="checkbox"/> Fee <input type="checkbox"/>	5. State Oil & Gas Lease No. E-9659	7. Unit Agreement Name	8. Farm or Lease Name Llano "34" State Com.	9. Well No. 1	10. Field and Pool, or Wellcut Undesignated Morrow	12. County Lea
--	--	------------------------	--	------------------	---	-------------------

## Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

### NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐  
TEMPORARILY ABANDON ☐  
PULL OR ALTER CASING ☐

PLUG AND ABANDON ☐  
CHANGE PLANS ☐

OTHER ☐

### SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐  
COMMENCE DRILLING OPNS. ☒  
CASING TEST AND CEMENT JOB ☒

ALTERING CASING ☐  
PLUG AND ABANDONMENT ☐

OTHER ☐

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Spudded 20" hole at 7:30 a.m. May 21, 1979.

Ran 1176' of 16", 65#, H-40 casing and cemented at 1200' with 1100 sacks Lite cement followed with 200 sacks Class "C" containing 2% calcium chloride per sack. Plug down at 1:45 a.m. May 24, 1979. Circulated 400 sacks. After WOC 24 hours, tested with 500 psig for 30 minutes - no pressure drop. Drilling ahead.

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

SIGNED Donald L. Early TITLE President DATE May 31, 1979

APPROVED BY Jerry L. Loran  
CONDITIONS OF APPROVAL, IF ANY

TITLE SUPERVISOR DISTRICT 1

DATE JUN 4 1979

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FILE	
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LAND OFFICE	
OPERATOR	

# NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101  
Revised 1-1-65

5A. Indicate Type of Lease	
STATE <input checked="" type="checkbox"/>	FEE <input type="checkbox"/>
5. State Oil & Gas Lease No.	
E-9659	

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work		7. Unit Agreement Name	
b. Type of Well OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>		8. Farm or Lease Name Llano State "34" Com.	
2. Name of Operator Minerals, Inc.		9. Well No. 1	
3. Address of Operator P. O. Box 1320, Hobbs, New Mexico 88240		10. Field and Pool, or Wildcat Undesignated, Morrow	
4. Location of Well UNIT LETTER I LOCATED 1650 FEET FROM THE South LINE AND 660 FEET FROM THE East LINE OF SEC. 34 TWP. 21S RGE. 34E NMPM		12. County Lea	
19. Proposed Depth 13,400'		19A. Formation Morrow	
20. Rotary or C.T. Rotary		21. Elevations (Show whether DF, RT, etc.) 3651 GL, 3671 DF, 3673 RDB	
21A. Kind & Status Plug. Bond Blanket		21B. Drilling Contractor Moranco	
22. Approx. Date Work will start May 15, 1979			

23.

## PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
20"	16"	65#	400'	450	Circulate
14-3/4"	10-3/4"	45.5#	5,700'	2400	Circulate (DV Tool)
9-1/2"	7-5/8"	33.7#	11,200'	600	8,000' (DV Tool)
6-1/8"	5-1/2" Liner	23#	13,400'	150	Circulate
Top at 11,000'					

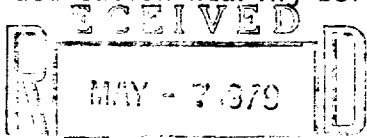
BLOWOUT PREVENTER PROGRAM: (See attached schematic)

Open hole logs will be run from the surface casing point (400') to TD, with the Gamma Ray portion brought back to surface.

WOC time on 10-3/4" and 7-5/8" casing will be 24 hours.

OCD Order No. R-5996 approved this unorthodox location.

Acreage dedication hearing before OCD for a non-standard proration unit is pending.



IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

Signed Donald L. Taylor President Date May 2, 1979

APPROVED BY [Signature] TITLE SUPERVISOR DISTRICT 1 DATE MAY 3 1979

CONDITIONS OF APPROVAL, IF ANY:

**NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section

Operator <b>Minerals, Inc.</b>			Lease <b>Llano State "34" Com.</b>		Well No. <b>1</b>
Unit Letter <b>I</b>	Section <b>34</b>	Township <b>21 South</b>	Range <b>34 East</b>	County <b>Lea</b>	
Actual Footage Location of Well: <b>1650</b> feet from the <b>South</b> line and <b>660</b> feet from the <b>East</b> line					
Ground Level Elev. <b>3651.3</b>	Producing Formation <b>Morrow</b>		Pool <b>Undesignated</b> <del>Braxton Ridge</del>		Dedicated Acreage: <b>320 *</b> Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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?

\* Communitization of Two State Royalty Leases (K-3592 & E-9659) is Pending.

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

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.

<p>* Acreage Dedication Hearing for a Non-standard Proportion Unit is Pending.</p>	<p align="center">K-3592 W.I. = Minerals, et al (Same as Lease E-9659) R.I. = State of N. M.</p>
	<p align="center">E-9659 W.I. = Minerals, et al (Same as Lease K-3592) R.I. = State of N. M.</p>

**CERTIFICATION**

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

Name *Donald J. Luby*  
Position **President**  
Company **Minerals, Inc.**  
Date

**May 2, 1979**

*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.*

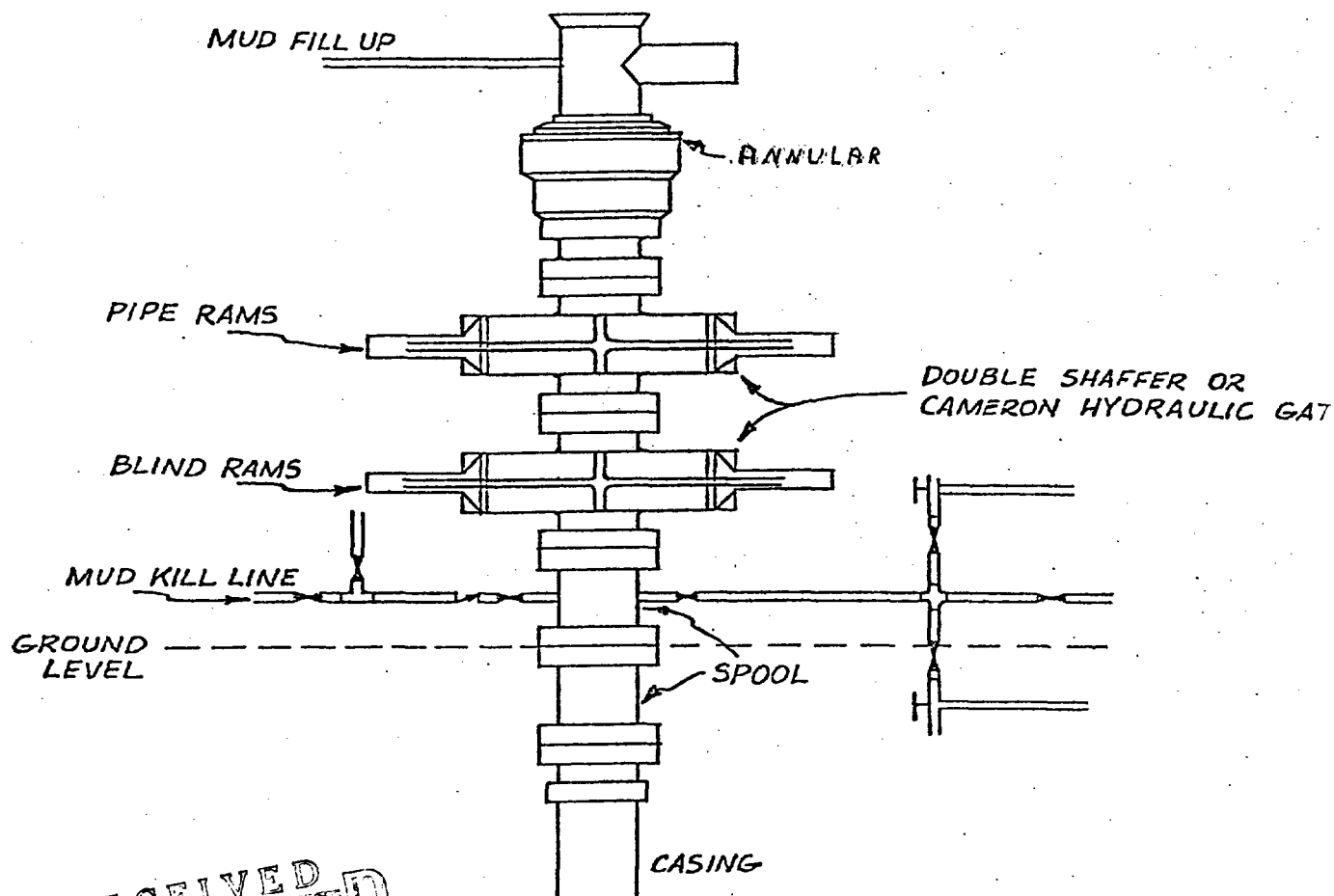
Date Surveyed  
**February 16, 1979**  
Registered Professional Engineer and/or Land Surveyor

*John W. West*  
Certificate No. **John W. West** 67  
**Ronald J. Eidson** 32





# BLOW-OUT PREVENTER SCHEMATIC



RECEIVED  
MAY - 7 1979  
OIL CONSERVATION DIVISION  
SANTA FE

✕ VALVE  
└ CHOKE  
✕ CHECK VALVE

MINERALS, INC.

LLANO STATE "34" COM. NO. 1

1650' FSL & 660' FEL, SEC. 34, T21S, R34E

LEA COUNTY, NEW MEXICO

COUNTY	LEA	FIELD	Grama Ridge	STATE	NM
OPR	MINERALS, INC.			API	30-025-26318
NO	1, LEASE Llano "34" State Com.			MAP	
	Sec 34, T21S, R34E			COORD	
	1650' FSL, 660' FEL of Sec				11-2-25
	18 mi SE/Halfway			SPD	5-21-79
				CMP	10-9-79
CSG.	16" 1200' w/1300 sx			WELL CLASS: INIT	D
	10 3/4" 5773' w/700 sx			INDG	ELEV
	7 5/8" 11,200' w/1500 sx			FORMATION	DATUM
	4 1/2" lnr 10,736-13,279'			FORMATION	DATUM
	w/500 sx				
				ID	13,280' (BRNT)
				PBD	13,188'
IP (Morrow) Perfs 12,824-13,170' F 3980 MCF/GPD. Pot based on 24 hr test thru 16/64" chk. GOR 28,826; gty (NR); CP Pkr; TP 4825#					
CONTR Moranco #1					
			OPRS ELEV	3651' GL	PD 13,400' RT

**ILLEGIBLE**

F.R. 5-14-79  
(Morrow)

5-22-79	Drlg 823'
5-30-79	Drlg 3852'
6-13-79	Drlg 6297'
6-26-79	Drlg 10,759' lm, sh & cht
7-10-79	Drlg 11,300'
7-17-79	Drlg 11,540'
7-31-79	Drlg 12,278'
	DST (Strawn) 11,590-792', open 3 hrs w/Good Blow, GTS in 1 hr 5 mins (during FF) @ 50 MCF/GPD, rec 2000' WB + 630' GCD (Sampler rec .1 CFG + 300 cc's oil + 1020 cc's wtr) 2 hr ISIP 7062#, FP 958-1201#, 6 hr FSIP 6932#, HP 6839-6839#
8-7-79	Drlg 12,570'
	DST (Atoka) 12,176-278', open 2 hrs 55 mins, rec 3000' WB + 200' GCM, 1 hr 30 min ISIP 6578#, FP

11-2-25 NM

LEA  
MINERALS, INC.

Gramma Ridge NM  
1 Llano "34" State Com. Page 2  
Sec 34, T21S, R34E

8-7-79 Continued  
1351-1463#, 5 hr FSIP 6820#, HP 7436-7399#, BHT  
78 deg  
8-22-79 Drlg 13,109'  
10-10-79 TD 13,280'; PBD 13,188'; P/Test  
Perf (Strawn) 11,712-714', 11,717-719', 11,723-  
725', 11,730-736', 11,742-744', 11,746-752', 11,759-  
761', 11,770-772', 11,784-786' w/2 SPF  
Acid (11,712-786') 46 Bbls (20%)  
Flwd @ 372 MCF/GPD + 16 BO/24 hrs (11,712-786')  
Acid (11,712-786') 15,000 gals  
Swbd Dry (11,712-786')  
Sqzd 11,712-786' w/200 sx & DOC to 13,188'  
Perf (Morrow) 12,824-838', 12,986-999', 13,002-

ILLEGIBLE

10-10-79 Continued  
004', 13,008-018', 13,020-026', 13,033-036', 13,038-  
044', 13,165-170' w/2 SPF  
Natural  
Flwd 140 BO (gty 51) + Gas @ 3980 MCF/GPD 24 hrs  
thru 16/64" chk TP 4825# (12,824-13,170')  
11-5-79 TD 13,280'; PBD 13,188'; Complete  
LOG TOPS: Salt 1856', Base Salt 3810', Yates 4104',  
Seven Rivers 4459', Delaware Sand 5498', Bone  
Spring 8348', Strawn 11,626', Atoka 11,908',  
Morrow 12,713', Barnett 13,235'  
Rig Released 9-6-79  
11-10-79 COMPLETION ISSUED

11-2-25  
IC 30-025-70160-79

COUNTY LEA FIELD Grama Ridge STATE NM  
 OPR MINERALS, INC. API 30-025-26318  
 NO 1 LEASE Llano "34" State Com. MAP  
Sec 34, T21S, R34E (CO-OR.)  
1650 FSL, 660 FEL of Sec 9-4-33 NM  
18 mi SE/Halfway RE SPD 11-30-79 RE 12-24-79

CSC	WELL CLASS: INIT DX FIN DG LSE. CODE			
	FORMATION	DATUM	FORMATION	DATUM
16-1200-1300 sx				
10 3/4-5773-700 sx				
7 5/8-11,200-1500 sx				
4 1/2-lnr-10,736-13,279-500 sx				
	ID 13,280 (BRNT)		PBD 13,188	

IP (Morrow) 12,824-13,170 F 3425 MCFGPD. Pot based on 24 hr test thru 13/64 chk. GOR (NR); gty (Gas) NR; (Cond) (NR); CP Pkr; TP 2800

CONTR OPRSELEV 3651 GL sub-s

F.R.C. 9-26-81 OWWO  
 PD 13,188 WO (Morrow)  
 (Orig. Comp. 10-9-79 thru (Morrow)  
 Perfs 12,834-13,170, OTD 13,280, OPB 13,188)  
 9-21-81 TD 13,290; PBD 13,188; Complete  
 Acid (12,824-838) 2500 gals  
 Perfs would not flow (12,824-838)  
 Acid (12,986-13,170) 5700 gals  
 Flwd 430 MCFGPD + 7 BO + 24 BW in 24 hrs, TP 95  
 (12,986-13,170)  
 Perf (Morrow) 12,986-999, 13,002-004, 13,008-018,  
 13,020-026, 13,033-036, 13,038-044, 13,165-170  
 w/2 SPF  
 Acid (12,986-13,170) 1000 gals  
 9-26-81 COMPLETION ISSUED

9-4-33 NM  
 IC 30-025-70493-81

Submit to Appropriate  
District Office  
State Lease - 3 copies  
Fee Lease - 5 copies  
DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III  
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-105  
Revised 1-1-89

OIL CONSERVATION DIVISION

2040 Pacheco St.  
Santa Fe, NM 87505

WELL API NO.  
30-025-34948

5. Indicate Type of Lease  
STATE ☒ FEE ☐

6. State Oil & Gas Lease No.

7. Lease Name or Unit Agreement Name

Grama Ridge East 34 State

8. Well No.  
1

9. Pool name or Wildcat  
Grama Ridge Morrow; East

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well:  
OIL WELL ☐ GAS WELL ☒ DRY ☐ OTHER ☐  
b. Type of Completion:  
NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF RESVR ☐ OTHER ☐

2. Name of Operator  
Nearburg Producing Company

3. Address of Operator  
3300 N A St., Bldg 2, Suite 120, Midland, TX 79705

4. Well Location  
Unit Letter H : 1548 Feet From The North Line and 990 Feet From The East Line  
Section 34 Township 21S Range 34E NMPM Lea County

10. Date Spudded 03/07/00 11. Date T.D. Reached 04/28/00 12. Date Compl. (Ready to Prod.) 06/09/00 13. Elevations (DF & RKB, RT, GR, etc.) 3689' GL 3706' KB 14. Elev. Casinghead

15. Total Depth 13,500' 16. Plug Back T.D. 13,412' 17. If Multiple Compl. How Many Zones? 18. Intervals Drilled By Rotary Tools ☒ Cable Tools

19. Producing Interval(s), of this completion - Top, Bottom, Name 13,134' - 13,156' (Morrow) 20. Was Directional Survey Made No

21. Type Electric and Other Logs Run DLL/CNL/LDT/GR 22. Was Well Cored No

CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB/FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13-3/8"	68#	1296'	17-1/2"	872 sx	NA
9-5/8"	36 & 40#	5763'	12-1/4"	1903 sx	NA
7"	23, 26 & 29#	11250'	8-3/4"	180 sx	NA

24. LINER RECORD				25. TUBING RECORD			
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
4-1/2"	11,018'	13,500'	350 sx		2-3/8		13,055'

26. Perforation record (interval, size, and number) 13,134' - 13,156' 5 JSPF (110 holes)	27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.	
	DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
	13,134' - 13,156'	

28. PRODUCTION

Date First Production 06/09/00		Production Method (Flowing, gas lift, pumping - Size and type pump) Flowing					Well Status (Prod. or Shut-in) Producing	
Date of Test 06/16/00	Hours Tested 24	Choke Size 9/64"	Prod'n For Test Period	Oil - BbL. 20	Gas - MCF 1239	Water - BbL. 0	Gas - Oil Ratio 61950:1	
Flow Tubing Press. 5000	Casing Pressure —	Calculated 24- Hour Rate	Oil - BbL. 20	Gas - MCF 1239	Water - BbL. 0	Oil Gravity - API - (Corr.) 52.5		

29. Disposition of Gas (Sold, used for fuel, vented, etc.) Sold Test Witnessed By Matt Lee

30. List Attachments  
C-104, Deviations and Logs

31. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief

Signature Kim Stewart Printed Name Kim Stewart Title Regulatory Analyst Date 06/27/00

# INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all specific tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 25 through 29 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

## INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

### Southeastern New Mexico

T. Anhy \_\_\_\_\_ 1755.0  
 T. Salt \_\_\_\_\_  
 B. Salt \_\_\_\_\_ 3870.0  
 T. Yates \_\_\_\_\_ 3925.0  
 T. 7 Rivers \_\_\_\_\_  
 T. Queen \_\_\_\_\_  
 T. Grayburg \_\_\_\_\_  
 T. San Andres \_\_\_\_\_  
 T. Glorieta \_\_\_\_\_  
 T. Paddock \_\_\_\_\_  
 T. Blinbry \_\_\_\_\_  
 T. Tubb \_\_\_\_\_  
 T. Drinkard \_\_\_\_\_  
 T. Abo \_\_\_\_\_  
 T. Wolfcamp \_\_\_\_\_ 12240.0  
 T. Penn \_\_\_\_\_  
 T. Cisco (Bough C) \_\_\_\_\_

T. Canyon \_\_\_\_\_  
 T. Strawn \_\_\_\_\_ 11684.0  
 T. Atoka \_\_\_\_\_ 11966.0  
 T. Miss \_\_\_\_\_  
 T. Devonian \_\_\_\_\_  
 T. Silurian \_\_\_\_\_  
 T. Montoya \_\_\_\_\_  
 T. Simpson \_\_\_\_\_  
 T. McKee \_\_\_\_\_  
 T. Ellenburger \_\_\_\_\_  
 T. Gr. Wash \_\_\_\_\_  
 T. Delaware Sand \_\_\_\_\_ 5613.0  
 T. Bone Springs \_\_\_\_\_ 8395.0  
 T. Morrow \_\_\_\_\_ 12090.0  
 T. \_\_\_\_\_  
 T. \_\_\_\_\_  
 T. \_\_\_\_\_

### Northwestern New Mexico

T. Ojo Alamo \_\_\_\_\_  
 T. Kirtland-Fruitland \_\_\_\_\_  
 T. Pictured Cliffs \_\_\_\_\_  
 T. Cliff House \_\_\_\_\_  
 T. Menefee \_\_\_\_\_  
 T. Point Lookout \_\_\_\_\_  
 T. Mancos \_\_\_\_\_  
 T. Gallup \_\_\_\_\_  
 Base Greenhorn \_\_\_\_\_  
 T. Dakota \_\_\_\_\_  
 T. Morrison \_\_\_\_\_  
 T. Todilto \_\_\_\_\_  
 T. Entrada \_\_\_\_\_  
 T. Wingate \_\_\_\_\_  
 T. Chinle \_\_\_\_\_  
 T. Permian \_\_\_\_\_  
 T. Penn. "A" \_\_\_\_\_

T. Penn. "B" \_\_\_\_\_  
 T. Penn. "C" \_\_\_\_\_  
 T. Penn. "D" \_\_\_\_\_  
 T. Leadville \_\_\_\_\_  
 T. Madison \_\_\_\_\_  
 T. Elbert \_\_\_\_\_  
 T. McCracken \_\_\_\_\_  
 T. Ignacio Otzte \_\_\_\_\_  
 T. Granite \_\_\_\_\_  
 T. \_\_\_\_\_  
 T. \_\_\_\_\_  
 T. \_\_\_\_\_  
 T. \_\_\_\_\_  
 T. \_\_\_\_\_  
 T. \_\_\_\_\_  
 T. \_\_\_\_\_

### OIL OR GAS SANDS OR ZONES

No. 1, from 12730 to 13160  
 No. 2, from to  
 No. 3, from to  
 No. 4, from to

### IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from to feet  
 No. 2, from to feet  
 No. 3, from to feet

### LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness in Feet	Lithology	From	To	Thickness in Feet	Lithology
3900.0	5613.0	1713.0	dolo, anhydrite				
5613.0	8395.0	2782.0	sand, dolomite				
8395.0	12240.0	2845.0	limestone, sand				
11240.0	11684.0	444.0	shale, limestone				
11684.0	11966.0	282.0	limestone				
11966.0	12090.0	124.0	shale				
12090.0	13500.0	1410.0	limestone, sand, shale				



# PATTERSON DRILLING COMPANY LP

A LIMITED PARTNERSHIP

410 North Loraine Street • Midland, Texas 79701

(915) 682-9401 • Fax (915) 682-1565

May 18, 2000

Nearburg Producing Company  
3300 N "A" St, Bldg 2, Ste 120  
Midland, TX 79705

RE: Inclination Report  
Grama Ridge East 34 St #1  
Sec 34; T-21-S; R-34-E

Unit H

1548/N 4990/E  
30-025-34948

Gentlemen:

The following is an inclination survey on the above referenced well located in Lea County, New Mexico:

225' - 0.75	2603' - 3.00	3832' - 1.75	6494' - 0.50
436' - 0.50	2728' - 3.00	3925' - 2.00	6992' - 0.50
712' - 0.50	2852' - 3.25	4019' - 1.50	7488' - 0.50
900' - 0.50	3010' - 3.75	4080' - 1.00	8078' - 1.00
1152' - 1.00	3078' - 3.50	4204' - 1.00	8516' - 0.75
1341' - 2.00	3141' - 3.00	4358' - 0.50	9014' - 0.75
1468' - 1.50	3203' - 3.00	4818' - 1.25	9509' - 0.75
1564' - 1.50	3266' - 2.25	5035' - 2.00	10001' - 0.50
1754' - 1.00	3327' - 2.50	5128' - 2.00	10477' - 0.25
2006' - 2.50	3392' - 2.25	5222' - 1.50	11464' - 0.50
2101' - 2.25	3455' - 1.50	5346' - 1.25	11828' - 1.50
2195' - 2.25	3549' - 1.50	5760' - 1.25	12280' - 1.00
2351' - 2.25	3645' - 1.25	6002' - 1.00	
2475' - 2.50	3729' - 2.50	6254' - 0.75	

Sincerely,

*Rebecca Edwards*

Rebecca A. Edwards  
Administrative Assistant

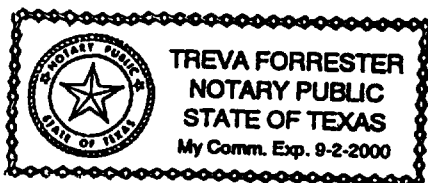
STATE OF TEXAS )

COUNTY OF MIDLAND )

Rebecca A. Edwards acknowledged the foregoing before me this 18<sup>th</sup> day of May 2000.

MY COMMISSION EXPIRES:

*Treva Forrester*  
NOTARY PUBLIC



*ad*

District I  
PO Box 1980, Hobbs, NM 88241-1980  
District II  
811 South First, Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Form C-104  
Revised October 18, 1994  
Instructions on back  
Submit to Appropriate District Office  
5 Copies  
☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

<sup>1</sup> Operator name and Address Nearburg Producing Company 3300 North A Street, Building 2, Suite 120 Midland, Texas 79705		<sup>2</sup> OGRID Number 15742
		<sup>3</sup> Reason for Filing Code NW
<sup>4</sup> API Number 30 - 0 25 34948	<sup>5</sup> Pool Name Grama Ridge Morrow; East	<sup>6</sup> Pool Code 77690
<sup>7</sup> Property Code 25382	<sup>8</sup> Property Name Grama Ridge East 34 State	<sup>9</sup> Well Number 1

II. <sup>10</sup> Surface Location

UI or lot no. H	Section 34	Township 21S	Range 34E	Lot Idn	Feet from the 1548	North/South Line North	Feet from the 990	East/West line East	County Lea
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<sup>11</sup> Bottom Hole Location

UI or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West line	County
<sup>12</sup> Lse Code F	<sup>13</sup> Producing Method Code Flowing	<sup>14</sup> Gas Connection Date 06/09/00	<sup>15</sup> C-129 Permit Number	<sup>16</sup> C-129 Effective Date	<sup>17</sup> C-129 Expiration Date				

III. Oil and Gas Transporters

<sup>18</sup> Transporter OGRID	<sup>19</sup> Transporter Name and Address	<sup>20</sup> POD	<sup>21</sup> O/G	<sup>22</sup> POD ULSTR Location and Description
21778	Sunoco Inc. (R&M) 907 South Detroit Tulsa, OK 74102	2825726	O	Section 34, T21S, R34E Tank Battery
032109	LG&E Natural Gas Gathering & Processing 2777 Stemmon Freeway, Suite 700 Dallas, TX 75207	2825727	G	Section 34, T21S, R34E Tank Battery

IV. Produced Water

<sup>23</sup> POD 2825728	<sup>24</sup> POD ULSTR Location and Description Section 34, T21S, R34E Tank Battery
------------------------------	---

V. Well Completion Data

<sup>25</sup> Spud Date 03/07/00	<sup>26</sup> Ready Date 06/09/00	<sup>27</sup> TD 13,500'	<sup>28</sup> PBTD 13,402'	<sup>29</sup> Perforations 13,134' - 13,156'	<sup>30</sup> DHC, DC, MC
<sup>31</sup> Hole Size 17-1/2"	<sup>32</sup> Casing & Tubing Size 13-3/8"	<sup>33</sup> Depth Set 1296'	<sup>34</sup> Sacks Cement 872 sx		
12-1/4"	9-5/8"	5763'	1903 sx		
8-3/4"	7"	11,250'	180 sx		
6-1/8"	4-1/2" LR	13,500'	350 sx		

VI. Well Test Data

<sup>35</sup> Date New Oil 06/09/00	<sup>36</sup> Gas Delivery Date 06/09/00	<sup>37</sup> Test Date 06/16/00	<sup>38</sup> Test Length 24 hrs	<sup>39</sup> Tbg. Pressure 5000	<sup>40</sup> Csg. Pressure —
<sup>41</sup> Choke Size 9/64"	<sup>42</sup> Oil 20	<sup>43</sup> Water 0	<sup>44</sup> Gas 1239	<sup>45</sup> AOF	<sup>46</sup> Test Method Flowing

<sup>47</sup> I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.		OIL CONSERVATION DIVISION	
Signature: <i>Kim Stewart</i>	Approved by: <i>Chris Williams</i>	DISTRICT 1 SUPERVISOR	
Printed name: Kim Stewart	Title:	Approval Date: JUN 05 2000	
Title: Regulatory Analyst			
Date: 06/27/00	Phone: (915) 686-8235		

<sup>48</sup> If this is a change of operator fill in the OGRID number and name of the previous operator

Previous Operator Signature	Printed Name	Title	Date
-----------------------------	--------------	-------	------



District I  
PO Box 1980, Hobbs, NM 88241-1980

District II  
811 South First, Artesia, NM 88210

District III  
1000 Rio Brazos Rd., Aztec, NM 87410

District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Form C-104

Revised October 18, 1994

Instructions on back

Submit to Appropriate District Office

5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

<sup>1</sup> Operator name and Address Nearburg Producing Company 3300 North A Street, Building 2, Suite 120 Midland, Texas 79705		<sup>2</sup> OGRID Number 15742
		<sup>3</sup> Reason for Filing Code Change Transporters
<sup>4</sup> API Number 30 - 0 25 34948	<sup>5</sup> Pool Name Grama Ridge Morrow; East	<sup>6</sup> Pool Code 77690
<sup>7</sup> Property Code 25382	<sup>8</sup> Property Name Grama Ridge East 34 State	<sup>9</sup> Well Number 1

II. <sup>10</sup> Surface Location

UI or lot no. H	Section 34	Township 21S	Range 34E	Lot Idn	Feet from the 1548	North/South Line North	Feet from the 990	East/West line East	County Lea
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<sup>11</sup> Bottom Hole Location

UI or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West line	County
<sup>12</sup> Lse Code F	<sup>13</sup> Producing Method Code Flowing	<sup>14</sup> Gas Connection Date 06/09/00	<sup>15</sup> C-129 Permit Number	<sup>16</sup> C-129 Effective Date	<sup>17</sup> C-129 Expiration Date				

III. Oil and Gas Transporters

<sup>18</sup> Transporter OGRID	<sup>19</sup> Transporter Name and Address	<sup>20</sup> POD	<sup>21</sup> O/G	<sup>22</sup> POD ULSTR Location and Description
21778	Sunoco Inc. (R&M) 907 South Detroit Tulsa, OK 74102	2825726	O	Section 34, T21S, R34E Tank Battery
032109	LG&E Natural Gas Gathering & Processing 2777 Stemmon Freeway, Suite 700 Dallas, TX 75207	2825727	G	Section 34, T21S, R34E Tank Battery

IV. Produced Water

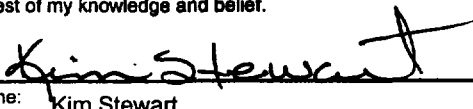

<sup>23</sup> POD	<sup>24</sup> POD ULSTR Location and Description Section 34, T21S, R34E Tank Battery
-------------------	---

V. Well Completion Data

<sup>25</sup> Spud Date 03/07/00	<sup>26</sup> Ready Date 06/09/00	<sup>27</sup> TD 13,500'	<sup>28</sup> PBTD 13,402'	<sup>29</sup> Perforations 13,134' - 13,156'	<sup>30</sup> DHC, DC, MC
<sup>31</sup> Hole Size 17-1/2"	<sup>32</sup> Casing & Tubing Size 13-3/8"	<sup>33</sup> Depth Set 1296'	<sup>34</sup> Sacks Cement 872 sx		
12-1/4"	9-5/8"	5763'	1903 sx		
8-3/4"	7"	11,250'	180 sx		
6-1/8"	4-1/2" LR	13,500'	350 sx		

VI. Well Test Data

<sup>35</sup> Date New Oil	<sup>36</sup> Gas Delivery Date	<sup>37</sup> Test Date	<sup>38</sup> Test Length	<sup>39</sup> Tbg. Pressure	<sup>40</sup> Csg. Pressure
<sup>41</sup> Choke Size	<sup>42</sup> Oil	<sup>43</sup> Water	<sup>44</sup> Gas	<sup>45</sup> AOF	<sup>46</sup> Test Method

<sup>47</sup> I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.		OIL CONSERVATION DIVISION	
Signature: 	Approved by: 		
Printed name: Kim Stewart	Title: DISTRICT 1 SUPERVISOR		
Title: Regulatory Analyst	Approval Date:		
Date: 06/14/00	Phone: (915) 686-8235	JUN 19 2000	

<sup>48</sup> If this is a change of operator fill in the OGRID number and name of the previous operator

Previous Operator Signature	Printed Name	Title	Date
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District I  
PO Box 1980, Hobbs, NM 88241-1980

District II  
811 South First, Artesia, NM 88210

District III  
1000 Rio Brazos Rd., Aztec, NM 87410

District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Form C-104  
Revised October 18, 1994  
Instructions on back  
Submit to Appropriate District Office  
5 Copies  
☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

<sup>1</sup> Operator name and Address Nearburg Producing Company 3300 North A Street, Building 2, Suite 120 Midland, Texas 79705		<sup>2</sup> OGRID Number 15742
		<sup>3</sup> Reason for Filing Code RT - 3000 (June, 2000)
<sup>4</sup> API Number 30 - 0 25 34948	<sup>5</sup> Pool Name Grama Ridge Morrow; East	<sup>6</sup> Pool Code 77690
<sup>7</sup> Property Code 25382	<sup>8</sup> Property Name Grama Ridge East 34 State	<sup>9</sup> Well Number 1

II. <sup>10</sup> Surface Location

Ul or lot no. H	Section 34	Township 21S	Range 34E	Lot Idn	Feet from the 1548	North/South Line North	Feet from the 990	East/West line East	County Lea
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<sup>11</sup> Bottom Hole Location

Ul or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West line	County
<sup>12</sup> Lse Code F	<sup>13</sup> Producing Method Code Flowing	<sup>14</sup> Gas Connection Date 06/09/00	<sup>15</sup> C-129 Permit Number	<sup>16</sup> C-129 Effective Date	<sup>17</sup> C-129 Expiration Date				

III. Oil and Gas Transporters

<sup>18</sup> Transporter OGRID	<sup>19</sup> Transporter Name and Address	<sup>20</sup> POD	<sup>21</sup> O/G	<sup>22</sup> POD ULSTR Location and Description
138648	Amoco Pipeline - ICT 502 North West Avenue Levelland, TX 79336	2825726	O	Section 34, T21S, R34E Tank Battery
032109	LG&E Natural Gas Gathering & Processing 2777 Stemmon Freeway, Suite 700 Dallas, TX 75207	2825727	G	Section 34, T21S, R34E Tank Battery

IV. Produced Water

<sup>23</sup> POD 2825728	<sup>24</sup> POD ULSTR Location and Description Section 34, T21S, R34E Tank Battery
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V. Well Completion Data

<sup>25</sup> Spud Date 03/07/00	<sup>26</sup> Ready Date 06/09/00	<sup>27</sup> TD 13,500'	<sup>28</sup> PBTD 13,402'	<sup>29</sup> Perforations 13,134' - 13,156'	<sup>30</sup> DHC, DC, MC
<sup>31</sup> Hole Size 17-1/2"	<sup>32</sup> Casing & Tubing Size 13-3/8"	<sup>33</sup> Depth Set 1296'	<sup>34</sup> Sacks Cement 872 sx		
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8-3/4"	7"	11,250'	180 sx		
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<sup>35</sup> Date New Oil	<sup>36</sup> Gas Delivery Date	<sup>37</sup> Test Date	<sup>38</sup> Test Length	<sup>39</sup> Tbg. Pressure	<sup>40</sup> Csg. Pressure
<sup>41</sup> Choke Size	<sup>42</sup> Oil	<sup>43</sup> Water	<sup>44</sup> Gas	<sup>45</sup> AOF	<sup>46</sup> Test Method

<sup>47</sup> I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.		OIL CONSERVATION DIVISION	
Signature: <i>Kim Stewart</i>	Approved by: <i>Chris Williams</i>		
Printed name: Kim Stewart	Title:		
Title: Regulatory Analyst	Approval Date: JUN 19 2000	DISTRICT 1 SUPERVISOR	
Date: 06/09/00	Phone: (915) 686-8235		

<sup>48</sup> If this is a change of operator fill in the OGRID number and name of the previous operator

Previous Operator Signature	Printed Name	Title	Date
-----------------------------	--------------	-------	------

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

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

## OIL CONSERVATION DIVISION

2040 Pacheco St.  
Santa Fe, NM 87505

WELL API NO. 30-025-34948
Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
State Oil & Gas Lease No.
Lease Name or Unit Agreement Name Grama Ridge East 34 State
Well No. 1
Pool name or Wildcat Grama Ridge Morrow; East

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
Type of Well: OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER	
Name of Operator Nearburg Producing Company	
Address of Operator 3300 N A St., Bldg 2, Suite 120, Midland, TX 79705	
Well Location Unit Letter <u>H</u> : <u>1548</u> Feet From The <u>North</u> Line and <u>990</u> Feet From The <u>East</u> Line <u>34</u> Section <u>21S</u> Township <u>34E</u> Range <u>NMPM</u> <u>Lea</u> County	
Elevation (Show whether DF, RKB, RT, GR, etc.) 3689' GR	

11 Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

### NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐  
OTHER: ☐

### SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ PLUG AND ANBANDONMENT ☐  
CASING TEST AND CEMENT JOB ☐  
OTHER: 4-1/2 " Production Liner ☒

12 Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

05/03/00: Drilled to 13,500'. Set liner hanger at 11,016'. Cemented with 350 sx Class "H" + additives. Test liner top to 2500 psi. NU BOPE and NU B section. Clean pits and release rig at 1800 hrs on 5/3/00.

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

SIGNATURE

*Kim Stewart*

TITLE Regulatory Analyst

DATE 05-08-00

TYPE OR PRINT NAME Kim Stewart

TELEPHONE NO. 915/686-8235

(This space for State Use)

APPROVED BY

*Larry W. Wink*

FIELD REPRESENTATIVE II

DATE

MAY 16 2000

CONDITIONS OF APPROVAL, IF ANY:

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

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

## OIL CONSERVATION DIVISION

2040 Pacheco St.  
Santa Fe, NM 87505

WELL API NO. 30-025-34948
Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE
State Oil & Gas Lease No.
Lease Name or Unit Agreement Name Grama Ridge East 34 State
Well No. 1
Pool name or Wildcat Grama Ridge Morrow; East

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
Type of Well: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER	
Name of Operator Nearburg Producing Company	
Address of Operator 3300 N A St., Bldg 2, Suite 120, Midland, TX 79705	
Well Location Unit Letter <u>H</u> : <u>1548</u> Feet From The <u>North</u> Line and <u>990</u> Feet From The <u>East</u> Line <u>34</u> Section <u>21S</u> Township <u>34E</u> Range <u>NMPM</u> Lea County	
Elevation (Show whether DF, RKB, RT, GR, etc.) 3689' GR	

11 Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

### NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐  
OTHER: ☐

### SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐  
CASING TEST AND CEMENT JOB ☐  
OTHER: 7" Protection casing and cement ☒

12 Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

04/11/00: Drilled to 10,841', lost circ, dry drilled to 11,250'. RU and ran 275 jts 7" 23#, 26#, 29#, LTC & BTC csg. Cmt 1st stage csg using 90 sx cmt + additives. Cmt 2nd stage using 90 sx cmt + additives. ND BOPE and set slips. NU BOPE and test. Will drill 6-1/8" hole to original TD and set 4-1/2" liner tied back 200' into 7" csg if productive.

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

SIGNATURE Kim Stewart TITLE Regulatory Analyst

DATE 04-18-00

TYPE OR PRINT NAME Kim Stewart

TELEPHONE NO. 915/686-8235

(This space for State Use)

APPROVED BY

Chris Williams

DISTRICT 1 SUPERVISOR

DATE APR 24 2000

CONDITIONS OF APPROVAL, IF ANY:

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

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

## OIL CONSERVATION DIVISION

2040 Pacheco St.  
Santa Fe, NM 87505

WELL API NO.  
30-025-34948

Indicate Type of Lease  
STATE ☒ FEE

State Oil & Gas Lease No.

Lease Name or Unit Agreement Name

Grama Ridge East 34 State

Well No.  
1

Pool name or Wildcat  
Grama Ridge Morrow; East

### SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

Type of Well:

OIL  
WELL ☒

GAS  
WELL ☐

OTHER

Name of Operator  
Nearburg Producing Company

Address of Operator  
3300 N A St., Bldg 2, Suite 120, Midland, TX 79705

Well Location

Unit Letter H : 1548 Feet From The North Line and 990 Feet From The East Line

34 Section 21S Township 34E Range NMPM Lea County

Elevation (Show whether DF, RKB, RT, GR, etc.)

3689' GR

11

Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

#### NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐

PLUG AND ABANDON ☐

TEMPORARILY ABANDON ☐

CHANGE PLANS ☐

PULL OR ALTER CASING ☐

OTHER: ☐

#### SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐

ALTERING CASING ☐

COMMENCE DRILLING OPNS. ☐

PLUG AND ANBANDONMENT ☐

CASING TEST AND CEMENT JOB ☐

OTHER: Intermediate Casing and Cement ☒

12 Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

03/27/00: Drilled to 5,763'. C&C hole. RU and ran 139 jts 9-5/8" 36#, 40#, K55, N80, S95, LT&C & STC csg. Set csg @ 5,763'. Cmt 1st stage csg using 403 sx cmt + additives. Cmt 2nd stage using 1500 sx cmt + additives. Circ 210 sx to surface. WOC. Cut off casing and NU BOPE and test.

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

SIGNATURE

*Kim Stewart*

TITLE Regulatory Analyst

DATE 04-03-00

TYPE OR PRINT NAME Kim Stewart

TELEPHONE NO. 915/686-8235

(This space for State Use)

APPROVED BY

*Chris Williams*

TITLE

DISTRICT 1 SUPERVISOR

DATE

APR 12 2000

CONDITIONS OF APPROVAL, IF ANY:

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

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

## OIL CONSERVATION DIVISION

2040 Pacheco St.  
Santa Fe, NM 87505

WELL API NO. 30-025-34948
Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
State Oil & Gas Lease No.
Lease Name or Unit Agreement Name Grama Ridge East 34 State
Well No. 1
Pool name or Wildcat Grama Ridge Morrow; East

### SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

Type of Well: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER
Name of Operator Nearburg Producing Company
Address of Operator 3300 N A St., Bldg 2, Suite 120, Midland, TX 79705
Well Location Unit Letter <u>H</u> : <u>1548</u> Feet From The <u>North</u> Line and <u>990</u> Feet From The <u>East</u> Line <u>34</u> Section <u>21S</u> Township <u>34E</u> Range <u>NMPM</u> <u>Lea</u> County Elevation (Show whether DF, RKB, RT, GR, etc.) <u>3689' GR</u>

11 Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

#### NOTICE OF INTENTION TO:

#### SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ANBANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>		CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER: <input type="checkbox"/>		OTHER: <u>Surface Casing and Cement</u> <input checked="" type="checkbox"/>	

Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

03/07/00: Spud well @2300 hrs on 03/07/00.

03/11/00: Drilled to 1,296'. C&C hole. RU and ran 32 jts 13-3/8" 68#, K55, N80, BT&C csg. Set csg @ 1,296'. Cmt csg using 872 sx cmt + additives. Circ 54 sx to surface. WOC 18 hrs. Cut off casing and NU BOPE and test.

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

SIGNATURE Kim Stewart TITLE Regulatory Analyst DATE 03-14-00

TYPE OR PRINT NAME Kim Stewart TELEPHONE NO. 915/686-8235

(This space for State Use)

APPROVED BY Chris Williams DISTRICT 1 SUPERVISOR DATE MAR 27 2000

CONDITIONS OF APPROVAL, IF ANY:

District I  
PO Box 1980, Hobbs, NM 88241-1980

District II  
811 South First, Artesia, NM 88210

District III  
1000 Rio Brazos Rd., Aztec, NM 87410

District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Form C-101

Revised October 18, 1994

Instructions on back

Submit to Appropriate District Office

State Lease - 6 Copies

Fee Lease - 5 Copies

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

Operator Name and Address Nearburg Producing Company 3300 N A St., Bldg 2, Suite 120 Midland, TX 79705		OGRID Number 015742
		API Number 30 - 025 - 34948
Property Code 25382	Property Name Grama Ridge East 34 State	Well No. 1

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West Line	County
H	34	21S	34E		1548	North	990	East	Lea

Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West Line	County
Proposed Pool 1 Grama Ridge Morrow, East					Proposed Pool 2				

Work Type Code N	Well Type Code G	Cable/Rotary R	Lease Type Code S	Ground Level Elevation 3689
Multiple No	Proposed Depth 13700	Formation Morrow	Contractor Patterson	Spud Date 03-05-00

Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17-1/2"	13-3/8"	48#	1300'	800 sxs	Circ to surface
12-1/4"	9-5/8"	24# & 32#	5700'	2000 sxs	Circ to surface
8-3/4"	5-1/2"	17# & 20#	13700'	1500 sxs	

Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

Propose to drill the well to sufficient depth to evaluate the Morrow formation. After reaching TD, logs will be run and casing set if the evaluation is positive. Perforate, test and stimulate as necessary to establish production.

Acreage dedication is 320 acres; N/2 of Section 34.

Permit Expires 1 Year From Approval  
Date Unless Drilling Underway

I hereby certify that the information given above is true and complete to the best of my knowledge and belief.		OIL CONSERVATION DIVISION	
Signature: <i>Kim Stewart</i>		Approved By: <i>Larry W. Wink</i>	
Printed name: Kim Stewart		Title: FIELD REPRESENTATIVE	
Title: Regulatory Analyst		Approval Date: SEP 28 2000	
Date: 02-23-00		Expiration Date: 11/1/01	
Phone: 915/686-8235		Conditions of Approval: Attached: <input type="checkbox"/>	

## DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

## State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102

Revised February 10, 1994

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

## DISTRICT II

P.O. Drawer DD, Artesia, NM 88211-0718

## DISTRICT III

1000 Rio Brazos Rd., Artesia, NM 87419

## DISTRICT IV

P.O. BOX 2088, SANTA FE, N.M. 87504-2088

## OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number <b>30-025-34948</b>	Pool Code <b>77690</b>	Pool Name <b>Grama Ridge Morrow, East</b>
Property Code <b>25382</b>	Property Name <b>GRAMA RIDGE EAST 34 ST.</b>	Well Number <b>1</b>
OGRID No. <b>15742</b>	Operator Name <b>NEARBURG PRODUCING COMPANY</b>	Elevation <b>3689</b>

## Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>H</b>	<b>34</b>	<b>21 S</b>	<b>34 E</b>		<b>1548</b>	<b>NORTH</b>	<b>990</b>	<b>EAST</b>	<b>LEA</b>

## Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres <b>320</b>	Joint or Infill <b>N</b>	Consolidation Code	Order No.						

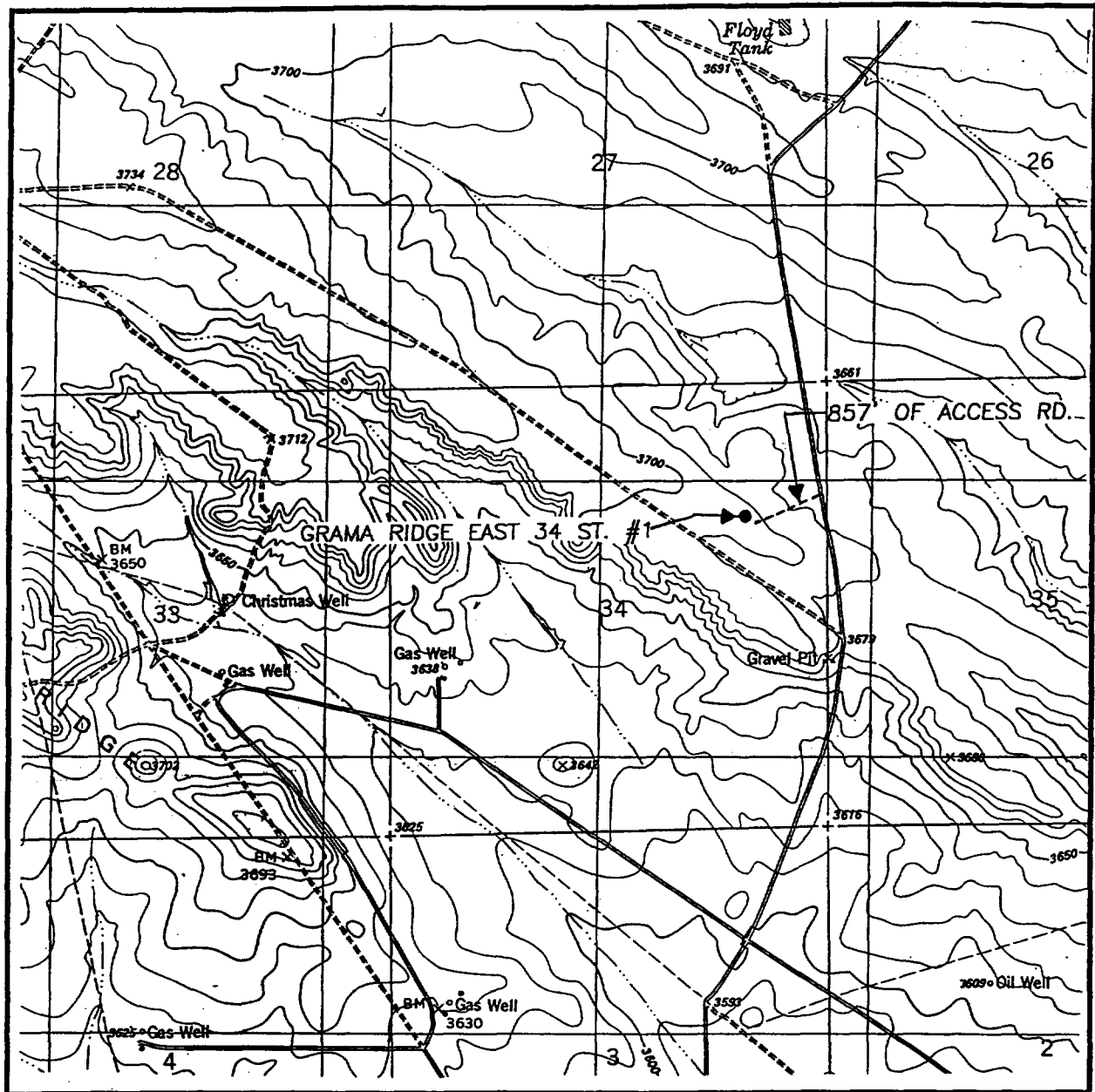
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<b>OPERATOR CERTIFICATION</b> I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. <u>Kim Stewart</u> Signature Kim Stewart Printed Name Regulatory Analyst Title February 23, 2000 Date
	<b>SURVEYOR CERTIFICATION</b> 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 belief. FEBRUARY 21, 2000 Date Surveyed
	Signature & Seal of Professional Surveyor 
	Certificate No. RONALD J. EDSON 3239 GARY EDSON 12641 MACON-McDONALD 12185



JOHN WEST SURVEYING  
HOBBS, NEW MEXICO  
(505) 393-3117

# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:  
SAN SIMON RANCH, N.M. - 10'

SEC. 34 TWP. 21-S RGE. 34-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 1548' FNL & 990' FEL

ELEVATION 3689

OPERATOR NEARBURG PRODUCING CO.

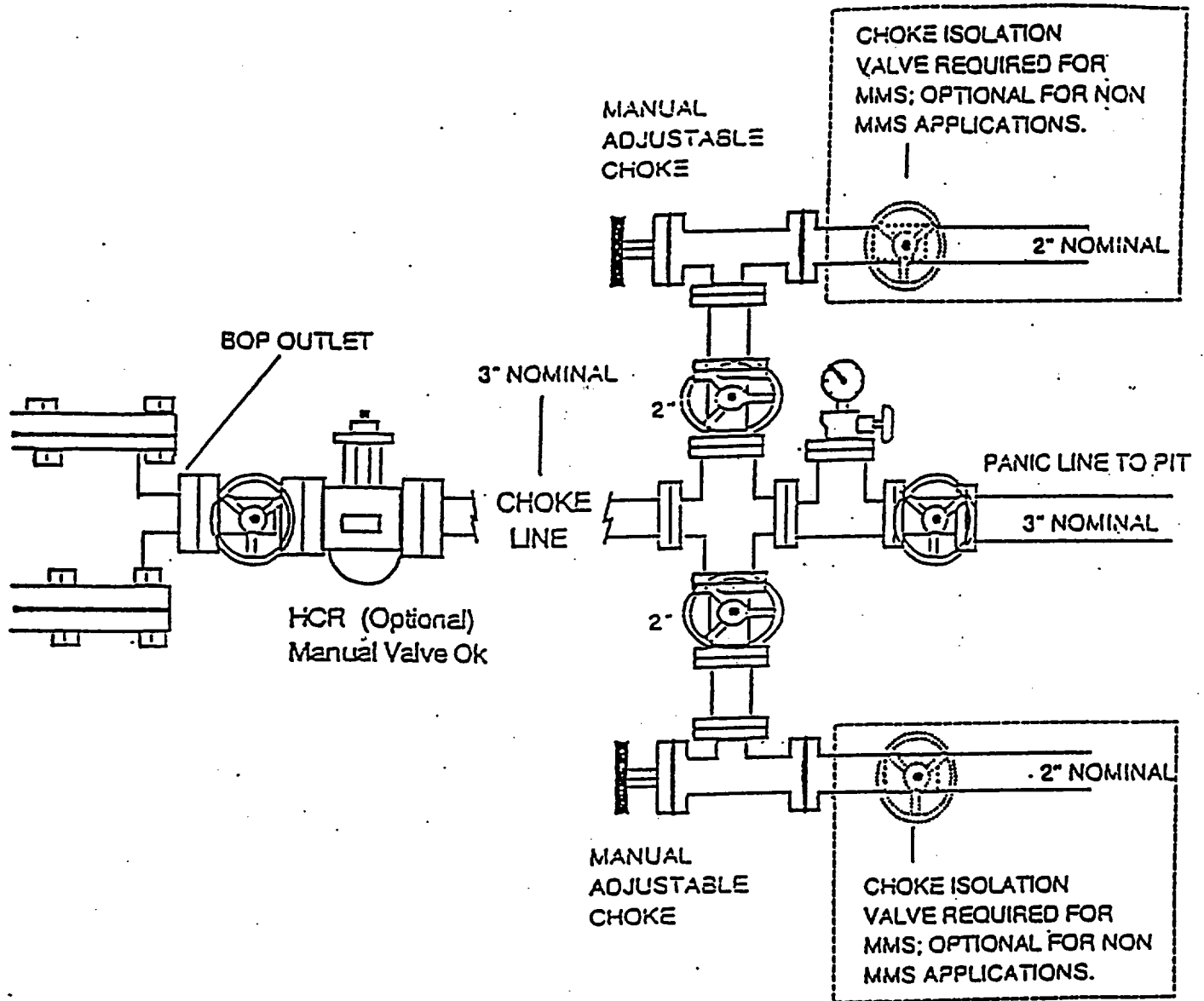
LEASE GRAMA RIDGE EAST 34 ST.

U.S.G.S. TOPOGRAPHIC MAP

SAN SIMON RANCH, N.M.

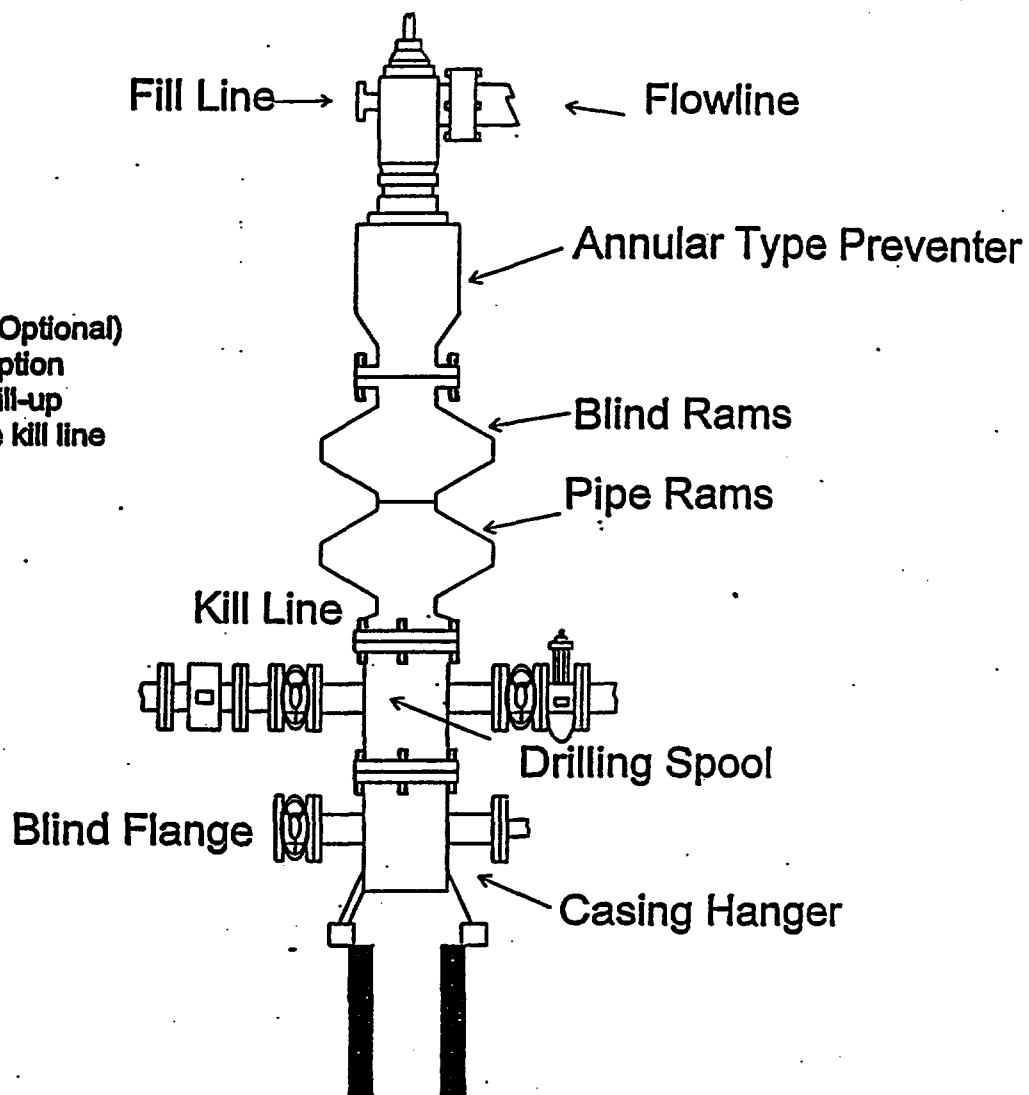
**JOHN WEST SURVEYING**  
**HOBBS, NEW MEXICO**  
**(505) 393-3117**

NEARBURG PRODUCING COMPANY  
CHOKE MANIFOLD  
5M SERVICE



NEARBURG PRODUCING COMPANY  
BOPE SCHEMATIC

Rotating Head (Optional)  
Drilling Nipple option  
must include a fill-up  
line. Do not use kill line  
for fill up.



1500 Series

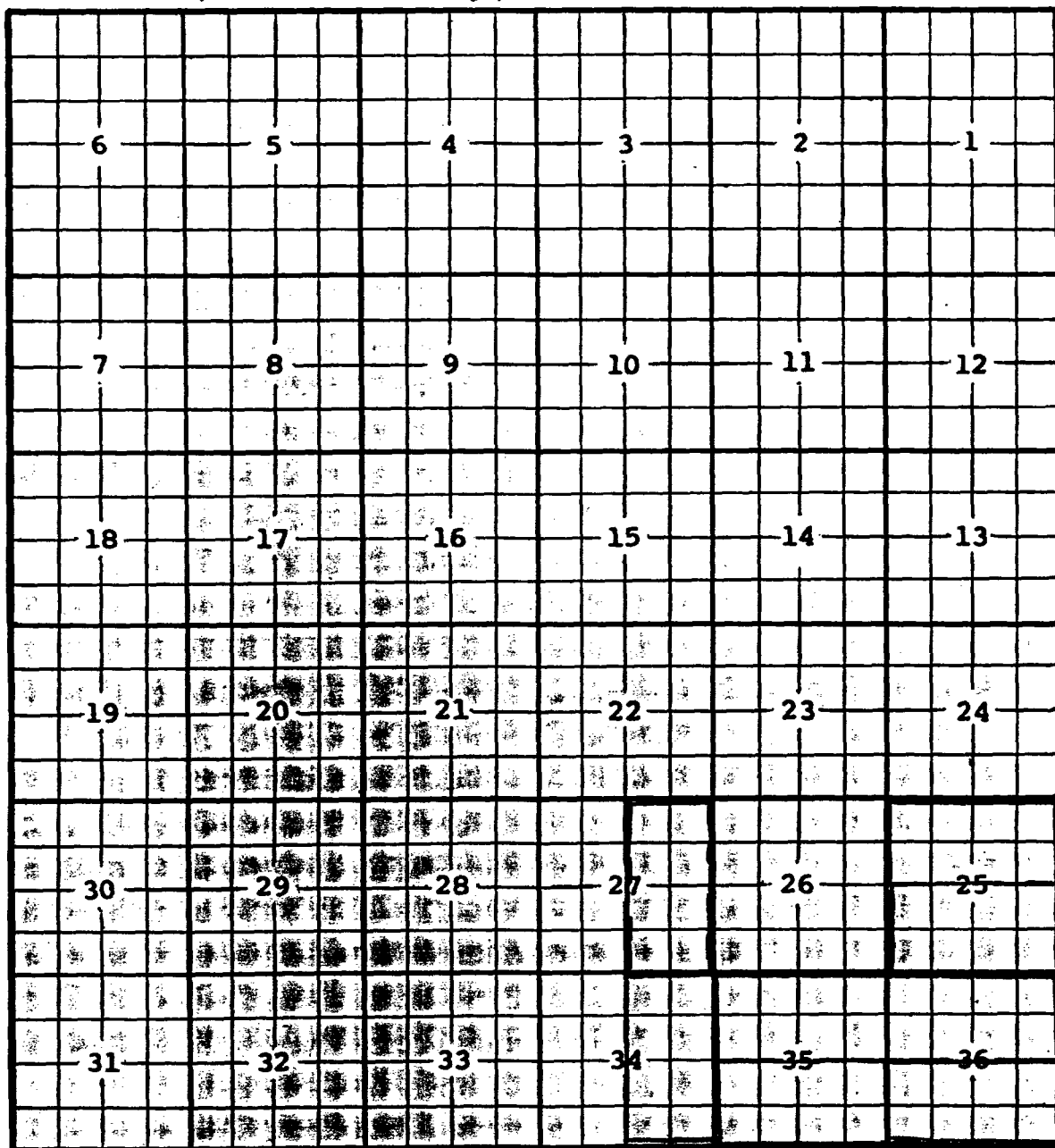
COUNTY LEA

POOL EAST GRAMA RIDGE - MORROW GAS

TOWNSHIP 21S

RANGE 34E

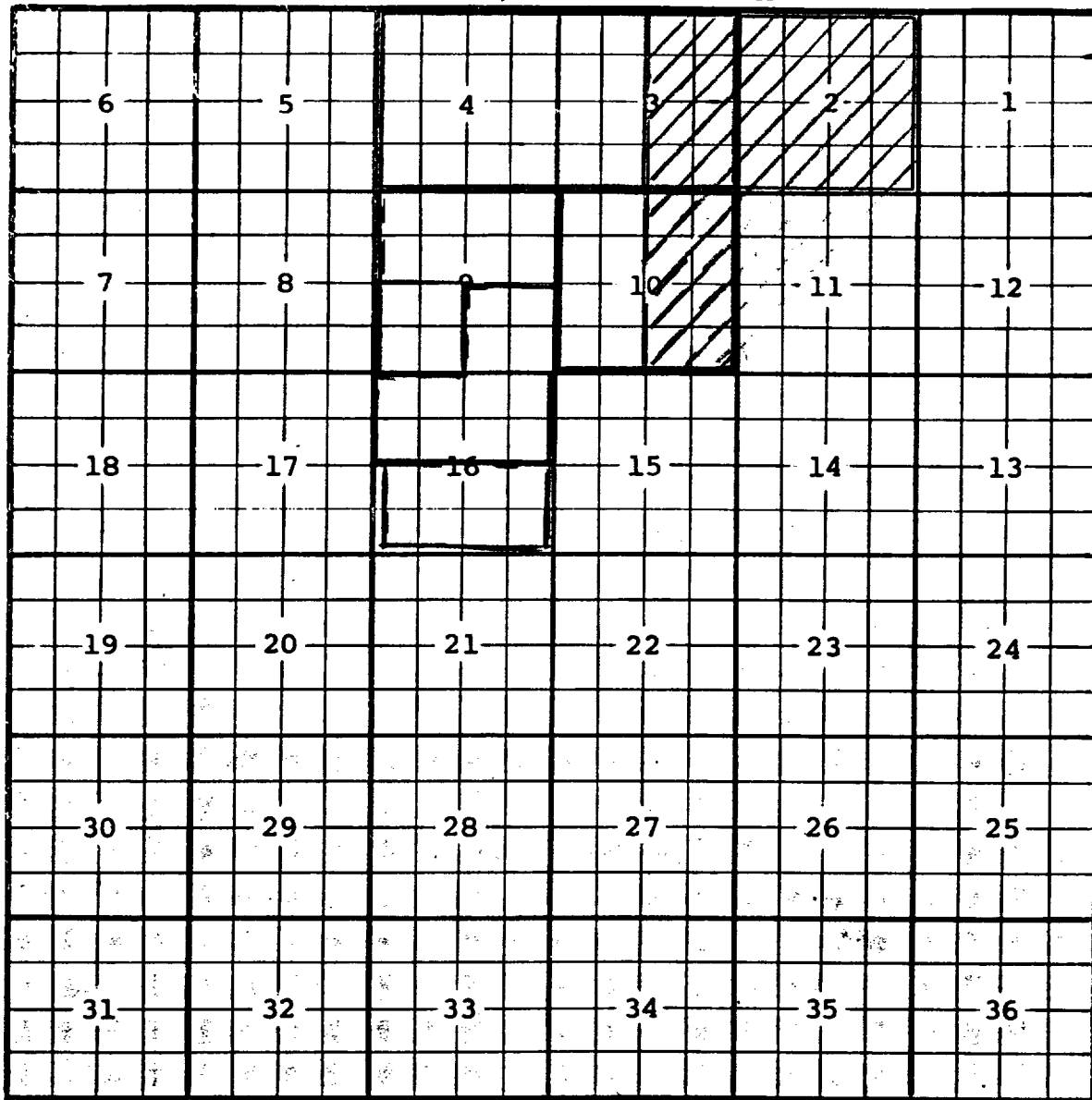
NMPM



DESCRIPTION:  $\frac{1}{2}$  SEC 35 (R-6050 T-17-79) EXT:  $\frac{1}{2}$  SEC 35  $\frac{1}{2}$  SEC 36  
(R-6170, 11-1-79) EXT:  $\frac{1}{2}$  SEC 34 (R-6211, 12-31-79) EXT:  $\frac{1}{2}$  SEC 36 (R-6420, 8-1-80)  
EXT:  $\frac{1}{2}$  SEC 25 (R-6657-4-20-81) EXT:  $\frac{1}{2}$  SEC 25 (R-8024, 8-30-85)  
EXT:  $\frac{1}{2}$  SEC 27 (R-9472, 4-1-91)

COUNTY LeaPOOL Grana Ridge - Morrow GasTOWNSHIP 22 SouthRANGE 34 East

NMPM



Description: All Sec. 3 & 4 (R-3006, 12-3-65)

Ext: All Sec. 10 (R-3152, 12-1-66) Ext: All Sec 2 (R-5729, 6-1-78)

Deletion: All Sec 2, E/2 Sec 3, E/2 Sec 10 (R-5995, 5-2-79)

EXT: SE/4 sec. 9, N/2 sec 16 (R-9741, 9-1-89) EXT: N/2 SEC 9 (R-9120, 3-1-90)

Ext: SW/4 sec. 9 (R-9345, 11-7-90) Ext: 1/2 Sec. 16 (R-11304, 1-12-00)

COUNTY Lea

POOL

Grama Ridge - Morrow GasTOWNSHIP 21 SouthRANGE 34 East

NMPM

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Ext: All Sec. 34 (R-3080, 7-1-66) - All Sec. 33 (R-3195, 3-1-67)

Ext: All Sec. 35 (R-5987, 4-1-79) Deletion:  $\frac{W}{2}$  Sec 33,  $\frac{E}{2}$  Sec 34, -  
- All Sec 35 (R-5995, 5-2-79)

## **70-2-33. Definitions.**

As used in the Oil and Gas Act [this article]:

A. "person" means:

(1) any individual, estate, trust, receiver, cooperative association, club, corporation, company, firm, partnership, joint venture, syndicate or other entity; or

(2) the United States or any agency or instrumentality thereof or the state or any political subdivision thereof;

B. "pool" means an underground reservoir containing a common accumulation of crude petroleum oil or natural gas or both. Each zone of a general structure, which zone is completely separate from any other zone in the structure, is covered by the word pool as used in the Oil and Gas Act. Pool is synonymous with "common source of supply" and with "common reservoir";

C. "field" means the general area which is underlaid or appears to be underlaid by at least one pool and also includes the underground reservoir or reservoirs containing the crude petroleum oil or natural gas or both. The words field and pool mean the same thing when only one underground reservoir is involved; however, field, unlike pool, may relate to two or more pools;

D. "product" means any commodity or thing made or manufactured from crude petroleum oil or natural gas and all derivatives of crude petroleum oil or natural gas, including refined crude oil, crude tops, topped crude, processed crude petroleum, residue from crude petroleum, cracking stock, uncracked fuel oil, treated crude oil, fuel oil, residuum, gas oil, naphtha, distillate, gasoline, kerosene, benzine, wash oil, waste oil, lubricating oil and blends or mixtures of crude petroleum oil or natural gas or any derivative thereof;

E. "owner" means the person who has the right to drill into and to produce from any pool and to appropriate the production either for himself or for himself and another;

F. "producer" means the owner of a well capable of producing oil or natural gas or both in paying quantities;

G. "gas transportation facility" means a pipeline in operation serving gas wells for the transportation of natural gas or some other device or equipment in like operation whereby natural gas produced from gas wells connected therewith can be transported or used for consumption;

H. "correlative rights" means the opportunity afforded, so far as it is practicable to do so, to the owner of each property in a pool to produce without waste his just and equitable share of the oil or gas or both in the pool, being an amount, so far as can be practicably determined and so far as can be practicably obtained without waste, substantially in the proportion that the quantity of recoverable oil or gas or both under the property bears to the total recoverable oil or gas or both in the pool and, for such purpose, to use his just and equitable share of the reservoir energy;

I. "potash" means the naturally occurring bedded deposits of the salts of the element potassium; and

J. "casinghead gas" means any gas or vapor or both indigenous to an oil stratum and produced from such stratum with oil including any residue gas remaining after the processing of casinghead gas to remove its liquid components.



**STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION**

**IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:**

**APPLICATION OF RAPTOR NATURAL PIPELINE, LLC                      CASE NO. 12588  
f/k/a LG & E ENERGY CORPORATION, FOR SPECIAL  
RULES FOR THE GRAMA RIDGE MORROW GAS STORAGE  
UNIT, LEA COUNTY, NEW MEXICO.**

**APPLICATION OF LG & E NATURAL PIPELINE LLC                      CASE NO. 12441  
FOR SPECIAL RULES FOR THE GRAMA RIDGE  
MORROW GAS STORAGE UNIT, LEA COUNTY, NEW  
MEXICO.**

**ORDER NO. R-11611**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

These cases came on for hearing at 9:00 a.m. on May 21, 2001, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 3rd day of July, 2001, the Division Director, having considered the testimony, the record and the recommendations of the Examiner,

**FINDS THAT:**

(1) Due public notice has been given, and the Division has jurisdiction of these cases and their subject matter.

(2) At the time of the hearing, Cases No. 12588 and 12441 were consolidated for the purpose of testimony. It is further noted that the original applicant in Case No. 12441, LG&E Natural Pipeline, LLC, through a change of name became Raptor Natural Pipeline LLC.

(3) BTA Oil Producers, Yates Petroleum Corporation, C. W. Trainer, Inc., Nearburg Exploration Company L.L.C. and Concho Resources, Inc. appeared at the hearing and were represented by counsel.

(4) The applicant in Case No. 12588, Raptor Natural Pipeline LLC, is the Unit Operator of the Grama Ridge Morrow Gas Storage Unit, utilized for the purposes of the injection, storage, and withdrawal of gas in the Unitized Formation, consisting of those Morrow formation sands encountered between log depths of 12,722 feet and 13,208 feet in the Shell Oil Company State GRA Well No. 1 (API No. 30-025-21336), located 1980 feet from the North line and 660 feet from the West line (Unit E) of Section 3, Township 22 South, Range 34 East, NMPM, Lea County, New Mexico.

(5) The Grama Ridge Morrow unitized area, as originally approved by the Division on January 29, 1973, pursuant to Order No. R-4473, and subsequently amended, encompasses the above-referenced interval of the Morrow Formation underlying the following lands:

Township 21 South, Range 34 East, NMPM

Section 33: All

Section 34: All

Township 22 South, Range 34 East, NMPM

Section 3: All

Section 4: All

Section 10: All.

(6) Unit operations originally commenced in 1964 as conventional production operations authorized by the Division under Order No. R-2792. In 1973, the Division, by Order No. R-4491, authorized the conversion of the Unit from primary recovery to gas storage, pursuant to a three-phase plan consisting of pilot pressure testing to determine the limits of the Morrow reservoir, followed by the installation of permanent compression equipment and fill-up operations, and subsequently, by installation of additional compression to facilitate fill-up to 2,500 psig surface pressure.

(7) In 1979, in Case No. 6557, the New Mexico Oil Conservation Commission ("Commission") issued Order No. R-6050, creating the East Grama Ridge-Morrow Gas Pool in the area. In Order No. R-6050, the Commission found that the Morrow producing interval in the area does not constitute a broad, continuous producing body, but instead is composed of numerous and separate isolated sand bodies. Subsequently, in Case No. 8088, the Commission found in Order No. R-7582 that the boundaries of the Grama Ridge Storage Reservoir could not be precisely determined. The issuance of Order No. R-7582 by the Commission in Case No. 8088 was precipitated by the proposed location of the L&B Oil Company Federal Well No. 1 to be drilled at a location 660 feet from the South line and

1980 feet from the East line (Unit O) of Section 5, Township 22 South, Range 34 East, NMPM, Lea County, New Mexico directly offsetting the Grama Ridge Morrow Gas Storage Unit. At the insistence of the Unit operator, then Llano, Inc., the Commission ordered L&B Oil Company to permit Llano to run an RFT log in the Federal Well No. 1, in order to establish the pressure in each Morrow stringer and thereby determine if the well was in communication with the gas storage project. The Commission further ordered L&B Oil Company to provide Llano with certain information on the Federal Well No. 1, including drilling time, weight, bit changes, *etc.*; copies of drill stem tests; mud log information; samples of drill cuttings; and copies of the CNL-FDC porosity log or equivalent porosity log. L&B was further ordered to delay running casing into the well until Llano had the opportunity to run the RFT log. Order No. R-7582 finally prohibited L&B Oil Company from producing gas from those Morrow stringers that the RFT log data showed as having pressure similar to Llano's gas storage project

(8) The applicant presented evidence establishing that Nearburg Exploration Company LLC drilled and completed its Grama Ridge East "34" State Well No. 1 (API No. 30-025-34948) within the horizontal limits of the Unit at a location approximately 1548 feet from the North line and 990 feet from the East line (Unit H) of Section 34, Township 21 South, Range 34 East, NMPM, Lea County, New Mexico. This well was also drilled to a total depth and completed within the vertical limits of the structural equivalent of the Unitized Formation.

(9) Raptor presented testimony and evidence establishing that, based on currently available data, it appears that the Grama Ridge East "34" State Well No. 1 has not adversely affected Unit Operations, although the possibility of actual communication with the Unitized Formation cannot be precluded with absolute certainty.

(10) Raptor presented additional geologic and engineering evidence establishing that the exact boundaries of the storage reservoir still cannot be precisely determined. The evidence further establishes that the precise location of faults in the area and the apparent boundary or boundaries between the storage reservoir and the East Grama Ridge-Morrow Gas Pool is uncertain.

(11) Raptor presented additional geologic evidence of the depositional mechanics of the Morrow formation in the area, establishing that there is a reasonable possibility of communication between the storage reservoir and Morrow sands in the East Grama Ridge-Morrow Gas Pool. These depositional mechanisms include distributary prograding channel sands with truncation of lobe sands; bifurcating distributary channels; crevasse splays with communication up-formation; stacked channel sands with truncation; offsetting channels of relatively close proximity with varying relative reservoir pressures which may lead to the

failure of inter-reservoir sealing mechanisms; and, faulted distributaries with cross-fault communication.

(12) The applicant presented additional evidence establishing that the potential exists for additional drilling and development within the horizontal limits of the Unit Area and that additional drilling or recompletions may result in wells being completed in Morrow Formation reservoirs that are in communication with that portion of the formation dedicated to the Grama Ridge Morrow Gas Storage Unit. As a consequence, there exists a reasonable potential that the drilling, completion, and operation of new wells or recompletions of existing wells in the area, would result in interference with Unit operations and the impairment of Applicant's correlative rights.

(13) Raptor requests that the Division adopt Special Project Rules and Operating Procedures for the Grama Ridge Morrow Gas Storage Unit Area, including certain notification, casing, cementing, completion and recompletion requirements for newly drilled and existing wells within the Unit Area.

(14) Raptor presented engineering testimony and evidence in support of its proposed casing and cementing requirements that would permit recompletions and new drills through the Unitized Formation, and completions immediately above and below the Unitized Formation, while maintaining the integrity of the Unit and unit operations.

(15) Raptor presented evidence establishing that the implementation of such rules is reasonable, and does not unduly burden operators of wells within the project area, and industry and regulatory precedent exists for such rules.

(16) The evidence presented further established that the implementation of such Special Project Rules and Operating Procedures would be in the interest of, and would promote, public safety.

(17) In August 2000, Raptor, then known as LG&E Natural Pipeline LLC, convened a meeting in Midland, Texas with operators in the vicinity of the Grama Ridge Morrow Gas Storage Unit to discuss the establishment of proposed Special Project Rules and Operating Procedures in the Grama Ridge Morrow Gas Storage Unit Area as well as in a buffer zone consisting of each 320- acre gas spacing and proration unit immediately adjacent to the Grama Ridge Morrow Gas Storage Unit. As a result of that meeting and the comments received from the other operators, Raptor/LG&E modified its proposal by eliminating certain notification and testing procedures as well as the buffer zone. Subsequent meetings with other operators, specifically Nearburg Exploration, resulted in further refinements and modifications to the proposed Special Project Rules and Operating Procedures.

(18) The Special Project Rules and Operating Procedures presently proposed by Raptor provide for:

- (a) Advance notification of drilling or recompletion operations;
- (b) The sharing of certain information during drilling operations;
- (c) Availability of well logs;
- (d) Certain casing and cementing requirements for wells penetrating the Morrow Formation and completed above the top of the Unitized Formation;
- (e) Certain casing and cementing requirements for wells penetrating the Morrow Formation and completed below the base of the Unitized Formation and/or below the base of the Morrow Formation; and
- (f) A prohibition on completions within the Unitized Formation underlying the Unit Project Area by other than the Unit Operator.

The proposed Special Project Rules and Operating Procedures would not apply to any well that does not penetrate the Morrow Formation within the Unit Project Area.

(19) The evidence presented by Raptor established that the Special Project Rules and Operating Procedures are necessary to protect the correlative rights of the Unit Operator to the gas in its storage facility as well as to maintain the integrity of Unit operations. The evidence further established that the Special Project Rules and Operating Procedures would serve to prevent waste and are otherwise in the interests of conservation. The Special Project Rules and Operating Procedures would also promote public safety.

(20) In addition to its general authority to prevent waste and protect correlative rights set forth at N.M. Stat. Ann. 1978 Section 70-2-11, the Division is authorized by Section § 70-2-12.B (2), (7) and (13) to prevent the escape of gas from strata, to require wells to be drilled so as to prevent injury to neighboring leases or properties, and to regulate the subsurface storage of natural gas.

(21) Special operating procedures for all recompletions and newly drilled wells within the Grama Ridge Morrow Gas Storage Unit project area should be implemented in accordance with the Special Project Rules and Operating Procedures, as described above.

**IT IS THEREFORE ORDERED THAT:**

(1) Pursuant to the application of Raptor Natural Pipeline LLC, special project rules and operating procedures for the Grama Ridge Morrow Gas Storage Unit Area in Lea County, New Mexico are hereby promulgated as follows:

**SPECIAL PROJECT RULES AND OPERATING PROCEDURES  
FOR THE  
GRAMA RIDGE MORROW GAS STORAGE UNIT**

**RULE 1.** Each newly drilled or recompleted well penetrating the Morrow formation in the area of the Grama Ridge Morrow Gas Storage Unit Project Area shall be drilled, operated, and produced in accordance with the Special Project Rules and Operating Procedures hereinafter set forth.

**RULE 2.** Provisions of these Special Project Rules and Operating Procedures shall apply to the Grama Ridge Morrow Gas Storage Unit Project Area (the "Unit Project Area" or "Unit Area"), defined as and consisting of the following described acreage in Lea County, New Mexico:

**GRAMA RIDGE MORROW  
GAS STORAGE UNIT  
PROJECT AREA**

**Township 21 South, Range 34 East, NMPM**

Section 33: All

Section 34: All

**Township 22 South, Range 34 East, NMPM**

Section 3: All

Section 4: All

Section 10: All.

**RULE 3.** For purposes of these Special Project Rules

and Operating Procedures, the "Unitized Formation," as to State lands, is defined by that April 25, 1973, Unit Agreement For The Operation Of The Grama Ridge Morrow Unit Area, Lea County, New Mexico, as amended, and consists of "[t]hat subsurface portion of the unit area commonly known as the Morrow sands which is the same zone as [sic] the top and bottom of which were encountered at log depths of 12,722 feet and 13,208 feet respectively, in the Shell Oil Company State GRA Well No. 1 (API No. 30-025-21336), as shown on the Schlumberger Sonic Log B Gamma Ray Log of said well dated July 5, 1965, which well is located 1980 feet from the North line and 660 feet from the West line (Unit E) of Section 3, Township 22 South, Range 34 East, NMPM, Lea County, New Mexico." As to State and fee lands, the Unit Area includes Sections 33 and 34, Township 21 South, Range 34 East, NMPM, and the NE/4 of Section 4 and all of Section 3, Township 22 South Range 34 East, NMPM. As to Federal lands, the "Unitized Formation" consists of the Morrow Formation underlying the "gas storage reservoir area" (also the Unit Area) in Section 4 (excluding the NE/4 of Section 4) and Section 10, Township 22 South, Range 34 East, NMPM, as defined in that November 24, 1975 Agreement for the Subsurface Storage of Gas, No. 14-08-0001-14277, as amended.

RULE 4. For purposes of these Special Project Rules and Operating Procedures, the "Morrow Formation" is defined as the full extent of the vertical limits of the Morrow formation. The "Unit Operator" is defined as the operator of the Grama Ridge Morrow Gas Storage Unit Area.

RULE 5. Operators other than the Unit Operator proposing to drill a new well or recomplete an existing well penetrating or that may penetrate the Morrow Formation within the Unit Project Area of the Grama Ridge Morrow Gas Storage Unit, as defined above, shall:

- (a) provide the Unit Operator with advance written notification of intent to drill at the sooner of the date of filing of APD, C-101 and

C-102 forms, or thirty (30) days prior to commencing drilling operations;

- (b) on commencement of drilling operations, provide the Unit Operator with the following information within twenty-four (24) hours of its availability:
  - (i) daily drilling reports, including detailed time breakdown and other parameters normally associated with IADC daily drilling reports; and
  - (ii) the anticipated date and time when the top of the Morrow formation will be encountered by the drill bit; and
- (c) provide the Unit Operator with copies of all logs run on the well within twenty-four (24) hours of their availability and before casing is set.

RULE 6. For each well penetrating the Morrow formation within the boundaries of the Unit Project Area and completed above the top of Unitized Formation, the operator shall:

- (a) in the event of a cased hole into or through the Unitized Formation, isolate the Unitized Formation by squeezing cement immediately above and below (if penetrated) the Unitized Formation and immediately below the operator's deepest completion interval, run a cement bond log, and then fill the casing with cement to a level higher than the top of the Unitized Formation; and
- (b) in the case of an open hole into or through the Unitized Formation with casing set above the Unitized Formation:



- (i) if the hole total depth is within the Unitized Formation, fill the hole with cement to a level 20 feet higher than the top of the Unitized Formation; and
- (ii) if the hole total depth is below the bottom of the Unitized Formation, set a bridge plug at a depth 20 feet below the bottom of the Unitized Formation and fill the hole with cement from the bridge plug to a level 20 feet higher than the top of the Unitized Formation.

RULE 7. For each well penetrating the Morrow Formation and completed below the base of the Unitized Formation within the boundaries of the Unit Project Area, the operator shall:

- (a) squeeze cement immediately above the perforation interval, squeeze cement immediately below the Unitized Formation and squeeze cement immediately above the Unitized Formation; and
- (b) provide the Unit Operator with a cement bond log to document bond on all squeeze jobs.

RULE 8. For each exploratory well penetrating the Morrow Formation that is to be plugged and abandoned without casing, the operator shall fill the hole with cement from a bridge plug set at 20 feet below the base of the Unitized Formation (if applicable) to a level 20 feet above the top of the Unitized Formation.

RULE 9. The Unit Operator, on the request of an operator providing information and materials pursuant to Rule 5 (a) through (c) above or any other applicable provision of these Special Project Rules and Operating Procedures, shall

treat all or any part of such information and materials as confidential and shall prevent their release to any third party, except that this confidentiality provision shall not cover such information and materials that: (i) are or become generally available to the public other than as a result of a disclosure by the Unit Operator or an affiliate in violation of this provision; (ii) the Unit Operator or an affiliate already possessed on a non-confidential basis; or (iii) the Unit Operator or an affiliate is obligated to disclose by law, subpoena, or the order of a court or other governmental entity having jurisdiction.

RULE 10. Completions within the Unitized Formation underlying the Unit Project Area by anyone other than the Unit Operator are prohibited.

RULE 11. These Special Project Rules and Operating Procedures shall not apply to any well that does not penetrate the Morrow Formation within the Grama Ridge Morrow Gas Storage Unit Project Area.

(2) The Special Project Rules and Operating Procedures for the Grama Ridge Morrow Gas Storage Unit Area shall become effective May 1, 2001.

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

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



SEAL

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

A handwritten signature in cursive script, reading "Lori Wrotenberg".

LORI WROTENBERY  
Director

UNIT AGREEMENT  
FOR THE OPERATION OF THE  
GRAMA RIDGE MORROW UNIT AREA  
LEA COUNTY, NEW MEXICO

SIGNED  
AGREEMENT

State  
of  
NM

THIS AGREEMENT entered into as of the 25th day of April, 1973 by and between the parties subscribing, ratifying or consenting hereto, and herein referred to as the "parties hereto".

WITNESSETH:

WHEREAS, the parties hereto are the owners of working, royalty or other oil or gas interests in the unit area subject to this agreement; and

WHEREAS, the Commissioner of Public Lands of the State of New Mexico (hereinafter referred to as "Commissioner") is authorized by law to consent to and approve the operation of state lands under agreements made by lessees of state lands jointly or severally with other lessees where such agreements provide for the unit operation of part of or all of any oil or gas pool, field or area (Section 7-11-39, 7-11-40 N.M.S.A. 1953 Comp.); and

WHEREAS, the Commissioner of Public Lands of the State of New Mexico is authorized by law to amend with the approval of lessee, evidenced by lessee's execution of such agreement or otherwise, any oil and gas lease embracing state lands so that the length of the term of said lease may coincide with the term of such agreement for the unit operation of part or all of any oil or gas pool, field or area (Section 7-11-41 N.M.S.A. 1953 Comp.); and

WHEREAS, the Oil Conservation Commission of the State of New Mexico (hereinafter referred to as "Commission") is authorized by law to approve this agreement and the conservation provisions thereof (Art. 3, Chap. 65, Vol. 9, Part 2 N.M.S.A. 1953 Comp.); and

WHEREAS, the parties hereto hold sufficient interest in the Grama Ridge Morrow Unit Area covering the lands hereinafter described

to give reasonably effective control of operations therein; and

WHEREAS, it is the purpose of the parties hereto to conserve natural resources, prevent waste, store gas and secure other benefits obtainable through development and operation of the area subject to this agreement under the terms and conditions and limitations herein set forth.

NOW, THEREFORE, in consideration of the premises and the promises herein contained, the parties hereto commit to this agreement their respective interests in the below defined unit area, and agree severally among themselves as follows:

1. UNIT AREA: The following described land is hereby designated and recognized as constituting the unit area:

Township 21 South, Range 34 East, N.M.P.M.

Section 34 - All

Township 22 South, Range 34 East, N.M.P.M.

Section 3 - All

containing 1287.16 acres, more or less.

Exhibit "A" attached hereto is a map showing the unit area and the boundaries and identity of tracts and leases in said area to the extent known to the unit operator. Exhibit "B" attached hereto is a schedule showing to the extent known to the unit operator the acreage, percentage and kind of ownership of oil and gas interests in all lands in the unit area. However, nothing herein or in said schedule or map shall be construed as a representation by any party hereto as to the ownership of any interest other than such interest or interests as are shown on said map or schedule as owned by such party. Exhibits "A" and "B" shall be revised by the unit operator whenever changes in ownership in the unit area render such revisions necessary or when requested by the Commissioner.

All land committed to this agreement shall constitute land referred to herein as "unitized land" or "land subject to this agreement".

2. UNITIZED SUBSTANCES: All oil, gas, natural gasoline and associated fluid hydrocarbons in the unitized formation as hereinafter defined are unitized under the terms of this agreement and herein are called unitized substances.

3. ~~UNITIZED FORMATION:~~ That subsurface portion of the unit area commonly known as the Morrow sands which is the same zone as the top and bottom of which were encountered at log depths of 12,722 feet and 13,208 feet in the Shell Oil Company State GRA Well No. 1 as shown on the Schlumberger Sonic Log - Gamma Ray Log of said well dated July 5, 1965, which said well is located 1980 feet from the North line and 660 feet from the west line of Section 3, Township 22 South, Range 34 East, is unitized under this agreement and is hereinafter referred to as the "unitized formation".

4. UNIT OPERATOR: Llano, Inc. with offices at Hobbs, New Mexico (P.O. Drawer 1320) is hereby designated as unit operator and by signature hereto commits to this agreement all interest in unitized substances vested in it as set forth on Exhibit "B" and agrees and consents to accept the duties and obligations of unit operator for the operation of the Grama Ridge Morrow Unit Area. Whenever reference is made herein to the unit operator, such reference means the unit operator acting in that capacity and not as an owner of interests in unitized substances, and the term "working interest owner" when used herein shall include or refer to unit operator as the owner of a working interest when such interest is owned by it.

5. RESIGNATION OR REMOVAL OF UNIT OPERATOR: Unit operator shall have the right to resign at any time, but such resignation shall not become effective until a successor unit operator has been selected and approved in the manner provided for in Section 6 of this agreement. The resignation of the unit operator shall not release the unit operator from any liability or any default by it hereunder occurring prior to the effective date of its resignation.

Unit operator may, upon default or failure in the performance of its duties or obligations hereunder, be subject to removal by the same percentage vote of the owners of working interests determined in like manner as herein provided for the selection of a new unit operator. Such removal shall be effective upon notice thereof to the Commissioner.

The resignation or removal of the unit operator under this agreement shall not terminate his right, title or interest as the owner of a working interest or other interest in unitized substances, but upon the resignation or removal of unit operator becoming effective, such unit operator shall deliver possession of all equipment, materials and appurtenances used in conducting the unit operations and owned by the working interest owners to the new duly qualified successor unit operator, or to the owners thereof if no such new unit operator is elected, to be used for the purpose of conducting unit operations hereunder. Nothing herein shall be construed as authorizing removal of any material, equipment and appurtenances needed for the preservation of any wells.

6. SUCCESSOR UNIT OPERATOR: Whenever the unit operator shall resign as unit operator or shall be removed as hereinabove provided, the owners of the working interests according to their respective acreage interests in all unitized land shall by a majority vote select a successor unit operator; provided that, if a majority but less than seventy-five percent (75%) of the working interests qualified to vote is owned by one party to this agreement, a concurring vote of sufficient additional parties, so as to constitute in the aggregate not less than seventy-five percent (75%) of the total working interests, shall be required to select a new operator. Such selection shall not become effective until (a) a unit operator so selected shall accept in writing the duties and responsibilities of

unit operator, and (b) the selection shall have been approved by the Commissioner. If no successor unit operator is selected and qualified as herein provided, the Commissioner at his election may declare this unit agreement terminated.

7. ACCOUNTING PROVISIONS: The unit operator shall pay all costs and expenses incurred in conducting unit operations hereunder. In the event the ownership of the unitized formation should hereafter be divided or owned in whole or in part by parties other than unit operator, from and after such time unit operator shall pay in the first instance all costs and expenses incurred in conducting unit operations hereunder, and such costs and expenses and the working interest benefits accruing hereunder shall be apportioned among the owners of the unitized working interests in accordance with an operating agreement entered into by and between the unit operator and the owners of such interests, whether one or more, separately or collectively. Any agreement or agreements entered into between the working interest owners and the unit operator as provided in this section, whether one or more, are herein referred to as the "Operating Agreement". No such agreement shall be deemed either to modify any of the terms and conditions of this unit agreement or to relieve the unit operator of any right of obligation established under this unit agreement and in case of any inconsistencies or conflict between this unit agreement and the operating agreement, this unit agreement shall prevail.

8. RIGHTS AND OBLIGATIONS OF UNIT OPERATOR: Except as otherwise specifically provided herein, the exclusive right, privilege and duty of exercising any and all rights of the parties hereto which are necessary or convenient for producing, storing, allocating and distributing the unitized substances are hereby delegated to and shall be exercised by the unit operator as herein provided.

Acceptable evidence of title to said rights shall be deposited with said unit operator and, together with this agreement, shall constitute and define the rights, privileges and obligations of unit operator. Nothing herein, however, shall be construed to transfer title to any land or to any lease or operating agreement, it being understood that under this agreement the unit operator, in its capacity as unit operator, shall exercise the rights of possession and use vested in the parties hereto only for the purposes herein specified.

9. PURPOSE OF UNIT AND PLAN OF OPERATION: It is recognized and agreed by the parties hereto that the unitized formation as to all of the lands subject to this agreement is reasonably proven to be productive of unitized substances or necessary for unit operations and that the object and purpose of this agreement is to formulate and put into effect a secondary recovery and gas storage project in order to effect the greatest economic recovery of unitized substances, prevent waste and conserve natural resources consistent with good engineering practices expected of a prudent operator. The parties hereto agree that the unit operator may, subject to the approval of a plan of operation by the Commissioner, inject gas produced from lands other than the unit area into the unitized formation through the Shell Oil Company State GRA Well No. 1 located in the SW $\frac{1}{4}$ NW $\frac{1}{4}$  Section 3, Township 22 South, Range 34 East and the Shell State GRB Well No. 1 located in the NW $\frac{1}{4}$ SW $\frac{1}{4}$  Section 34, Township 21 South, Range 34 East for secondary recovery and storage purposes. Unit operator shall furnish the Commissioner, between the first and twentieth of each month, reports showing the amount of gas produced and injected into the unitized formation for the preceding month.

A plan of operation shall be filed with the Commissioner concurrently with the filing of this unit agreement for final approval. Said plan of operation and all revisions thereof shall be as complete



and adequate as the Commissioner may determine to be necessary in connection with operations hereunder. Upon approval of this agreement and the aforementioned plan of operation by the Commissioner, said plan and all subsequently approved plans shall constitute the operating obligations of the unit operator under this agreement for the period specified in the plan. Thereafter, from time to time before the expiration of any existing plan, the unit operator shall submit for approval a plan for an additional specified period of operation. Reasonable diligence shall be exercised in complying with the obligations of the approved plan of operation. The unit operator shall furnish to the Commissioner, within 30 days from the expiration of each 6 month period, a report giving full factual information as to the manner in which the plan in effect for such period has been carried out.

If the unit operator should fail to comply with any approved plan of operation or supplement to or modification thereof, this agreement may be terminated by the Commissioner; provided, however, the Commissioner shall give notice to the unit operator and the lessees of record in the manner prescribed by Section 7-11-14 N.M.S.A. 1953 of intention to cancel because of any alleged breach of said plan of operation and any decision entered therein shall be subject to appeal in the manner prescribed by Section 7-11-17 N.M.S.A. 1953; and provided further in any event unit operator shall be given a reasonable opportunity after a final determination within which to remedy said default, failing in which this agreement shall be terminated.

10. TRACT PARTICIPATION: Exhibit "B" attached hereto shows the percentage of participation of each of the tracts embraced by leasehold interests which are committed to this agreement. These participation factors have been obtained by dividing the number of acres contained in each tract by the total number of acres contained in the unit area.

The unitized substances produced from the unit area shall be allocated to the respective tracts as hereinafter set forth in accordance with said percentages of participation and such unitized substances shall be deemed to have been produced from the respective tracts to which allocated.

11. ALLOCATION OF PRODUCTION:

A. PHASE I: It is recognized that there is still some primary gas and liquid hydrocarbons left in the unitized formation underlying the unit area which would otherwise be produced in the normal producing life of the existing wells before they reach their economic limit upon which the state would be entitled to royalty. It is contemplated that gas produced from lands outside the unit area will be injected into the unitized formation for a considerable length of time before any appreciable amounts of gas are withdrawn. The primary production which would normally have been produced from May 1, 1975 to its economic limit has been determined by B.H.P/Z method based upon prior production, and Exhibit "C" attached hereto shows the royalty gas to which the state is entitled. In order that the State of New Mexico will continue to receive royalties on the same basis as if the existing wells had continued normal production until they reached their economic limits, the amount of gas shown for the respective months on Exhibit "C" shall be allocated to the tracts in accordance with the percentages set forth on Exhibit "B" and unit operator shall pay to the state royalties on the gas allocated to the respective tracts on the basis provided in the leases covering said tracts exactly the same as if the gas had actually been produced therefrom. Such payments based upon the gas for each of the months shown on Exhibit "C" shall be considered as full payment to the state for all remaining primary gas reserves. The period from May 1, 1973 through the months shown on Exhibit "C" shall constitute Phase I.

*Amended  
Feb. 21, 1974*

B. PHASE II: It is contemplated that after the unitized formation has been reasonably repressured by the injection of gas produced from lands outside the unit area, there will be withdrawals from time to time. Unit operator shall install and at all times operate and maintain metering equipment and other facilities approved by the Commissioner so that an accurate cumulative account can be kept of the quantity of gas as well as the total number of British Thermal Units in the gas injected into the unitized formation through the existing wells. Operator shall also keep an accurate cumulative account of the total number of British Thermal Units in all gas withdrawn from the unitized formation.

Operator shall also install, operate and maintain at all times the necessary separation equipment to separate the gas from the liquid hydrocarbons produced in connection with the withdrawal of gas from the respective wells, as well as all other related equipment which may be required to transfer all liquids so separated.

Operator shall cause monthly analyses by chromatograph or other mutually acceptable method of all the gas injected into or withdrawn from the reservoir in order to compute the net change in British Thermal Unit content.

Operator shall pay royalties to the state at the rates provided in the respective leases on all liquid hydrocarbons which are separated from the gas withdrawn and allocated to the respective tracts in accordance with the percentages of participation set forth on Exhibit "B" regardless of the time said gas is withdrawn. In addition, should the total cumulative British Thermal Units in the gas withdrawn exceed the total British Thermal Units in the gas

injected plus the pre-determined number of British Thermal Units in the remaining primary gas reserves and for which the state has been or will be paid during Phase I, then operator shall pay royalties on said increase in British Thermal Units at the prevailing market price in Lea County, New Mexico as set by the Federal Power Commission for gas of like quality. Payment for British Thermal Unit enrichment as set forth herein shall be made on a monthly basis as the result of the chromatograph analyses.

In addition to the rental and royalty provided in the leases covering the respective tracts beginning with the first of the month following the end of Phase I as shown on Exhibit "C" unit operator shall pay an annual storage fee or rental of \$1.00 per acre plus 1/2¢ per thousand cubic fee of gas withdrawn from the reservoir, which shall be allocated to the respective leasehold interests on the basis of the percentage of participation set forth on Exhibit "B". Said storage fee or additional rental of \$1.00 per acre shall be paid during the month of February of each year and the 1/2¢ per thousand cubic feet for gas withdrawn shall be based on the monthly withdrawals, payments to be made in the month following the month in which withdrawals are made.

All gas produced from the lands outside the unit area and injected into the unitized formation, as well as all primary gas if, as and when produced, except for the payments to be made to the state in accordance with Phase I, may be withdrawn from the unitized formation from time to time royalty free except as to any enhancement in value through an increase in British Thermal Units. Notwithstanding the above, royalty shall be paid on all liquid hydrocarbons separated from gas withdrawn.

12. LEASES AND CONTRACTS CONFORMED AND EXTENDED. The terms, conditions and provisions of all leases, subleases, operating agreements and other contracts relating to the exploration, drilling,

development or operation for oil or gas of the lands committed to  
this agreement shall, as of the effective date hereof, be and the  
same are hereby expressly modified and amended insofar as they apply  
to lands within the unitized area to the extent necessary to make  
the same conform to the provisions hereof and so that the respective  
terms of said leases and agreements will be extended insofar as neces-  
sary to coincide with the term of this agreement and the approval of  
this agreement by the Commissioner and the respective lessees shall  
be effective to conform the provisions and extend the term of each  
such lease as to lands within the unitized area to the provisions  
and term of this agreement; but otherwise to remain in full force and  
effect. Each lease committed to this agreement, insofar as it applies  
to lands within the unitized area, shall continue in force beyond  
the term provided therein so long as this agreement remains in effect.  
Termination of this agreement shall not affect any lease which pur-  
suant to the terms thereof or any applicable laws would continue in  
full force and effect thereafter. The continued operation or pro-  
duction of a well or wells for unitized substances on the unit area  
or for gas storage purposes shall be construed and considered as the  
continued operation or production on each of the leasehold interests  
committed to this agreement and operations or production or gas storage  
pursuant to this agreement shall be deemed to be operations upon and  
production from each leasehold interest committed hereto and there  
shall be no obligation on the part of the unit operator or any of the  
owners of the respective leasehold interests committed hereto to drill  
offsets to wells as between the leasehold interests committed to this  
agreement.

Any lease embracing lands of the State of New Mexico having  
only a portion of its lands committed hereto shall be segregated as  
to the portion committed and the portion not committed and the terms  
of such leases shall apply separately as to such segregated portions

commencing as of the effective date hereof. Notwithstanding any of the provisions of this agreement to the contrary, any lease embracing lands of the State of New Mexico having only a portion of its lands committed hereto shall continue in full force and effect beyond the term provided therein as to all lands embraced in such lease if oil and gas, or either of them, are capable of being produced from or gas is being stored within some part of the unitized formation covered by the leases committed to this agreement at the expiration of the secondary term thereof.

13. CONSERVATION: Operations hereunder and production of unitized substances shall be conducted to provide for the most economical and efficient recovery and storage of said substances without waste, as defined by or pursuant to state laws or regulations.

14. DRAINAGE: In the event a well or wells producing oil or gas in paying quantities should be brought in on land adjacent to the unit area draining unitized substances from the lands embraced therein, unit operator shall drill such offset well or wells as a reasonably prudent operator would drill under the same or similar circumstances.

15. COVENANTS RUN WITH LAND: The covenants herein shall be construed to be covenants running with the land with respect to the interests of the parties hereto and their successors in interest until this agreement terminates, and any grant, transfer or conveyance of interest in land or leases subject hereto shall be and hereby is conditioned upon the assumption of all privileges and obligations hereunder by the grantee, transferee or other successor in interest. No assignment or transfer of any working, royalty or other interest subject hereto shall be binding upon unit operator until the first day of the calendar month after the unit operator is furnished with the original, photostatic or certified copy of the instrument of transfer.

16. EFFECTIVE DATE AND TERM: This agreement shall become effective as of April 25, 1973 upon approval by the Commissioner and shall remain in effect so long as unitized substances are being produced from or stored within the unitized formation. This agreement may be terminated at any time by not less than seventy-five per cent (75%) on an acreage basis of the owners of working interests signatory hereto with the approval of the Commissioner:

17. RATE OF PRODUCTION: All production and the disposal thereof shall be in conformity with allocations, allotments and quotas made or fixed by the Commission and in conformity with all applicable laws and lawful regulations.

18. APPEARANCES: Unit operator shall, after notice to other parties affected, have the right to appear for and on behalf of any and all interests affected hereby before the Commissioner of Public Lands and the New Mexico Oil Conservation Commission, and to appeal from orders issued under the regulations of the Commissioner or Commission or to apply for relief from any of said regulations or in any proceedings on its own behalf relative to operations pending before the Commissioner or Commission; provided, however, that any other interested party shall also have the right at his own expense to appear and to participate in any such proceeding.

19. NOTICES: All notices, demands or statements required hereunder to be given or rendered to the parties hereto shall be deemed fully given if given in writing and sent by postpaid certified mail, addressed to such party or parties at their respective addresses set forth in connection with the signatures hereto or to the ratification or consent hereof or to such other address as any such party may have furnished in writing to party sending the notice, demand or statement.

20. UNAVOIDABLE DELAY: All obligations under this agreement requiring the unit operator to produce unitized substances from or

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20. UNAVOIDABLE DELAY: All obligations under this agreement requiring the unit operator to produce unitized substances from or



store gas within the unitized formation covered by this agreement shall be suspended while, but only so long as, the unit operator, despite the exercise of due care and diligence, is prevented from complying with such obligations, in whole or in part, by strikes, war, acts of God, federal, state or municipal law or agencies, unavoidable accidents, uncontrollable delays in transportation, inability to obtain necessary materials in open market, or other matters beyond the reasonable control of the unit operator, whether similar to matters herein enumerated or not.

21. LOSS OF TITLE: In the event title to any tract of unitized land or substantial interest therein shall fail and the true owner cannot be induced to join the unit agreement so that such tract is not committed to this agreement or the operation thereof hereunder becomes impracticable as a result thereof, such tract may be eliminated from the unitized area, and the interest of the parties readjusted as a result of such tract being eliminated from the unitized area. In the event of a dispute as to the title to any royalty, working or other interest subject hereto, the unit operator may withhold payment or delivery of the allocated portion of the unitized substances involved on account thereof without liability for interest until the dispute is finally settled, provided that no payment of funds due the State of New Mexico shall be withheld. Unit operator as such is relieved from any responsibility for any defect or failure of any title hereunder.

22. RE-NEGOTIATION OF STORAGE OR RENTAL FEE: The gas storage fee paid on gas withdrawn under Section 11B shall be valid for a period of three (3) years from the effective date of this agreement. During the final year of the first three (3) year period that this agreement is in force the fee set out in Section 11B shall be re-negotiated between the parties hereto, each such re-negotiated rate to be in effect for the succeeding five (5) year period. If the parties hereto are unable to agree to re-negotiated new fees sixty (60) days prior to the

expiration of the first three (3) year period and at least sixty (60) days prior to the first day of any such succeeding five (5) year period, payment of the fees on the basis of prior rates shall continue and this agreement shall terminate upon expiration of not more than two (2) years from said first day (during which time the parties hereto may remove the metered and injected gas not previously withdrawn and equipment and facilities installed under this agreement) unless during such two (2) year period the parties hereto agree upon a re-negotiated rate to be effective retroactively to said first day. Any gas or facilities not then removed by the termination date shall become the property of the State of New Mexico if it so elects.

23. HOLD HARMLESS CLAUSE: Notwithstanding any of the provisions contained herein, unit operator shall save, hold and protect the Commissioner of Public Lands and the State of New Mexico harmless from all claims and liabilities of whatsoever kind, nature or description arising from or growing out of operations carried on by unit operator pursuant to this agreement.

24. COUNTERPARTS: This agreement may be executed in any number of counterparts, no one of which needs to be executed by all parties, or may be ratified or consented to by separate instrument in writing specifically referring hereto, and shall be binding upon all those parties who have executed such a counterpart, ratification or consent hereto with the same force and effect as if all such parties had signed the same document and regardless of whether or not it is executed by all other parties owning or claiming an interest in the lands within the above described unit area.

IN WITNESS WHEREOF, the undersigned parties have caused this agreement to be executed as of the respective dates set forth opposite their signatures.

ATTEST:

Scott H. Land  
Secretary

Date: June 7, 1973

LIANG, INC.

By

RA Montgomery  
President

UNIT OPERATOR AND WORKING INTEREST OWNER

Address: P. O. Box 1320

Hobbs, New Mexico 88240

LESSEES OF RECORD

ATTEST:

[Signature]  
Secretary

SHELL OIL COMPANY LLANO, INC.

By R. F. Montgomery  
President

Date: 8/22/73

Address: P. O. Box 1320  
Hobbs, New Mexico 88240

ATTEST:

m B [Signature]  
Asst. Secretary  
Date: 7-20-73

GULF OIL CORPORATION

By W. B. Hopkins  
Attorney-in-Fact  
Address: P. O. Box 1150  
Midland, TX 79701

ATTEST:

Secretary  
Date: \_\_\_\_\_

TEXACO INC.

By SEE PAGE 16-A  
President  
Address: \_\_\_\_\_

STATE OF NEW MEXICO )  
COUNTY OF LEA ) : ss

The foregoing instrument was acknowledged before me this 7th day of June 1973 by R. F. Montgomery President of Llano, Inc., a New Mexico corporation, on behalf of said corporation.

My Commission Expires:  
October 30, 1976

[Signature]  
Notary Public

STATE OF NEW MEXICO )  
COUNTY OF LEA ) : ss

The foregoing instrument was acknowledged before me this 22 day of August 1973 by R. F. Montgomery President of Shell Oil Company, a Delaware corporation, on behalf of said corporation. Llano, Inc. New Mexico

My Commission Expires:  
Oct 30, 1976

[Signature]  
Notary Public

STATE OF TEXAS )  
COUNTY OF MIDLAND ) : ss

The foregoing instrument was acknowledged before me this 20 day of July 1973 by W. B. HOPKINS Attorney-in-Fact of Gulf Oil Corporation, a Pennsylvania corporation, on behalf of said corporation.

My Commission Expires:  
6-1-75

[Signature] EMILY JONES  
Notary Public

CONSENT AND RATIFICATION  
GRAMA RIDGE MORROW UNIT AGREEMENT  
EMBRACING LANDS IN LEA COUNTY, NEW MEXICO

The undersigned hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the Grama Ridge Morrow Unit Area embracing lands situated in Lea County, New Mexico, which is dated the 25th day of April, 1973, and further acknowledges that the undersigned is familiar with the terms and conditions thereof. As to unitized substances in the unitized formation defined in said Unit Agreement, the undersigned owns no interest whatsoever. However, the undersigned does own the official record title to an oil and gas lease from the State of New Mexico as lessor, which lease is more particularly described in said Unit Agreement. Said lease is subject to certain operating rights and working interest owned by another. The undersigned understands that the owner of said operating rights and working interest desires to commit the same to said Unit Agreement. Pursuant to policies and practices of the State Land Office for the State of New Mexico, the Commissioner of Public Lands for the State of New Mexico requires consent and joinder of the official record title holders or lessees of record of State of New Mexico oil and gas leases before the Commissioner will approve the above Unit Agreement. In its capacity as owner of the official record title, or as lessee of record, to a State of New Mexico oil and gas lease, and in that capacity only, and as an accommodation to said owner of operating rights and working interest under said lease, the undersigned desires to consent, ratify and join in the execution of said Unit Agreement. By these presents the undersigned does hereby consent to said Unit Agreement and ratifies all of the terms and provisions thereof exactly the same as if the undersigned had executed the original of said Unit Agreement, or a counterpart thereof, in the undersigned's capacity as official record title holder or lessee of record of a State of New Mexico oil and gas lease.

IN WITNESS WHEREOF, this instrument is executed by the undersigned as of the date set forth opposite the signature.

Date: July 18, 1973

TEXACO INC.

By: [Signature]

ATTORNEY-IN-FACT

APPROVED AS TO

Terms [Signature]  
Form [Signature]

STATE OF TEXAS )  
COUNTY OF MIDLAND )

SS.

The foregoing instrument was acknowledged before me this 18th day of July, 1973, by D. J. Dulligan, of TEXACO INC., a Delaware corporation, on behalf of said corporation.

[Signature]  
Notary Public

My Commission Expires:

6-1-75

STATE OF )

**: SS**

COUNTY OF \_\_\_\_\_)

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of January, 1973 by \_\_\_\_\_

of Texaco Inc., a \_\_\_\_\_ corporation, on behalf of said corporation.

My Commission Expires:

Notary Public

R 34 E

T  
21  
S

Llano  
K-3592-1  
(Shell)

Tr. 4

34  
Llano  
E-9659  
(Gulf)

Tr. 3

State

Llano  
E-9141  
(Shell)

Tr. 2

3  
Llano  
B-158-3  
(Texaco)

Tr. 1

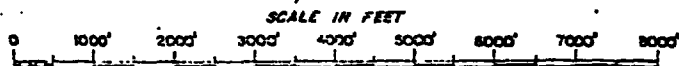
State

T  
22  
S

LLANO, INC.

GRAMA RIDGE MORROW UNIT  
LEA COUNTY, NEW MEXICO

UNIT OWNERSHIP MAP



**EXHIBIT "B"**  
**GRAMA RIDGE MORROW UNIT AGREEMENT**

Tract No.	Description	No. Surface Acres	Lease No.	Basic Royalty	Lessee of Record	Overriding Royalty or Prod. Pymt.	Working Int. Owner and Percentage	Percentage Tract Partl- cipation
1	S $\frac{1}{4}$ Sec. 3, T. 22 S., R. 34 E.	320.00	B-158-3	12 $\frac{1}{8}$	Texaco Inc.	None	Llano, Inc. 100%	24.861
2	N $\frac{1}{4}$ Sec. 3, T. 22 S., R. 34 E.	327.16	E-9141	12 $\frac{1}{8}$	Shell Oil Company	None	Llano, Inc. 100%	25.417
3	S $\frac{1}{4}$ Sec. 34, T. 21 S., R. 34 E.	320.00	E-9659	12 $\frac{1}{8}$	Gulf Oil Corporation	None	Llano, Inc. 100%	24.861
4	N $\frac{1}{4}$ Sec. 34, T. 21 S., R. 34 E.	320.00	K-3592-1	12 $\frac{1}{8}$	Shell Oil Company	None	Llano, Inc. 100%	24.861
Total		1287.16						100.000

**EXHIBIT "C"**

**Composite Royalty Production - BHP/2 Method - Grama Ridge Morrow Unit Area, Lea County, New Mexico**

1973			1974			1975			1976			1977		
Equivalent Gas Production MCF			Equivalent Gas Production MCF			Equivalent Gas Production MCF			Equivalent Gas Production MCF			Equivalent Gas Production MCF		
Month			Month			Month			Month			Month		
May	1,860		Jan.	1,060		Jan.	810		Jan.	610		Jan.	460	
June	1,770		Feb.	1,040		Feb.	790		Feb.	600		Feb.	450	
July	1,660		Mar.	1,010		Mar.	775		Mar.	590		Mar.	445	
Aug.	1,590		Apr.	990		Apr.	750		Apr.	575		Apr.	430	
Sept.	1,510		May	960		May	740		May	550		May	425	
Oct.	1,450		June	950		June	710		June	540		June	410	
Nov.	1,380		July	925		July	700		July	525		July	400	
Dec.	1,090		Aug.	900		Aug.	690		Aug.	510		Aug.	395	
			Sept.	890		Sept.	675		Sept.	500		Sept.	390	
			Oct.	860		Oct.	650		Oct.	495		Oct.	375	
			Nov.	840		Nov.	640		Nov.	490		Nov.	370	
			Dec.	825		Dec.	625		Dec.	475		Dec.	360	
Total	12,310					Total	8,555		Total	6,460		Total	4,910	
Cum.	12,310					Cum.	32,115		Cum.	38,575		Cum.	43,485	

1978			1979		
Equivalent Gas Production MCF			Equivalent Gas Production MCF		
Month			Month		
Jan.	350		Jan.	270	
Feb.	345		Feb.	270	
Mar.	340				
April	330				
May	325				
June	310				
July	305				
Aug.	300				
Sept.	295				
Oct.	290				
Nov.	280				
Dec.	175				
Total	45				

Jan.	350	Jan.	270
Feb.	345	Feb.	270
Mar.	340		
April	330		
May	325		
June	310		
July	305		
Aug.	300		
Sept.	295		
Oct.	290		
Nov.	280		
Dec.	175		
Total	45	Total	540



I, Dwight P. Teed, Secretary of Llano, Inc. do hereby certify that the Agreement attached hereto, consisting of sixteen (16) pages and exhibits and entitled "Unit Agreement For The Operation Of The Grama Ridge Morrow Unit Area, Lea County, New Mexico", entered into on April 25, 1973, is a true and correct copy of said Agreement.

  
Dwight P. Teed, Secretary

CERTIFICATE OF APPROVAL  
BY COMMISSIONER OF PUBLIC LANDS, STATE OF NEW MEXICO

AMENDMENT OF UNIT AGREEMENT

GRAMA RIDGE-MORROW UNIT

LEA COUNTY, NEW MEXICO

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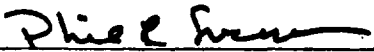
There having been presented to the undersigned Commissioner of Public Lands of the State of New Mexico for examination, the attached Amendment of Unit Agreement for the development and operation of the Grama Ridge-Morrow Unit Area, Lea County, New Mexico for the purpose of expanding the Unit Area.

The attached Amendment of Unit Agreement was entered into as of September 1, 1976 by and between the parties to the original Unit Agreement for the purpose of expanding the unit area to include all of Section 33, Township 21 South, Range 34 East, N.M.P.M. The Amendment also ratifies and confirms the Original Unit Agreement as amended and upon examination of said Amendment, the Commissioner finds:

- (a) That such Amendment to this Agreement will tend to promote the conservation of oil and gas and the better utilization of reservoir energy in said area.
- (b) That under the proposed amended Agreement the State of New Mexico will receive its fair share of the recoverable oil or gas in place under its lands in the area.
- (c) That each beneficiary Institution of the State of New Mexico will receive its fair and equitable share of the recoverable oil and gas under its lands within the area.
- (d) That such Agreement is in other respects for the best interests of the State, with respect to State lands..

NOW, THEREFORE, by virtue of the authority conferred upon me under Sections 7-11-39, 7-11-40, 7-11-41, 7-11-47, and 7-11-48, New Mexico Statutes Annotated, 1953 Compilation, I, the undersigned, Commissioner of Public Lands of the State of New Mexico, for the purpose of more properly conserving the oil and gas resources of the State, do hereby consent to and approve the said Amendment, and any leases embracing lands of the State of New Mexico within the area shall be and the same are hereby amended to conform with the terms and conditions of said Agreement. This approval is subject to all of the provisions of the aforesaid statutes.

IN WITNESS WHEREOF, this Certificate of Approval is executed, with seal affixed, this 26th. day of January, 1977.

  
COMMISSIONER OF PUBLIC LANDS  
Of the State of New Mexico

AMENDMENT TO UNIT AGREEMENT  
FOR OPERATION OF THE GRAMA  
RIDGE-MORROW UNIT AREA  
LEA COUNTY, NEW MEXICO

RECEIVED  
DEC 17 8 52 AM '76  
STATE LAND OFFICE  
SANTA FE, N.M.

THIS AMENDMENT entered into as of the first day of September, 1976, by and between the parties subscribing, ratifying or consenting hereto and herein referred to as the "parties hereto".

WHEREAS, as of April 25, 1973 the Unit Agreement for the Operation of the Grama Ridge-Morrow Unit Area was entered into by and between Llano, Inc. as unit operator and as a working interest owner and by Gulf Oil Corporation and Texaco Inc. as record title owners of oil and gas leases embracing lands in the unit area, which said agreement was approved by the Commissioner of Public Lands of the State of New Mexico, herein referred to as "Commissioner", on August 27, 1973, and

WHEREAS, the original unit agreement covered all of Section 34, Township 21 South, Range 34 East and all of Section 3, Township 22 South, Range 34 East and was entered into for the purpose of formulating and putting into effect a secondary recovery and gas storage project as to the Morrow formation which was unitized under said agreement and which is specifically defined in Section 3 thereof, and

WHEREAS, the unit operator has injected gas into wells located on the unit area which has resulted in a pressure increase in the South Wilson Deep Unit No. 1 gas well producing from the unitized formation located in the NW $\frac{1}{4}$ SE $\frac{1}{4}$  Section 33, Township 21 South, Range 34 East and has likewise resulted in an increase in pressure in the Llano Federal GR-4 No. 1 Morrow gas well located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$  Section 4, Township 22 South, Range 34 East and such communication indicates that said wells are located in the same reservoir as the two gas wells within the unit area, which wells

have been used for the injection and withdrawal of gas pursuant to the terms of said unit agreement, and

WHEREAS, it now appears that the Morrow gas reservoir underlies Sections 33 and 34, Township 21 South, Range 34 East and Sections 3 and 4, Township 22 South, Range 34 East, and

WHEREAS, all of Section 33 is owned by the State of New Mexico except the SW $\frac{1}{4}$ NE $\frac{1}{4}$  of said section which is fee land and the minerals underlying said 40 acres, subject to the existing lease, are owned 32.37% by Don E. Gridley and wife, Alice F. Gridley, John E. Bosserman and wife, Carol Jean Bosserman and 67.63% by The Merchant Livestock Company, and

WHEREAS, all of Section 4, Township 22 South, Range 34 East is federal land and Llano, Inc. has entered into an agreement with the United States, acting by and through the Secretary of the Interior, effective as of November 1, 1975 for the storage of gas in the Morrow formation which is unitized under the terms of said unit agreement. Said gas storage agreement with the United States recognizes that the gas reservoir underlies the 4 sections hereinabove referred to and also provides that all injection and withdrawal fees payable to the United States shall be based upon 1/4 of all gas injected or withdrawn from the reservoir through any wells located on the 4 sections above referred to, and

WHEREAS, it is the purpose of this amendment to expand the unit area to include all of Section 33, Township 21 South, Range 34 East so that the unit agreement, taken into consideration with the gas storage agreement with the United States covering Section 4, will cover the entire reservoir, and

WHEREAS, the unit agreement recognized that there was still some primary gas and liquid hydrocarbons left in the unitized formation when the unit agreement was entered into and said agreement provided for the payment of royalty thereon on a monthly basis beginning in May, 1974 through February, 1979 and the unit operator has agreed to pay in full all royalty payments provided for in Exhibit "C"

attached to the unit agreement, as well as the royalty for the remaining 318,519 MCF of primary gas and the liquid hydrocarbons attributable thereto underlying said Section 33 (15/16 of which is to be allocated to Tract 5 and 1/16 to Tract 6 shown on Exhibit "B") so that Phase I provided for in Section 11(a) of the original agreement will no longer be applicable; and

WHEREAS, the parties are desirous of amending said unit agreement to provide for the same gas injection and withdrawal fees (on an average basis) as are provided under the terms of the gas storage agreement with the United States covering Section 4 as to 1/4 of the gas injected and withdrawn from said reservoir; subject, however, to the right of the unit operator to withdraw gas previously injected from extraneous sources up to and including August 31, 1976 amounting to 6,727,987 MCF at a pressure base of 15.025 psia without payment of withdrawal fees as to any portion thereof withdrawn prior to March 1, 1979.

NOW, THEREFORE, in consideration of the premises, the parties hereby mutually agree that the Unit Agreement for the Operation of the Grama Ridge-Morrow Unit Area shall be and is hereby amended as hereinafter set forth:

1. Section 1 of the unit agreement is amended as follows:

1. UNIT AREA: The following described land is hereby designated and recognized as constituting the unit area:

Township 21 South, Range 34 East, N.M.P.M.  
Section 33 - All  
Section 34 - All  
Township 22 South, Range 34 East, N.M.P.M.  
Section 3 - All  
containing 1,927.16 acres, more or less

Exhibit "A" attached hereto is a map showing the unit area and the boundaries and identity of tracts and leases in said area to the extent known to the unit operator. Exhibit "B" attached hereto is a schedule showing to the extent known to the unit operator the acreage, percentage and kind of ownership of oil and gas interests

in all lands in the unit area. However, nothing herein or in said schedule or map shall be construed as a representation by any party hereto as to the ownership of any interest other than such interest or interests as are shown on said map or schedule as owned by such party. Exhibits "A" and "B" shall be revised by the unit operator whenever changes in ownership in the unit area render such revisions necessary or when requested by the Commissioner.

All land committed to this agreement shall constitute land referred to herein as "unitized land" or "land subject to this agreement".

2. Section 9 of the unit agreement is amended as follows:

9. PURPOSE OF UNIT AND PLAN OF OPERATION: It is recognized and agreed by the parties hereto that the unitized formation as to all of the lands subject to this agreement is reasonably proven to be productive of unitized substances or necessary for unit operations and that the object and purpose of this agreement is to formulate and put into effect a secondary recovery and gas storage project in order to effect the greatest economic recovery of unitized substances, prevent waste and conserve natural resources consistent with good engineering practices expected of a prudent operator. The parties hereto agree that the unit operator may, subject to the approval of a plan of operation by the Commissioner, inject gas produced from lands other than the unit area into the unitized formation through the following wells for secondary recovery and storage purposes:

Shell Oil Company State GRA Well No. 1 - SW $\frac{1}{4}$ NW $\frac{1}{4}$  Section 3  
Township 22 South, Range 34 East (Llano, Inc. operator)

Shell State GRB Well No. - NW $\frac{1}{4}$ SW $\frac{1}{4}$  Section 34, Township 21  
South, Range 34 East (Llano, Inc. operator)

South Wilson Deep Unit No. 1 well - NW $\frac{1}{4}$ SE $\frac{1}{4}$  Section 33,  
Township 21 South, Range 34 East (Llano, Inc. operator)

Llano Federal GR-4 No. 1 Morrow - SE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$  Section 4,  
Township 22 South, Range 34 East (Llano, Inc. operator)

Unit operator shall furnish the Commissioner, between the first and twenty-fifth of each month, reports showing the amount of gas produced and injected into the unitized formation for the preceding month.

Unit operator shall have the right to rework or recondition the wells now located on the unit area or to drill additional wells to inject gas into or produce gas from the gas storage reservoir area to the extent that such work shall be approved by the Commissioner as necessary or incident to the rights granted to unit operator pursuant to this agreement. Unit operator shall conduct all operations hereunder in accordance with all applicable laws and regulations and shall comply with all the terms and conditions of the respective leases.

A plan of operation shall be filed with the Commissioner concurrently with the filing of this unit agreement for final approval. Said plan of operation and all revisions thereof shall be as complete and adequate as the Commissioner may determine to be necessary in connection with operations hereunder. Upon approval of this agreement and the aforementioned plan of operation by the Commissioner, said plan and all subsequently approved plans shall constitute the operating obligations of the unit operator under this agreement for the period specified in the plan. Thereafter, from time to time before the expiration of any existing plan, the unit operator shall submit for approval a plan for an additional specified period of operation. Reasonable diligence shall be exercised in complying with the obligations of the approved plan of operation. The unit operator shall furnish to the Commissioner, within 30 days from the expiration of each 6 month period, a report giving full factual information as to the manner in which the plan in effect for such period has been carried out.

If the unit operator should fail to comply with any approved plan of operation or supplement to or modification thereof, this

agreement may be terminated by the Commissioner; provided, however, the Commissioner shall give notice to the unit operator and the lessees of record in the manner prescribed by Section 7-11-14 N.M.S.A. 1953 of intention to cancel because of any alleged breach of said plan of operation and any decision entered therein shall be subject to appeal in the manner prescribed by Section 7-11-17 N.M.S.A. 1953; and provided, further, in any event unit operator shall be given a reasonable opportunity after a final determination within which to remedy said default, failing in which this agreement shall be terminated.

3. Section 10 of the unit agreement is amended as follows:

10. TRACT PARTICIPATION: For the purposes of this agreement "extraneous gas" shall mean the total amount of gas from other sources injected into the reservoir less the amount which has been withdrawn. Any gas produced in excess of the extraneous gas injected prior to or after the effective date hereof shall be considered as "indigenous gas". All such indigenous gas shall be apportioned to the tracts within the unit area in the proportions set forth on Exhibit "B" attached hereto, which is based on the percentage that the acreage covered by each tract bears to the total acreage within the unit area. Royalties shall be paid to the State of New Mexico at the rates provided in the respective leases on all indigenous gas allocated to such tracts.

4. Section 11 of the unit agreement shall be amended as follows:

11. GAS STORAGE -- STORAGE, INJECTION AND WITHDRAWAL FEES:

A. Gas Storage: It is contemplated that the extraneous gas which has been injected will be withdrawn from time to time. Unit operator shall be under no obligation to inject or withdraw any particular quantity of gas other than such as it in its sole discretion deems advisable. Unit operator shall install



and at all times operate and maintain metering equipment and other facilities approved by the Commissioner so that an accurate cumulative account can be kept of the quantity of gas, as well as the total number of British Thermal Units in the gas, injected into the unitized formation through the existing wells. Operator shall also keep an accurate cumulative account of the total number of British Thermal Units in all gas withdrawn from the unitized formation.

Operator shall also install, operate and maintain at all times the necessary separation equipment to separate the gas from the liquid hydrocarbons produced in connection with the withdrawal of gas from the respective wells, as well as all other related equipment which may be required to transfer all liquids so separated.

Operator shall cause monthly analyses by chromatograph or other mutually acceptable method of all gas injected into or withdrawn from the reservoir in order to compute the net change in British Thermal Unit content.

Operator shall pay royalties at the rates provided in the respective leases on 3/4 of all liquid hydrocarbons which are separated from the gas withdrawn and allocated to the respective tracts in accordance with the percentages of participation set forth on Exhibit "B"; provided, however, operator shall not be required to pay royalties on that portion of all liquid hydrocarbons which are separated from the first 318,519 MCF of gas withdrawn subsequent to the effective date of this amendment as payment for such liquid hydrocarbons has been included in the payment for the remaining primary gas underlying said Section 33 referred to in the preamble to this amendment. In addition, should the total cumulative British Thermal Units in the gas withdrawn exceed the total British Thermal Units in the gas injected, then operator shall pay royalties on said increase

in British Thermal Units at the prevailing market price in Lea County, New Mexico for gas of like quality. Payment for British Thermal Unit enrichment as set forth herein shall be made on an annual basis as determined by the cumulative chromatograph analyses.

B. Storage, Injection and Withdrawal Fees: In addition to the rental provided in the leases covering the respective tracts, for each year after the effective date of this amendment, unit operator shall pay an annual storage fee of \$1.00 per acre for the number of surface acres owned by the respective surface owners as shown on Exhibit "C" attached hereto. Said storage fee shall be paid in advance during the month of September of each year.

As to all gas injected or withdrawn subsequent to the effective date of this amendment, unit operator shall pay to the State of New Mexico an injection fee equal to  $47/64$  of \$.00625 per MCF and a withdrawal fee equal to  $47/64$  of \$.00625 per MCF on all gas injected or withdrawn from the reservoir through any wells located on the unit area or on Section 4, Township 22 South, Range 34 East during each calendar month; provided, however, no withdrawal fees shall be required on 6,727,987 MCF at 15.025 psia for gas injected prior to the effective date of this amendment if said gas is withdrawn prior to March 1, 1979.  $1/64$  of said injection and withdrawal fees on all of the gas shall be paid to Don E. Gridley and wife, Alice F. Gridley, John E. Bosserman and wife, Carol Jean Bosserman, and The Merchant Livestock Company in the proportions owned by said parties. All injection and withdrawal fees shall be paid during the month following the month in which injection or withdrawals are made.

5. Section 16 of the unit agreement is amended as follows:

16. EFFECTIVE DATE AND TERM: This amendment shall become effective as of September 1, 1976 upon approval by the Commissioner

and shall remain in effect so long as unitized substances are being produced from or stored within the unitized formation. The unit agreement may be terminated at any time by not less than seventy-five (75%) percent on an acreage basis of the owners of working interests signatory hereto with the approval of the Commissioner.

6. Section 22 of the unit agreement is amended as follows:

22. RE-NEGOTIATION OF INJECTION AND WITHDRAWAL FEES:

The injection and withdrawal fees provided for in Section 11 hereof shall be effective for a period of 5 years from the effective date of this amendment; provided, however, that during the 4th year of the first 5 year period and during the 4th year of each successive 5 year period this agreement is in force and effect said fees shall be subject to re-negotiation between the parties hereto so that said fees will be commensurate with fees being paid on similar projects, such re-negotiated rate to be in effect for the succeeding 5 year period. If the parties hereto are unable to agree to re-negotiate new fees 60 days prior to the expiration of the 4th year of any 5 year period, payment of the fees on the basis of prior rates shall continue and this agreement shall terminate upon expiration of not more than 3 years from the expiration of the preceding 5 year period. During said 3 year period the parties hereto may remove the metered and injected gas not previously withdrawn and equipment and facilities installed under this agreement, unless during such 3 year period the parties hereto agree upon a re-negotiated rate to be effective retroactively. Any gas or facilities not then removed by the termination date shall become the property of the State of New Mexico if it so elects.

7. COMMITMENT OF INTERESTS TO UNIT AND RATIFICATION OF OTHER UNIT PROVISIONS: By the execution of this amendment, the parties hereto commit to the unit agreement their respective interests of whatsoever kind, nature or description in and to the unitized forma-

tion underlying the unit area. Except as amended herein, all of the other terms and conditions of the original Unit Agreement for the Operation of the Grama Ridge-Morrow Unit Area shall remain in full force and effect and are ratified and confirmed by the parties or by those consenting hereto by separate instrument.

8. COUNTERPARTS: This amendment may be executed in any number of counterparts, no one of which needs to be executed by all parties, or may be ratified or consented to by separate instrument in writing specifically referring hereto, and shall be binding upon all those parties who have executed such a counterpart, ratification or consent hereto with the same force and effect as if all such parties had signed the same document and regardless of whether or not it is executed by all other parties owning or claiming an interest in the lands within the above described unit area.

IN WITNESS WHEREOF, the undersigned parties have caused this agreement to be executed as of the respective dates set opposite their signatures.

ATTEST:

*Louise L. Davis*  
Assistant Secretary  
Date: 1/2-16-76

LLANO, INC.

By

*Donald L. Larey*  
President  
Address: P. O. Box 1320  
Hobbs, New Mexico 88240

ATTEST:

\_\_\_\_\_  
Secretary  
Date: \_\_\_\_\_

By

GULF OIL CORPORATION  
\_\_\_\_\_  
President  
Address: \_\_\_\_\_

ATTEST:

\_\_\_\_\_  
Secretary  
Date: \_\_\_\_\_

By

TEXACO INC.  
\_\_\_\_\_  
President  
Address: \_\_\_\_\_

ATTEST:

\_\_\_\_\_  
Secretary  
Date: \_\_\_\_\_

By

WILSON OIL COMPANY  
\_\_\_\_\_  
President  
Address: \_\_\_\_\_

tion underlying the unit area. Except as amended herein, all of the other terms and conditions of the original Unit Agreement for the Operation of the Grama Ridge-Morrow Unit Area shall remain in full force and effect and are ratified and confirmed by the parties or by those consenting hereto by separate instrument.

8. COUNTERPARTS: This amendment may be executed in any number of counterparts, no one of which needs to be executed by all parties, or may be ratified or consented to by separate instrument in writing specifically referring hereto, and shall be binding upon all those parties who have executed such a counterpart, ratification or consent hereto with the same force and effect as if all such parties had signed the same document and regardless of whether or not it is executed by all other parties owning or claiming an interest in the lands within the above described unit area.

IN WITNESS WHEREOF, the undersigned parties have caused this agreement to be executed as of the respective dates set opposite their signatures.

ATTEST:

\_\_\_\_\_  
Secretary  
Date: \_\_\_\_\_

LLANO, INC.

By \_\_\_\_\_  
President  
Address: \_\_\_\_\_  
\_\_\_\_\_

ATTEST:

CEBULES  
Asst. Secretary  
Date: \_\_\_\_\_

GULF OIL CORPORATION

By NE Hahn  
Attorney-in-fact  
Address: PO Box 1150  
Midland, Texas 79701



ATTEST:

\_\_\_\_\_  
Secretary  
Date: \_\_\_\_\_

TEXACO INC.

By \_\_\_\_\_  
President  
Address: \_\_\_\_\_  
\_\_\_\_\_

ATTEST:

\_\_\_\_\_  
Secretary  
Date: \_\_\_\_\_

WILSON OIL COMPANY

By \_\_\_\_\_  
President  
Address: \_\_\_\_\_  
\_\_\_\_\_

tion underlying the unit area. Except as amended herein, all of the other terms and conditions of the original Unit Agreement for the Operation of the Grama Ridge-Morrow Unit Area shall remain in full force and effect and are ratified and confirmed by the parties or by those consenting hereto by separate instrument.

8. COUNTERPARTS: This amendment may be executed in any number of counterparts, no one of which needs to be executed by all parties, or may be ratified or consented to by separate instrument in writing specifically referring hereto, and shall be binding upon all those parties who have executed such a counterpart, ratification or consent hereto with the same force and effect as if all such parties had signed the same document and regardless of whether or not it is executed by all other parties owning or claiming an interest in the lands within the above described unit area.

IN WITNESS WHEREOF, the undersigned parties have caused this agreement to be executed as of the respective dates set opposite their signatures.

ATTEST:

\_\_\_\_\_  
Secretary  
Date: \_\_\_\_\_

ATTEST:

\_\_\_\_\_  
Secretary  
Date: \_\_\_\_\_

APPROVED:

Terms: me  
Form: CEP  
Date: NOVEMBER 5, 1976

ATTEST:

\_\_\_\_\_  
Secretary  
Date: \_\_\_\_\_

LLANO, INC.

By \_\_\_\_\_  
President  
Address: \_\_\_\_\_  
\_\_\_\_\_

GULF OIL CORPORATION

By \_\_\_\_\_  
President  
Address: \_\_\_\_\_  
\_\_\_\_\_

TEXACO INC

By A. F. Clarke  
Attorney-in-Fact  
Address: Box 3109  
Midland, Texas 79701

WILSON OIL COMPANY

By \_\_\_\_\_  
President  
Address: \_\_\_\_\_  
\_\_\_\_\_

tion underlying the unit area. Except as amended herein, all of the other terms and conditions of the original Unit Agreement for the Operation of the Grama Ridge-Morrow Unit Area shall remain in full force and effect and are ratified and confirmed by the parties or by those consenting hereto by separate instrument.

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IN WITNESS WHEREOF, the undersigned parties have caused this agreement to be executed as of the respective dates set opposite their signatures.

ATTEST:

\_\_\_\_\_  
Secretary  
Date: \_\_\_\_\_

LLANO, INC.

By \_\_\_\_\_  
President  
Address: \_\_\_\_\_  
\_\_\_\_\_

ATTEST:

\_\_\_\_\_  
Secretary  
Date: \_\_\_\_\_

GULF OIL CORPORATION

By \_\_\_\_\_  
President  
Address: \_\_\_\_\_  
\_\_\_\_\_

ATTEST:

\_\_\_\_\_  
Secretary  
Date: \_\_\_\_\_

TEXACO INC.

By \_\_\_\_\_  
President  
Address: \_\_\_\_\_  
\_\_\_\_\_

ATTEST:

Ronnie Chidson  
Secretary  
Date: 29 Nov 76

WILSON OIL COMPANY

By Robert Wilson  
President  
Address: P.O. Box 1297  
Route 7, New Mexico 87501

Date: December 2 1976

FRANCES P. BOLTON, dba WYOMING OIL  
COMPANY

Address: Frances P Bolton  
810 Hanna Building  
Cleveland, Ohio 44115  
NEW MEXICO ELECTRIC SERVICE COMPANY

ATTEST:

\_\_\_\_\_  
Secretary

By \_\_\_\_\_  
President

Address: \_\_\_\_\_

ATTEST:

\_\_\_\_\_  
Secretary

TUCO, INC.

By \_\_\_\_\_  
President

Address: \_\_\_\_\_

STATE OF NEW MEXICO )  
: ss  
COUNTY OF LEA )

The foregoing instrument was acknowledged before me this \_\_\_\_\_  
day of \_\_\_\_\_ 1976 by \_\_\_\_\_  
President of Llanos, Inc., a New Mexico corporation, on behalf of  
said corporation.

My Commission Expires: \_\_\_\_\_

\_\_\_\_\_  
Notary Public

STATE OF \_\_\_\_\_ )  
: ss  
COUNTY OF \_\_\_\_\_ )

The foregoing instrument was acknowledged before me this \_\_\_\_\_  
day of \_\_\_\_\_ 1976 by \_\_\_\_\_  
of Gulf Oil Corporation, a Pennsylvania corpora-  
tion, on behalf of said corporation.

My Commission Expires: \_\_\_\_\_

\_\_\_\_\_  
Notary Public

STATE OF \_\_\_\_\_ )  
: ss  
COUNTY OF \_\_\_\_\_ )

The foregoing instrument was acknowledged before me this \_\_\_\_\_  
day of \_\_\_\_\_ 1976 by \_\_\_\_\_  
of Texaco Inc. a Delaware corporation, on behalf  
of said corporation.

My Commission Expires: \_\_\_\_\_

\_\_\_\_\_  
Notary Public



Date: \_\_\_\_\_

FRANCES P. BOLTON, dba WYOMING OIL  
COMPANY  
Address: \_\_\_\_\_

ATTEST:

Robert M. Wright  
Secretary

NEW MEXICO ELECTRIC SERVICE COMPANY

By [Signature]  
President

Address: P. O. Box 920  
Hobbs, New Mexico 88240

ATTEST:

\_\_\_\_\_  
Secretary

TUCO, INC.

By \_\_\_\_\_  
President

Address: \_\_\_\_\_  
\_\_\_\_\_

STATE OF NEW MEXICO )  
: ss  
COUNTY OF LEA )

The foregoing instrument was acknowledged before me this 16  
day of December 1976 by Donald L. Garey  
President of Llano, Inc., a New Mexico corporation, on behalf of  
said corporation.

My Commission Expires:  
3-20-80

Anna L. Clark  
Notary Public

STATE OF \_\_\_\_\_ )  
: ss  
COUNTY OF \_\_\_\_\_ )

The foregoing instrument was acknowledged before me this \_\_\_\_  
day of \_\_\_\_\_ 1976 by \_\_\_\_\_  
of Gulf Oil Corporation, a Pennsylvania corpora-  
tion, on behalf of said corporation.

My Commission Expires:  
\_\_\_\_\_

\_\_\_\_\_  
Notary Public

STATE OF \_\_\_\_\_ )  
: ss  
COUNTY OF \_\_\_\_\_ )

The foregoing instrument was acknowledged before me this \_\_\_\_  
day of \_\_\_\_\_ 1976 by \_\_\_\_\_  
of Texaco, Inc. a Delaware corporation, on behalf  
of said corporation.

My Commission Expires:  
\_\_\_\_\_

\_\_\_\_\_  
Notary Public

Date: \_\_\_\_\_

FRANCES P. BOLTON, dba WYOMING OIL  
COMPANY  
Address: \_\_\_\_\_

ATTEST:

NEW MEXICO ELECTRIC SERVICE COMPANY

\_\_\_\_\_  
Secretary

By \_\_\_\_\_  
President

Address: \_\_\_\_\_

ATTEST:

*Cary Webb*  
Assistant Secretary

TUCO, INC.

By *Carroll D. Beaman*  
President

Address: P. O. Box 1261  
Amarillo, Texas 79170

STATE OF NEW MEXICO )  
COUNTY OF LEA ) ss

The foregoing instrument was acknowledged before me this \_\_\_\_\_  
day of \_\_\_\_\_ 1976 by \_\_\_\_\_  
President of Llano, Inc., a New Mexico corporation, on behalf of  
said corporation.

My Commission Expires: \_\_\_\_\_

\_\_\_\_\_  
Notary Public

STATE OF \_\_\_\_\_ )  
COUNTY OF \_\_\_\_\_ ) ss

The foregoing instrument was acknowledged before me this \_\_\_\_\_  
day of \_\_\_\_\_ 1976 by \_\_\_\_\_  
of Gulf Oil Corporation, a Pennsylvania corpora-  
tion, on behalf of said corporation.

My Commission Expires: \_\_\_\_\_

\_\_\_\_\_  
Notary Public

STATE OF \_\_\_\_\_ )  
COUNTY OF \_\_\_\_\_ ) ss

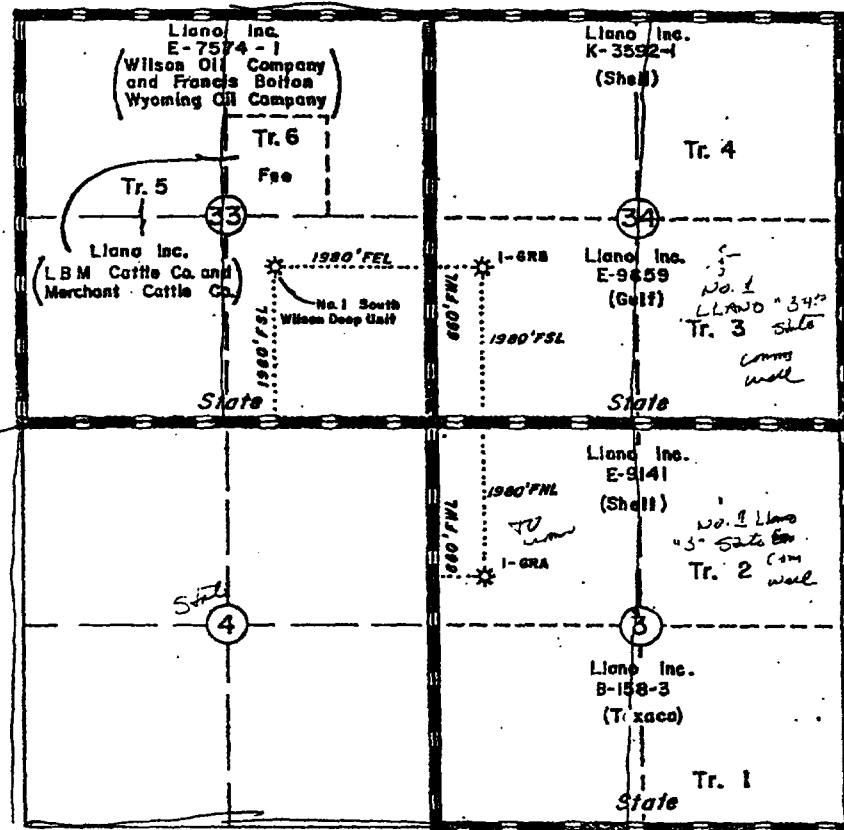
The foregoing instrument was acknowledged before me this \_\_\_\_\_  
day of \_\_\_\_\_ 1976 by \_\_\_\_\_  
of Texaco Inc. a Delaware corporation, on behalf  
of said corporation.

My Commission Expires: \_\_\_\_\_

\_\_\_\_\_  
Notary Public

R 34 E

W200 NW oil & Gas  
Division, Case No  
Order No. 6496



T21S

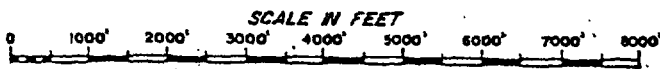
T22S

EXHIBIT "A"

LLANO, INC.

GRAMA RIDGE MORROW UNIT  
Lea County, New Mexico

—UNIT OWNERSHIP MAP



GRAMA RIVER UNIT AGREEMENT

Tract No.	Description	No. Surface Acres	Lease No.	Basic Royalty	Lessee of Record	Overriding Royalty	Working Int. Owner and Percentage	Percentage Participation
1	S $\frac{1}{4}$ Sec. 3, T. 22 S., R. 34 E.	320.00	B-158-3	12 $\frac{1}{2}$ %	Texaco Inc.	None	*New Mexico Electric Service Co. 40% TUCCO INC. 40% Llano, Inc. 20%	16,60475
2	N $\frac{1}{4}$ Sec. 3, T. 22 S., R. 34 E.	327.16	E-9141	12 $\frac{1}{2}$ %	Llano, Inc.	None	New Mexico Electric Service Co. 40% TUCCO INC. 40% Llano, Inc. 20	16.97627
3	S $\frac{1}{4}$ Sec. 34, T. 21 S., R. 34 E.	320.00	E-9659	12 $\frac{1}{2}$ %	Gulf Oil Corp.	None	**New Mexico Electric Service Co. 40% TUCCO INC. 40% Llano, Inc. 20%	16.60475
4	N $\frac{1}{4}$ Sec. 34, T. 21 S., R. 34 E.	320.00	K-3592-1	12 $\frac{1}{2}$ %	Llano, Inc.	None	New Mexico Electric Service Co. 40% TUCCO INC. 40% Llano, Inc. 20%	16.60475

GRAMA RI' HOW UNIT AGREEMENT

Tract No.	Description	No. Surface Acres	Lease No.	Basic Royalty	Lessee of Record	Overriding Royalty	Working Int. Owner and Percentage	Percentage Tract Participation
5	S $\frac{1}{4}$ , NW $\frac{1}{4}$ , N $\frac{1}{2}$ NE $\frac{1}{4}$ , SE $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 33, T. 21 S., R. 34 E.	600.00	E-7574-1	12 $\frac{1}{2}$ %	Wilson Oil Co. and Frances P. Bolton, dba Wyoming Oil Co.	Amoco Production Co. - .0102041 Myles A. Colligan .0005102 Estelle L. Lake .0004081 F. W. Lake .0002041 Mary E. Lake .0002041 M. A. Machris .0032653 C. L. Milburn .0005102 Wilson Oil Co. .0081314 Frances P. Bolton dba Wyoming Oil Co. .0081314 Llano, Inc. .0280611	***New Mexico Electric Service Co. 40% TUCO INC. 40% Llano, Inc. 20%	31.13389
6	SW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 33, T. 21 S., R. 34 E.	40.00		Fee	Wilson Oil Co. and Frances P. Bolton, dba Wyoming Oil Co.	Amoco Production Co. - .0102041 Myles A. Colligan .0005102 Estelle L. Lake .0004081 F. W. Lake .0002041 Mary E. Lake .0002041 M. A. Machris .0032653 C. L. Milburn .0005102	New Mexico Electric Service Co. 40% TUCO INC. 40% Llano, Inc. 20%	2.07555

NEW MEXICO STATE LAND OFFICE

CERTIFICATE OF APPROVAL

COMMISSIONER OF PUBLIC LANDS, STATE OF NEW MEXICO

GRAMA RIDGE MORROW UNIT AGREEMENT

LEA COUNTY, NEW MEXICO

There having been presented to the undersigned Commissioner of Public Lands of the State of New Mexico for examination, the attached Agreement for the development and operation of acreage which is described within the attached Agreement, dated April 25, 1973, which has been executed, or is to be executed by parties owning and holding oil and gas leases and royalty interests in and under the property described, and upon examination of said Agreement, the Commissioner finds:

- (a) That such agreement will tend to promote the conservation of oil and gas and the better utilization of reservoir energy in said area.
- (b) That under the proposed agreement, the State of New Mexico will receive its fair share of the recoverable oil or gas in place under its lands in the area.
- (c) That each beneficiary Institution of the State of New Mexico will receive its fair and equitable share of the recoverable oil and gas under its lands within the area.
- (d) That such agreement is in other respects for the best interests of the state, with respect to state lands.

NOW, THEREFORE, by virtue of the authority conferred upon me under Sections 7-11-39, 7-11-40, 7-11-41, 7-11-47, and 7-11-48, New Mexico Statutes Annotated, 1953 Compilation, I, the undersigned, Commissioner of Public Lands of the State of New Mexico, for the purpose of more properly conserving the oil and gas resources of the State, do hereby consent to and approve the said Agreement, and any leases embracing lands of the State of New Mexico within the area shall be and the same are hereby amended to conform with the terms thereof, and shall remain in full force and effect according to the terms and conditions of said Agreement. This approval is subject to all of the provisions of the aforesaid statutes.

IN WITNESS WHEREOF, this Certificate of Approval is executed, with seal affixed, this 27th. day of August, 19 73.

*Al L. Luning*  
COMMISSIONER OF PUBLIC LANDS  
of the State of New Mexico

## GRAMA RI MORROW UNIT AGREEMENT

Tract No.	Description	No. Surface Acres	Lease No.	Basic Royalty	Lessee of Record	Overriding Royalty	Working Int. Owner and Percentage	Percentage Tract Participation

Wilson Oil Co.  
 .0081314  
 Frances P. Bolton  
 dba Wyoming Oil Co.  
 .0081314  
 Llano, Inc. .0280611

Total

1,927.16

100.0000

\* Rights within vertical limits of the Morrow Sand formation between 12,720 and 13,257 feet.  
 \*\* From the surface to the top of the Silurian.  
 \*\*\* From 5,200 to 13,503 feet.

## EXHIBIT "C"

Description	Surface Ownership	Acreage	Rental
W $\frac{1}{2}$ E $\frac{1}{2}$ Section 33, S $\frac{1}{2}$ S $\frac{1}{2}$ Section 34, Township 21 South, Range 34 East	The Merchant Livestock Company	320.00	\$ 320.00
W $\frac{1}{2}$ , E $\frac{1}{2}$ E $\frac{1}{2}$ Section 33, N $\frac{1}{2}$ , N $\frac{1}{2}$ S $\frac{1}{2}$ Section 34, Township 21 South, Range 34 East	State of New Mexico	960.00	960.00
All Section 3, Township 22 South, Range 34 East	State of New Mexico	647.16	647.16
		<u>1607.16</u>	<u>\$1927.16</u>



STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION COMMISSION

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION FOR THE PURPOSE OF  
CONSIDERING:

CASE NO. 8088  
Order No. R-7582

APPLICATION OF LLANO, INC. FOR  
SPECIAL WELL TESTING REQUIREMENTS  
OR EXPANSION OF ITS GAS STORAGE  
PROJECT, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9:00 a.m. on May 15, 1984, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 29th day of June, 1984, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Llano, Inc., is the operator of the Grama Ridge Morrow Unit which was approved by the Commission on January 29, 1973, by Order No. R-4473 and has been subsequently expanded to include the following described state lands:

LEA COUNTY, NEW MEXICO, NMPM

TOWNSHIP 21 SOUTH, RANGE 34 EAST, NMPM  
Sections 33 and 34: All

TOWNSHIP 22 SOUTH, RANGE 34 EAST, NMPM  
Section 3: All

(3) That the applicant operates an underground gas storage project in the Morrow Formation, Grama Ridge Morrow Gas Pool, under the Grama Ridge Morrow Unit Area described in Paragraph (2) and under Sections 4 and 10, Township 22 South,

Range 34 East, NMPM, under which gas storage rights have been acquired by applicant through agreement with the United States, acting by and through the Secretary of the Interior (Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, Lea County, New Mexico, Agreement No. 14-08-0001-14277, as amended).

(4) That Llano injects gas into the Morrow formation in its GRM Unit Well No. 1 (formerly State GRA Well No. 1) located in Unit E, Section 3, Township 22 South, Range 34 East, NMPM, and in the GRM Unit Well No. 2 (formerly State GRB Well No. 1) located in Unit L of Section 34, Township 21 South, Range 34 East, NMPM, Grama Ridge-Morrow Gas Pool, Lea County, New Mexico, pursuant to Commission Order R-4491 entered on March 16, 1973.

(5) That L & B Oil Company proposes to drill its Federal Well No. 1 at a location 660 feet from the South line and 1980 feet from the East line of Section 5, Township 22 South, Range 34 East, NMPM, which directly offsets the Llano Storage Project.

(6) That the boundaries of the Grama Ridge Storage Reservoir cannot be precisely determined.

(7) That L & B Oil Company proposes to test and possibly complete its Federal Well No. 1 in the same Morrow interval into which Llano injects natural gas for storage and in so doing could damage Llano's storage project and produce gas which is the property of Llano, Inc.

(8) That applicant seeks an order requiring L & B Oil Company to test the Morrow sands encountered below the top of the Morrow Clastics in its Federal Well No. 1 by using a Repeat Formation Tester (RFT) to establish the pressure in each Morrow stringer and thereby determine if the well is in communication with Llano's storage project.

(9) That Llano should be required to bear the cost of conducting this test and should further be required to indemnify L & B Oil Company for any damage to their well which results from the tests.

(10) That testing at the L & B Oil Company Federal Well No. 1 will not cause waste nor violate correlative rights and should be approved.

(11) That there was insufficient evidence presented to warrant the expansion of the gas storage project to include the E/2 of Section 5, Township 22 South, Range 34 East.

IT IS THEREFORE ORDERED:

(1) That the applicant, Llano, Inc., shall be permitted, at its option, to run an RFT log on the L & B Oil Company Federal Well No. 1 to be drilled at a location 660 feet from the South line and 1980 feet from the East line of Section 5, Township 22 South, Range 34 East, NMPM, Lea County, New Mexico.

(2) That L & B Oil Company shall provide Llano, Inc. with the following information on the said Federal Well No. 1 from the top of the Morrow Clastics to total depth:

- (a) Drilling data, including time, weight, bit changes, etc.
- (b) Copies of drill stem tests.
- (c) Mud log information.
- (d) Samples or drilling cuttings.
- (e) Copy of the CNL-FDC porosity log or equivalent porosity log.

(3) Within twenty-four hours after receipt of the data required in Paragraph (2) of this Order, Llano at its sole discretion, shall determine if the Morrow formation in the L & B Oil Company well is structurally equivalent to Llano's storage system and shall notify L & B Oil Company and the District Office of the Oil Conservation Division in Hobbs, New Mexico, whether or not it will run an RFT log on the well.

(4) If Llano, Inc. decides to run an RFT log on the well:

- (a) L & B Oil Company will temporarily turn over control of the well to Llano, Inc. for the sole purpose of running an RFT log from the top of the Morrow Clastics to the well's total depth;
- (b) Llano will make all arrangements with the service company to run the RFT log;
- (c) Llano will be liable for any damage to the well during the time Llano has control of the well and will reimburse L & B Oil Company for rig time costs for the period while Llano is determining whether or not to run the RFT log, rig time costs involved in running the RFT log, and any other costs incurred by L & B Oil Company as a result of running the RFT log.

- (d) Llano will promptly relinquish control of the well to L & B Oil Company upon completion of running the RFT log; and
- (e) Llano will furnish a copy of the RFT log on the well to L & B Oil Company.

PROVIDED FURTHER, that L & B Oil Company will not run casing in the well until Llano has run the RFT log on the well or failed to notify L & B Oil Company and the Oil Conservation Division's District Office of its intention to run the RFT log in accordance with the provisions of Paragraph (3) of this Order.

(5) That, if it is established by the data obtained from the RFT log that the Morrow stringers in the said L & B well have pressures similar to those of Llano's gas storage project, L & B Oil Company shall not produce gas from those stringers and shall demonstrate this fact to the satisfaction of Llano, Inc. and the District Office of the Oil Conservation Division located in Hobbs, New Mexico.

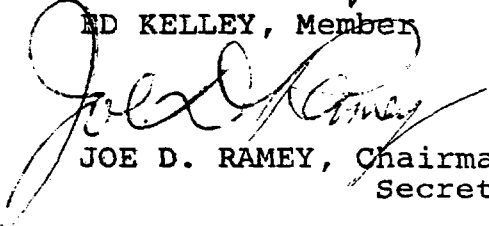
(6) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

JIM BACA, Member

  
ED KELLEY, Member

  
JOE D. RAMEY, Chairman and  
Secretary

S E A L

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:

CASE NO. 6557  
Order No. R-6050

APPLICATION OF GETTY OIL COMPANY  
FOR POOL CREATION AND SPECIAL POOL  
RULES, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on May 29, 1979, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 17th day of July, 1979, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the Division, by its Order No. R-5995 entered May 2, 1979, rescinded the Special Rules and Regulations for the Grama Ridge-Morrow Gas Pool, as promulgated by Division Order No. R-3006, and provided that said pool should henceforth be spaced, drilled, operated, and produced in accordance with Rule 104 of the Division Rules and Regulations and with such other Division rules and orders as may be applicable.

(3) That said Order No. R-5995 redefined the horizontal limits of the Grama Ridge-Morrow Gas Pool to include only the E/2 of Section 33 and the W/2 of Section 34, Township 21 South, Range 34 East, NMPM, and the W/2 of Section 3, all of Section 4, and the W/2 of Section 10, Township 22 South, Range 34 East, NMPM.

(4) That said Order No. R-5995 further defined a particular area, described as all of Section 26, the E/2 of Section 34, and all of Sections 35 and 36, Township 21 South,

Range 34 East, NMPM, and all of Sections 1 and 2, the E/2 of Section 3, the E/2 of Section 10, and all of Sections 11 and 12, Township 22 South, Range 34 East, NMPM, and prescribed that the Morrow formation underlying said area would be placed on temporary 640-acre well spacing and location requirements for a period of 30 days after the date of entry of said Order No. R-5995, or, provided that if Getty Oil Company had filed an application for creation of a new gas pool within the hereinabove-described lands and the promulgation of special rules for such new pool, including a provision for other than 320-acre spacing, then such temporary rules should remain in effect for so long thereafter as a hearing, or an order following a hearing, is pending.

(5) That Getty Oil Company did file an application with the Division on May 3, 1979, requesting such pool creation and special rules, and said application was docketed for hearing as the instant case.

(6) That as the applicant herein, Getty Oil Company seeks the creation of a new Morrow Gas Pool comprising all of Section 35, Township 21 South, Range 34 East, NMPM, and all of Section 2, Township 22 South, Range 34 East, NMPM, and the promulgation of special rules therefor, including a provision for 640-acre spacing and proration units, and well locations, no closer than 1650 feet to the outer boundary of the unit and no closer than 330 feet to any quarter-quarter section line.

(7) That the applicant is the operator of its Getty "35" State Well No. 1 located in Unit K of the aforesaid Section 35, and its Getty "2" State Well No. 1 located in Unit F of the aforesaid Section 2.

(8) That said wells are located approximately 4290 feet apart, or less than one mile, but the main producing zone in each of the two wells does not appear to be of major significance in the other well.

(9) That Getty presented evidence attempting to establish that the Morrow producing interval in both the Grama Ridge-Morrow Gas Pool and in the lands immediately East thereof, i.e., the lands under consideration in this case, is of deltaic marine nature, and therefore should extend laterally for considerable distance and exhibit good continuity of permeability throughout the reservoir, thus being conducive to 640-acre spacing; however, the preponderance of the evidence presented at the hearing establishes that said Morrow producing interval does not constitute a broad continuous producing body but instead is composed of numerous separate and isolated sand bodies.

(10) That from the evidence submitted at the hearing, there is no reason to believe that the drainage characteristics in the Morrow formation in the area under consideration (Section 35, Township 21 South, Range 34 East, NMPM, and Section 2, Township 22 South, Range 34 East, NMPM) are any different than the drainage characteristics of the Morrow formation in the Grama Ridge-Morrow Gas Pool immediately to the West.

(11) That the Division found, in Case No. 6496, from which Order No. R-5995 issued, that the drainage characteristics of the Morrow formation in the Grama Ridge-Morrow Gas Pool are not such as to support 640-acre spacing, and that 320-acre spacing was more appropriate for said pool.

(12) That the applicant has failed to establish that one well will effectively and efficiently drain 640 acres in the Morrow formation underlying Section 35, Township 21 South, Range 34 East, NMPM, and Section 2, Township 22 South, Range 34 East, NMPM.

(13) That after considering the evidence presented in this case and the economic loss caused by the drilling of unnecessary wells, the protection of correlative rights, including those of royalty owners, the prevention of waste, the avoidance of the augmentation of risks arising from the drilling of an excessive number of wells, and the prevention of reduced recovery which might result from the drilling of too few wells, the Commission can only conclude that the application for 640-acre spacing in the subject area should be denied, and that said lands should be developed on 320-acre spacing and proration units.

(14) That a new pool should be created and defined for applicant's wells in the subject area, and that said pool should be designated the East Grama Ridge-Morrow Gas Pool with vertical limits comprising the Morrow formation and horizontal limits comprising the S/2 of Section 35, Township 21 South, Range 34 East, NMPM, and the N/2 of Section 2, Township 22 South, Range 34 East, NMPM, Lea County, New Mexico.

(15) That said East Grama Ridge-Morrow Gas Pool should be spaced, drilled, operated and produced in accordance with Rule 104 of the Division Rules and Regulations and with such other Division rules and orders as may be applicable, including 320-acre spacing and proration units and well location requirements.

(16) That the provisions of Order No. (3) on Pages 4 and 5 of Division Order No. R-5995 should be rescinded.

IT IS THEREFORE ORDERED:

(1) That the application of Getty Oil Company for the creation of a new gas pool in Lea County, New Mexico, for the production of gas from the Morrow formation is approved, and there is hereby created the East Grama Ridge-Morrow Gas Pool, with vertical limits comprising the Morrow formation and horizontal limits comprising the following described area:

TOWNSHIP 21 SOUTH, RANGE 34 EAST, NMPM  
Section 35: S/2

TOWNSHIP 22 SOUTH, RANGE 34 EAST, NMPM  
Section 2: N/2

(2) That said East Grama Ridge-Morrow Gas Pool shall be spaced, drilled, operated, and produced in accordance with Rule 104 of the Division Rules and Regulations and with such other Division rules and orders as may be applicable to 320-acre spacing and proration units and well location requirements.

(3) That the application of Getty Oil Company for 640-acre spacing and well location requirements is hereby denied.

(4) That the provisions of Order No. (3) on Pages 4 and 5 of Division Order No. R-5995 are hereby rescinded.

IT IS FURTHER ORDERED:

(1) That the locations of all wells presently drilling to or completed in, or for which drilling permits have been approved for, the East Grama Ridge-Morrow Gas Pool or the Morrow formation within one mile thereof, are hereby approved.

(2) That existing wells in the East Grama Ridge-Morrow Gas Pool shall have dedicated thereto 320 acres in accordance with the foregoing, and the operator thereof shall file Forms C-102 dedicating 320 acres to such wells within 60 days after entry of this order.

Failure to file new Forms C-102 with the Division dedicating 320 acres to a well within 60 days from the date of this order shall subject the well to cancellation of allowable.

(3) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.



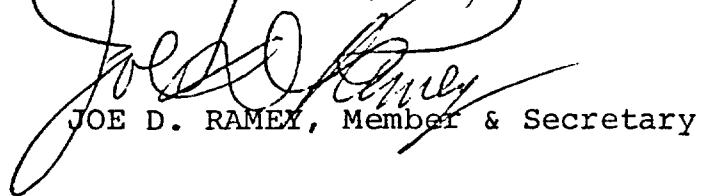
-5-  
Case No. 6557  
Order No. R-6050

DONE at Santa Fe, New Mexico, on the day and year herein-  
above designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

  
ALEX J. ARMIJO, Member

  
EMERY C. ARNOLD, Member

  
JOE D. RAMEY, Member & Secretary

S E A L

fd/