



UC-0023

August 14, 2006

Commissioner of Public Lands
New Mexico State Land Office
P.O. Box 1148
Santa Fe, NM 87503

Re: Grama Ridge Morrow Unit
Plan of Operation & Six Month Progress Reports

Dear Sir:

Effective June 1, 2006, the storage operations of Enstor Grama Ridge Storage and Transportation, LLC (f/k/a Grama Ridge Storage and Transportation, LLC) ("GRST") are governed by the terms of that certain Business Lease 1751, Agreement for Natural Gas Storage in the Grama Ridge-Morrow Formation (the "Storage Agreement"). Under the terms of the Storage Agreement, GRST is no longer required to submit the Plan of Operation and accompanying six month progress reports for the Grama Ridge Morrow Unit. We are providing this letter as a reminder that the State Land Office will no longer be receiving such reports. If you have any questions, please feel free to call John McStravick @ 281-374-3052.

Very truly yours,

Ben Moore
Director, Enstor Operating Company, LLC,
The Manager for Enstor Grama Ridge Storage and Transportation, LLC

cc: Bureau of Land Management
Roswell District Office
Division of Mineral Resources
2909 West Second Street
Roswell, New Mexico 88201

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2003 AUG 21
STATE LAND OFFICE
SANTA FE, NM
Sherri Peebles (GRST)
20333 State Highway 249, Suite 400
Houston, TX 77070



January 31, 2006

Commissioner of Public Lands
New Mexico State Land Office
P.O. Box 1148
Santa Fe, NM 87503

Re: Grama Ridge Morrow Unit
Plan of Operation ~~Progress Report~~
Six Month Period Ending December 2005

RECEIVED
2006 FEB 2 10 08
STATE LAND OFFICE
SANTA FE, NM

Dear Sir:

Enstor Operating Company, LLC (Enstor), as manager for Grama Ridge Storage and Transportation, LLC, hereby submits this six month progress report ending December 2005 for the Grama Ridge Morrow Unit. The current Plan of Operation for the Grama Ridge Morrow Unit, dated August 26, 2002, is effective from January 1, 2002 through August 26, 2007. This progress report provides a summary of (1) injection and withdrawal activities, (2) ending storage balances, and (3) changes to the facility operations for the second half of calendar year 2005.

With respect to items (1) and (2) above, Enstor provides the following supporting attachments:

(Attachment A)	A summary table illustrating injection and withdrawal activity for the six month period ending December 2005.
(Attachment B)	A summary table illustrating cumulative storage balances for each six month period from January 2002 through December 2005.

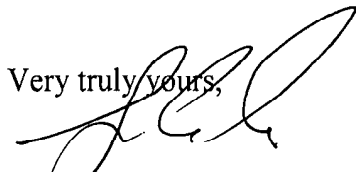
With respect to item (3) above, Enstor is in the midst of a capital upgrade program for the Grama Ridge Morrow Unit that includes both well and facility improvements. During the second half of 2005, Enstor completed well workovers for GRMU Well #4 and GRMU Well #1. GRMU Well #4, which previously served as a withdrawal well only, is now equipped for injection service. Enstor performed a hydraulic fracture treatment on GRMU Well #4 and installed new tubing, packer, and wellhead. For GRMU Well #1, Enstor also installed new tubing, packer and wellhead, and re-perforated the Morrow storage formation.

January 31, 2006

Page 2

To accommodate surface facility improvements, Enstor executed an amendment to its existing business lease surrounding GRMU Well #1 (BL-1652). In addition, Enstor executed new right of way agreements with both the State of New Mexico and the Federal Bureau of Land Management for new pipeline laterals and an interconnect facility with El Paso Pipeline. In December, Enstor installed and commissioned the interconnect facility and its associated lateral pipeline. During the first quarter of 2006, Enstor will finish installing field piping and laterals. We also intend to install new compression on BL-1652 during March and April 2006.

Very truly yours,



Ben Moore

Director, Enstor Operating Company, LLC

As Manager for Grama Ridge Storage and Transportation, LLC

cc: Bureau of Land Management
Roswell District Office
Division of Mineral Resources
2909 West Second Street
Roswell, New Mexico 88201

RECEIVED
2006 FEB 2 11 19 AM '06
STATE LAND COM.
COUNCIL OF SECRETARIES

RECEIVED
Gramma Ridge Storage and Transportation, LLC
Gramma Ridge Morrow Unit
2009 Fellers County, New Mexico
Plan of Operation - Progress Report
For the six months ending December 2005

ATTACHMENT A

MCF @ 15.025 psia Pressure Base

Month	GRM Unit #1		GRM Unit #2		GRM Unit #3		GRM Unit #4		GRM TOTAL		
	Injection (McF)	Withdrawal (McF)	Injection (McF)	Withdrawal (McF)	Injection (McF)	Withdrawal (McF)	Injection (McF)	Withdrawal (McF)	Injection (McF)	Withdrawal (McF)	Net (McF)
Jul-05	404,889	0	417,684	0	0	0	0	0	822,572	0	822,572
Aug-05	404,756	0	369,292	0	0	0	0	0	774,048	0	774,048
Sep-05	331,940	0	237,133	0	0	0	0	0	569,072	0	569,072
Oct-05	353,570	0	372,193	0	0	0	0	0	725,764	0	725,764
Nov-05	203,587	0	177,327	0	0	0	0	0	380,913	0	380,913
Dec-05	0	0	212,921	20,983	0	0	0	0	212,921	20,983	191,938
Totals	1,698,742	0	1,786,549	20,983	0	0	0	0	3,485,291	20,983	3,464,308
Prior Period									73,060,133	68,075,569	4,984,564
Cumulative									76,545,424	68,096,552	8,448,872

MMBTU BASIS

Month	GRM Unit #1		GRM Unit #2		GRM Unit #3		GRM Unit #4		GRM TOTAL		
	Injection (mmbtu)	Withdrawal (mmbtu)	Injection (mmbtu)	Withdrawal (mmbtu)	Injection (mmbtu)	Withdrawal (mmbtu)	Injection (mmbtu)	Withdrawal (mmbtu)	Injection (mmbtu)	Withdrawal (mmbtu)	Net (mmbtu)
Jul-05	417,076	0	430,256	0	0	0	0	0	847,332	0	847,332
Aug-05	430,175	0	822,658	0	0	0	0	0	1,252,833	0	1,252,833
Sep-05	344,587	0	590,754	0	0	0	0	0	935,341	0	935,341
Oct-05	368,460	0	756,329	0	0	0	0	0	1,124,789	0	1,124,789
Nov-05	219,266	0	410,254	0	0	0	0	0	629,520	0	629,520
Dec-05	0	0	124,201	22,024	0	0	0	0	124,201	22,024	102,177
Totals	1,779,564	0	3,134,451	22,024	0	0	0	0	4,914,015	22,024	4,891,991
Prior Period									79,400,209	71,915,032	7,485,177
Cumulative									84,314,224	71,937,056	12,377,168

GRAMA RIDGE MORROW UNIT
STORAGE BALANCES

ATTACHMENT B

Beginning Balances				mcf (15.025)	mcf (15.025)	mcf (15.025)
31-Dec-01 Plan Of Operation				7,908,101	65,649,008	57,740,907
	Injection	Withdrawal	Net	Cumulative Net	Injection Cum	Withdrawal Cum
	Mcf @ 15.025	Mcf @ 15.025	Mcf @ 15.025	Mcf @ 15.025	Mcf @ 15.025	Mcf @ 15.025
1st half 2002	1,954,795	1,567,367	387,428	8,295,529	67,603,803	59,308,274
2nd half 2002	742,812	3,189,854	(2,447,042)	5,848,487	68,346,615	62,498,128
1st half 2003	544,034	1,726,629	(1,182,595)	4,665,892	68,890,649	64,224,757
2nd half 2003	1,913,408	1,084,395	829,013	5,494,905	70,804,057	65,309,152
1st half 2004	28,037	1,911,073	(1,883,036)	3,611,869	70,832,094	67,220,225
2nd half 2004	796,949	589,679	207,270	3,819,139	71,629,043	67,809,904
1st half 2005	1,431,090	265,665	1,165,425	4,984,564	73,060,133	68,075,569
2nd half 2005	3,485,291	20,983	3,464,308	8,448,872	76,545,424	68,096,552

Beginning Balances				mmbtu	mmbtu	mmbtu
31-Dec-01 Plan Of Operation				10,502,848	71,370,284	60,867,436
	Injection	Withdrawal	Net	Cumulative Net	Injection Cum	Withdrawal Cum
	mmbtu	mmbtu	mmbtu	mmbtu	mmbtu	mmbtu
1st half 2002	2,142,059	1,690,783	451,276	10,954,124	73,512,343	62,558,219
2nd half 2002	846,459	3,434,757	(2,588,298)	8,365,826	74,358,802	65,992,976
1st half 2003	583,682	1,843,155	(1,259,473)	7,106,353	74,942,484	67,836,131
2nd half 2003	2,018,031	1,150,765	867,266	7,973,619	76,960,515	68,986,896
1st half 2004	29,644	2,014,494	(1,984,850)	5,988,769	76,990,159	71,001,390
2nd half 2004	853,392	634,694	218,698	6,207,467	77,843,551	71,636,084
1st half 2005	1,556,658	278,948	1,277,710	7,485,177	79,400,209	71,915,032
2nd half 2005	4,914,015	22,024	4,891,991	12,377,168	84,314,224	71,937,056

Notes:

- (1) Numbers in yellow show corrected cumulative values of Raptor Natural Pipeline
- (2) Beginning Balances (in green) taken from the Plan of Operation report effective January 1, 2002.



August 23, 2005

Commissioner of Public Lands
New Mexico State Land Office
P.O. Box 1148
Santa Fe, NM 87503

OFFICE
E. L. M. 100

Re: Grama Ridge Morrow Unit
Plan of Operation - Progress Report
Six Month Period Ending June 2005

Dear Sir:

Effective May 1, 2005, Grama Ridge Storage and Transportation, LLC ("GRST") purchased the Grama Ridge Morrow Unit from ConocoPhillips' Raptor Natural Pipeline LLC ("Raptor"). Enstor Operating Company, LLC (Enstor) is the manager of GRST. Both Enstor and GRST are wholly owned subsidiaries of Scottish Power, plc. Enstor also manages the Katy Storage Facility in Houston, Texas and is constructing a new storage facility in Reeves County, Texas. Enstor's principal business office is located in Houston, Texas.

On August 26, 2002 Raptor filed a revised Plan of Operation for the Grama Ridge Morrow Unit (the "Plan of Operation"). The Plan of Operation is effective January 1, 2002 through August 26, 2007. As required per the Plan of Operation, Enstor is filing this six month Progress Report for the Grama Ridge Morrow Unit. This report provides:

- (1) notification of change of owner/operator for the Grama Ridge Morrow Unit;
- (2) natural gas storage injection and withdrawal activity for the Grama Ridge Morrow Unit for the first six months of Calendar Year 2005;
- (3) documentation of corrections in accumulated volumetric (Mcf) and heating value (MMbtu) storage balances as submitted in prior Progress Reports by Raptor Natural Pipeline beginning with Progress Report for the six months ending June 2003 through the end of 2004. Note that daily injection and withdrawal activity is not being changed, rather only errors in Raptor's arithmetic accumulation.

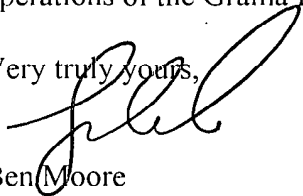
With respect to item 1, Enstor has previously provided the State Land Office (SLO) written notification of assignment of the Grama Ridge Morrow Unit via our outside legal advisor, Holland & Hart. With respect to items 2 & 3, Enstor is providing the following supporting attachments:

- (Attachment A) A copy of the current Plan of Operation for the Grama Ridge Morrow Unit;
- (Attachment B) Copies of Raptor's prior Progress Reports ending June 2002, December 2002, June 2003, December 2003, June 2004, and December 2004. We have marked in red our corrections.
- (Attachment C) The current Progress Report ending June 2005.
- (Attachment D) A summary table illustrating cumulative storage balances for each six month period from January 2002 through June 2005.

Further to Item 3, Enstor wishes to advise the SLO that it believes the reported cumulative storage balances are in error. Upon inspection, the storage balances reported in MCF appear low, while the storage balances reported in MMBTU appear high. As reported the balances indicate the heating value of the stored gas would need to be 1625 Btu/scf, which is highly unlikely given the composition of the historical injected gas. Enstor has retained a third party to review historical measurement records and attempt to reconcile the cumulative storage balances. We will inform the SLO of our findings as soon as we have completed our evaluation.

In the future, to improve the accuracy of reported injection and withdrawal activity (both on a MCF and MMbtu basis), Enstor will be installing modern, real time measurement facilities at Grama Ridge. In addition, Enstor is currently reviewing capital improvements for 2005 and 2006, including well workovers and enhancements to the compressor station and surface facilities. Commensurate with any modifications to the storage facility, Enstor will file a revised Plan Of Operation to reflect changes to the operations of the Grama Ridge Morrow Unit.

Very truly yours,


Ben Moore
Director, Enstor Operating Company, LLC
As Manager for Grama Ridge Storage and Transportation, LLC

cc: Bureau of Land Management
Roswell District Office
Division of Mineral Resources
2909 West Second Street
Roswell, New Mexico 88201

Attachment A

Grama Ridge Morrow Unit
Lea County, New Mexico

AND THROUGH #

8/26/07

Plan of Operation

This is a revised Plan of Operation as required, from time to time, pursuant to Section 9 of the UNIT AGREEMENT FOR THE OPERATION OF THE GRAMA RIDGE MORROW UNIT AREA, LEA COUNTY, NEW MEXICO dated April 25, 1973, as amended (the "Unit Agreement"), for the Grama Ridge Morrow Unit (hereinafter, "Unit").

Effective December 1, 2000, Conoco Inc. acquired LG&E Natural Pipeline LLC, successor in interest to Llano, Inc. Subsequently, the name of LG&E Natural Pipeline LLC was changed to Raptor Natural Pipeline LLC (hereinafter, "Unit Operator").

This Plan of Operation constitutes the operating procedures and conditions in which the Unit Operator will continue to operate the Unit pursuant to the following:

Grama Ridge Morrow Unit:

- Unit Agreement For The Operation Of The Grama Ridge Morrow Unit Area
Lea County, New Mexico
By and between the State of New Mexico and Llano, Inc. (among others)
Effective April 25, 1973

Unit Area: Section 34, T21S, R34E - All 640 acres
 Section 3, T22S, R34E - All 647.16 acres

Unitized Formation: 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.

Wells: Shell Oil Company State GRA Well No. 1 – SW1/4NW1/4 Section 3, T22S, R34E
 Shell State GRB Well No. 1 – NW1/4SW1/4 Section 34, T21S, R34E

- Amendment - Unit Agreement For The Operation Of The Grama Ridge Morrow Unit Area
Lea County, New Mexico
By and between the State of New Mexico and Llano, Inc. (among others)
Effective September 1, 1976

Unit Area: Added - Section 33, T21S, R34E - All 640 acres

Wells: Added - South Wilson Deep Unit No. 1 well – NW1/4SE1/4 Section 33, T21S, R34E

- Second Amendment to Unit Agreement For The Operation Of The Grama Ridge Morrow Unit Area
Lea County, New Mexico
By and Between the State of New Mexico and Raptor Natural Pipeline, LLC
Executed by Raptor on May 23, 2001 and Effective on Approval by the Commissioner

Unit Area: Clarified the legal description of the Unit Area as follows:

T-21-S, R-34-E
Section 33 – All
Section 34 – All
T-22-S, R-34-E
Section 3 – All
Section 4 – Lot 1, Lot 2, S/2 NE/4
Containing 2,089.81 acres, more or less

In addition, the following Federal agreements and lands comprise the remainder of the Unit:

- Agreement For Subsurface Storage Of Gas, Morrow Formation, Grama Ridge Unit Area
Lea County, New Mexico
By and between the United States of America and Llano, Inc.
Effective November 1, 1975

Unit Area: Section 4, T22S, R34E - All 640 acres

Unitized Formation: Vertical interval between 12,778 feet and 13,255 feet below the surface in the Morrow formation in the Federal GR-4 No. 1.

Wells: Llano Federal GR-4 No. 1 – SE1/4SE1/4NW1/4 Section 4, T22S, R34E

- Amendment - Agreement For Subsurface Storage Of Gas, Morrow Formation, Grama Ridge Unit Area
Lea County, New Mexico
By and between the United States of America and Llano, Inc.
Effective April 1, 1981

Unit Area: Added - Section 10, T22S, R34E - All 640 acres

Wells: Added – Llano Government “A” No. 1 – SE1/4NW1/4 Section 10, T22S, R34E

The New Mexico Department of Energy and Minerals, Oil Conservation Division’s Order No. R-7582, effective June 27, 1984, subsequently acknowledged this expansion by amendment.

Exhibit "A" and Exhibit "B" attached are a map and schedule showing United States of America; State of New Mexico and fee-owned acreage committed to the Unit along with the identity of mineral tract owners to the extent known to the Unit Operator as of January 1, 2002.

Exhibit "C" and Exhibit "D" attached are a map and schedule showing United States of America, State of New Mexico and fee-owned acreage subject to the Unit along with the identity of land surface ownership to the extent known to the Unit Operator as of January 1, 2002.

Wells - Name Changes and Usage:

<u>Original Well Name:</u>	<u>Well Name Change:</u>
Shell Oil Company State GRA Well No. 1	GRM Unit No. 1
Shell State GRB Well No. 1	GRM Unit No. 2
South Wilson Deep Unit No. 1	GRM Unit No. 3
Llano Federal GR-4 No. 1	GRM Unit No. 4
Llano Government "A" No. 1	GRM Unit No. 5

Effective March 15, 1978, at the request of the New Mexico Department of Energy and Minerals, Oil Conservation Division, Shell Oil Company State GRA Well No. 1, Shell State GRB Well No. 1, South Wilson Deep Unit No. 1, and Llano Federal GR-4 No. 1 were renamed GRM Unit No.1, GRM Unit No. 2, GRM Unit No. 3, and GRM Unit No. 4, respectively, to reflect the unit status.

Effective April 1, 1981 the amendment to the Agreement For Subsurface Storage Of Gas, Morrow Formation, Grama Ridge Unit Area, by and between the United States of America and Llano, Inc. expanded the Unit to include Section 10, T22S, R34E and the Llano Government "A" No. 1. The Llano Government "A" No. 1 was renamed GRM Unit No. 5 effective May 18, 1984. In June 1985 the GRM Unit No. 5 was withdrawn from the Unit and recompleted as a gas well in another producing interval.

The wells are used for the injection and withdrawal of gas into and out of the Unit in the following manner:

- GRM Unit No. 1: Used for injection and withdrawal.
- GRM Unit No. 2: Used for injection and withdrawal.
- GRM Unit No. 3: Used for withdrawal only.
- GRM Unit No. 4: Used for withdrawal only.

Facilities and Measurement:

Unit Operator will maintain equipment to separate the gas from the liquid hydrocarbons produced from the withdrawal of gas from the Unit wells, as stipulated in Section 11(A) of the Unit Agreement, as amended. Liquid hydrocarbons will be sold and the proceeds allocated according to the provisions of Section 11(A) of the Unit Agreement, as amended. Sales volumes will be reported every six months in accordance with the form attached hereto as Exhibit "G".

Unit Operator will maintain natural gas measuring stations properly equipped with an orifice meter and an electronic flow recorder of standard design and manufacture. The measurements of this measuring station will fix the cumulative quantity of gas injected and withdrawn from the Unit wells. Orifice meter installations will conform to the recommendations for design and installation contained in

ANSI/API 2530-AGA Report No. 3 (1985) and any supplements thereto as deemed appropriate by the Unit Operator. Unit Operator will keep the measuring equipment accurate and in repair and will test the orifice meter in service quarterly or more often if deemed necessary by Unit Operator. Samples of the injected and withdrawn gas will be obtained monthly, or more often as Unit Operator deems necessary, and tested by chromatography to determine the composition of the gas.

Injection, Withdrawal, and Cumulative Volumes:

The net balance of gas volumes in storage in the Unit as of December 31, 2001 was 7,908,101 Mcf (or 10,502,849MMBtu), determined by the Unit Operator as follows:

Through provisions outlined in the Unit Agreement For The Operation Of The Grama Ridge Morrow Unit Area, Lea County, New Mexico, by and between the State of New Mexico and Llano, Inc., effective April 25, 1973, the Unit Operator paid the State in-full for royalties otherwise due on primary gas and liquid hydrocarbons left in Section 34, T21S, R34E and Section 3, T22S, R34E of the Unit. It was determined that 47,770 MCF of primary production existed at that time.

Through provisions outlined in the amendment to the Unit Agreement For The Operation Of The Grama Ridge Morrow Unit Area, Lea County, New Mexico, by and between the State of New Mexico and Llano, Inc., effective September 1, 1976, the Unit Operator paid for royalties due on primary gas and liquid hydrocarbons left in Section 33, T21S, R34E of the Unit. It was determined that 318,519 MCF of primary production existed at that time.

Through provisions outlined in the amendment to the Agreement For Subsurface Storage Of Gas, Morrow Formation, Grama Ridge Unit Area, Lea County, New Mexico, by and between the United States of America and Llano, Inc., effective April 1, 1981, the Unit Operator paid for royalties due on primary gas and liquid hydrocarbons left in Section 10, T22S, R34E and Section 3, T22S, R34E of the Unit. It was determined that 413,000 MCF of primary production existed at that time.

Beginning with the Llano, Inc., Progress Report No. 23 for the six-month period ending December 31, 1984 and accounting for monthly injections and withdrawals utilizing State of New Mexico, Energy Minerals and Natural Resources, Oil Conservation Division, Form C-131A Monthly Gas Storage Reports, the cumulative injected gas has totaled 64,869,719 MCF and cumulative withdrawn gas has totaled 57,740,907 MCF as of December 31, 2001. The net cumulative balance of gas being 7,128,812 MCF. See Exhibit "E" for supporting documentation.

Therefore, the net balance of gas in storage within the Unit as of December 31, 2001 is 47,770 MCF plus 318,519 MCF plus 413,000 MCF plus 7,128,812 MCF totaling 7,908,101 MCF.

The Unit Operator is not able to accumulate monthly chromatograph analyses documentation for the same time periods as described above, however, beginning with Conoco Inc. involvement on December 1, 2000, the Unit Operator has analyses for injected and withdrawn gas. The Unit Operator will apply the average British Thermal Units as calculated for the time period December 1, 2000 through December 31, 2001 to cumulative injection and withdrawn gas volumes, and primary production gas volumes purchased in place. Therefore, the net balance of gas in storage within the Unit as of December 31, 2001 is 10,502,849 MMBtu. See Exhibit "F" for supporting documentation.

Reporting:

All future six-month progress reports shall include both MCF and MMBtu injection, withdrawal and cumulative reporting for the Unit in accordance with the form attached hereto as Exhibit "G". Injection, withdrawal and cumulative balance volumes will also be reported monthly to the New Mexico Oil Conservation Division in accordance with NMOCD Form C-131-A (Exhibit "H", attached). British Thermal Units per MCF shall be determined utilizing monthly chromatograph analyses for gas that is injected and withdrawn.

Purpose and Continued Use of Unit:

The purpose of the Unit is to provide commercial storage of gas to third party customers. Customers will be allowed to request the injection and withdrawal of their gas pursuant to contractual agreements entered into between them and the Unit Operator. For the foreseeable life of the Unit, injection of gas into the storage facility shall proceed according to a plan of typically injecting gas April through October and withdrawing gas November through March of each year. However, typical injection and withdrawal cycles may vary depending on the requirements of the customers and their contracts associated with the storage facility. The Unit Operator will continue to operate the Unit in accordance with the terms and conditions of Unit Agreement.

Term and Termination:

This Plan of Operations shall be effective beginning January 1, 2002 and shall remain in effect for a period of time equal to the lesser of five (5) years from the date the Commissioner of Public Lands (the "Commissioner") approves the same or until conditions warrant a change in operating procedures as described in this Plan of Operations. At such time, a new plan of operation shall be submitted to the Commissioner for approval.

Upon termination or cancellation of the Unit Agreement as to all of the Unit Area, Unit Operator will remove all improvements placed on the premises and will restore the premises as provided in the Unit Agreement or the respective Oil and Gas Leases, as applicable; if the Unit Agreement or the respective Oil and Gas Leases do not provide for restoration, Unit Operator shall restore the premises, to the extent reasonably possible, to the same condition as it existed prior to placement of the improvements.

This Plan of Operation is respectfully submitted for approval effective January 1, 2002.

RAPTOR NATURAL PIPELINE LLC

By: M. L. Johnson

M. L. Johnson, President

Approved: Way Powell

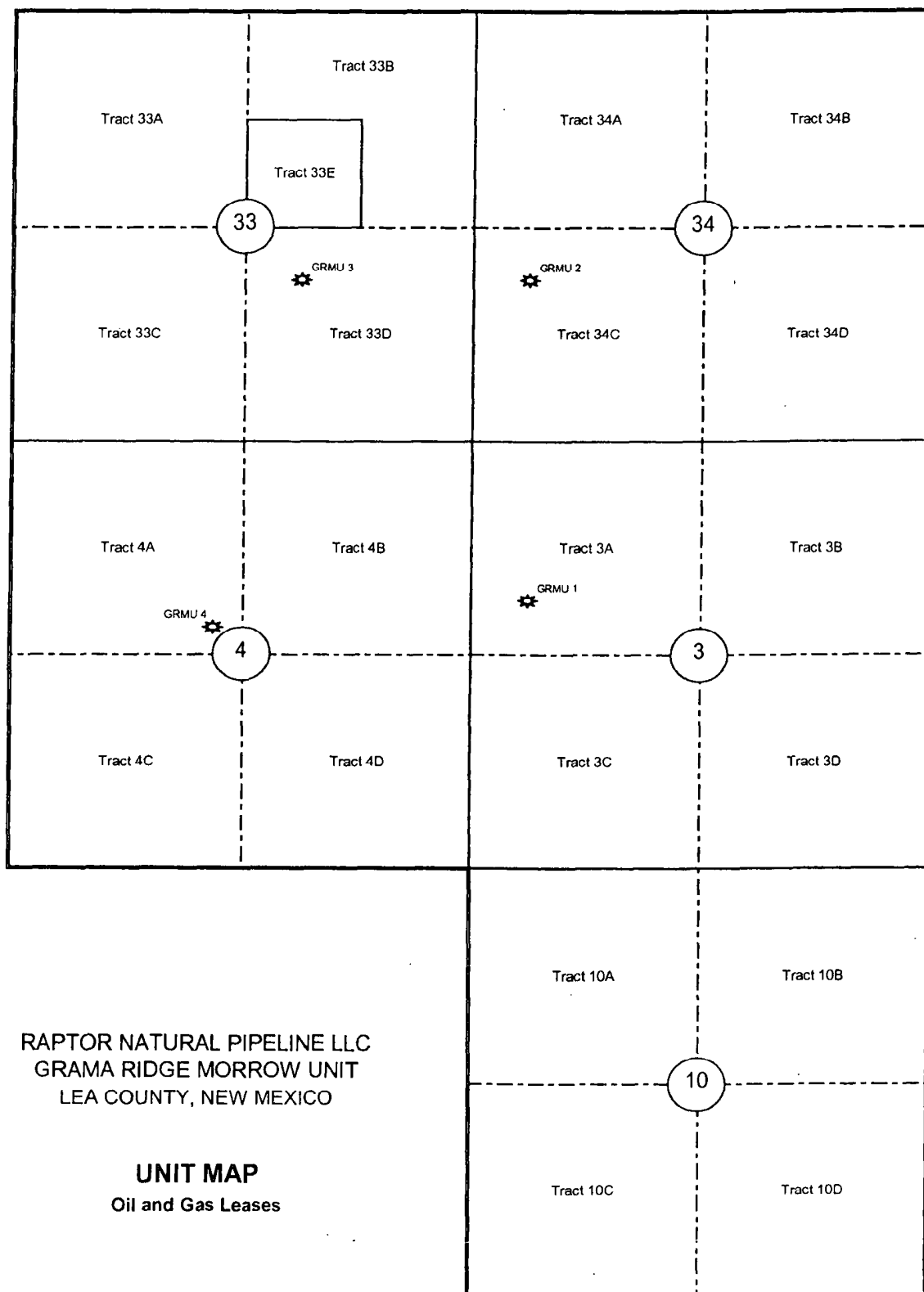
By: Way Powell

Commissioner of Public Lands

Date: 1/24/02

GRAMA RIDGE MORROW UNIT

R34E



RAPTOR NATURAL PIPELINE LLC
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO

UNIT MAP
Oil and Gas Leases

GRAMA RIDGE MORROW UNIT

R34E

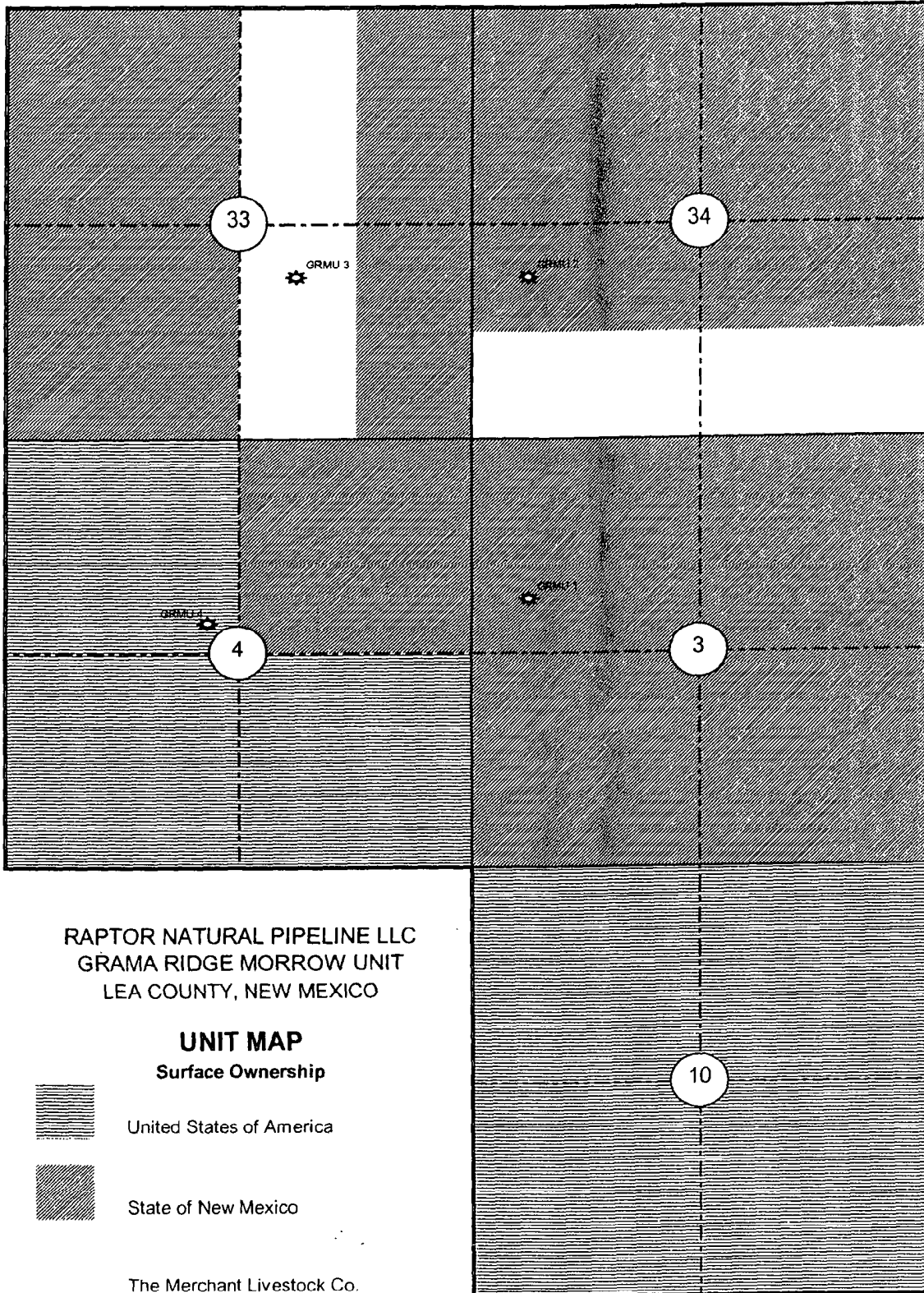


EXHIBIT "B"

GRAMA RIDGE MORROW UNIT AGREEMENT

Tract No.	Description	Lease No.	Acreage	Basic Royalty	Lessee of Record	Working Interest Owner and Percentage	% Tract Participation
3C	SW 1/4 Sec. 3, T. 22 S., R. 34 E.	SNM B-1583	160	12.50%	Apache Corp.	Raptor Natural Pipeline LLC 100%	4.9814
3D	SE 1/4 Sec. 3, T. 22 S., R. 34 E.	SNM B-1583	160	12.50%	Apache Corp.	Chaparral Energy, Inc. 100%	4.9814
3B	NE 1/4 Sec. 3, T. 22 S., R. 34 E.	SNM E-9141	163.91	12.50%	Apache Corp.	Chaparral Energy, Inc. 100%	5.1032
3A	NW 1/4 Sec. 3, T. 22 S., R. 34 E.	SNM E-9141	163.25	12.50%	Apache Corp.	Raptor Natural Pipeline LLC 100%	5.0826
34C	SW 1/4 Sec. 34, T. 21 S., R. 34 E.	SNM E-9659	160	12.50%	Chevron USA, Inc.	Raptor Natural Pipeline LLC 100%	4.9814
34D	SE 1/4 Sec. 34, T. 21 S., R. 34 E.	SNM E-9659	160	12.50%	Chevron USA, Inc.	EOG Resources Inc. 100%	4.9814
34A & 34B	N 1/2 Sec. 34, T. 21 S., R. 34 E.	SNM V-5683	320	16.67%	Great Western Drilling Co.	Great Western Drilling Co. 25% Continental Land and Fur Co. 18.75% Nearburg Exploration Co. LLC 56.25%	9.962
33A, 33B, 33C & 33D	W 1/2, SE 1/4, N 1/2 NE 1/4, SE 1/4 NE 1/4 Sec. 33, T. 21 S., R. 34 E.	SNM V-5682	600	16.67%	Raptor Natural Pipeline LLC	Raptor Natural Pipeline LLC 100%	18.6804
33E	SW 1/2 NE 1/4 Sec. 33, T. 21 S., R. 34 E.	Fee	40	The Merchant Livestock Co. 67.63% of 12.5% Don E. Gridley & wife 50% of 32.37% of 12.5% John E. Bosserman & wife 50% of 32.37% of 12.5%	Wilson Oil Co. and Francis P. Bolton, dba Wyoming Oil	Raptor Natural Pipeline LLC 67.63% Gridley/Bosserman, et al (unleased) 32.37%	1.2454
4A & 4B	N 1/2 Sec. 4, T. 22 S., R. 34 E.	US NM-058678	324.76	12.50%	Raptor Natural Pipeline LLC	Raptor Natural Pipeline LLC 100%	10.1111
4D	SE 1/4 Sec. 4, T. 22 S., R. 34 E.	US NM-033312-A	160	12.50%	Raptor Natural Pipeline LLC	Raptor Natural Pipeline LLC 100%	4.9814
4C	SW 1/4 Sec. 4, T. 22 S., R. 34 E.	US NM-0381970	160	12.50%	Raptor Natural Pipeline LLC	Raptor Natural Pipeline LLC 100%	4.9814
10A, 10C, & 10D	W 1/2 SE 1/4 Sec. 10, T. 22 S., R. 34 E.	US NM-033312	480	12.50%	EOG Resources, Inc.	EOG Resources, Inc. 100%	14.9443
10B	NE 1/4 Sec. 10, T. 22 S., R. 34 E.	US NM-046943	160	12.50%	EOG Resources, Inc.	EOG Resources, Inc. 100%	4.9814
Total:			3,211.92				100.00

GRAMA RIDGE MORROW UNIT AGREEMENT

Description	Surface Ownership	Acreage
W½, SE¼ Section 4, T. 22 S., R. 34 E.	United States of America	482.11
All Section 10, T. 22 S., R. 34 E.	United States of America	640
All Section 3, T. 22 S., R. 34 E.	State of New Mexico	647.16
NE¼ Section 4, T. 22 S., R. 34 E.	State of New Mexico	162.65
W½, E½E½ Section 33, T. 21 S., R. 34 E.	State of New Mexico	480
N½, N½S½ Section 34, T. 21 S., R. 34 E.	State of New Mexico	480
W½E½ Section 33, T. 21 S., R. 34 E.	The Merchant Livestock Company	160
S½S½ Section 34, T. 21 S., R. 34 E.	The Merchant Livestock Company	160
<u>Total</u>		3,211.92
	United States of America	1,122.11
	State of New Mexico	1,769.81
	The Merchant Livestock Company	320

**Grama Ridge Morrow Unit
Lea County, New Mexico
New Mexico Oil Conservation Division
Monthly Gas Storage Report, Form C-131-A**

Month:	GRM Unit No. 1		GRM Unit No. 2		GRM Unit No. 3		GRM Unit No. 4		Total		NET	Cumulative	Cumulative	Cumulative
	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Withdrawal MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	MCF	Injection MCF	Withdrawal MCF	MCF
													</	

Aug-91	339,998	0	374,752	0	0	714,750	0	750	25,872,161	20,438,0	Attachment A
Sep-91	393,880	0	432,634	0	0	826,514	0	514	26,696,675	20,438,0	
Oct-91	329,898	0	316,627	0	0	646,525	0	525	27,345,200	20,438,0	
Nov-91	0	325,168	0	373,504	15,893	44,219	0	758,784	27,345,200	21,196,8	
Dec-91	0	362,311	0	478,867	15,111	72,548	0	928,837	27,345,200	22,125,687	
Jan-92	0	393,443	0	538,359	13,503	68,065	0	1,013,370	27,345,200	23,139,057	
Feb-92	67	261,122	0	357,597	12,644	37,594	67	668,957	27,345,200	23,808,014	
Mar-92	0	175,765	0	234,869	8,193	31,922	0	450,749	27,345,200	24,258,763	
Apr-92	11,035	172,647	109,742	38,380	772	3,731	120,777	215,530	27,345,200	24,474,293	
May-92	336,006	14,877	206,754	0	0	0	542,760	14,877	27,345,200	24,489,170	
Jun-92	387,015	0	358,969	0	0	0	745,984	0	28,008,804	24,489,170	
Jul-92	367,466	0	321,837	0	0	0	689,303	0	28,754,788	24,489,170	
Aug-92	384,532	0	368,161	0	0	0	752,693	0	29,444,091	24,489,170	
Sep-92	341,320	0	225,291	0	0	0	567,611	0	30,196,784	24,489,170	
Oct-92	32,061	259,360	82,795	41,077	0	114,856	300,437	-185,581	30,764,395	24,789,607	
Nov-92	489	408,479	0	468,602	21,729	90,567	489	989,377	30,879,251	25,778,964	
Dec-92	0	357,123	0	488,654	7,659	72,668	0	926,104	30,879,251	26,705,088	
Jan-93	0	314,012	0	468,165	11,687	55,153	0	849,017	30,879,251	26,705,088	
Feb-93	0	271,105	0	311,000	29,595	44,477	0	656,177	30,879,251	27,554,105	
Mar-93	0	259,271	0	203,447	0	40,075	0	515,754	30,879,251	28,210,282	
Apr-93	0	196,808	0	42,940	9,456	32,240	0	281,444	30,879,251	28,726,036	
May-93	424,878	277	429,794	0	0	0	854,672	277	30,879,251	29,007,480	
Jun-93	496,780	0	506,449	0	0	0	1,003,229	0	31,734,412	29,007,480	
Jul-93	476,231	0	325,025	0	0	0	801,256	0	32,737,641	29,007,480	
Aug-93	260,872	125,438	256,560	107,115	0	0	517,432	232,553	33,538,897	29,240,310	
Sep-93	488,297	0	257,159	0	0	0	745,456	0	34,056,329	29,240,310	
Oct-93	144,746	65,010	152,536	32,641	0	0	297,282	97,651	34,801,785	29,240,310	
Nov-93	0	387,196	0	499,889	21,462	30,338	0	938,885	35,099,067	29,337,961	
Dec-93	8,881	205,512	9,932	342,855	4,939	64,394	18,813	-598,887	35,099,067	30,276,846	
Jan-94	0	272,101	0	465,579	6,155	70,292	0	814,127	35,117,880	30,894,546	
Feb-94	0	231,675	0	264,678	7,872	51,666	0	-555,891	35,117,880	31,708,673	
Mar-94	0	163,120	0	100,361	11,135	36,161	0	-310,777	35,117,880	32,264,564	
Apr-94	103,607	53,500	1,557	6,071	0	0	105,164	59,571	35,223,044	32,575,341	
May-94	459,982	0	346,946	0	0	0	806,928	0	36,029,972	32,634,912	
Jun-94	370,783	4,310	340,209	0	0	0	710,992	4,310	36,740,964	32,639,222	
Jul-94	278,895	0	113,070	0	0	0	391,965	0	37,132,929	32,639,222	
Aug-94	106,072	0	118,624	0	0	0	224,696	0	37,357,625	32,639,222	
Sep-94	542,198	0	539,629	0	0	0	1,081,827	0	38,439,452	32,639,222	
Oct-94	486,455	0	468,757	0	0	0	955,212	0	39,394,664	32,639,222	
Nov-94	28,167	270,491	38,000	167,210	3,892	19,290	66,167	-394,716	39,460,831	33,100,105	
Dec-94	0	449,676	0	767,248	12,636	100,607	0	-1,330,167	39,460,831	40,430,272	
Jan-95	0	244,626	27,302	318,742	5,295	28,999	27,302	-570,360	39,460,831	41,718,403	
Feb-95	101,663	210,325	17,427	225,287	9,589	63,818	119,090	-389,729	39,460,831	42,242,660	
Mar-95	364,808	118,740	318,775	40,373	9,836	16,861	683,583	49,773	40,290,806	35,536,753	
Apr-95	193,050	17,170	177,790	0	0	3,571	370,840	20,741	40,661,646	35,722,563	
May-95	383,844	0	379,017	0	0	0	762,861	0	41,424,507	35,743,304	
Jun-95	415,253	0	402,900	0	0	0	818,153	0	42,242,660	35,743,304	
Jul-95	352,364	0	281,301	0	0	0	633,665	0	42,876,325	35,743,304	
Aug-95	342,003	0	258,678	0	0	0	600,681	0	43,477,006	35,743,304	
Sep-95	32,981	161,535	20,913	232,584	12,033	68,285	53,894	-420,543	43,530,900	36,217,741	
Oct-95	4,174	311,406	16,844	100,541	47,736	21,018	459,683	-438,665	43,551,918	36,677,424	
Nov-95	0	398,780	0	396,825	9,224	106,716	0	-911,545	43,551,918	37,588,969	
Dec-95	7,877	302,371	16,194	375,526	15,787	64,286	24,071	-733,899	43,575,989	38,346,939	
Jan-96	0	357,838	0	488,411	11,819	68,416	0	-926,484	43,575,989	39,273,423	
Feb-96	0	303,126	0	319,615	22,592	55,165	0	-700,498	43,575,989	39,973,921	
Mar-96	0	322,259	0	252,492	9,780	59,243	0	-643,774	43,575,989	40,661,646	
Apr-96	7,479	206,186	5,092	133,558	0	39,131	12,571	-366,304	43,588,560	41,008,495	
May-96	327,999	8,630	157,064	3,295	0	485,063	11,925	473,138	44,073,623	41,027,651	
Jun-96	14,631	19,156	83,745	0	0	98,376	19,156	79,220	44,171,999	41,027,651	
Jul-96	6,197	0	36,412	0	0	42,609	0	42,609	44,214,608	41,027,651	
Aug-96	26,633	0	123,199	0	0	149,832	0	149,832	44,364,440	41,027,651	
Sep-96	445,453	0	468,982	0	0	914,435	0	914,435	45,278,875	41,027,651	
Oct-96	186,805	30,412	239,862	37,131	0	426,667	67,543	359,124	45,705,542	41,095,194	
Nov-96	0	394,635	12,438	474,949	15,674	12,438	885,258	-872,820	45,717,980	41,980,452	
Dec-96	30,677	265,547	48,735	281,630	8,223	79,412	555,400	-475,988	45,797,392	42,535,852	
Jan-97	0	273,303	0	231,475	7,926	0	0	-512,704	45,797,392	42,535,852	
Feb-97	0	225,723	2,968	140,078	10,941	2,968	0	-373,774	45,800,360	43,425,298	
Mar-97	0	203,396	0	36,791	3,794	0	0	-243,981	45,800,360	43,669,279	
Apr-97	3,593	36,596	76,200	0	0	79,793	36,596	43,197	45,880,153	43,705,875	
May-97	0	22,186	162,956	0	0	162,956	22,186	140,770	46,043,109	43,728,061	
Jun-97	0	0	336,887	0	0	336,887	0	336,887	46,379,996	43,728,061	
Jul-97	46,371	9,765	177,584	0	0	223,955	9,765	214,190	46,603,951	43,737,826	
Aug-97	428,938	0	357,335	0	0	786,273	0	786,273	47,390,224	43,737,826	
Sep-97	354,935	0	318,732	0	0	673,667	0	673,667	48,063,891	43,737,826	
Oct-97	143,610	57,805	153,973	26,849	268	297,583	84,922	-535,927	48,361,474	43,822,748	
Nov-97	11,468	247,107	23,059	316,792	6,555	34,527	570,454	-632,857	48,396,001	44,393,202	
Dec-97	0	192,137	0	438,301	2,419	0	632,857	-632,857	48,396,001	45,026,059	
Jan-98	140,921	7,495	0	109,235	0	0	140,921	24,191	48,396,001	45,026,059	
Feb-98	678,668	0	3,706	0	0	682,374	0	682,374	49,219,296	45,142,789	
Mar-98	61,610	96,563	52,266	112,795	0	113,876	209,358	-95,482	49,333,172	45,352,147	
Apr-98	479,796	94,661	2,620	517	0	482,416	95,178	387,238	49,815,568	45,447,325	
May-98	433,079	0	322,356	0	0	755,435	0	755,435	50,571,023	45,447,325	
Jun-98	247,582	8,220	199,859	0	0	447,441	8,220	439,221	51,018,464	45,455,545	
Jul-98	303,518	3,250	267,394	0	0	570,912	3,250	567,662	51,589,376	45,458,795	
Aug-98	710,382	0	3,879	0	0	714,261	0	714,261	52,303,637	45,458,795	
Sep-98	144,351	152,691	107,627	104,106	0	251,978	256,797	-4,819	52,555,615	45,715,592	
Oct-98	287,827	35,147	256,530	12,597	0	544,357	47,744	496,613	53,099,972	45,736,336	
Nov-98	146,186	248,927	798	1,359	0	146,984	250,286	-103,302	53,246,956	46,013,622	
Dec-98	68,321	145,841	47,846	183,605	0	116,167	329,446	-213,279	53,363,123	46,343,068	
Jan-99	0	1,138,511	0	6,217	0	0	0	-1,144,728	53,363,123	47,487,796	
Feb-99	20,313	268,094	16,929	239,525	0	0	37,242	-470,977	53,400,365	47,996,015	
Mar-99	35,623	219,163	14,801	151,934	0	0	50,424	-320,673	53,450,789	48,367,112	
Apr-99	117,574	410,787	642	2,243	0	118,216	0	-294,814	53,569,005	48,780,142	
May-99	258,931	19,488	156,866	45,322	0	415,797	0	350,987	53,984,802	48,844,952	
Jun-99	370,630	37,157	419,269	0	0	789,899	37,157	752,742	54,774,701	48,882,109	
Jul-99	102,957	184,511	86,123	127,735	0	189,080	312,246	-123,166	54,963,781	49,194,355	

Aug-99	302,549	47,699	317,810	17,234	0	1,547	620,359	62,914	45	55,584,140	49,257,269	6,326,871
Sep-99	281,430	534	364,036	3,234	0	12,123	645,466	13,812	54	56,229,606	49,271,081	6,958,525
Oct-99	270,177	602,677	1,475	3,234	0	0	271,652	605,968	316	56,501,259	49,877,049	6,624,209
Nov-99	377,341	46,524	348,471	43,064	0	36,355	725,812	125,943	598,869	57,227,071	50,002,992	7,224,078
Dec-99	66,060	178,943	51,335	162,999	0	40,024	117,395	381,966	-264,571	57,344,466	50,384,958	6,959,507
							0	0	0	57,344,466	50,384,958	6,959,507
Jan-00	0	405,638	0	591,507	0	13,003	0	1,010,148	-1,010,148	57,344,466	51,395,106	5,949,359
Feb-00	26,351	358,538	37,393	490,772	0	5,685	63,744	854,995	-791,251	57,408,210	52,250,101	5,158,108
Mar-00	46,153	201,295	0	208,712	0	11,540	46,153	421,547	-375,394	57,454,363	52,671,646	4,782,714
Apr-00	386,042	517	474,604	0	0	23,498	860,646	24,015	836,631	58,315,009	52,695,663	5,619,345
May-00	312,055	85,718	330,673	88,802	0	42,306	642,728	216,826	423,902	58,957,737	52,912,489	6,045,247
Jun-00	232,311	43,225	290,264	0	0	47,787	522,575	91,012	431,563	59,480,312	53,003,501	6,476,810
Jul-00	29,640	422,747	41,867	333,697	0	48,378	71,507	804,822	-733,315	59,551,819	53,808,323	5,743,495
Aug-00	84,138	315,770	113,226	274,655	0	39,453	197,364	629,878	-432,514	59,749,183	54,438,201	5,310,981
Sep-00	80,902	144,392	159,008	165,243	0	33,599	239,910	343,234	-103,324	59,989,093	54,781,435	5,207,657
Oct-00	147,995	26,159	179,616	37,915	0	0	327,611	64,074	263,537	60,316,704	54,845,509	5,471,194
Nov-00	171,955	158,953	130,786	125,723	0	0	302,741	284,676	18,065	60,619,445	55,130,185	5,489,259
Dec-00	115,654	190,888	63,438	287,328	0	0	179,092	478,216	-299,124	60,798,537	55,808,401	5,190,135
							0	0	0	60,798,537	55,808,401	5,190,135
Jan-01	-23	273,119	-38	288,080	8,968	22,663	-61	592,830	-592,892	60,798,475	56,201,232	4,597,244
Feb-01	27,421	186,238	-127	196,585	7,011	21,550	27,294	411,385	-384,091	60,825,769	56,612,616	4,213,153
Mar-01	352,611	8,255	486,274	8,133	1,068	371	836,885	17,827	821,058	61,664,654	56,630,443	5,034,211
Apr-01	301,215	0	443,376	0	0	0	744,591	0	744,591	62,409,245	56,630,443	5,778,802
May-01	330,282	0	459,887	0	0	0	790,169	0	790,169	63,199,415	56,630,443	6,568,971
Jun-01	145,844	110,811	240,318	63,575	0	0	386,162	174,386	211,777	63,585,577	56,804,829	6,780,748
Jul-01	103,059	119,414	146,282	129,282	197	131	248,342	249,024	318	63,834,919	57,053,853	6,781,066
Aug-01	105,010	133,447	113,811	132,799	124	0	218,821	266,370	-47,549	64,053,740	57,320,223	6,733,517
Sep-01	265,408	34,347	237,909	22,411	0	0	503,316	56,759	446,558	64,557,056	57,376,981	7,180,075
Oct-01	187,287	53,564	246,375	13,878	0	0	433,662	67,442	366,220	64,980,718	57,444,423	7,546,295
Nov-01	272,284	24,025	297,077	11,418	0	0	569,361	354,43	533,918	65,560,079	57,479,866	8,080,213
Dec-01	62,692	99,175	26,237	161,866	0	0	889,29	261,041	-172,112	65,649,008	57,740,907	7,908,101

Attachment B

RAPTOR NATURAL PIPELINE LLC GRAMMA RIDGE MORROW UNIT LEA COUNTY, NEW MEXICO PLAN OF OPERATION - PROGRESS REPORT FOR THE SIX-MONTH PERIOD ENDING December, 2004

MCF @ 15.025 Pressure Base

Month:	GRAM Unit No. 1		GRAM Unit No. 2		GRAM Unit No. 3		GRAM Unit No. 4		Total		c. period Cum	Injections Cum	Withdrawals Cum
	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF			
Jul-04	0	108,936	0	0	11,089	0	0	0	0	0	129,025	1,070,824	1,076,338
Aug-04	-4	82,417	-11	4,981	0	0	63	-15	0	0	87,461	1,087,211	1,022,933
Sep-04	219,023	0	199,916	0	0	0	0	418,939	0	0	0		
Oct-04	163,303	0	214,722	0	0	0	0	378,025	0	0	0		
Nov-04	0	0	0	0	0	0	0	0	0	0	0		
Dec-04	0	72,388	0	298,998	10,797	0	10	0	0	0	382,193		
Current Period:	382,322	263,741	414,627	303,979	21,886	73	796,949	589,679					

Prior Periods: 70,832,094
Cumulative: 71,529,043
Net MCF Balance: 6,814,807
3,819,139
Total

Month:	GRAM Unit No. 1		GRAM Unit No. 2		GRAM Unit No. 3		GRAM Unit No. 4		Injection MMBTU	Withdrawal MMBTU
	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU		
Jul-04	0	115,114	0	0	12,440	0	0	0	127,554	92,948
Aug-04	-4	87,507	-11	5,372	0	0	69	-15	0	0
Sep-04	234,656	0	213,948	0	0	0	0	448,604	0	0
Oct-04	174,646	0	230,157	0	0	0	0	404,803	0	0
Nov-04	0	0	0	0	0	0	0	0	0	0
Dec-04	0	78,554	0	322,870	11,698	1,070	0	0	414,192	0
Current Period:	409,298	281,175	444,094	328,242	24,138	1,139	853,392	634,694		

Prior Periods: 77,922,486
Cumulative: 73,570,157
Net MMBTU Balance: 77,875,868
71,813,551
14,550,012
6,207,467

Condensate Sales
(Barrels)
GRAM Unit No. 1
GRAM Unit No. 2
GRAM Unit No. 3
GRAM Unit No. 4
Current Period: 558
181

Send one copy to each:
Commissioner of Public Lands
New Mexico State Land Office
P.O. Box 1148
Santa Fe, New Mexico 87503
Bureau of Land Management
Roswell District Office
Division of Minerals Resources
2909 West Second Street
Roswell, New Mexico 88201

Attachment B

RAPTOR NATURAL PIPELINE LLC GRAMA RIDGE MORROW UNIT LEA COUNTY, NEW MEXICO PLAN OF OPERATION - PROGRESS REPORT FOR THE PRODUCTION SIX-MONTH PERIOD ENDING JUNE, 2004

MCF @ 15.025 Pressure Base

Month:	GRM Unit No. 1		GRM Unit No. 2		GRM Unit No. 3		GRM Unit No. 4		Total	
	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF
Jan 04	-4,844	184,128	12	442,234	0	0	-4,832	0	626,362	0
Feb. 04	-2,070	197,690	3,488	250,876	0	0	1,418	0	458,868	0
March 04	-17	193,078	31	82,616	0	0	14	0	275,694	0
April 04	7,788	173,125	23,649	13,240	1	0	31,437	0	186,366	0
May 04	0	164,515	0	38,484	187	0	0	0	203,186	0
June 04	0	135,555	0	25,044	0	0	0	0	160,599	0
Current Period:	857	1,046,391	27,180	862,494	188	0	28,037	0	1,911,073	0
Prior Periods:									70,804,057	65,309,152
Cumulative:									70,832,094	67,220,225
Net MCF Balance:									3,611,869	

Injection: 1.05731712
c period: 1.05731712
cum: 1.087395016
Withdrawals: 1.054116719
-1.023968769

Month:	GRM Unit No. 1		GRM Unit No. 2		GRM Unit No. 3		GRM Unit No. 4		Total	
	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU
Jan 04	-5,347	192,803	12	467,830	0	0	-5,335	0	660,633	0
Feb. 04	-2,405	208,540	3,732	274,098	0	0	1,327	0	482,638	0
March 04	-18	200,791	33	88,178	0	0	15	0	288,969	0
April 04	8,337	181,639	25,310	14,009	2	0	33,847	0	195,650	0
May 04	0	174,091	0	41,636	204	0	0	0	215,931	0
June 04	-10	142,690	0	0	27,983	0	-10	0	170,673	0
Current Period:	557	1,100,554	29,087	885,751	28,189	0	29,644	0	2,014,494	0

Prior Periods: 70,992,822 88,315,917
76,960,515 68,928,676
Cumulative: 77,029,466 88,891,411
76,570,159 71,001,350
Net MMBTU Balance: 4,191,055
5,988,769

Condensate Sales

GRM Unit No. 1 GRM Unit No. 2 GRM Unit No. 3 GRM Unit No. 4

Current Period: 0 0 558 0

Send one copy to each:

Commissioner of Public Lands Bureau of Land Management
New Mexico State Land Office Roswell District Office
P.O. Box 1148 Division of Minerals Resources
Santa Fe, New Mexico 87503 2509 West Second Street
Roswell, New Mexico 88201

Attachment B

RAPTOR NATURAL PIPELINE, LLC GRAMA RIDGE MORROW UNIT LEA COUNTY, NEW MEXICO PLAN OF OPERATION - PROGRESS REPORT FOR THE SIX-MONTH PERIOD ENDING December, 2003

MCF @ 15.025 Pressure Base

Month:	GRM Unit No. 1		GRM Unit No. 2		GRM Unit No. 3		GRM Unit No. 4		Total		c period cumm	Injections	Withdrawals
	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF			
Jul-03	83,189	65,835	81,861	139,885	0	0	0	0	165,050	205,720			
Aug-03	95,913	41,061	116,554	30,001	0	0	0	0	212,467	71,062		1,054,679	1,061,205
Sep-03	267,455	5,037	362,122	0	0	0	0	0	628,577	5,037		1,087,407	1,023,087
Oct-03	392,193	657	342,883	642	0	0	0	0	735,076	1,299			
Nov-03	57,209	135,600	112,020	51,616	0	0	0	0	169,229	187,216			
Dec-03	365	252,580	1,644	361,481	0	0	0	0	2,009	614,061			
Current Period:	896,324	500,770	1,017,084	583,625	0	0	0	0	1,913,408	1,084,395			

Prior Periods: 68,890,649 64,224,757
Cumulative: 70,804,057 65,309,152
Net MCF Balance: 5,494,905

Month:	GRM Unit No. 1		GRM Unit No. 2		GRM Unit No. 3		GRM Unit No. 4		Total	
	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU
Jul-03	86,703	68,668	87,050	148,792	0	0	0	0	173,753	217,480
Aug-03	101,996	42,826	120,192	31,906	0	0	0	0	222,188	74,732
Sep-03	276,503	5,254	378,977	0	0	0	0	0	655,480	5,254
Oct-03	418,204	686	365,167	693	0	0	0	0	783,371	1,379
Nov-03	61,246	141,434	119,873	55,061	0	0	0	0	181,119	198,495
Dec-03	361	285,784	1,759	389,661	0	0	0	0	2,120	655,445
Current Period:	945,013	524,652	1,073,018	626,113	0	0	0	0	2,018,031	1,150,765

Prior Periods: 74,974,794 66,668,192
Cumulative: 74,942,434 67,132,138
Net MMBTU Balance: 76,882,822 66,846,917
76,930,515 68,986,896
7973,619

Condensate Sales
(Barrels)
GRM Unit No. 1 GRM Unit No. 2 GRM Unit No. 3 GRM Unit No. 4
Current Period: 0 195 0 150

Send one copy to each:
Commissioner of Public Lands
New Mexico State Land Office
P.O. Box 1148
Santa Fe, New Mexico 87503
Bureau of Land Management
Roswell District Office
Division of Minerals Resources
2909 West Second Street
Roswell, New Mexico 88201

**RAPTOR NATURAL PIPELINE LLC
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO
PLAN OF OPERATION - PROGRESS REPORT
FOR THE PRODUCTION SIX-MONTH PERIOD ENDING
JUNE, 2003**

Attachment B

MCF @ 15,025 Pressure Base.

Month:	GRM Unit No. 1		GRM Unit No. 2		GRM Unit No. 3		GRM Unit No. 4		Total
	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	
Jan-03	0	270,294	0	476,626	0	0	0	0	746,920
Feb-03	0	176,389	0	273,389	0	0	0	0	449,877
Mar-03	0	126,477	12,913	126,102	0	0	12,913	0	252,579
Apr-03	29,509	55,733	100,919	36,208	0	0	130,428	0	91,941
May-03	1,359	69,455	34,331	39,397	0	0	35,690	0	108,652
Jun-03	198,151	31,227	166,852	43,233	0	0	365,003	0	74,460
Current Period:	229,019	729,660	315,015	966,949	0	0	544,034	0	1,726,629

Prior Periods:

98,346,615 62,498,128

Cumulative:

68,890,649 64,224,757

Net MCF Balance:

4,665,892

Month:	GRM Unit No. 1		GRM Unit No. 2		GRM Unit No. 3		GRM Unit No. 4		Total
	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU	
Jan-03	0	289,966	0	512,664	0	0	0	0	802,630
Feb-03	0	188,075	0	293,615	0	0	0	0	481,690
Mar-03	0	134,126	14,225	134,096	0	0	14,225	0	268,222
Apr-03	32,501	59,163	111,225	38,517	0	0	143,726	0	97,680
May-03	1,497	72,444	37,231	41,902	0	0	38,728	0	114,346
Jun-03	208,078	32,596	180,925	45,988	0	0	387,003	0	78,587
Current Period:	240,076	776,373	343,606	1,066,782	0	0	583,682	0	1,843,155

Prior Periods:

77,384,409 65,606,152

Cumulative:

74,358,802 65,991,916

Net MMBTU Balance:

74,912,484 67,830,730

7,106,353

Condensate Sales (Barrels)

GRM Unit No. 1	GRM Unit No. 2	GRM Unit No. 3	GRM Unit No. 4
0	862	0	148

Current Period:

File By August 2003

Send one copy to each:

Commissioner of Public Lands
New Mexico State Land Office
P.O. Box 1148
Santa Fe, New Mexico 87503

Bureau of Land Management
Roswell District Office
Division of Minerals Resources
2809 West Second Street
Roswell, New Mexico 88201

Attachment B

FAPTOR NATURAL PIPELINE LLC GRAMA RIDGE MORROW UNIT LEA COUNTY, NEW MEXICO PLAN OF OPERATION - PROGRESS REPORT FOR THE SIX-MONTH PERIOD ENDING December, 2002

MCF @ 15,025 Pressure Base

Month:	GRM Unit No. 1		GRM Unit No. 2		GRM Unit No. 3		GRM Unit No. 4		Total	
	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF
Jul-02	18,173	187,618	59,256	241,368	0	0	0	0	77,429	428,984
Aug-02	107,522	113,893	70,090	263,544	0	0	0	0	177,612	377,437
Sep-02	143,947	97,963	183,639	190,708	0	0	0	0	387,586	288,671
Oct-02	54,036	158,321	58,012	307,494	0	0	0	0	112,048	465,755
Nov-02	28,313	331,686	335	364,872	0	0	0	0	26,648	696,558
Dec-02	3,554	293,029	7,935	699,420	0	0	0	0	11,489	992,449

c period
injections 1.139533
cumul. 1.087966
withdrawals 1.076776
1.055919

Current Period: 359,545 1,182,510 389,267 2,007,344 0 0 742,812 3,189,854

Prior Periods: 67,603,803 59,308,274
Cumulative: 68,346,615 62,498,128

Net MCF Balance: 5,848,487

Month:	GRM Unit No. 1		GRM Unit No. 2		GRM Unit No. 3		GRM Unit No. 4		Total	
	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU
Jul-02	65,589	201,658	21,862	259,869	0	0	0	0	87,431	461,527
Aug-02	115,794	120,664	76,069	280,795	0	0	0	0	191,863	401,459
Sep-02	159,015	106,295	212,761	205,373	0	0	0	0	371,776	311,668
Oct-02	59,514	171,705	63,929	331,757	0	0	0	0	123,443	503,463
Nov-02	28,984	357,866	30,301	392,233	0	0	0	0	59,285	750,099
Dec-02	3,916	314,353	8,745	692,188	0	0	0	0	12,661	1,006,541

Current Period: 432,792 1,272,542 413,667 2,162,215 0 0 846,459 3,434,757

Prior Periods: 73,512,343 62,558,219
Cumulative: 74,358,802 65,992,976

Net MMBTU Balance: 8,365,826

Condensate Sales
(Barrels)
GRM Unit No. 1 GRM Unit No. 2 GRM Unit No. 3 GRM Unit No. 4
Current Period: 0 185 0 150

File By January 2003.

Send one copy to each:
Commissioner of Public Lands Bureau of Land Management
New Mexico State Land Office Roswell District Office
P.O. Box 1148 Division of Minerals Resources
Santa Fe, New Mexico 87503 2803 West Second Street
Roswell, New Mexico 88201

Attachment B

GRAMA RIDGE MORROW UNIT LEA COUNTY, NEW MEXICO PLAN OF OPERATION - PROGRESS REPORT FOR THE SIX-MONTH PERIOD ENDING June, 2002

MCF @ 15.025 Pressure Base

Month:	GRAM Unit No. 1		GRAM Unit No. 2		GRAM Unit No. 3		GRAM Unit No. 4		Total	
	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF
Jan-02	41,986	144,544	108,276	232,181	0	0	150,272	398,725		
Feb-02	78,792	166,754	78,189	393,354	0	0	154,991	478,108	c period	1,095,797
Mar-02	42,244	234,011	78,101	330,125	0	0	120,345	564,136	injections	1,078,741
Apr-02	208,284	25,308	288,189	8,382	0	0	506,483	33,688	Withdrawals	1,054,797
May-02	233,538	5,528	407,831	0	0	0	841,359	5,528		
Jun-02	138,015	47,399	243,320	43,783	0	0	381,335	91,182		

Current Period: 740,869 623,542 1,213,826 943,825 0 0 1,954,795 1,587,387

Prior Period: 65,649,008 57,740,807

Cumulative: 67,803,803 59,308,274

Net MCF Balance: 8,285,529 ✓

Month:	GRAM Unit No. 1		GRAM Unit No. 2		GRAM Unit No. 3		GRAM Unit No. 4		Total	
	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU
Jan-02	45,788	160,105	119,293	271,379	0	0	165,039	431,484		
Feb-02	83,760	178,401	88,174	332,218	0	0	169,934	511,817		
Mar-02	46,572	232,722	86,501	334,243	0	0	133,073	606,965		
Apr-02	228,519	27,331	329,524	9,032	0	0	558,043	36,363		
May-02	255,718	5,989	445,988	0	0	0	701,706	5,989		
Jun-02	149,649	51,191	284,585	47,184	0	0	414,214	98,385		

Current Period: 810,014 676,719 1,332,045 1,014,064 0 0 2,142,059 1,690,783

Prior Period: 71,370,284 60,887,436

Cumulative: 73,512,343 62,558,219

Net MMBTU Balance: 10,954,124 ✓

Condominio Sales

GRAM Unit No. 1 0 GRAM Unit No. 2 0 GRAM Unit No. 3 0 GRAM Unit No. 4 158

Current Period: 0 0 0 158

Send one copy to each:

Commissioner of Public Lands
New Mexico State Land Office
P.O. Box 1148
Santa Fe, New Mexico 87503

Bureau of Land Management
Roosevelt District Office
Division of Minerals Resources
2809 West Second Street
Roswell, New Mexico 88201

Grama Ridge Storage and Transportation, LLC

Grama Ridge Morrow Unit

Lea County, New Mexico

Plan of Operation - Progress Report

For the six months ending JUNE 2005

ATTACHMENT C

MCF @ 15.025 psia Pressure Base

Month	GRM Unit #1		GRM Unit #2		GRM Unit #3		GRM Unit #4		GRM TOTAL	
	Injection (Mcf)	Withdrawal (Mcf)	Injection (Mcf)	Withdrawal (Mcf)	Injection (Mcf)	Withdrawal (Mcf)	Injection (Mcf)	Withdrawal (Mcf)	Net (Mcf)	
Jan-05	47,088	74,130	27,812	166,610	NA	18,755	NA	6,170	74,900	265,665
Feb-05	0	0	0	0	NA	0	NA	0	0	0
Mar-05	0	0	0	0	NA	0	NA	0	0	0
Apr-05	0	0	0	0	NA	0	NA	0	0	0
May-05	338,791	0	249,554	0	NA	0	NA	0	588,345	0
Jun-05	330,483	0	437,362	0	NA	0	NA	0	767,845	0
Totals	716,362	74,130	714,728	166,610	0	18,755	0	6,170	1,431,090	265,665
Prior Period	71,629,043		67,809,904		3,819,139					
Cumulative	73,060,133		68,075,569		4,984,564					

MMBTU BASIS

Month	GRM Unit #1		GRM Unit #2		GRM Unit #3		GRM Unit #4		GRM TOTAL	
	Injection (mmbtu)	Withdrawal (mmbtu)	Injection (mmbtu)	Withdrawal (mmbtu)	Injection (mmbtu)	Withdrawal (mmbtu)	Injection (mmbtu)	Withdrawal (mmbtu)	Net (mmbtu)	
Jan-05	49,442	77,837	29,203	174,940	NA	19,693	NA	6,478	78,645	278,948
Feb-05	0	0	0	0	NA	0	NA	0	0	0
Mar-05	0	0	0	0	NA	0	NA	0	0	0
Apr-05	0	0	0	0	NA	0	NA	0	0	0
May-05	371,816	0	273,888	0	NA	0	NA	0	645,704	0
Jun-05	358,229	0	474,080	0	NA	0	NA	0	832,309	0
Totals	779,487	77,837	777,171	174,940	0	19,693	0	6,478	1,556,658	278,948
Prior Period	77,843,551		71,636,084		6,207,467					
Cumulative	79,400,209		71,915,032		7,485,177					

Note: GRST assumed operation effective May 01, 2005.

GRAMA RIDGE MORROW UNIT STORAGE BALANCES

ATTACHMENT D

Beginning Balances 31-Dec-01 Plan Of Operation				mcf (15.025)	mcf (15.025)	mcf (15.025)
				7,908,101	65,649,008	57,740,907
	Injection Mcf @ 15.025	Withdrawal Mcf @ 15.025	Net Mcf @ 15.025	Cumulative Net Mcf @ 15.025	Injection Cum Mcf @ 15.025	Withdrawal Cum Mcf @ 15.025
1st half 2002	1,954,795	1,567,367	387,428	8,295,529	67,603,803	59,308,274
2nd half 2002	742,812	3,189,854	(2,447,042)	5,848,487	68,346,615	62,498,128
1st half 2003	544,034	1,726,629	(1,182,595)	4,665,892	68,890,649	64,224,757
2nd half 2003	1,913,408	1,084,395	829,013	5,494,905	70,804,057	65,309,152
1st half 2004	28,037	1,911,073	(1,883,036)	3,611,869	70,832,094	67,220,225
2nd half 2004	796,949	589,679	207,270	3,819,139	71,629,043	67,809,904
1st half 2005	1,431,090	265,665	1,165,425	4,984,564	73,060,133	68,075,569

Beginning Balances 31-Dec-01 Plan Of Operation				mmbtu	mmbtu	mmbtu
				10,502,848	71,370,284	60,867,436
	Injection mmbtu	Withdrawal mmbtu	Net mmbtu	Cumulative Net mmbtu	Injection Cum mmbtu	Withdrawal Cum mmbtu
1st half 2002	2,142,059	1,690,783	451,276	10,954,124	73,512,343	62,558,219
2nd half 2002	846,459	3,434,757	(2,588,298)	8,365,826	74,358,802	65,992,976
1st half 2003	583,682	1,843,155	(1,259,473)	7,106,353	74,942,484	67,836,131
2nd half 2003	2,018,031	1,150,765	867,266	7,973,619	76,960,515	68,986,896
1st half 2004	29,644	2,014,494	(1,984,850)	5,988,769	76,990,159	71,001,390
2nd half 2004	853,392	634,694	218,698	6,207,467	77,843,551	71,636,084
1st half 2005	1,556,658	278,948	1,277,710	7,485,177	79,400,209	71,915,032

Notes:

- (1) Numbers in yellow show corrected cumulative values of Raptor Natural Pipeline
- (2) Beginning Balances (in green) taken from the Plan of Operation report effective January 1, 2002.



RECEIVED

2004 JAN 2 AM 8 56

STATE LAND OFFICE
SANTA FE, N.M.

Connie J. Williams
Sr. Commercial Gas Asset Analyst
ConocoPhillips Company
600 North Dairy Ashford
Houston, TX 77079-1175
phone 281.293.2118

December 29, 2003

Commissioner of Public Lands
New Mexico State Land Office
P. O. Box 1148
Santa Fe, New Mexico 87503

Re: Plan of Operation – Progress Report
For the 6-month period ending June 2003

Gentlemen:

Enclosed is the Plan of Operation Progress Report for the six-month period ending June 2003, as stipulated in the Plan of Operation effective and approved as of January 1, 2002, and as required pursuant to Section 9 of the Unit Agreement for the Operation of The Grama Ridge Morrow Unit Area, Lea County, New Mexico, dated April 25, 1973, as amended.

If you have any questions, please do not hesitate to contact me at 281-293-2118.

Sincerely,

Connie J. Williams
Sr. Gas Asset Analyst

RECEIVED
2003 JAN 2 AM 8 58
STATE LAND OFFICE
SANTA FE, N.M.

RAPTOR NATURAL PIPELINE LLC
GRAMA RIDGE WASHO UNIT
LEA COUNTY, NEW MEXICO
PRODUCTION REPORT
FOR THE PRODUCTION SIX-MONTH PERIOD ENDING
JUNE 2003
STATE LAND OFFICE
SANTA FE, N.M.

RECEIVED

2004 JUN 2 AM 8 56

MCF @ 15.025 Pressure Base

STATE LAND OFFICE
SANTA FE, NM

Month:	GRM Unit No. 1		GRM Unit No. 2		GRM Unit No. 3		GRM Unit No. 4		Total
	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	
Jan-03	0	270,294	0	478,626	0	0	0	0	748,920
Feb-03	0	176,494	0	273,383	0	0	0	0	449,877
Mar-03	0	126,477	12,913	126,102	0	0	12,913	0	252,579
Apr-03	29,509	55,733	100,919	36,208	0	0	0	130,428	91,941
May-03	1,359	69,456	34,331	39,397	0	0	0	35,690	108,852
Jun-03	198,151	31,227	166,852	43,233	0	0	0	365,003	74,460

Current Period:

229,019

729,680

315,015

996,949

0

0

0

544,034

1,726,629

Prior Periods:

68,346,615

62,498,128

Cumulative:

68,890,649

64,224,757

Net MCF Balance:

4,665,892

Month:	GRM Unit No. 1		GRM Unit No. 2		GRM Unit No. 3		GRM Unit No. 4		Total
	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU	
Jan-03	0	289,966	0	512,664	0	0	0	0	802,630
Feb-03	0	186,075	0	293,615	0	0	0	0	481,690
Mar-03	0	134,126	14,225	134,096	0	0	14,225	0	268,222
Apr-03	32,501	59,163	111,225	38,517	0	0	0	143,726	97,680
May-03	1,497	72,444	37,231	41,902	0	0	0	38,728	114,346
Jun-03	206,078	32,599	180,925	45,988	0	0	0	387,003	78,587

Current Period:

240,076

776,373

343,606

1,066,782

0

0

0

583,682

1,843,155

Prior Periods:

74,391,109

65,666,152

Cumulative:

74,974,791

67,509,307

Net MMBTU Balance:

7,465,484

Condensate Sales
(Barrels)

GRM Unit No. 1	GRM Unit No. 2	GRM Unit No. 3	GRM Unit No. 4
0	862	0	148

Current Period:

0

862

0

148

File By August 2003

Send one copy to each:

Commissioner of Public Lands
New Mexico State Land Office
P.O. Box 1148
Santa Fe, New Mexico 87503

Bureau of Land Management
Roswell District Office
Division of Minerals Resources
2909 West Second Street
Roswell, New Mexico 88201



P.O. Box 2197
Houston, TX 77252-2197

June 9, 2003

Commissioner of Public Lands
New Mexico State Land Office
P. O. Box 1148
Santa Fe, New Mexico 87503

Re: Plan of Operation – Progress Report
For the 6-month period ending December 2002

Gentlemen:

Enclosed is the Plan of Operation Progress Report for the six-month period ending December 2002, as stipulated in the Plan of Operation effective and approved as of January 1, 2002, and as required pursuant to Section 9 of the Unit Agreement for the Operation of The Grama Ridge Morrow Unit Area, Lea County, New Mexico, dated April 25, 1973, as amended.

If you have any questions, please do not hesitate to contact me at 281-293-2118.

Sincerely,

A handwritten signature in cursive script, appearing to read "Connie J. Williams".

Connie J. Williams
Sr. Gas Asset Analyst

RECEIVED

2003 JUL 14 AM 8:13

STATE LAND OFFICE,
SANTA FE, N.M.

RAPTOR NATURAL PIPELINE LLC
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO
PLAN OF OPERATION - PROGRESS REPORT
FOR THE SIX-MONTH PERIOD ENDING
December, 2002

MCF @ 15.025 Pressure Base

Month:	GRM Unit No. 1		GRM Unit No. 2		GRM Unit No. 3		GRM Unit No. 4		Total	
	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Withdrawal MCF	Withdrawal MCF	Withdrawal MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF
Jul-02	18,173	187,618	59,256	241,366	0	0	0	0	77,429	428,984
Aug-02	107,522	113,893	70,090	263,544	0	0	0	0	177,612	377,437
Sep-02	143,947	97,963	193,639	190,708	0	0	0	0	337,586	288,671
Oct-02	54,036	158,321	58,012	307,434	0	0	0	0	112,048	465,755
Nov-02	26,313	331,686	335	364,872	0	0	0	0	26,648	696,558
Dec-02	3,554	293,029	7,935	639,420	0	0	0	0	11,489	932,449
Current Period:	353,545	1,182,510	389,267	2,007,344	0	0	0	0	742,812	3,189,854
					Prior Periods:		67,603,803		59,308,274	
					Cumulative:		68,346,615		62,498,128	
					Net MCF Balance:		5,848,487			

Month:	GRM Unit No. 1		GRM Unit No. 2		GRM Unit No. 3		GRM Unit No. 4		Total	
	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU	Withdrawal MMBTU	Withdrawal MMBTU	Withdrawal MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU
Jul-02	85,239	201,658	64,431	259,869	0	0	0	0	149,670	461,527
Aug-02	115,794	120,664	76,069	280,795	0	0	0	0	191,863	401,459
Sep-02	159,015	106,295	212,761	205,373	0	0	0	0	371,776	311,668
Oct-02	59,514	171,706	63,929	331,757	0	0	0	0	123,443	503,463
Nov-02	28,984	357,866	369	65,409	0	0	0	0	29,353	423,275
Dec-02	3,916	314,353	8,745	692,188	0	0	0	0	12,661	1,006,541
Current Period:	452,462	1,272,542	426,304	1,835,391	0	0	0	0	878,766	3,107,933
					Prior Periods:		73,512,343		62,558,219	
					Cumulative:		74,391,109		65,666,152	
					Net MMBTU Balance:		8,724,957			

Condensate Sales
(Barrels)

GRM Unit No. 1	GRM Unit No. 2	GRM Unit No. 3	GRM Unit No. 4
0	195	0	150
Current Period:			

STATE LAND OFFICE,
SANTA FE, N.M.

2003 JUL 14 AM 8:13

File By January 2003

Send one copy to each:

Commissioner of Public Lands
Bureau of Land Management
New Mexico State Land Office
Roosevelt District Office
Division of Minerals Resources
P.O. Box 1148
Santa Fe, New Mexico 87503
Roswell, New Mexico 88201

September 30, 2002

Commissioner of Public Lands
New Mexico State Land Office
P. O. Box 1148
Santa Fe, New Mexico 87503

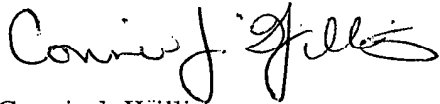
Re: Plan of Operation -- Progress Report
For the 6-month period ending
June 2002

Gentlemen:

Enclosed is the Plan of Operation Progress Report for the six-month period ending June 2002, as stipulated in the Plan of Operation effective and approved as of January 1, 2002, and as required pursuant to Section 9 of the Unit Agreement For The Operation of The Grama Ridge Morrow Unit Area, Lea County, New Mexico dated April 25, 1973, as amended.

If you have any questions, please do not hesitate to contact us.

Sincerely,



Connie J. Williams
Sr. Analyst

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2002 OCT -3 AM 7:15

STATE LAND OFFICE,
SANTA FE, N.M.

RAPTOR NATURAL PIPELINE LLC
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO
PLAN OF OPERATION - PROGRESS REPORT
FOR THE SIX-MONTH PERIOD ENDING
June, 2002

MCF @ 15.025 Pressure Base

Month:	GRM Unit No. 1		GRM Unit No. 2		GRM Unit No. 3		GRM Unit No. 4		Total	
	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF
Jan-02	41,996	144,544	108,276	252,181	0	0	0	150,272	396,725	
Feb-02	76,792	166,754	78,199	309,354	0	0	0	154,991	476,108	
Mar-02	42,244	234,011	78,101	330,125	0	0	0	120,345	564,136	
Apr-02	208,284	25,306	298,199	8,382	0	0	0	506,483	33,688	
May-02	233,538	5,528	407,831	0	0	0	0	641,369	5,528	
Jun-02	138,015	47,399	243,320	43,783	0	0	0	381,335	91,182	

Current Period:

740,869

623,542

1,213,926

943,825

0

0

1,954,795

1,567,367

Prior Periods:

65,649,008

57,740,907

Cumulative:

67,603,803

59,308,274

Net MCF Balance:

8,295,529

Month:	GRM Unit No. 1		GRM Unit No. 2		GRM Unit No. 3		GRM Unit No. 4		Total	
	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU
Jan-02	45,796	160,105	119,293	271,379	0	0	0	165,089	431,484	
Feb-02	83,760	179,401	86,174	332,216	0	0	0	169,934	511,617	
Mar-02	46,572	252,722	86,501	354,243	0	0	0	133,073	606,965	
Apr-02	228,519	27,331	329,524	9,032	0	0	0	558,043	36,363	
May-02	255,718	5,969	445,988	0	0	0	0	701,706	5,969	
Jun-02	149,849	51,191	264,565	47,194	0	0	0	414,214	98,385	

Current Period:

810,014

676,719

1,332,045

1,014,064

0

0

2,142,059

1,690,783

Prior Periods:

71,370,284

60,867,436

Cumulative:

73,512,343

62,558,219

Net MMBTU Balance:

10,954,124

Condensate Sales
(Barrels)

GRM Unit No. 1	GRM Unit No. 2	GRM Unit No. 3	GRM Unit No. 4
0	0	0	158

Current Period:

0

0

0

158

Send one copy to each:

Commissioner of Public Lands
 New Mexico State Land Office
 P.O. Box 1148
 Santa Fe, New Mexico 87503

Bureau of Land Management
 Roswell District Office
 Division of Minerals Resources
 2909 West Second Street
 Roswell, New Mexico 88201

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STATE LAND OFFICE,
SANTA FE, N.M.

**Grama Ridge Morrow Unit
Lea County, New Mexico**

Plan of Operation

This is a revised Plan of Operation as required, from time to time, pursuant to Section 9 of the UNIT AGREEMENT FOR THE OPERATION OF THE GRAMA RIDGE MORROW UNIT AREA, LEA COUNTY, NEW MEXICO dated April 25, 1973, as amended (the "Unit Agreement"), for the Grama Ridge Morrow Unit (hereinafter, "Unit").

Effective December 1, 2000, Conoco Inc. acquired LG&E Natural Pipeline LLC, successor in interest to Llano, Inc. Subsequently, the name of LG&E Natural Pipeline LLC was changed to Raptor Natural Pipeline LLC (hereinafter, "Unit Operator").

This Plan of Operation constitutes the operating procedures and conditions in which the Unit Operator will continue to operate the Unit pursuant to the following:

Grama Ridge Morrow Unit:

- Unit Agreement For The Operation Of The Grama Ridge Morrow Unit Area
Lea County, New Mexico
By and between the State of New Mexico and Llano, Inc. (among others)
Effective April 25, 1973

Unit Area: Section 34, T21S, R34E - All 640 acres
 Section 3, T22S, R34E - All 647.16 acres

Unitized Formation: 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.

Wells: Shell Oil Company State GRA Well No. 1 – SW1/4NW1/4 Section 3, T22S, R34E
 Shell State GRB Well No. 1 – NW1/4SW1/4 Section 34, T21S, R34E

- Amendment - Unit Agreement For The Operation Of The Grama Ridge Morrow Unit Area
Lea County, New Mexico
By and between the State of New Mexico and Llano, Inc. (among others)
Effective September 1, 1976

Unit Area: Added - Section 33, T21S, R34E - All 640 acres

Wells: Added - South Wilson Deep Unit No. 1 well – NW1/4SE1/4 Section 33, T21S, R34E

- Second Amendment to Unit Agreement For The Operation Of The Grama Ridge Morrow Unit Area
Lea County, New Mexico
By and Between the State of New Mexico and Raptor Natural Pipeline, LLC
Executed by Raptor on May 23, 2001 and Effective on Approval by the Commissioner

Unit Area: Clarified the legal description of the Unit Area as follows:

T-21-S, R-34-E
Section 33 – All
Section 34 – All
T-22-S, R-34-E
Section 3 – All
Section 4 – Lot 1, Lot 2, S/2 NE/4
Containing 2,089.81 acres, more or less

In addition, the following Federal agreements and lands comprise the remainder of the Unit:

- Agreement For Subsurface Storage Of Gas, Morrow Formation, Grama Ridge Unit Area
Lea County, New Mexico
By and between the United States of America and Llano, Inc.
Effective November 1, 1975

Unit Area: Section 4, T22S, R34E - All 640 acres

Unitized Formation: Vertical interval between 12,778 feet and 13,255 feet below the surface in the Morrow formation in the Federal GR-4 No. 1.

Wells: Llano Federal GR-4 No. 1 – SE1/4SE1/4NW1/4 Section 4, T22S, R34E

- Amendment - Agreement For Subsurface Storage Of Gas, Morrow Formation, Grama Ridge Unit Area
Lea County, New Mexico
By and between the United States of America and Llano, Inc.
Effective April 1, 1981

Unit Area: Added - Section 10, T22S, R34E - All 640 acres

Wells: Added – Llano Government “A” No. 1 – SE1/4NW1/4 Section 10, T22S, R34E

The New Mexico Department of Energy and Minerals, Oil Conservation Division’s Order No. R-7582, effective June 27, 1984, subsequently acknowledged this expansion by amendment.

Exhibit "A" and Exhibit "B" attached are a map and schedule showing United States of America, State of New Mexico and fee-owned acreage committed to the Unit along with the identity of mineral tract owners to the extent known to the Unit Operator as of January 1, 2002.

Exhibit "C" and Exhibit "D" attached are a map and schedule showing United States of America, State of New Mexico and fee-owned acreage subject to the Unit along with the identity of land surface ownership to the extent known to the Unit Operator as of January 1, 2002.

Wells - Name Changes and Usage:

Original Well Name:

Well Name Change:

Shell Oil Company State GRA Well No. 1	GRM Unit No. 1
Shell State GRB Well No. 1	GRM Unit No. 2
South Wilson Deep Unit No. 1	GRM Unit No. 3
Llano Federal GR-4 No. 1	GRM Unit No. 4
Llano Government "A" No. 1	GRM Unit No. 5

Effective March 15, 1978, at the request of the New Mexico Department of Energy and Minerals, Oil Conservation Division, Shell Oil Company State GRA Well No. 1, Shell State GRB Well No. 1, South Wilson Deep Unit No. 1, and Llano Federal GR-4 No. 1 were renamed GRM Unit No.1, GRM Unit No. 2, GRM Unit No. 3, and GRM Unit No. 4, respectively, to reflect the unit status.

Effective April 1, 1981 the amendment to the Agreement For Subsurface Storage Of Gas, Morrow Formation, Grama Ridge Unit Area, by and between the United States of America and Llano, Inc. expanded the Unit to include Section 10, T22S, R34E and the Llano Government "A" No. 1. The Llano Government "A" No. 1 was renamed GRM Unit No. 5 effective May 18, 1984. In June 1985 the GRM Unit No. 5 was withdrawn from the Unit and recompleted as a gas well in another producing interval.

The wells are used for the injection and withdrawal of gas into and out of the Unit in the following manner:

- GRM Unit No. 1: Used for injection and withdrawal.
- GRM Unit No. 2: Used for injection and withdrawal.
- GRM Unit No. 3: Used for withdrawal only.
- GRM Unit No. 4: Used for withdrawal only.

Facilities and Measurement:

Unit Operator will maintain equipment to separate the gas from the liquid hydrocarbons produced from the withdrawal of gas from the Unit wells, as stipulated in Section 11(A) of the Unit Agreement, as amended. Liquid hydrocarbons will be sold and the proceeds allocated according to the provisions of Section 11(A) of the Unit Agreement, as amended. Sales volumes will be reported every six months in accordance with the form attached hereto as Exhibit "G".

Unit Operator will maintain natural gas measuring stations properly equipped with an orifice meter and an electronic flow recorder of standard design and manufacture. The measurements of this measuring station will fix the cumulative quantity of gas injected and withdrawn from the Unit wells. Orifice meter installations will conform to the recommendations for design and installation contained in

ANSI/API 2530-AGA Report No. 3 (1985) and any supplements thereto as deemed appropriate by the Unit Operator. Unit Operator will keep the measuring equipment accurate and in repair and will test the orifice meter in service quarterly or more often if deemed necessary by Unit Operator. Samples of the injected and withdrawn gas will be obtained monthly, or more often as Unit Operator deems necessary, and tested by chromatography to determine the composition of the gas.

Injection, Withdrawal, and Cumulative Volumes:

The net balance of gas volumes in storage in the Unit as of December 31, 2001 was 7,908,101 Mcf (or 10,502,849MMBtu), determined by the Unit Operator as follows:

Through provisions outlined in the Unit Agreement For The Operation Of The Grama Ridge Morrow Unit Area, Lea County, New Mexico, by and between the State of New Mexico and Llano, Inc., effective April 25, 1973, the Unit Operator paid the State in-full for royalties otherwise due on primary gas and liquid hydrocarbons left in Section 34, T21S, R34E and Section 3, T22S, R34E of the Unit. It was determined that 47,770 MCF of primary production existed at that time.

Through provisions outlined in the amendment to the Unit Agreement For The Operation Of The Grama Ridge Morrow Unit Area, Lea County, New Mexico, by and between the State of New Mexico and Llano, Inc., effective September 1, 1976, the Unit Operator paid for royalties due on primary gas and liquid hydrocarbons left in Section 33, T21S, R34E of the Unit. It was determined that 318,519 MCF of primary production existed at that time.

Through provisions outlined in the amendment to the Agreement For Subsurface Storage Of Gas, Morrow Formation, Grama Ridge Unit Area, Lea County, New Mexico, by and between the United States of America and Llano, Inc., effective April 1, 1981, the Unit Operator paid for royalties due on primary gas and liquid hydrocarbons left in Section 10, T22S, R34E and Section 3, T22S, R34E of the Unit. It was determined that 413,000 MCF of primary production existed at that time.

Beginning with the Llano, Inc., Progress Report No. 23 for the six-month period ending December 31, 1984 and accounting for monthly injections and withdrawals utilizing State of New Mexico, Energy Minerals and Natural Resources, Oil Conservation Division, Form C-131A Monthly Gas Storage Reports, the cumulative injected gas has totaled 64,869,719 MCF and cumulative withdrawn gas has totaled 57,740,907 MCF as of December 31, 2001. The net cumulative balance of gas being 7,128,812 MCF. See Exhibit "E" for supporting documentation.

Therefore, the net balance of gas in storage within the Unit as of December 31, 2001 is 47,770 MCF plus 318,519 MCF plus 413,000 MCF plus 7,128,812 MCF totaling 7,908,101 MCF.

The Unit Operator is not able to accumulate monthly chromatograph analyses documentation for the same time periods as described above, however, beginning with Conoco Inc. involvement on December 1, 2000, the Unit Operator has analyses for injected and withdrawn gas. The Unit Operator will apply the average British Thermal Units as calculated for the time period December 1, 2000 through December 31, 2001 to cumulative injection and withdrawn gas volumes, and primary production gas volumes purchased in place. Therefore, the net balance of gas in storage within the Unit as of December 31, 2001 is 10,502,849 MMBtu. See Exhibit "F" for supporting documentation.

Reporting:

All future six-month progress reports shall include both MCF and MMBtu injection, withdrawal and cumulative reporting for the Unit in accordance with the form attached hereto as Exhibit "G". Injection, withdrawal and cumulative balance volumes will also be reported monthly to the New Mexico Oil Conservation Division in accordance with NMOCD Form C-131-A (Exhibit "H", attached). British Thermal Units per MCF shall be determined utilizing monthly chromatograph analyses for gas that is injected and withdrawn.

Purpose and Continued Use of Unit:

The purpose of the Unit is to provide commercial storage of gas to third party customers. Customers will be allowed to request the injection and withdrawal of their gas pursuant to contractual agreements entered into between them and the Unit Operator. For the foreseeable life of the Unit, injection of gas into the storage facility shall proceed according to a plan of typically injecting gas April through October and withdrawing gas November through March of each year. However, typical injection and withdrawal cycles may vary depending on the requirements of the customers and their contracts associated with the storage facility. The Unit Operator will continue to operate the Unit in accordance with the terms and conditions of Unit Agreement.

Term and Termination:

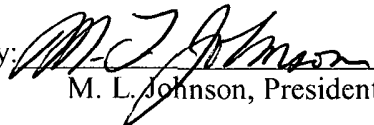
This Plan of Operations shall be effective beginning January 1, 2002 and shall remain in effect for a period of time equal to the lesser of five (5) years from the date the Commissioner of Public Lands (the "Commissioner") approves the same or until conditions warrant a change in operating procedures as described in this Plan of Operations. At such time, a new plan of operation shall be submitted to the Commissioner for approval.

Upon termination or cancellation of the Unit Agreement as to all of the Unit Area, Unit Operator will remove all improvements placed on the premises and will restore the premises as provided in the Unit Agreement or the respective Oil and Gas Leases, as applicable; if the Unit Agreement or the respective Oil and Gas Leases do not provide for restoration, Unit Operator shall restore the premises, to the extent reasonably possible, to the same condition as it existed prior to placement of the improvements.

This Plan of Operation is respectfully submitted for approval effective January 1, 2002.

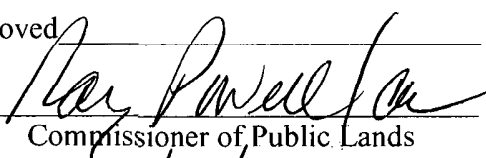
RAPTOR NATURAL PIPELINE LLC

By:


M. L. Johnson, President

Approved

By:


Commissioner of Public Lands

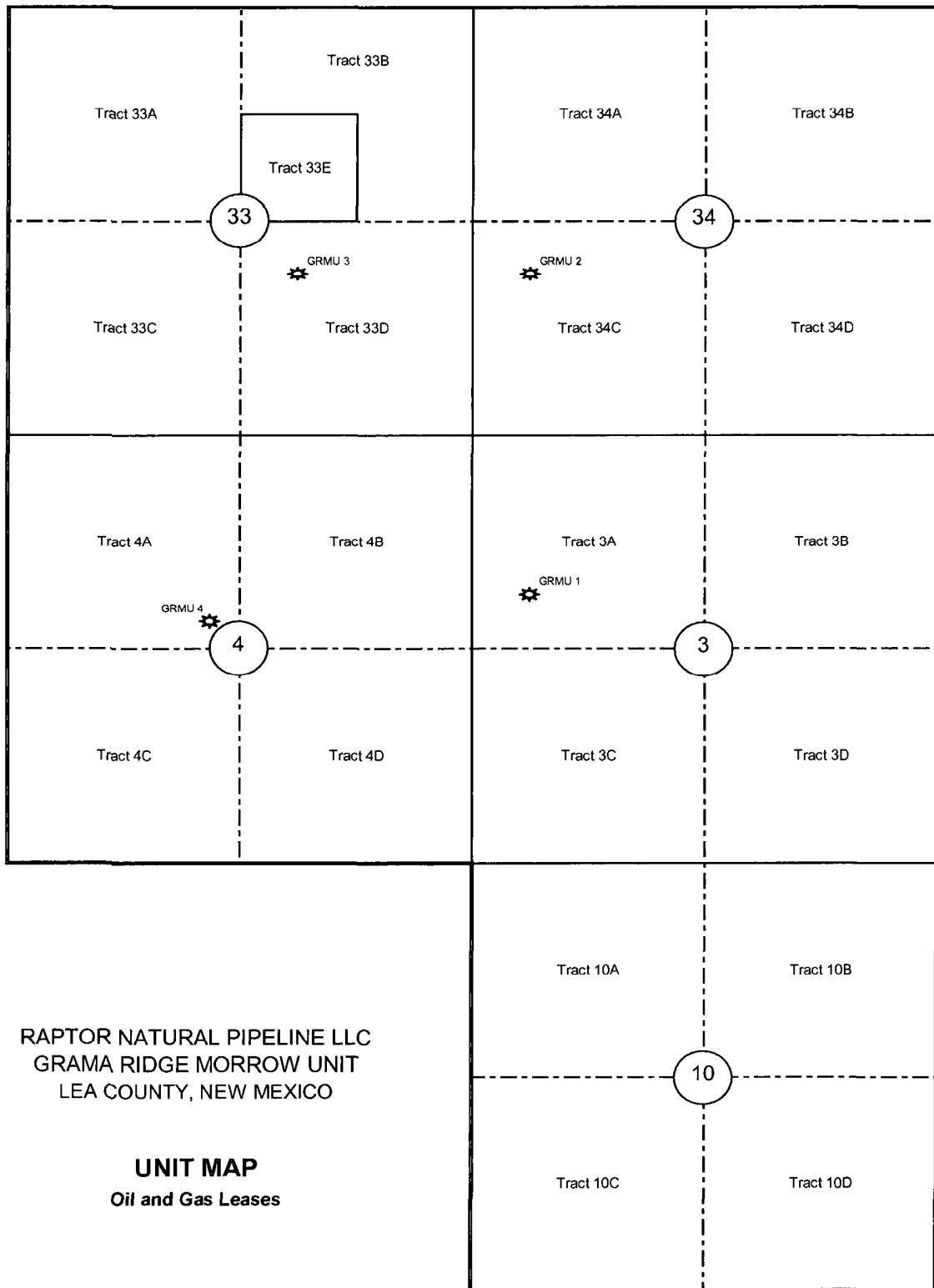
Date:

8/26/02

EXHIBIT "A"

GRAMA RIDGE MORROW UNIT

R34E



T21S

T22S

RAPTOR NATURAL PIPELINE LLC
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO

UNIT MAP
Oil and Gas Leases

EXHIBIT "B"

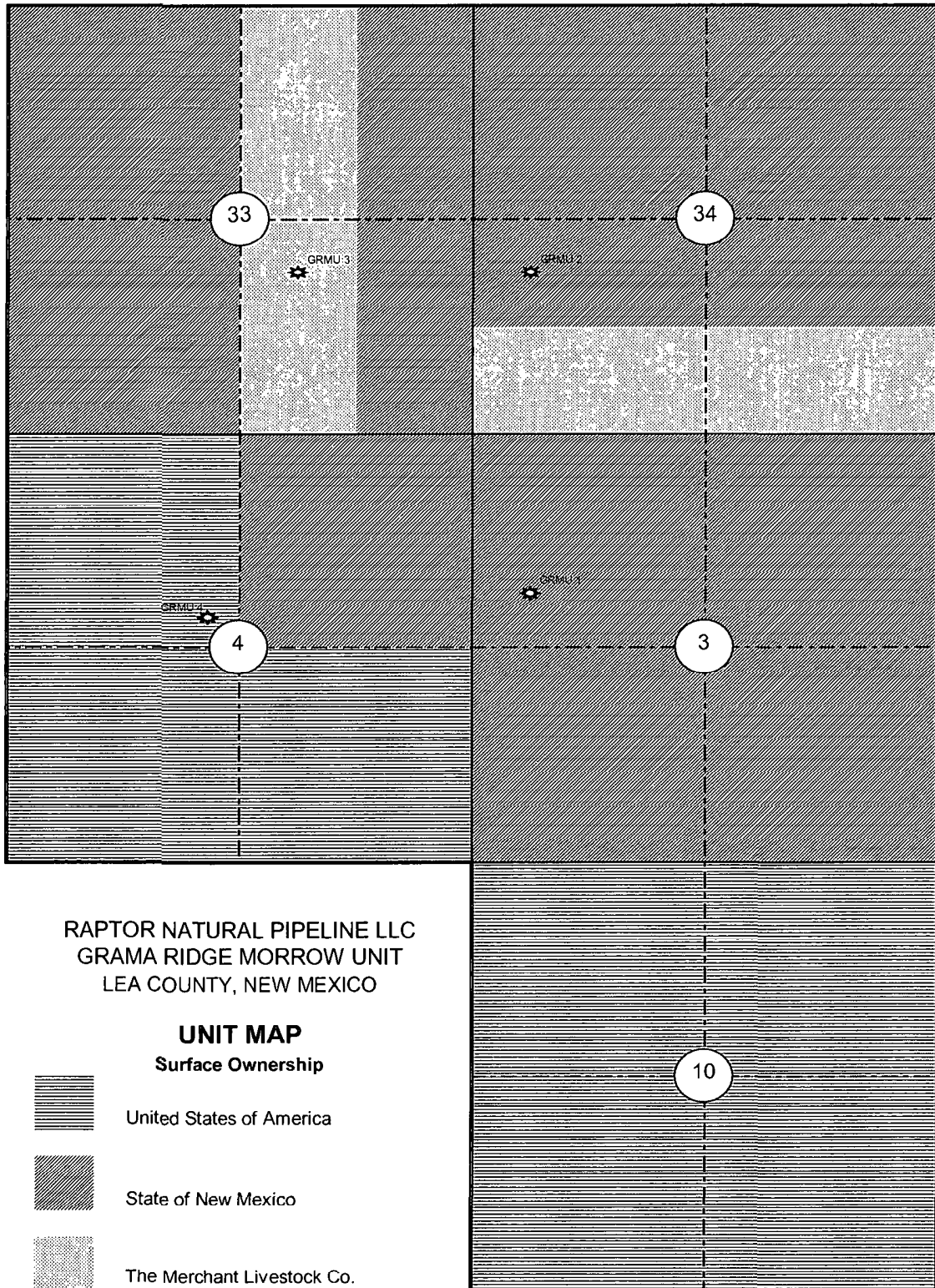
GRAMA RIDGE MORROW UNIT AGREEMENT

Tract No.	Description	Lease No.	Acreage	Basic Royalty	Lessee of Record	Working Interest Owner and Percentage	% Tract Participation
3C	SW¼ Sec. 3, T. 22 S., R. 34 E.	SNM B-1583	160	12.50%	Apache Corp.	Raptor Natural Pipeline LLC 100%	4.9814
3D	SE¼ Sec. 3, T. 22 S., R. 34 E.	SNM B-1583	160	12.50%	Apache Corp.	Chaparral Energy, Inc. 100%	4.9814
3B	NE¼ Sec. 3, T. 22 S., R. 34 E.	SNM E-9141	163.91	12.50%	Apache Corp.	Chaparral Energy, Inc. 100%	5.1032
3A	NW¼ Sec. 3, T. 22 S., R. 34 E.	SNM E-9141	163.25	12.50%	Apache Corp.	Raptor Natural Pipeline LLC 100%	5.0826
34C	SW¼ Sec. 34, T. 21 S., R. 34 E.	SNM E-9659	160	12.50%	Chevron USA, Inc.	Raptor Natural Pipeline LLC 100%	4.9814
34D	SE¼ Sec. 34, T. 21 S., R. 34 E.	SNM E-9659	160	12.50%	Chevron USA, Inc.	EOG Resources Inc. 100%	4.9814
34A & 34B	N½ Sec. 34, T. 21 S., R. 34 E.	SNM V-5683	320	16.67%	Great Western Drilling Co.	Great Western Drilling Co. 25% Continental Land and Fur Co. 18.75% Nearburg Exploration Co. LLC 56.25%	9.9629
33A, 33B, 33C & 33D	W½, SE¼, N½NE¼, SE¼NE¼ Sec. 33, T. 21 S., R. 34 E.	SNM V-5682	600	16.67%	Raptor Natural Pipeline LLC	Raptor Natural Pipeline LLC 100%	18.6804
33E	SW¼ NE¼ Sec. 33, T. 21 S., R. 34 E.	Fee	40	The Merchant Livestock Co. 67.63% of 12.5% Don E. Gridley & wife 50% of 32.37% of 12.5% John E. Bosseman & wife 50% of 32.37% of 12.5%	Wilson Oil Co. and Francis P. Bolton, dba Wyoming Oil	Raptor Natural Pipeline LLC 67.63% Gridley/Bosseman, et al (unleased) 32.37%	1.2454
4A & 4B	N½ Sec. 4, T. 22 S., R. 34 E.	US NM-058678	324.76	12.50%	Raptor Natural Pipeline LLC	Raptor Natural Pipeline LLC 100%	10.1111
4D	SE¼ Sec. 4, T. 22 S., R. 34 E.	US NM-033312-A	160	12.50%	Raptor Natural Pipeline LLC	Raptor Natural Pipeline LLC 100%	4.9814
4C	SW¼ Sec. 4, T. 22 S., R. 34 E.	US NM-0381970	160	12.50%	Raptor Natural Pipeline LLC	Raptor Natural Pipeline LLC 100%	4.9814
10A, 10C, & 10D	W½ SE¼ Sec. 10, T. 22 S., R. 34 E.	US NM-033312	480	12.50%	EOG Resources, Inc.	EOG Resources, Inc. 100%	14.9443
10B	NE¼ Sec. 10, T. 22 S., R. 34 E.	US NM-049843	160	12.50%	EOG Resources, Inc.	EOG Resources, Inc. 100%	4.9814
Total:			3,211.92				100.00

EXHIBIT "C"

GRAMA RIDGE MORROW UNIT

R34E



RAPTOR NATURAL PIPELINE LLC
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO

UNIT MAP

Surface Ownership



United States of America



State of New Mexico



The Merchant Livestock Co.

EXHIBIT "D"

GRAMA RIDGE MORROW UNIT AGREEMENT

Description	Surface Ownership	Acreage
W½, SE¼ Section 4, T. 22 S., R. 34 E.	United States of America	482.11
All Section 10, T. 22 S., R. 34 E.	United States of America	640
All Section 3, T. 22 S., R. 34 E.	State of New Mexico	647.16
NE¼ Section 4, T. 22 S., R. 34 E.	State of New Mexico	162.65
W½, E½E½ Section 33, T. 21 S., R. 34 E.	State of New Mexico	480
N½, N½S½ Section 34, T. 21 S., R. 34 E.	State of New Mexico	480
W½E½ Section 33, T. 21 S., R. 34 E.	The Merchant Livestock Company	160
S½S½ Section 34, T. 21 S., R. 34 E.	The Merchant Livestock Company	160
<u>Total</u>		3,211.92
	United States of America	1,122.11
	State of New Mexico	1,769.81
	The Merchant Livestock Company	320

Exhibit "E"

**Grama Ridge Morrow Unit
Lea County, New Mexico
New Mexico Oil Conservation Division
Monthly Gas Storage Report, Form C-131-A**

Month:	GRM Unit No. 1		GRM Unit No. 2		GRM Unit No. 3		GRM Unit No. 4		Total		NET	Cumulative	Cumulative	Cumulative
	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Withdrawal MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	MCF	Injection MCF	Withdrawal MCF	MCF
Gas in place Section 34, T21S, R34E and Section 3, T22S, R34E:									47,770		47,770	47,770	-	47,770
Gas in place Section 33, T21S, R34E:									318,519		318,519	366,289	0	366,289
Gas in place Section 10, T22S, R34E:									413,000		413,000	779,289	0	779,289
											0	779,289	0	779,289
: Progress Report No. 23, For the Six-Month Period Ending December 31, 1984 (converted from 14.65 to 15.025 PB):									16,430,708	10,477,689	5,953,019	17,209,997	10,477,689	6,732,308
Jan-85	103,189	32,302	63,636	21,982	5,926	11,411	166,825	71,621	95,204	17,376,822	10,549,310	6,827,512		
Feb-85	46,395	39,209	111,192	34,221	3,345	19,773	157,587	96,548	61,039	17,534,409	10,645,858	6,888,551		
Mar-85	6,501	22,471	27,920	42,215	10,641	28,383	34,421	103,710	-69,289	17,568,830	10,749,568	6,819,262		
Apr-85	0	32,756	0	53,479	13,178	39,525	0	138,938	-138,938	17,568,830	10,888,506	6,680,324		
May-85	0	93,493	0	173,397	18,228	59,106	0	344,224	-344,224	17,568,830	11,232,730	6,336,100		
Jun-85	332	222,404	6,305	244,877	10,160	97,274	6,637	574,715	-668,078	17,576,467	11,807,445	5,768,022		
Jul-85	0	40,257	89,995	61,320	4,972	33,032	89,995	139,581	-49,586	17,665,462	11,947,026	5,718,436		
Aug-85	19,501	27,856	47,348	56,671	5,826	40,146	66,849	130,499	-63,650	17,732,311	12,077,525	5,654,786		
Sep-85	0	5,242	1,374	19,188	1,616	6,789	1,374	32,835	-31,461	17,733,685	12,110,360	5,623,325		
Oct-85	89,637	173	70,480	5,218	1,194	5,464	160,117	12,049	148,068	17,893,802	12,240,409	5,771,393		
Nov-85	55,112	1,050	41,571	6,591	1,340	7,586	96,683	16,567	80,116	17,990,485	12,138,976	5,851,505		
Dec-85	7,267	9,707	40,136	22,370	3,308	8,511	47,403	43,896	3,507	18,037,888	12,182,872	5,855,016		
											0	18,037,888	12,182,872	5,855,016
Jan-86	5,232	856	20,527	16,498	9,144	8,667	25,759	35,165	-9,406	18,063,647	12,218,037	5,845,610		
Feb-86	8,140	0	59,840	6,977	2,967	10,051	67,980	19,995	47,985	18,131,627	12,238,032	5,893,595		
Mar-86	26,805	1,154	67,365	2,156	8,014	3,737	94,170	15,061	79,109	18,225,797	12,253,093	5,972,704		
Apr-86	0	92,948	0	87,284	17,941	16,659	0	214,832	-214,832	18,225,797	12,467,925	5,757,872		
May-86	0	295,023	0	294,329	33,475	108,260	0	731,087	-731,087	18,225,797	13,199,012	5,026,785		
Jun-86	0	266,943	0	205,168	24,273	73,654	0	570,038	-570,038	18,225,797	13,769,050	4,456,747		
Jul-86	0	238,772	0	180,454	15,016	76,689	0	510,931	-510,931	18,225,797	14,279,981	3,945,816		
Aug-86	0	132,924	0	108,821	7,738	40,010	0	289,493	-289,493	18,225,797	14,569,474	3,656,324		
Sep-86	0	72,527	0	71,828	12,532	40,692	0	197,579	-197,579	18,225,797	14,767,053	3,458,744		
Oct-86	0	16,003	0	15,294	5,085	4,767	0	41,149	-41,149	18,225,797	14,808,202	3,417,595		
Nov-86	0	0	0	0	0	0	0	0	0	18,225,797	14,808,202	3,417,595		
Dec-86	0	28,789	0	0	5,614	8,738	0	43,141	-43,141	18,225,797	14,851,343	3,374,454		
											0	18,225,797	14,851,343	3,374,454
Jan-87	0	14,670	0	7,991	5,003	5,931	0	33,595	-33,595	18,225,797	14,884,938	3,340,859		
Feb-87	0	19,961	0	50,203	10,109	12,078	0	92,351	-92,351	18,225,797	14,977,289	3,248,508		
Mar-87	0	706	0	39,872	796	90	0	41,464	-41,464	18,225,797	15,018,753	3,207,044		
Apr-87	0	2,323	0	0	1,880	2,501	0	6,704	-6,704	18,225,797	15,025,457	3,200,340		
May-87	0	0	0	0	0	0	0	0	0	18,225,797	15,025,457	3,200,340		
Jun-87	0	17,629	0	0	9,074	11,369	0	38,072	-38,072	18,225,797	15,063,529	3,162,268		
Jul-87	182	0	0	0	0	0	182	0	182	18,225,979	15,063,529	3,162,450		
Aug-87	185,385	0	0	0	0	0	185,385	18,411,364	185,385	18,411,364	15,063,529	3,347,835		
Sep-87	20,729	0	0	0	0	0	20,729	18,432,093	20,729	18,432,093	15,063,529	3,368,564		
Oct-87	42,172	0	0	0	0	0	42,172	18,474,265	42,172	18,474,265	15,063,529	3,410,736		
Nov-87	15,238	33,281	0	0	18,537	25,067	15,238	76,885	-61,647	18,489,503	15,140,414	3,349,089		
Dec-87	0	140,415	0	0	30,715	48,990	0	220,120	-220,120	18,489,503	15,360,534	3,128,969		
											0	18,489,503	15,360,534	3,128,969
Jan-88	0	62,366	0	0	17,976	27,883	0	108,225	-108,225	18,489,503	15,468,759	3,020,744		
Feb-88	0	44,949	0	0	12,857	14,098	0	71,904	-71,904	18,489,503	15,540,663	2,948,840		
Mar-88	0	45,347	0	0	13,402	25,628	0	84,377	-84,377	18,489,503	15,625,040	2,864,463		
Apr-88	0	337	0	0	772	1,653	0	2,762	-2,762	18,489,503	15,627,802	2,861,701		
May-88	166,247	0	0	0	0	0	166,247	0	166,247	18,655,750	15,627,802	3,027,948		
Jun-88	97,977	0	0	0	0	0	97,977	0	97,977	18,753,727	15,627,802	3,125,925		
Jul-88	0	90,362	0	0	0	0	0	90,362	-90,362	18,753,727	15,718,164	3,035,583		
Aug-88	0	133,428	0	0	16,946	33,497	0	183,871	-183,871	18,753,727	15,902,035	2,851,692		
Sep-88	94,708	469	0	0	150	276	94,708	895	93,813	18,848,435	15,902,930	2,945,505		
Oct-88	25,905	0	0	0	0	0	25,905	0	25,905	18,874,340	15,902,930	2,971,410		
Nov-88	1,891	131,470	0	0	0	0	1,891	131,470	-129,579	18,876,231	16,034,400	2,841,831		
Dec-88	0	175,213	0	50,924	55,361	31,511	0	313,009	-313,009	18,876,231	16,347,409	2,528,822		
											0	18,876,231	16,347,409	2,528,822
Jan-89	12,460	2,385	0	45,081	6,151	2,832	12,460	56,449	-43,989	18,888,691	16,403,858	2,484,833		
Feb-89	14,763	9,032	0	18,503	11,475	0	14,763	39,010	-24,247	18,903,454	16,442,868	2,460,586		
Mar-89	32,020	997	23,342	1,391	99	0	55,362	2,487	52,875	18,958,816	16,445,355	2,513,461		
Apr-89	95,429	0	95	0	0	0	95,524	0	95,524	19,054,340	16,445,355	2,608,985		
May-89	203,321	0	155,637	0	0	0	358,958	0	358,958	19,413,298	16,445,355	2,967,943		
Jun-89	152,529	0	140,019	0	0	0	292,548	0	292,548	19,705,846	16,445,355	3,260,491		
Jul-89	39,421	4,995	34,786	2,019	6,743	4,325	74,207	18,082	56,125	19,780,053	16,463,437	3,316,616		
Aug-89	178,392	0	132,517	0	0	0	310,909	0	310,909	20,090,962	16,463,437	3,627,525		
Sep-89	2,559	0	39,153	0	0	3,041	41,712	3,041	38,671	20,132,674	16,466,478	3,666,196		
Oct-89	57,158	0	12,202	0	0	0	69,360	0	69,360	20,202,034	16,466,478	3,735,556		
Nov-89	9,187	111,755	0	104,986	0	0	9,187	216,741	-207,554	20,211,221	16,683,219	3,528,002		
Dec-89	0	198,443	0	135,341	36,154	45,718	0	415,656	-415,656	20,211,221	17,098,875	3,112,346		
											0	20,211,221	17,098,875	3,112,346
Jan-90	0	129,815	0	92,520	12,404	22,304	0	257,043	-257,043	20,211,221	17,355,918	2,855,303		
Feb-90	0	179,922	0	128,940	9,357	3,028	0	321,247	-321,247	20,211,221	17,677,165	2,534,056		
Mar-90	0	8,488	0	5,841	0	0	0							

Aug-91	339,998	0	374,752	0	0	714,750	0	714,750	25,872,161	20,438,066	5,434,095
Sep-91	393,880	0	432,634	0	0	826,514	0	826,514	26,698,675	20,438,066	6,260,609
Oct-91	329,898	0	316,627	0	0	646,525	0	646,525	27,345,200	20,438,066	6,907,134
Nov-91	0	325,168	0	373,504	15,893	44,219	758,784	-758,784	27,345,200	21,196,850	6,148,350
Dec-91	0	362,311	0	478,867	15,111	72,548	928,837	-928,837	27,345,200	22,125,687	5,219,513
							0	0	27,345,200	22,125,687	5,219,513
Jan-92	0	393,443	0	538,359	13,503	68,065	1,013,370	-1,013,370	27,345,200	23,139,057	4,206,143
Feb-92	67	261,122	0	357,597	12,644	37,594	668,957	-668,957	27,345,267	23,808,014	3,537,253
Mar-92	0	175,765	0	234,869	8,193	31,922	450,749	-450,749	27,345,267	24,258,763	3,086,504
Apr-92	11,035	172,647	109,742	38,380	772	3,731	215,530	-94,753	27,466,044	24,474,293	2,991,751
May-92	336,006	14,877	206,754	0	0	542,760	14,877	527,883	28,008,804	24,489,170	3,519,634
Jun-92	387,015	0	358,969	0	0	745,984	0	745,984	28,754,788	24,489,170	4,265,618
Jul-92	367,466	0	321,837	0	0	689,303	0	689,303	29,444,091	24,489,170	4,954,921
Aug-92	384,532	0	368,161	0	0	752,693	0	752,693	30,196,784	24,489,170	5,707,614
Sep-92	341,320	0	226,291	0	0	567,611	0	567,611	30,764,395	24,489,170	6,275,225
Oct-92	32,061	259,360	82,795	41,077	0	114,856	300,437	-185,581	30,879,251	24,789,607	6,089,644
Nov-92	489	408,479	0	468,602	21,729	90,567	989,377	-988,888	30,879,740	25,778,984	5,100,756
Dec-92	0	357,123	0	488,654	7,659	72,668	926,104	-926,104	30,879,740	26,705,088	4,174,652
							0	0	30,879,740	26,705,088	4,174,652
Jan-93	0	314,012	0	468,165	11,687	55,153	849,017	-849,017	30,879,740	27,554,105	3,325,635
Feb-93	0	271,105	0	311,000	29,595	44,477	656,177	-656,177	30,879,740	28,210,282	2,669,458
Mar-93	0	258,271	0	203,447	12,961	40,075	515,754	-515,754	30,879,740	28,726,036	2,153,704
Apr-93	0	198,808	0	42,940	9,456	32,240	281,444	-281,444	30,879,740	29,007,460	1,672,260
May-93	424,878	277	429,794	0	0	854,672	277	854,395	31,734,412	29,007,757	2,726,655
Jun-93	496,780	0	506,449	0	0	1,003,229	0	1,003,229	32,737,641	29,007,757	3,729,884
Jul-93	476,231	0	325,025	0	0	801,256	0	801,256	33,538,897	29,007,757	4,531,140
Aug-93	260,872	125,438	256,560	107,115	0	517,432	232,553	284,879	34,056,329	29,240,310	4,816,019
Sep-93	488,297	0	257,159	0	0	745,456	0	745,456	34,801,785	29,240,310	5,561,475
Oct-93	144,746	65,010	152,536	32,641	0	297,282	97,651	199,631	35,099,067	29,337,961	5,761,106
Nov-93	0	387,196	0	499,889	21,462	30,339	938,885	-938,885	35,099,067	30,276,846	4,822,221
Dec-93	8,881	205,512	9,932	342,855	4,939	64,394	617,700	-598,887	35,117,880	30,894,546	4,223,334
							0	0	35,117,880	30,894,546	4,223,334
Jan-94	0	272,101	0	465,579	6,155	70,292	814,127	-814,127	35,117,880	31,708,673	3,409,207
Feb-94	0	231,675	0	264,678	7,872	51,666	555,891	-555,891	35,117,880	32,264,564	2,853,316
Mar-94	0	163,120	0	100,361	11,135	36,161	310,777	-310,777	35,117,880	32,575,341	2,542,539
Apr-94	103,607	53,500	1,557	6,071	0	105,164	59,571	45,593	35,223,044	32,634,912	2,588,132
May-94	459,982	0	346,946	0	0	806,928	0	806,928	36,029,972	32,634,912	3,395,060
Jun-94	370,783	4,310	340,209	0	0	710,992	4,310	708,682	36,740,964	32,639,222	4,101,742
Jul-94	278,895	0	113,070	0	0	391,965	0	391,965	37,132,929	32,639,222	4,493,707
Aug-94	106,072	0	118,624	0	0	224,696	0	224,696	37,357,625	32,639,222	4,718,403
Sep-94	542,198	0	539,629	0	0	1,081,827	0	1,081,827	38,439,452	32,639,222	5,800,230
Oct-94	486,455	0	468,757	0	0	955,212	0	955,212	39,394,664	32,639,222	6,755,442
Nov-94	28,167	270,491	38,000	167,210	3,892	19,290	460,883	-394,716	39,460,831	33,100,105	6,360,726
Dec-94	0	449,676	0	767,248	12,636	100,607	1,330,167	-1,330,167	39,460,831	34,430,272	5,030,559
							0	0	39,460,831	34,430,272	5,030,559
Jan-95	0	244,626	27,302	318,742	5,295	28,999	597,662	-570,360	39,468,133	35,027,934	4,460,199
Feb-95	101,663	210,325	17,427	225,287	9,589	63,618	508,819	-389,729	39,607,223	35,536,753	4,070,470
Mar-95	364,808	118,740	318,775	40,373	9,836	16,861	683,583	185,810	40,290,806	35,722,583	4,568,243
Apr-95	193,050	17,170	177,790	0	0	3,571	370,840	20,741	40,661,646	35,743,304	4,918,342
May-95	383,844	0	379,017	0	0	0	762,861	0	41,424,507	35,743,304	5,681,203
Jun-95	415,253	0	402,900	0	0	0	818,153	0	42,242,660	35,743,304	6,499,356
Jul-95	352,364	0	281,301	0	0	0	633,665	0	42,876,325	35,743,304	7,133,021
Aug-95	342,003	0	258,678	0	0	600,681	0	600,681	43,477,006	35,743,304	7,733,702
Sep-95	32,981	161,535	20,913	232,584	12,033	68,285	53,894	-420,543	43,530,900	36,217,741	7,313,159
Oct-95	4,174	311,406	16,844	100,541	47,736	21,018	459,683	-438,665	43,551,918	36,677,424	6,874,494
Nov-95	0	398,780	0	396,825	9,224	106,716	911,545	-911,545	43,551,918	37,588,969	5,962,949
Dec-95	7,877	302,371	16,194	375,526	15,787	64,286	24,071	757,970	43,575,989	38,346,939	5,229,050
							0	0	43,575,989	38,346,939	5,229,050
Jan-96	0	357,838	0	488,411	11,819	68,416	926,484	-926,484	43,575,989	39,273,423	4,302,566
Feb-96	0	303,126	0	319,615	22,592	55,165	700,498	-700,498	43,575,989	39,973,921	3,602,066
Mar-96	0	322,259	0	252,492	9,780	59,243	643,774	-643,774	43,575,989	40,617,695	2,958,294
Apr-96	7,479	206,166	5,092	133,558	0	39,131	378,875	-366,304	43,588,560	40,966,570	2,591,990
May-96	327,999	8,630	157,064	3,295	0	485,063	473,138	44,073,623	44,073,623	41,008,495	3,065,128
Jun-96	14,631	19,156	83,745	0	0	98,376	19,156	79,220	44,171,999	41,027,651	3,144,348
Jul-96	6,197	0	36,412	0	0	42,609	0	42,609	44,214,608	41,027,651	3,186,957
Aug-96	26,633	0	123,199	0	0	149,832	0	149,832	44,364,440	41,027,651	3,336,789
Sep-96	445,453	0	468,982	0	0	914,435	0	914,435	45,278,875	41,027,651	4,251,224
Oct-96	186,805	30,412	239,862	37,131	0	426,667	67,543	359,124	45,705,542	41,095,194	4,610,348
Nov-96	0	394,635	12,438	474,949	15,674	12,438	805,256	-672,820	45,717,980	41,980,452	3,737,528
Dec-96	30,677	265,547	48,735	281,630	8,223	79,412	555,400	-475,988	45,797,392	42,535,852	3,261,540
							0	0	45,797,392	42,535,852	3,261,540
Jan-97	0	273,303	0	231,475	7,926	0	512,704	-512,704	45,797,392	43,048,556	2,748,836
Feb-97	0	225,723	2,968	140,078	10,941	2,968	376,742	-373,774	45,800,360	43,425,298	2,375,062
Mar-97	0	203,396	0	36,791	3,794	0	243,981	-243,981	45,800,360	43,689,279	2,131,081
Apr-97	3,593	36,596	76,200	0	0	79,793	36,596	43,197	45,880,153	43,705,875	2,174,278
May-97	0	22,186	162,956	0	0	162,956	140,770	46,043,109	43,728,061	43,728,061	2,315,048
Jun-97	0	0	336,887	0	0	336,887	0	336,887	46,379,996	43,728,061	2,651,935
Jul-97	46,371	9,765	177,584	0	0	223,955	9,765	214,190	46,603,951	43,737,826	2,866,125
Aug-97	428,938	0	357,335	0	0	786,273	0	786,273	47,390,224	43,737,826	3,652,398
Sep-97	354,935	0	318,732	0	0	673,667	0	673,667	48,063,891	43,737,826	4,326,065
Oct-97	143,610	57,805	153,973	26,849	268	297,583	84,922	212,661	48,361,474	43,822,748	4,538,726
Nov-97	11,468	247,107	23,059	316,792	6,555	34,527	570,454	-535,927	48,396,001	44,393,202	4,002,799
Dec-97	0	192,137	0	438,301	2,419	0	632,857	-632,857	48,396,001	45,026,059	3,369,942
							0	0	48,396,001	45,026,059	3,369,942
Jan-98	140,921	7,495	0	109,235	0	0	140,921	24,191	48,538,922	45,142,789	3,394,133
Feb-98	678,668	0	3,706	0	0	682,374	0	682,374	49,219,296	45,142,789	4,076,507
Mar-98	61,610	96,563	52,266	112,795	0	113,876	209,358	-95,482	49,333,172	45,352,147	3,981,025
Apr-98	479,796	94,661	2,620	517	0	482,416	95,178	387,238	49,815,588	45,447,325	4,368,263
May-98	433,079	0	322,356	0	0	755,435	0	755,435	50,571,023	45,447,325	5,123,698
Jun-98	247,582	8,220	199,859	0	0	447,441	8,220	439,221	51,018,464	45,455,545	5,562,919
Jul-98	303,518	3,250	267,394	0	0	567,662	3,250	567,662	51,589,376	45,458,795	6,130,581
Aug-98	710,382	0	3,879	0	0	714,261	0	714,261	52,303,837	45,458,795	6,844,842
Sep-98	144,351	152,691	107,627	104,106	0	251,978	256,797	-4,819			

Aug-99	302,549	47,699	317,810	13,660	0	1,547	620,359	62,914	53,415	55,584,140	49,257,269	6,326,871
Sep-99	281,430	534	364,036	1,155	0	12,123	645,466	13,812	631,654	56,229,606	49,271,081	6,958,525
Oct-99	270,177	602,677	1,475	3,291	0	0	271,652	605,968	-334,316	56,501,259	49,877,049	6,624,209
Nov-99	377,341	46,524	348,471	43,064	0	36,355	725,812	125,943	599,869	57,227,071	50,002,992	7,224,078
Dec-99	66,060	178,943	51,335	162,999	0	40,024	117,395	381,966	-264,571	57,344,466	50,384,958	6,959,507
							0	0	0	57,344,466	50,384,958	6,959,507
Jan-00	0	405,638	0	591,507	0	13,003	0	1,010,148	-1,010,148	57,344,466	51,395,106	5,949,359
Feb-00	26,351	358,538	37,393	490,772	0	5,685	63,744	854,995	-791,251	57,408,210	52,250,101	5,158,108
Mar-00	46,153	201,295	0	208,712	0	11,540	46,153	421,547	-375,394	57,454,363	52,671,648	4,782,714
Apr-00	386,042	517	474,604	0	0	23,498	860,646	24,015	836,631	58,315,009	52,695,663	5,619,345
May-00	312,055	85,718	330,673	88,802	0	42,306	642,728	216,826	425,902	58,957,737	52,912,489	6,045,247
Jun-00	232,311	43,225	290,264	0	0	47,787	522,575	91,012	431,563	59,480,312	53,003,501	6,476,810
Jul-00	29,640	422,747	41,867	333,697	0	48,378	71,507	804,822	-733,315	59,551,819	53,808,323	5,743,495
Aug-00	84,138	315,770	113,226	274,655	0	39,453	197,364	629,878	-432,514	59,749,183	54,438,201	5,310,981
Sep-00	80,902	144,392	159,008	165,243	0	33,599	239,910	343,234	-103,324	59,989,093	54,781,435	5,207,657
Oct-00	147,995	26,159	179,616	37,915	0	0	327,611	64,074	263,537	60,316,704	54,845,509	5,471,194
Nov-00	171,955	158,953	130,786	125,723	0	0	302,741	284,676	18,065	60,619,445	55,130,185	5,489,259
Dec-00	115,654	190,888	63,438	287,328	0	0	179,092	478,216	-299,124	60,798,537	55,608,401	5,190,135
							0	0	0	60,798,537	55,608,401	5,190,135
Jan-01	-23	273,119	-38	288,080	8,968	22,663	-61	592,830	-592,892	60,798,475	56,201,232	4,597,244
Feb-01	27,421	186,238	-127	196,585	7,011	21,550	27,294	411,385	-384,091	60,825,769	56,612,616	4,213,153
Mar-01	352,611	8,255	486,274	8,133	1,068	371	838,885	17,827	821,058	61,664,654	56,630,443	5,034,211
Apr-01	301,215	0	443,376	0	0	0	744,591	0	744,591	62,409,245	56,630,443	5,778,802
May-01	330,282	0	459,887	0	0	0	790,169	0	790,169	63,199,415	56,630,443	6,568,971
Jun-01	145,844	110,811	240,318	63,575	0	0	386,162	174,386	211,777	63,585,577	56,804,829	6,780,748
Jul-01	103,059	119,414	146,282	129,282	197	131	249,342	249,024	318	63,834,919	57,053,853	6,781,066
Aug-01	105,010	133,447	113,811	132,799	124	0	218,821	266,370	-47,549	64,053,740	57,320,223	6,733,517
Sep-01	265,408	34,347	237,909	22,411	0	0	503,316	56,759	446,558	64,557,056	57,376,981	7,180,075
Oct-01	187,287	53,564	246,375	13,878	0	0	433,662	67,442	366,220	64,990,718	57,444,423	7,546,295
Nov-01	272,284	24,025	297,077	11,418	0	0	509,961	35,443	533,918	65,560,079	57,479,866	8,080,213
Dec-01	62,692	99,175	26,237	161,866	0	0	889,29	261,041	-172,112	65,649,008	57,740,907	7,908,101

EXHIBIT "F"

Raptor Natural Pipeline Actuals: 14.65 PB MMBTU	Month:	Injection / Withdrawal MMBTU													
		Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01	Oct-01	Nov-01	Dec-01	Cumulative
Total Injection		193,667 (502,935)	(54) (622,178)	29,508 (432,154)	905,558 (18,708)	813,537	845,814	417,364 (178,857)	273,151 (262,171)	238,437 (280,146)	551,367 (59,667)	473,879 (73,026)	627,830 (38,305)	97,960 (284,036)	5,468,058 (2,752,183)
MCF															
Total Injection		183,684 (490,478)	(63) (608,031)	27,994 (421,933)	860,395 (18,284)	763,683	810,430	396,064 (178,857)	255,735 (255,409)	224,432 (273,200)	516,222 (58,214)	444,763 (69,168)	583,936 (36,350)	91,206 (267,724)	5,158,481 (2,677,648)
MMBTU / MCF															
Injection		1.05435		1.05408	1.05249	1.06528	1.04366	1.05378	1.06810	1.06262	1.06808	1.06546	1.07517	1.07405	1.06001
Withdrawal		1.02540	1.02327	1.02422	1.02319			1.00000	1.02648	1.02542	1.02496	1.05578	1.05378	1.06093	1.02784
Weighted Average MMBTU / MCF: For time period December 1, 2000 through December 31, 2001															
Injection		1.06001													
Withdrawal		1.02784													
Weighted Average MMBTU / MCF: For time period December 1, 2000 through December 31, 2001															
Converted from 14.65 to 15.025 PB															
Injection		1.08715													
Withdrawal		1.05415													

	Nov-00 and Prior		Dec-00 thru Dec01		Total as of Dec. 31, 2001	
	MCF	MMBTU	MCF	MMBTU	MCF	MMBTU
Cumulative Injections	60,619,445	65,902,226	5,029,734	5,468,058	65,649,178	71,370,284
Cumulative Withdrawals	55,130,185	58,115,253	2,610,818	2,752,183	57,741,004	60,867,436
	(1)	(2)	(3)	(4)		
Net Balance - MMBTU as of December 31, 2001	10,502,849					

(1) From "Exhibit E" Cumulative Volumes
(2) MCF Multiplied by Weighted Average MMBTU/MCF (15.025 PB)
(3) Raptor Natural Pipeline Actuals Converted from 14.65 to 15.025 PB
(4) Raptor Natural Pipeline Actuals

Exhibit "G"

Example Report Format

RAPTOR NATURAL PIPELINE LLC
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO
PLAN OF OPERATION - PROGRESS REPORT
FOR THE SIX-MONTH PERIOD ENDING
June, 2001

Month:	GRM Unit No. 1		GRM Unit No. 2		GRM Unit No. 3		GRM Unit No. 4		Total	
	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF
Jan-01	0	0	0	0	0	0	0	0	0	0
Feb-01	0	0	0	0	0	0	0	0	0	0
Mar-01	0	0	0	0	0	0	0	0	0	0
Apr-01	0	0	0	0	0	0	0	0	0	0
May-01	0	0	0	0	0	0	0	0	0	0
Jun-01	0	0	0	0	0	0	0	0	0	0
Current Period:	0	0	0	0	0	0	0	0	0	0
							Prior Periods:		0	0
							Cumulative:		0	0

**Grama Ridge Morrow Unit
Lea County, New Mexico**

Plan of Operation

This is a revised Plan of Operation as required, from time to time, pursuant to Section 9 of the UNIT AGREEMENT FOR THE OPERATION OF THE GRAMA RIDGE MORROW UNIT AREA, LEA COUNTY, NEW MEXICO dated April 25, 1973, as amended ("Unit Agreement"), for the Grama Ridge Morrow Unit.

This Plan of Operation shall constitute the operating procedures and conditions in which the unit operator will continue to operate the gas storage facility.

Injections and withdrawals of gas into and from the Grama Ridge Morrow Unit are achieved and will continue with the use of the following wells:

GRM Unit No. 1: Used for injection and withdrawal.

GRM Unit No. 2: Used for injection and withdrawal.

GRM Unit No. 3: Used for withdrawal only.

GRM Unit No. 4: Used for withdrawal only.

Approximately 4 billion cubic feet of gas injected into the Grama Ridge Morrow Unit is utilized as pad gas in order to maintain operating pressures for gas withdrawals. Third party customers use the remaining Unit capacity, approximately 6 billion cubic feet of gas, as storage capacity for gas.

The Grama Ridge Morrow Unit storage facility will be utilized to provide commercial storage of gas to third party customers. Customers will be allowed to request the injection and withdrawal of their gas pursuant to contractual agreements entered into between them and the unit operator. For the foreseeable life of the Grama Ridge Morrow Unit, injection of gas into the storage facility shall proceed according to a plan of typically injecting gas April through October and withdrawing gas November through March of each year.

However, typical injection and withdrawal cycles may vary depending on the requirements of the customers and their contracts associated with the storage facility.

The unit operator will continue to operate the Grama Ridge Morrow Unit, in accordance with the terms and conditions of Unit Agreement. This Plan of Operation shall continue until conditions warrant a change in operating procedures as described above. At such time, a new plan of operation shall be submitted to the Commissioner of Public Lands of the State of New Mexico for approval.

This Plan of Operation is respectfully submitted for approval effective December 1, 2000.

RAPTOR NATURAL PIPELINE LLC

By: _____
Vice President

Approved _____

By: _____
Commissioner of Public Lands

Las Milpas Underground gas storage unit.

1. June 1, 1978 issue date.
2. Injection fee(initial) .00625
3. Withdrawal fee(initial) .00625
4. State Land Office interest in storage area - 12.5%.
5. Increases have been based on the Bureau of labor Statistics COPAS WAGE INDEX.
6. Injection fee as of July 2002 will be .01085207.
7. Injection fee as of July 2002 will be .01085207.
8. Fees will be re-negotiated in 2003.

Washington Ranch Underground gas storage unit.

1. May 14th 1981 issue date.
2. Injection fee(initial) .00625.
3. Withdrawal fee(initial) .00625.
4. State Land office interest in storage area - 6.43%.
5. Increases in injection and withdrawal fees have been based on the Bureau of Labor Statistics CPI INDEX.
6. Injection and withdrawal fees as of May 2002 are .00691332.
7. Fees can be re-negotiated in 2004.

Gramma Ridge Underground gas storage unit.

1. September 1, 1976 issue date.
2. Injection fee(initial) .00625.
3. Withdrawal fee(initial) .00625.
4. State Land - 73.4375%.
5. Injection and Withdrawal fee increases based on Bureau of Labor Statistics COPAS WAGE INDEX.
6. Injection and withdrawal fees as of September 2002 will be .02379.
7. Fees are currently being re-negotiated??

COMMENTS:

It is my recommendation that the method of adjusting the injection and withdrawal fees on the Gramma Ridge storage unit should be maintained for the following reasons.

1. Lessee has over the history of the permit offered to continue the adjustments based on the current index.

2. The fee adjustments have tracked well with the price of well head gas since 1976. Roughly triple the increase. 1976 well head gas was 1.00/mcf, currently 3.14/mcf.

3. We own 73.4375% of the unit as apposed to 12.5% and 6.3% in the other two.

4. Because of the index, the fees for this next year will be lower anyway.

5. In all likelihood, the rates for the Washington Ranch will be negotiated to reflect the same index as gramma ridge and Las Milpas.

tion

BTU/CU. FT

1041

1049.21

1040.07

1043.16

1048.22

1051.02

1054.74

1059.19

1048.33

Grama Ridge Morrow Unit
Lea County, New Mexico
New Mexico Oil Conservation Division
Monthly Gas Storage Report, Form C-131-A

Date:	GRM Unit No. 1		GRM Unit No. 2		GRM Unit No. 3		GRM Unit No. 4		Total		NET	Cumulative		Cumulative
	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF		Injection MCF	Withdrawal MCF	
Jan-85	103,189	32,302	63,636	21,982	5,926	11,411	166,825	71,621	95,204	16,430,708	10,477,689	5,953,019		
Feb-85	46,395	39,209	111,192	34,221	3,345	19,773	157,587	96,548	61,039	16,597,533	10,549,310	6,048,223		
Mar-85	6,501	22,471	27,920	42,215	10,641	28,383	34,421	103,710	-69,289	16,755,120	10,645,858	6,109,262		
Apr-85	0	32,756	0	53,479	13,178	39,525	0	138,938	-138,938	16,789,541	10,749,568	6,039,973		
May-85	0	93,493	0	173,397	18,228	59,106	0	344,224	-344,224	16,789,541	10,888,506	5,901,035		
Jun-85	332	222,404	6,305	244,877	10,160	97,274	6,637	574,715	-568,078	16,796,178	11,807,445	4,988,733		
Jul-85	0	40,257	89,995	61,320	4,972	33,032	89,995	139,581	-49,586	16,886,173	11,947,026	4,939,147		
Aug-85	19,501	27,856	47,348	56,671	5,826	40,146	66,849	130,499	-63,650	16,953,022	12,077,525	4,875,497		
Sep-85	0	5,242	1,374	19,188	1,616	6,789	32,835	1,374	-31,461	16,954,396	12,110,360	4,844,036		
Oct-85	89,637	173	70,480	5,218	1,194	5,464	160,117	12,049	148,068	17,114,513	12,122,409	4,992,104		
Nov-85	55,112	1,050	41,571	6,591	1,340	7,586	96,683	16,567	80,116	17,211,196	12,138,976	5,072,220		
Dec-85	7,267	9,707	40,136	22,370	3,308	8,511	47,403	43,896	3,507	17,258,599	12,182,872	5,075,727		
Jan-86	5,232	856	20,527	16,498	9,144	8,667	25,759	35,165	-9,406	17,258,599	12,182,872	5,075,727		
Feb-86	8,140	0	59,840	6,977	2,967	10,051	67,980	19,995	47,985	17,284,358	12,218,037	5,066,321		
Mar-86	26,805	1,154	67,365	2,156	8,014	3,737	94,170	15,061	79,109	17,352,338	12,238,032	5,114,306		
Apr-86	0	92,948	0	87,284	17,941	16,659	0	214,832	-214,832	17,446,508	12,253,093	5,193,415		
May-86	0	295,023	0	294,329	33,475	108,260	0	731,087	-731,087	17,446,508	12,467,925	4,978,583		
Jun-86	0	266,943	0	205,168	24,273	73,654	0	570,038	-570,038	17,446,508	13,199,012	4,247,496		
Jul-86	0	238,772	0	180,454	15,016	76,689	0	510,931	-510,931	17,446,508	13,769,050	3,677,458		
Aug-86	0	132,924	0	108,821	7,738	40,010	0	289,493	-289,493	17,446,508	14,279,981	3,166,527		
Sep-86	0	72,527	0	71,828	12,532	40,692	0	197,579	-197,579	17,446,508	14,569,474	2,877,034		
Oct-86	0	16,003	0	15,294	5,085	4,767	0	41,149	-41,149	17,446,508	14,767,053	2,679,455		
Nov-86	0	0	0	0	0	0	0	0	0	17,446,508	14,808,202	2,638,306		
Dec-86	0	28,789	0	0	5,614	8,738	0	43,141	-43,141	17,446,508	14,851,343	2,595,165		
Jan-87	0	14,670	0	7,991	5,003	5,931	0	33,595	-33,595	17,446,508	14,851,343	2,595,165		
Feb-87	0	19,951	0	50,203	10,109	12,078	0	92,351	-92,351	17,446,508	14,884,938	2,561,570		
Mar-87	0	706	0	39,872	796	90	0	41,464	-41,464	17,446,508	14,977,289	2,469,219		
Apr-87	0	2,323	0	0	1,880	2,501	0	6,704	-6,704	17,446,508	15,018,753	2,427,755		
May-87	0	0	0	0	0	0	0	0	0	17,446,508	15,025,457	2,421,051		
Jun-87	0	17,629	0	0	9,074	11,369	0	38,072	-38,072	17,446,508	15,025,457	2,421,051		
Jul-87	182	0	0	0	0	0	182	0	182	17,446,690	15,063,529	2,383,161		
Aug-87	185,385	0	0	0	0	0	185,385	0	185,385	17,632,075	15,063,529	2,568,546		
Sep-87	20,729	0	0	0	0	0	20,729	0	20,729	17,652,804	15,063,529	2,589,275		
Oct-87	42,172	0	0	0	0	0	42,172	0	42,172	17,694,976	15,063,529	2,631,447		
Nov-87	15,238	33,281	0	0	18,537	25,067	15,238	76,885	-61,647	17,710,214	15,140,414	2,569,800		
Dec-87	0	140,415	0	0	30,715	48,990	0	220,120	-220,120	17,710,214	15,360,534	2,349,680		
Jan-88	0	62,366	0	0	17,976	27,883	0	108,225	-108,225	17,710,214	15,360,534	2,349,680		
Feb-88	0	44,949	0	0	12,857	14,098	0	71,904	-71,904	17,710,214	15,468,759	2,241,455		
Mar-88	0	45,347	0	0	13,402	25,628	0	84,377	-84,377	17,710,214	15,540,663	2,169,551		
											15,625,040	2,085,174		

Grama Ridge Morrow Unit
Lea County, New Mexico
New Mexico Oil Conservation Division
Monthly Gas Storage Report, Form C-131-A

Date:	GRM Unit No. 1		GRM Unit No. 2		GRM Unit No. 3		GRM Unit No. 4		Total		NET MCF	Cumulative		Cumulative MCF
	Injection	Withdrawal	MCF	Withdrawal	MCF	Withdrawal	MCF	Injection	Withdrawal	MCF		Injection	Withdrawal	
Apr-88	0	337	0	0	0	1,653	0	0	2,762	0	-2,762	17,710,214	15,627,802	2,082,412
May-88	166,247	0	0	0	0	0	166,247	0	0	0	166,247	17,876,461	15,627,802	2,248,659
Jun-88	97,977	0	0	0	0	0	97,977	0	0	0	97,977	17,974,438	15,627,802	2,346,636
Jul-88	0	90,362	0	0	0	0	0	0	90,362	0	-90,362	17,974,438	15,718,164	2,256,274
Aug-88	0	133,428	0	0	16,946	33,497	0	0	183,871	0	-183,871	17,974,438	15,902,035	2,072,403
Sep-88	94,708	469	0	0	150	276	94,708	0	895	0	93,813	18,069,146	15,902,930	2,166,216
Oct-88	25,905	0	0	0	0	0	25,905	0	0	0	25,905	18,095,051	15,902,930	2,192,121
Nov-88	1,891	131,470	0	0	0	0	1,891	0	131,470	0	-129,579	18,096,942	16,034,400	2,062,542
Dec-88	0	175,213	0	50,924	55,361	31,511	0	0	313,009	0	-313,009	18,096,942	16,347,409	1,749,533
Jan-89	12,460	2,385	0	45,081	6,151	2,832	12,460	0	0	0	0	18,096,942	16,347,409	1,749,533
Feb-89	14,763	9,032	0	18,503	11,475	0	14,763	0	56,449	0	-43,989	18,109,402	16,403,858	1,705,544
Mar-89	32,020	997	23,342	1,391	99	0	55,362	0	39,010	0	-24,247	18,124,165	16,442,868	1,681,297
Apr-89	95,429	0	95	0	0	0	95,524	0	2,487	0	52,875	18,179,527	16,445,355	1,734,172
May-89	203,321	0	155,637	0	0	0	358,958	0	0	0	358,958	18,275,051	16,445,355	1,829,696
Jun-89	152,529	0	140,019	0	0	0	292,548	0	0	0	292,548	18,634,009	16,445,355	2,188,654
Jul-89	39,421	4,995	34,786	2,019	6,743	4,325	74,237	0	18,082	0	56,125	18,926,557	16,445,355	2,481,202
Aug-89	178,392	0	132,517	0	0	0	310,909	0	0	0	310,909	19,311,673	16,463,437	2,848,236
Sep-89	2,559	0	39,153	0	0	3,041	41,712	0	3,041	0	38,671	19,353,385	16,466,478	2,886,907
Oct-89	57,158	0	12,202	0	0	0	69,360	0	0	0	69,360	19,422,745	16,466,478	2,956,267
Nov-89	9,187	111,755	0	104,986	0	0	9,187	0	216,741	0	-207,554	19,431,932	16,683,219	2,748,713
Dec-89	0	198,443	0	135,341	36,154	45,718	0	0	415,656	0	-415,656	19,431,932	17,098,875	2,333,057
Jan-90	0	129,815	0	92,520	12,404	22,304	0	0	257,043	0	-257,043	19,431,932	17,355,918	2,076,014
Feb-90	0	179,922	0	128,940	9,357	3,028	0	0	321,247	0	-321,247	19,431,932	17,677,165	1,754,767
Mar-90	0	8,488	0	5,841	0	0	0	0	14,329	0	-14,329	19,431,932	17,691,494	1,740,438
Apr-90	80,897	0	257	0	0	0	80,954	0	0	0	80,954	19,512,886	17,691,494	1,821,392
May-90	53,578	14,978	32,600	46,228	0	0	86,178	0	61,206	0	24,972	19,599,064	17,752,700	1,846,364
Jun-90	158,091	1,009	190,654	0	0	0	348,745	0	1,009	0	347,736	19,947,809	17,753,709	2,194,100
Jul-90	185,603	0	274,125	0	6,021	3,149	459,728	0	9,170	0	450,558	20,407,537	17,762,879	2,644,658
Aug-90	181,589	0	300,560	0	0	0	482,149	0	0	0	482,149	20,889,686	17,762,879	3,126,807
Sep-90	171,280	0	336,400	0	0	6,709	507,680	0	6,709	0	500,971	21,397,366	17,769,588	3,627,778
Oct-90	153,226	8,778	381,085	0	0	10,475	534,311	0	19,253	0	515,058	21,931,677	17,788,841	4,142,836
Nov-90	626	101,450	20,546	100,047	22,119	32,163	21,172	0	255,779	0	-234,607	21,952,849	18,044,620	3,908,229
Dec-90	0	227,491	0	547,612	28,477	45,510	0	0	849,090	0	-849,090	21,952,849	18,893,710	3,059,139
Jan-91	0	235,781	0	536,817	11,311	39,355	0	0	823,264	0	0	21,952,849	18,893,710	3,059,139
Feb-91	0	169,174	0	239,878	10,518	30,937	0	0	450,507	0	-823,264	21,952,849	19,716,974	2,235,875
Mar-91	23,296	103,005	0	139,184	5,748	21,088	23,296	0	450,507	0	-450,507	21,952,849	20,167,481	1,785,368
Apr-91	180,607	1,204	257,157	0	0	0	437,764	0	269,025	0	-245,729	21,976,145	20,436,506	1,539,639
May-91	205,772	0	333,894	0	0	0	539,666	0	1,204	0	436,560	22,413,909	20,437,710	1,976,199
Jun-91	293,399	0	294,011	0	0	0	587,410	0	0	0	539,666	22,953,575	20,437,710	2,515,865
Jul-91	390,012	0	447,125	0	0	356	837,137	0	356	0	587,054	23,540,985	20,438,066	3,102,919
											837,137	24,378,122	20,438,066	3,940,056

Grana Ridge Morrow Unit
Lea County, New Mexico
New Mexico Oil Conservation Division
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Date:	GRM Unit No. 1		GRM Unit No. 2		GRM Unit No. 3		GRM Unit No. 4		Total		NET MCF	Cumulative Injection MCF		Cumulative Withdrawal MCF		Cumulative MCF
	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF		Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	
Aug-91	339,998	0	374,752	0	0	0	0	0	714,750	0	714,750	25,092,872	20,438,066	4,654,806		
Sep-91	393,880	0	432,634	0	0	0	0	0	826,514	0	826,514	25,919,386	20,438,066	5,481,320		
Oct-91	329,898	0	316,627	0	0	0	0	0	646,525	0	646,525	26,565,911	20,438,066	6,127,845		
Nov-91	0	325,168	0	373,504	15,893	15,893	44,219	0	758,784	758,784	-758,784	26,565,911	21,196,850	5,369,061		
Dec-91	0	362,311	0	478,867	15,111	15,111	72,548	0	928,837	928,837	-928,837	26,565,911	22,125,687	4,440,224		

Grama Ridge Morrow Unit
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Date:	GRM Unit No. 1		GRM Unit No. 2		GRM Unit No. 3		GRM Unit No. 4		Total		NET MCF	Cumulative		Cumulative MCF
	Injection	Withdrawal	Injection	Withdrawal	Injection	Withdrawal	Injection	Withdrawal	Injection	Withdrawal		Injection	Withdrawal	
Jan-92	0	393,443	0	538,359	13,503	68,065	0	0	0	0	0	26,565,911	22,125,687	4,440,224
Feb-92	67	261,122	0	357,597	12,644	37,594	0	1,013,370	0	0	-1,013,370	26,565,911	23,139,057	3,426,854
Mar-92	0	175,765	0	234,869	8,193	31,922	0	668,957	67	0	-668,890	26,565,978	23,808,014	2,757,964
Apr-92	11,035	172,647	109,742	38,380	772	3,731	120,777	450,749	0	0	-450,749	26,565,978	24,258,763	2,307,215
May-92	336,006	14,877	206,754	0	0	0	542,760	215,530	0	0	-94,753	26,686,755	24,474,293	2,212,462
Jun-92	387,015	0	358,969	0	0	0	745,984	14,877	0	0	527,883	27,229,515	24,489,170	2,740,345
Jul-92	367,466	0	321,837	0	0	0	689,303	0	0	0	745,984	27,975,498	24,489,170	3,486,329
Aug-92	384,532	0	368,161	0	0	0	752,693	0	0	0	689,303	28,664,802	24,489,170	4,175,632
Sep-92	341,320	0	226,291	0	0	0	567,611	0	0	0	752,693	29,417,495	24,489,170	4,928,325
Oct-92	32,061	259,360	82,795	41,077	0	0	114,856	300,437	0	0	-185,581	30,099,962	24,789,607	5,495,936
Nov-92	489	408,479	0	468,602	21,729	90,567	489	989,377	0	0	-988,888	30,100,451	25,778,984	4,321,467
Dec-92	0	357,123	0	488,654	7,559	72,668	0	926,104	0	0	-926,104	30,100,451	26,705,088	3,395,363
Jan-93	0	314,012	0	468,165	11,687	55,153	0	0	0	0	0	30,100,451	26,705,088	3,395,363
Feb-93	0	271,105	0	311,000	29,595	44,477	0	849,017	0	0	-849,017	30,100,451	27,554,105	2,546,346
Mar-93	0	259,271	0	203,447	12,961	40,075	0	656,177	0	0	-656,177	30,100,451	28,210,282	1,890,169
Apr-93	0	196,808	0	42,940	9,456	32,240	0	515,754	0	0	-515,754	30,100,451	28,726,036	1,374,415
May-93	424,878	277	429,794	0	0	0	854,672	281,444	0	0	-281,444	30,100,451	29,007,480	1,092,971
Jun-93	496,780	0	506,449	0	0	0	1,003,229	277	0	0	854,395	30,955,123	29,007,757	1,947,366
Jul-93	476,231	0	325,025	0	0	0	801,256	0	0	0	1,003,229	31,958,352	29,007,757	2,950,595
Aug-93	260,872	125,438	256,560	107,115	0	0	517,432	232,553	0	0	801,256	32,759,608	29,007,757	3,751,851
Sep-93	488,297	0	257,159	0	0	0	745,456	284,879	0	0	284,879	33,277,040	29,240,310	4,036,730
Oct-93	144,746	65,010	152,536	32,641	0	0	297,232	97,651	0	0	745,456	34,022,496	29,240,310	4,782,186
Nov-93	0	387,196	0	499,889	21,462	30,338	0	938,885	0	0	-938,885	34,319,778	29,337,961	4,981,817
Dec-93	8,881	205,512	9,932	342,855	4,939	64,394	18,813	617,700	0	0	-598,887	34,338,591	30,276,846	4,042,932
Jan-94	0	272,101	0	465,579	6,155	70,292	0	0	0	0	0	34,338,591	30,894,546	3,444,045
Feb-94	0	231,675	0	264,678	7,872	51,666	0	814,127	0	0	-814,127	34,338,591	31,708,673	2,629,918
Mar-94	0	163,120	0	100,361	11,135	36,161	0	555,891	0	0	-555,891	34,338,591	32,264,564	2,074,027
Apr-94	103,607	53,500	1,557	6,071	0	0	105,164	310,777	0	0	-310,777	34,338,591	32,575,341	1,763,250
May-94	459,982	0	346,946	0	0	0	806,928	59,571	0	0	45,593	34,443,755	32,634,912	1,808,843
Jun-94	370,783	4,310	340,209	0	0	0	710,992	4,310	0	0	806,928	35,250,683	32,634,912	2,615,771
Jul-94	278,895	0	113,070	0	0	0	391,965	0	0	0	706,682	35,961,675	32,639,222	3,322,453
Aug-94	106,072	0	118,624	0	0	0	224,696	0	0	0	391,965	36,353,640	32,639,222	3,714,418
Sep-94	542,198	0	539,629	0	0	0	1,081,827	0	0	0	224,696	36,578,336	32,639,222	3,939,114
Oct-94	486,455	0	468,757	0	0	0	555,212	0	0	0	1,081,827	37,660,163	32,639,222	5,020,941
Nov-94	28,167	270,491	38,000	167,210	3,892	19,290	66,167	460,883	0	0	955,212	38,615,375	32,639,222	5,976,153
Dec-94	0	449,676	0	767,248	12,536	100,607	0	1,330,167	0	0	-394,716	38,681,542	33,100,105	5,581,437
Jan-95	0	244,626	27,302	318,742	5,295	28,999	0	0	0	0	-1,330,167	38,681,542	34,430,272	4,251,270
Feb-95	101,663	210,325	17,427	225,287	9,589	63,618	27,302	597,662	27,302	0	-570,360	38,708,844	35,027,934	3,680,910
Mar-95	364,808	118,740	318,775	40,373	9,836	16,861	119,090	508,819	119,090	0	-389,729	38,827,934	35,536,753	3,291,181
							683,533	185,810			497,773	39,511,517	35,722,563	3,788,954

Grama Ridge Morrow Unit
Lea County, New Mexico
New Mexico Oil Conservation Division
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Date:	GRM Unit No. 1		GRM Unit No. 2		GRM Unit No. 3		GRM Unit No. 4		Total		NET MCF	Cumulative		Cumulative MCF
	Injection	Withdrawal	Injection	Withdrawal	Injection	Withdrawal	Injection	Withdrawal	Injection	Withdrawal		Injection	Withdrawal	
Apr-95	193,050	17,170	177,790	0	0	0	3,571	370,840	20,741	350,099	39,882,357	35,743,304	4,139,053	
May-95	383,844	0	379,017	0	0	0	0	762,861	0	762,861	40,645,218	35,743,304	4,901,914	
Jun-95	415,253	0	402,900	0	0	0	0	818,153	0	818,153	41,463,371	35,743,304	5,720,067	
Jul-95	352,364	0	281,301	0	0	0	0	633,665	0	633,665	42,097,036	35,743,304	6,353,732	
Aug-95	342,003	0	258,678	0	0	0	0	600,681	0	600,681	42,697,717	35,743,304	6,954,413	
Sep-95	32,981	161,535	20,913	232,584	12,033	68,285	53,894	474,437	474,437	-420,543	42,751,611	36,217,741	6,533,870	
Oct-95	4,174	311,406	16,844	100,541	0	47,736	21,018	459,683	459,683	-438,665	42,772,629	36,677,424	6,095,205	
Nov-95	0	398,780	0	396,825	9,224	106,716	0	911,545	911,545	-911,545	42,772,629	37,588,969	5,183,660	
Dec-95	7,877	302,371	16,194	375,526	15,787	64,286	24,071	757,970	757,970	-733,899	42,796,700	38,346,939	4,449,761	
Jan-96	0	357,838	0	488,411	11,819	68,416	0	926,484	926,484	0	42,796,700	38,346,939	4,449,761	
Feb-96	0	303,126	0	319,615	22,592	55,165	0	700,498	700,498	-926,484	42,796,700	39,273,423	3,523,277	
Mar-96	0	322,259	0	252,492	9,780	59,243	0	643,774	643,774	-700,498	42,796,700	39,973,921	2,822,779	
Apr-96	7,479	206,186	5,092	133,558	0	39,131	12,571	378,875	378,875	-643,774	42,796,700	40,617,695	2,179,005	
May-96	327,999	8,630	157,064	3,295	0	0	485,063	11,925	11,925	-366,304	42,809,271	40,996,570	1,812,701	
Jun-96	14,631	19,156	83,745	0	0	0	98,376	19,156	19,156	473,138	43,294,334	41,008,495	2,285,839	
Jul-96	6,197	0	36,412	0	0	0	42,609	0	0	79,220	43,392,710	41,027,651	2,365,059	
Aug-96	26,633	0	123,199	0	0	0	149,832	0	0	42,609	43,435,319	41,027,651	2,407,668	
Sep-96	445,453	0	468,982	0	0	0	914,435	0	0	149,832	43,585,151	41,027,651	2,557,500	
Oct-96	186,805	30,412	239,862	37,131	0	0	426,667	67,543	67,543	914,435	44,499,586	41,027,651	3,471,935	
Nov-96	0	394,635	12,438	474,949	15,674	0	12,438	885,258	885,258	359,124	44,926,253	41,095,194	3,831,059	
Dec-96	30,677	265,547	48,735	281,630	8,223	0	79,412	555,400	555,400	-872,820	44,938,691	41,980,452	2,958,239	
Jan-97	0	273,303	0	231,475	7,926	0	0	512,704	512,704	-475,988	45,018,103	42,535,852	2,482,251	
Feb-97	0	225,723	2,968	140,078	10,941	0	2,968	376,742	376,742	0	45,018,103	43,048,556	1,969,547	
Mar-97	0	203,396	0	36,791	3,794	0	0	243,981	243,981	-373,774	45,021,071	43,425,298	1,595,773	
Apr-97	3,593	36,596	76,200	0	0	0	79,793	36,596	36,596	-243,981	45,021,071	43,669,279	1,351,792	
May-97	0	22,186	162,956	0	0	0	162,956	22,186	22,186	43,197	45,100,864	43,705,875	1,394,989	
Jun-97	0	0	336,887	0	0	0	336,887	0	0	140,770	45,263,820	43,728,061	1,535,759	
Jul-97	46,371	9,765	177,584	0	0	0	223,955	9,765	9,765	336,887	45,600,707	43,728,061	1,872,646	
Aug-97	428,938	0	357,335	0	0	0	786,273	0	0	214,190	45,824,662	43,737,826	2,086,836	
Sep-97	354,935	0	318,732	0	0	0	673,667	0	0	45,824,662	46,610,935	43,737,826	2,873,109	
Oct-97	143,610	57,805	153,973	26,849	268	0	297,583	84,922	84,922	673,667	47,284,602	43,737,826	3,546,776	
Nov-97	11,468	247,107	23,059	316,792	6,555	0	34,527	570,454	570,454	212,661	47,582,185	43,822,748	3,759,437	
Dec-97	0	192,137	0	438,301	2,419	0	0	632,857	632,857	-535,927	47,616,712	44,393,202	3,223,510	
Jan-98	140,921	7,495	0	109,235	0	0	0	0	0	-632,857	47,616,712	45,026,059	2,590,653	
Feb-98	678,668	0	3,706	0	0	0	140,921	116,730	116,730	0	47,616,712	45,026,059	2,590,653	
Mar-98	61,610	96,563	52,266	112,795	0	0	682,374	24,191	24,191	24,191	47,757,633	45,142,789	2,614,844	
Apr-98	479,796	94,661	2,620	517	0	0	113,876	209,358	209,358	682,374	48,440,007	45,142,789	3,297,218	
May-98	433,079	0	322,356	0	0	0	482,416	95,178	95,178	-95,482	48,553,883	45,352,147	3,201,736	
Jun-98	247,582	8,220	199,859	0	0	0	755,435	387,238	387,238	48,553,883	49,036,298	45,447,325	3,588,974	
Jul-98	303,518	3,250	267,394	0	0	0	447,441	8,220	8,220	755,435	49,791,734	45,447,325	4,344,409	
							570,912	3,250	3,250	439,221	50,239,175	45,455,545	4,783,630	
										567,662	50,810,087	45,458,796	5,351,292	

Grama Ridge Morrow Unit
Lea County, New Mexico
New Mexico Oil Conservation Division
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Date:	GRM Unit No. 1		GRM Unit No. 2		GRM Unit No. 3		GRM Unit No. 4		Total		NET MCF	Cumulative		Cumulative MCF
	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF		Injection MCF	Withdrawal MCF	
Aug-98	710,382	0	3,879	0	714,261	0	714,261	0	714,261	0	714,261	51,524,348	45,458,795	6,065,553
Sep-98	144,351	152,691	107,627	104,106	251,978	256,797	251,978	256,797	251,978	256,797	-4,819	51,776,326	45,715,592	6,060,734
Oct-98	287,827	35,147	256,530	12,597	544,357	47,744	544,357	47,744	544,357	47,744	496,613	52,320,683	45,763,336	6,557,347
Nov-98	146,186	248,927	1,798	1,359	146,984	250,286	146,984	250,286	146,984	250,286	-103,302	52,467,667	46,013,622	6,454,045
Dec-98	68,321	145,841	47,846	183,605	116,167	329,446	116,167	329,446	116,167	329,446	-213,279	52,583,834	46,343,068	6,240,766

Grana Ridge Morrow Unit
Lea County, New Mexico
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Date:	GRM Unit No. 1		GRM Unit No. 2		GRM Unit No. 3		GRM Unit No. 4		Total		NET MCF	Cumulative		Cumulative MCF
	Injection	Withdrawal	Injection	Withdrawal	Injection	Withdrawal	Injection	Withdrawal	Injection	Withdrawal		Injection	Withdrawal	
Jan-99	0	1,138,511	0	6,217	0	0	0	0	0	0	0	52,583,834	46,343,068	6,240,766
Feb-99	20,313	268,694	16,929	239,525	0	0	0	0	1,144,728	0	-1,144,728	52,583,834	47,487,796	5,096,038
Mar-99	35,623	219,163	14,801	151,934	0	0	0	0	508,219	0	-470,977	52,621,076	47,996,015	4,625,061
Apr-99	117,574	410,787	642	2,243	0	0	0	0	371,097	0	-320,673	52,671,500	48,367,112	4,304,388
May-99	258,931	19,488	156,866	45,322	0	0	0	0	413,030	0	-294,814	52,789,716	48,780,142	4,009,574
Jun-99	370,630	37,157	419,269	0	0	0	0	0	64,810	0	350,987	53,205,513	48,844,952	4,360,561
Jul-99	102,957	184,511	86,123	127,735	0	0	0	0	37,157	0	752,742	53,995,412	48,882,109	5,113,303
Aug-99	302,549	47,699	317,810	13,668	0	0	0	0	312,246	0	-123,166	54,184,492	49,194,355	4,990,137
Sep-99	281,430	534	364,036	1,155	0	0	0	0	62,914	0	557,445	54,804,851	49,257,269	5,547,582
Oct-99	270,177	602,677	1,475	3,291	0	0	0	0	645,466	0	631,654	55,450,317	49,271,081	6,179,236
Nov-99	377,341	46,524	348,471	43,064	0	0	0	0	271,652	0	-334,316	55,721,970	49,877,049	5,844,920
Dec-99	66,060	178,943	51,335	162,999	0	0	0	0	725,812	0	599,869	56,447,782	50,002,992	6,444,789
Jan-00	0	405,638	0	591,507	0	0	0	0	381,966	0	-284,571	56,565,177	50,384,958	6,180,218
Feb-00	26,351	358,538	37,393	490,772	0	0	0	0	0	0	0	56,565,177	50,384,958	6,180,218
Mar-00	46,153	201,295	0	208,712	0	0	0	0	1,010,148	0	-1,010,148	56,628,921	51,395,106	5,170,070
Apr-00	386,042	517	474,604	0	0	0	0	0	854,995	0	-791,251	56,628,921	52,250,101	4,378,819
May-00	312,055	85,718	330,673	88,802	0	0	0	0	46,153	0	-375,394	56,675,074	52,671,648	4,003,425
Jun-00	232,311	43,225	290,264	0	0	0	0	0	860,646	0	836,631	57,535,720	52,695,663	4,840,056
Jul-00	29,640	422,747	41,867	333,697	0	0	0	0	642,728	0	425,902	58,178,448	52,912,489	5,265,958
Aug-00	84,138	315,770	113,226	274,655	0	0	0	0	91,012	0	431,563	58,701,023	53,003,501	5,697,521
Sep-00	80,902	144,392	159,008	165,243	0	0	0	0	804,822	0	-733,315	58,772,530	53,808,323	4,964,206
Oct-00	147,995	26,159	179,616	37,915	0	0	0	0	629,878	0	-432,514	58,969,894	54,438,201	4,531,692
Nov-00	171,955	158,953	130,786	125,723	0	0	0	0	197,364	0	-103,324	59,209,804	54,781,435	4,428,368
Dec-00	115,654	190,888	63,438	287,328	0	0	0	0	343,234	0	263,537	59,537,415	54,845,509	4,691,905
Jan-01	-23	273,119	-38	288,080	8,968	0	0	0	64,074	0	18,065	59,840,156	55,130,185	4,709,970
Feb-01	27,421	186,238	-127	196,585	0	0	0	0	284,676	0	-299,124	60,019,248	55,608,401	4,410,846
Mar-01	352,611	8,255	486,274	8,133	0	0	0	0	478,216	0	0	60,019,248	55,608,401	4,410,846
Apr-01	301,215	0	443,376	0	0	0	0	0	592,830	0	-592,892	60,019,186	56,201,232	3,817,955
May-01	330,282	0	459,887	0	0	0	0	0	411,385	0	-384,091	60,046,480	56,612,616	3,433,864
Jun-01	145,844	110,811	240,318	63,575	0	0	0	0	17,827	0	821,058	60,885,365	56,630,443	4,254,922
Jul-01	103,059	119,414	146,282	129,282	0	0	0	0	744,591	0	744,591	61,629,956	56,630,443	4,999,513
Aug-01	105,010	133,447	113,811	132,799	197	0	0	0	0	0	790,169	62,420,126	56,630,443	5,789,662
Sep-01	265,408	34,347	237,909	22,411	0	0	0	0	386,162	0	211,777	62,806,288	56,804,829	6,001,459
									249,024	0	318	63,055,630	57,053,853	6,001,777
									266,370	0	-47,549	63,274,451	57,320,223	5,954,228
									56,759	0	446,558	63,777,767	57,376,981	6,400,786

OG5PGRA1
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LAND SECTION REPORT

06/12/2001

10:45 AM

PAGE NO: 1

SECT:33 TWP:21S RNG:34E SECTION TYPE:NORMAL

SOURCE CODE:3

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□RR	□RR	□	□RR	□
□GT2533 09/03	□GT2533 09/03	□	□GT2533 09/03	□
□MERCHANT LIVESTOC	□MERCHANT LIVESTOC	□Fee owned	□MERCHANT LIVESTOC	□
□ R	□ R	□ R	□ R	□
□	□	□	□	□
□ E	□ F	□ G	□ H	□
□40.00	□40.00	□40.00	□40.00	□
□RR	□RR	□	□RR	□
□GT2533 09/03	□GT2533 09/03	□	□GT2533 09/03	□
□MERCHANT LIVESTOC	□MERCHANT LIVESTOC	□Federal owned	□MERCHANT LIVESTOC	□
□ R	□ R	□	□ R	□
□	□	□	□	□
□ L	□ K	□ J	□ I	□
□40.00	□40.00	□40.00	□40.00	□
□RR	□RR	□	□RR	□
□GT2533 09/03	□GT2533 09/03	□	□GT2533 09/03	□
□MERCHANT LIVESTOC	□MERCHANT LIVESTOC	□Fee owned	□MERCHANT LIVESTOC	□
□ R	□ R	□ R	□ R	□
□	□	□	□	□
□ M	□ N	□ O	□ P	□
□40.00	□40.00	□40.00	□40.00	□
□RR	□RR	□	□RR	□
□GT2533 09/03	□GT2533 09/03	□	□GT2533 09/03	□
□MERCHANT LIVESTOC	□MERCHANT LIVESTOC	□Fee owned	□MERCHANT LIVESTOC	□
□ R	□ R	□ R	□ R	□
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LAND SECTION REPORT

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PAGE NO: 2

SECT:33 TWP:21S RNG:34E SECTION TYPE:NORMAL

SOURCE CODE:ALL

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U LOT/  QTR  L          SRF SUB ACTIVE          REMARKS
L TRCT  QTR  W ACREAGE  OWNER  LEASE #    (MAY SHOW RESTRICTION CODES)
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A A  NE4NE4 N    40.00 ST ST GT 2533 0000 GSU
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A A                      UG 0022 0000
A A                      UG 0023 0000
A A                      V0 5682 0000
B B              N    40.00 FE ST V0 5682 0000 GSU
C C  NE4NW4 N    40.00 ST ST GT 2533 0000 GSU
C C                      R1 4036 0000
C C                      R2 4651 0000
C C                      UG 0021 0000
C C                      UG 0022 0000
C C                      UG 0023 0000
C C                      V0 5682 0000
D D  NW4NW4 N    40.00 ST ST GT 2533 0000 GSU
D D                      R1 4036 0000
D D                      R1 7032 0000
D D                      R2 4651 0000
D D                      UG 0021 0000
D D                      UG 0022 0000
D D                      UG 0023 0000
D D                      V0 5682 0000
E E  SW4NW4 N    40.00 ST ST GT 2533 0000 GSU
E E                      R1 4036 0000
E E                      R1 7032 0000
E E                      UG 0021 0000
E E                      UG 0022 0000
E E                      UG 0023 0000
E E                      V0 5682 0000
F F  SE4NW4 N    40.00 ST ST GT 2533 0000 GSU
F F                      R1 4036 0000
F F                      R2 4651 0000
F F                      UG 0021 0000
F F                      UG 0022 0000
F F                      UG 0023 0000
F F                      V0 5682 0000
G G  SW4NE4 N    40.00 FD FD
H H  SE4NE4 N    40.00 ST ST GT 2533 0000 GSU
H H                      UG 0021 0000
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H H                      UG 0023 0000
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I I                      UG 0021 0000
I I                      UG 0022 0000
I I                      UG 0023 0000
I I                      V0 5682 0000
J J  NW4SE4 N    40.00 FE ST R1 4036 0000 GSU
J J                      V0 5682 0000
K K  NE4SW4 N    40.00 ST ST GT 2533 0000 GSU
K K                      R1 4036 0000
K K                      R2 4651 0000
K K                      UG 0021 0000

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LAND SECTION REPORT

06/12/2001

10:45 AM

PAGE NO: 3

SECT:33 TWP:21S RNG:34E SECTION TYPE:NORMAL

SOURCE CODE:ALL

U LOT/	QTR	L	SRF	SUB	ACTIVE	REMARKS
L TRCT	QTR	W	ACREAGE	OWNER	LEASE #	(MAY SHOW RESTRICTION CODES)

K K					UG 0022 0000	
K K					UG 0023 0000	
K K					V0 5682 0000	
L L	NW4SW4	N	40.00	ST ST	GT 2533 0000	GSU
L L					R1 7032 0000	
L L					UG 0021 0000	
L L					UG 0022 0000	
L L					UG 0023 0000	
L L					V0 5682 0000	
M M	SW4SW4	N	40.00	ST ST	GT 2533 0000	GSU
M M					R1 7032 0000	
M M					UG 0021 0000	
M M					UG 0022 0000	
M M					UG 0023 0000	
M M					V0 5682 0000	
N N	SE4SW4	N	40.00	ST ST	GT 2533 0000	GSU
N N					R1 7032 0000	
N N					UG 0021 0000	
N N					UG 0022 0000	
N N					UG 0023 0000	
N N					V0 5682 0000	
O O	SW4SE4	N	40.00	FE ST	R1 4036 0000	GSU
O O					V0 5682 0000	
P P	SE4SE4	N	40.00	ST ST	GT 2533 0000	GSU
P P					R1 4036 0000	
P P					R2 4651 0000	
P P					UG 0021 0000	
P P					UG 0022 0000	
P P					UG 0023 0000	
P P					V0 5682 0000	

END OF REPORT

**Grama Ridge Morrow Unit
Lea County, New Mexico**

Plan of Operation

TERM

This is a revised Plan of Operation as required, from time to time, pursuant to Section 9 of the UNIT AGREEMENT FOR THE OPERATION OF THE GRAMA RIDGE MORROW UNIT AREA, LEA COUNTY, NEW MEXICO dated April 25, 1973, as amended (the "Unit Agreement"), for the Grama Ridge Morrow Unit (hereinafter, "Unit"). *add amendments*

Effective December 1, 2000, Conoco Inc. acquired LG&E Natural Pipeline LLC, successor in interest to Llano, Inc. Subsequently, the name of LG&E Natural Pipeline LLC was changed to Raptor Natural Pipeline LLC (hereinafter, "Unit Operator").

This Plan of Operation captures the historical events and current agreement between the State of New Mexico and the Unit Operator, and constitutes the operating procedures and conditions in which the Unit Operator will continue to operate the Unit. *- use language from*

Establishment and History of Unit: *Unit Area*

- Unit Agreement For The Operation Of The Grama Ridge Morrow Unit Area
Lea County, New Mexico
By and between the State of New Mexico and Llano, Inc. (among others)
Effective April 25, 1973

Unit Area: Section 34, T21S, R34E - All 640 acres
 Section 3, T22S, R34E - All 647.16 acres

Unitized Formation: 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.

Wells: Shell Oil Company State GRA Well No. 1 – SW1/4NW1/4 Section 3, T22S, R34E
 Shell State GRB Well No. 1 – NW1/4SW1/4 Section 34, T21S, R34E

- Agreement For Subsurface Storage Of Gas, Morrow Formation, Grama Ridge Unit Area
Lea County, New Mexico
By and between the United States of America and Llano, Inc.
Effective November 1, 1975

Unit Area: Section 4, T22S, R34E - All 640 acres

Unitized Formation: Vertical interval between 12,778 feet and 13,255 feet below the surface in the Morrow formation in the Federal GR-4 No. 1.

Effective March 15, 1978, at the request of the New Mexico Department of Energy and Minerals, Oil Conservation Division, Shell Oil Company State GRA Well No. 1, Shell State GRB Well No. 1, South Wilson Deep Unit No. 1, and Llano Federal GR-4 No. 1 were renamed GRM Unit No.1, GRM Unit No. 2, GRM No. 3, and GRM No. 4, respectively, to reflect the unit status.

Effective April 1, 1981 the amendment to the Agreement For Subsurface Storage Of Gas, Morrow Formation, Grama Ridge Unit Area, by and between the United States of America and Llano, Inc. expanded the Unit to include Section 10, T22S, R34E and the Llano Government "A" No. 1. The Llano Government "A" No. 1 was renamed GRM Unit No. 5 effective May 18, 1984. In June 1985 the GRM Unit No. 5 was withdrawn from the Unit and recompleted as a gas well in another producing interval.

The wells are used for the injection and withdrawal of gas into and out of the Unit in the following manner:

GRM Unit No. 1: Used for injection and withdrawal.

GRM Unit No. 2: Used for injection and withdrawal.

GRM Unit No. 3: Used for withdrawal only.

GRM Unit No. 4: Used for withdrawal only.

State Location

Facilities and Measurement:

Unit Operator will maintain equipment to separate the gas from the liquid hydrocarbons produced from the withdrawal of gas from the Unit wells, as outlined in the Unit Agreement For The Operation Of The Grama Ridge Morrow Unit Area, Lea County, New Mexico, by and between the State of New Mexico and Llano, Inc., effective April 25, 1973.

*what is it not
Transfer facilities*

Unit Operator will maintain natural gas measuring stations properly equipped with an orifice meter and an electronic flow recorder of standard design and manufacture. The measurements of this measuring station will fix the cumulative quantity of gas injected and withdrawn from the Unit wells. Orifice meter installations will conform to the recommendations for design and installation contained in ANSI/API 2530-AGA Report No. 3 (1985) and any supplements thereto as deemed appropriate by the Unit Operator. Unit Operator will keep the measuring equipment accurate and in repair and will test the orifice meter in service quarterly or more often if deemed necessary by Unit Operator. Samples of the injected and withdrawn gas will be obtained monthly, or more often as Unit Operator deems necessary, and tested by chromatography to determine the composition of the gas.

Injection, Withdrawal, and Cumulative Volumes:

Through provisions outlined in the Unit Agreement For The Operation Of The Grama Ridge Morrow Unit Area, Lea County, New Mexico, by and between the State of New Mexico and Llano, Inc., effective April 25, 1973, the Unit Operator paid the State in-full for royalties otherwise due on primary gas and liquid hydrocarbons left in Section 34, T21S, R34E and Section 3, T22S, R34E of the Unit. It was determined that 47,770 MCF of primary production existed at that time.

Through provisions outlined in the amendment to the Unit Agreement For The Operation Of The Grama Ridge Morrow Unit Area, Lea County, New Mexico, by and between the State of New Mexico

and Llano, Inc., effective September 1, 1976, the Unit Operator paid for royalties due on primary gas and liquid hydrocarbons left in Section 33, T21S, R34E of the Unit. It was determined that 318,519 MCF of primary production existed at that time.

Through provisions outlined in the amendment to the Agreement For Subsurface Storage Of Gas, Morrow Formation, Grama Ridge Unit Area, Lea County, New Mexico, by and between the United States of America and Llano, Inc., effective April 1, 1981, the Unit Operator paid for royalties due on primary gas and liquid hydrocarbons left in Section 10, T22S, R34E and Section 3, T22S, R34E of the Unit. It was determined that 413,000 MCF of primary production existed at that time.

Beginning with the Llano, Inc., Progress Report No. 23 for the six-month period ending December 31, 1984 and accounting for monthly injections and withdrawals utilizing State of New Mexico, Energy Minerals and Natural Resources, Oil Conservation Division, Form C-131A Monthly Gas Storage Reports, the cumulative injected gas has totaled 64,869,719 MCF and cumulative withdrawn gas has totaled 57,740,907 MCF as of December 31, 2001. The net cumulative balance of gas being 7,128,812 MCF. See Exhibit "E" for supporting documentation.

Therefore, the net balance of gas in storage within the Unit as of December 31, 2001 is 47,770 MCF plus 318,519 MCF plus 413,000 MCF plus 7,128,812 MCF totaling 7,908,101 MCF.

The Unit Operator is not able to accumulate monthly chromatograph analyses documentation for the same time periods as described above, however, beginning with Conoco Inc. involvement on December 1, 2000, the Unit Operator has analyses for injected and withdrawn gas. Since operation of the Unit throughout its life has been consistent in regard to the injection and withdrawal of gas, the State of New Mexico and the Unit Operator, by submission and subsequent approval of this Plan of Operation, have agreed to apply the average British Thermal Units as calculated for the time period December 1, 2000 through December 31, 2001 to cumulative injection and withdrawn gas volumes, and primary production gas volumes purchased in place. Therefore, the net balance of gas in storage within the Unit as of December 31, 2001 is 10,502,849 MMBtu. See Exhibit "F" for supporting documentation.

All future six-month progress reports shall include both MCF and MMBtu injection, withdrawal and cumulative reporting for the Unit. British Thermal Units per MCF shall be determined utilizing monthly chromatograph analyses for gas that is injected and withdrawn.

Continued Use of Unit:

The Unit will be utilized to provide commercial storage of gas to third party customers. Customers will be allowed to request the injection and withdrawal of their gas pursuant to contractual agreements entered into between them and the Unit Operator. For the foreseeable life of the Unit, injection of gas into the storage facility shall proceed according to a plan of typically injecting gas April through October and withdrawing gas November through March of each year. However, typical injection and withdrawal cycles may vary depending on the requirements of the customers and their contracts associated with the storage facility. The Unit Operator will continue to operate the Unit in accordance with the terms and conditions of Unit Agreement.

Term and Termination:

This Plan of Operations shall be effective beginning January 1, 2002 and shall remain in effect for a period of time equal to the lesser of five (5) years or until conditions warrant a change in operating procedures as described in this Plan of Operations. At such time, a new plan of operation shall be submitted to the Commissioner of Public Lands of the State of New Mexico for approval.

Upon termination or cancellation of the Unit Agreement as to all of the Unit Area, Unit Operator will remove all improvements placed on the premises and will restore the premises as provided in the Unit Agreement or the respective Oil and Gas Leases, as applicable; if the Unit Agreement or the respective Oil and Gas Leases do not provide for restoration, Unit Operator shall restore the premises, to the extent reasonably possible, to the same condition as it existed prior to placement of the improvements.

This Plan of Operation is respectfully submitted for approval effective January 1, 2002.

RAPTOR NATURAL PIPELINE LLC

By: _____
Vice President

Approved _____

By: _____
Commissioner of Public Lands

Date: _____

EXHIBIT "A"

GRAMA RIDGE MORROW UNIT

R34E

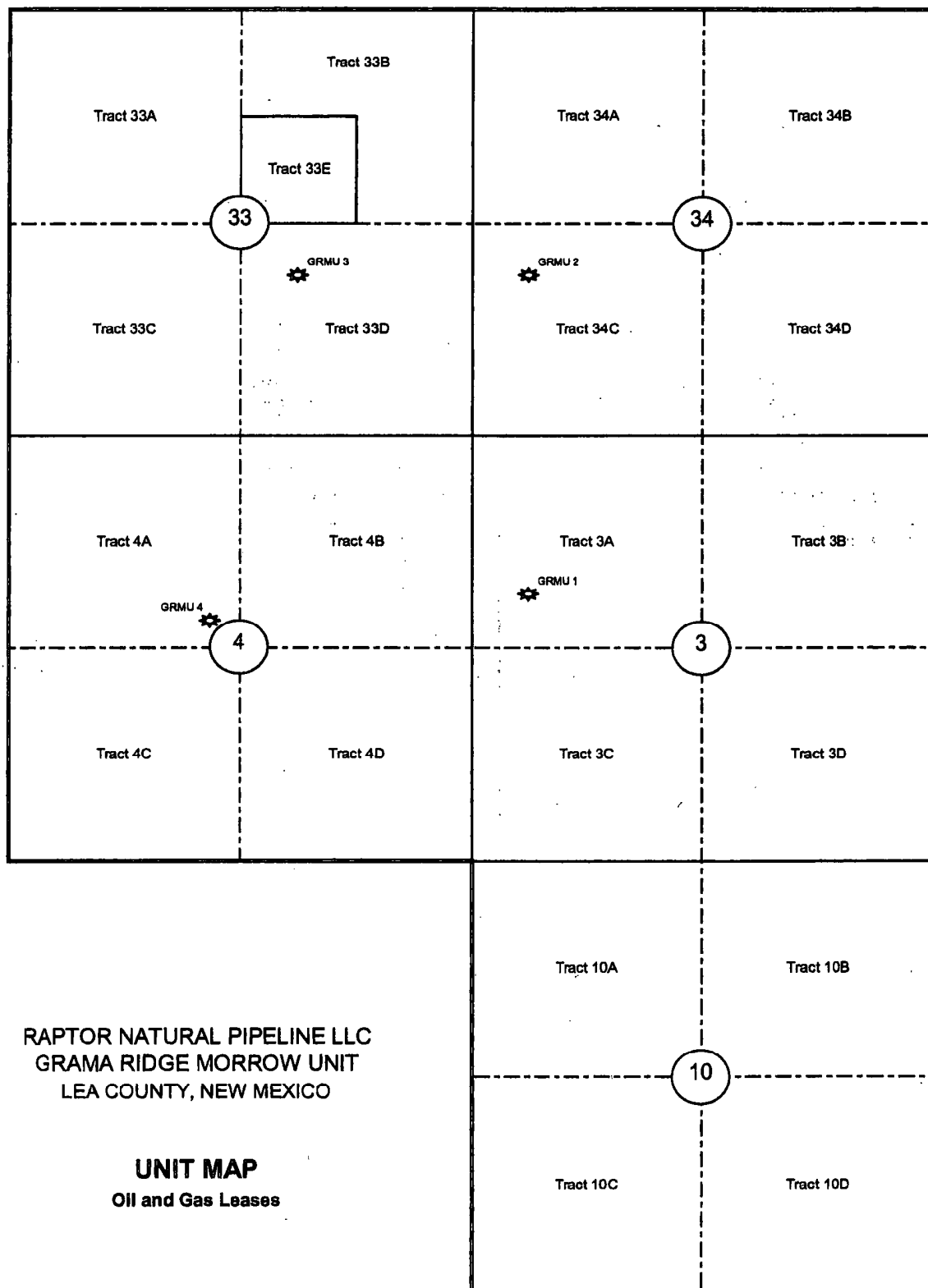


EXHIBIT "B"

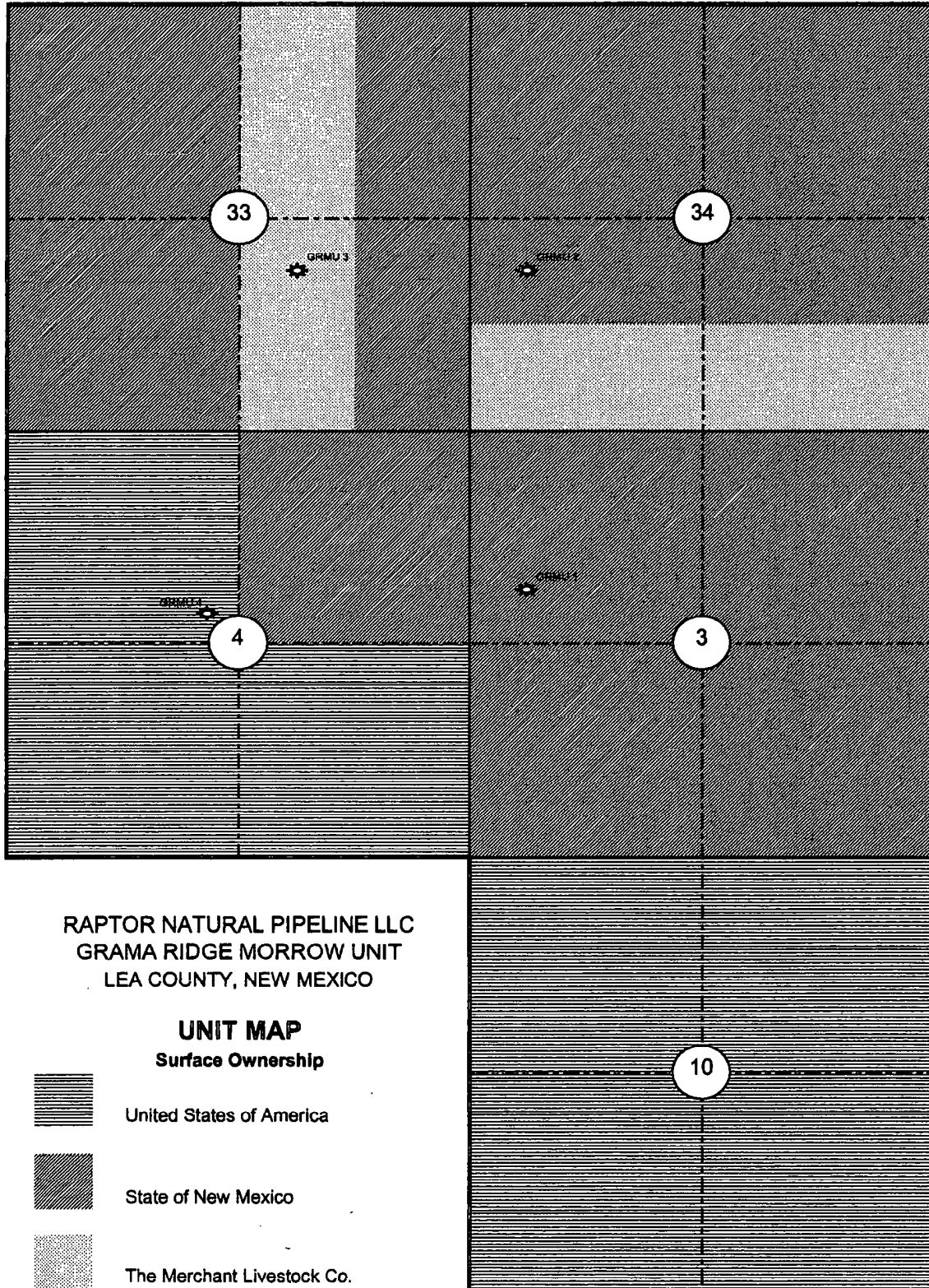
GRAMA RIDGE MORROW UNIT AGREEMENT

Tract No.	Description	Lease No.	Acreage	Basic Royalty	Lessee of Record	Working Interest Owner and Percentage	% Tract Participation
3C	SW 1/4 Sec. 3, T. 22 S., R. 34 E.	SNM B-1583	160	12.50%	Apache Corp.	Raptor Natural Pipeline LLC 100%	4.9814
3D	SE 1/4 Sec. 3, T. 22 S., R. 34 E.	SNM B-1583	160	12.50%	Apache Corp.	Chaparral Energy, Inc. 100%	4.9814
3B	NE 1/4 Sec. 3, T. 22 S., R. 34 E.	SNM E-9141	163.91	12.50%	Apache Corp.	Chaparral Energy, Inc. 100%	5.1032
3A	NW 1/4 Sec. 3, T. 22 S., R. 34 E.	SNM E-9141	163.25	12.50%	Apache Corp.	Raptor Natural Pipeline LLC 100%	5.0826
34C	SW 1/4 Sec. 34, T. 21 S., R. 34 E.	SNM E-9659	160	12.50%	Chevron USA, Inc.	Raptor Natural Pipeline LLC 100%	4.9814
34D	SE 1/4 Sec. 34, T. 21 S., R. 34 E.	SNM E-9659	160	12.50%	Chevron USA, Inc.	EOG Resources Inc. 100%	4.9814
34A & 34B	N 1/2 Sec. 34, T. 21 S., R. 34 E.	SNM V-5683	320	16.67%	Great Western Drilling Co.	Great Western Drilling Co. 25% Continental Land and Fur Co. 18.75% Nearburg Exploration Co. LLC 56.25%	9.9629
33A, 33B, 33C & 33D	W 1/4, SE 1/4, NW 1/4, SE 1/4 NE 1/4 Sec. 33, T. 21 S., R. 34 E.	SNM V-5682	600	16.67%	Raptor Natural Pipeline LLC	Raptor Natural Pipeline LLC 100%	18.6804
33E	SW 1/4 NE 1/4 Sec. 33, T. 21 S., R. 34 E.	Fee	40	The Merchant Livestock Co. 67.63% of 12.5% Don E. Gridley & wife 50% of 32.37% of 12.5% John E. Bosseman & wife 50% of 32.37% of 12.5%	Wilson Oil Co. and Francis P. Bolton, dba Wyoming Oil	Raptor Natural Pipeline LLC 67.63% Gridley/Bosseman, et al (unleased) 32.37%	1.2454
4A & 4B	N 1/2 Sec. 4, T. 22 S., R. 34 E.	US NM-058678	324.76	12.50%	Raptor Natural Pipeline LLC	Raptor Natural Pipeline LLC 100%	10.1111
4D	SE 1/4 Sec. 4, T. 22 S., R. 34 E.	US NM-033312-A	160	12.50%	Raptor Natural Pipeline LLC	Raptor Natural Pipeline LLC 100%	4.9814
4C	SW 1/4 Sec. 4, T. 22 S., R. 34 E.	US NM-0381970	160	12.50%	Raptor Natural Pipeline LLC	Raptor Natural Pipeline LLC 100%	4.9814
10A, 10C, & 10D	W 1/2 SE 1/4 Sec. 10, T. 22 S., R. 34 E.	US NM-033312	480	12.50%	EOG Resources, Inc.	EOG Resources, Inc. 100%	14.9443
10B	NE 1/4 Sec. 10, T. 22 S., R. 34 E.	US NM-049843	160	12.50%	EOG Resources, Inc.	EOG Resources, Inc. 100%	4.9814
			Total:	3,211.92			100.00

EXHIBIT "C"

GRAMA RIDGE MORROW UNIT

R34E



RAPTOR NATURAL PIPELINE LLC
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO

UNIT MAP

Surface Ownership



United States of America



State of New Mexico



The Merchant Livestock Co.

EXHIBIT "D"

GRAMA RIDGE MORROW UNIT AGREEMENT

Description	Surface Ownership	Acreage
W $\frac{1}{2}$, SE $\frac{1}{4}$ Section 4, T. 22 S., R. 34 E.	United States of America	482.11
All Section 10, T. 22 S., R. 34 E.	United States of America	640
All Section 3, T. 22 S., R. 34 E.	State of New Mexico	647.16
NE $\frac{1}{4}$ Section 4, T. 22 S., R. 34 E.	State of New Mexico	162.65
W $\frac{1}{2}$, E $\frac{1}{2}$ E $\frac{1}{2}$ Section 33, T. 21 S., R. 34 E.	State of New Mexico	480
N $\frac{1}{2}$, N $\frac{1}{2}$ S $\frac{1}{2}$ Section 34, T. 21 S., R. 34 E.	State of New Mexico	480
W $\frac{1}{2}$ E $\frac{1}{2}$ Section 33, T. 21 S., R. 34 E.	The Merchant Livestock Company	160
S $\frac{1}{2}$ S $\frac{1}{2}$ Section 34, T. 21 S., R. 34 E.	The Merchant Livestock Company	160
Total		3,211.92
	United States of America	1,122.11
	State of New Mexico	1,769.81
	The Merchant Livestock Company	320

Month:	GRM Unit No. 1		GRM Unit No. 2		GRM Unit No. 3		GRM Unit No. 4		Total		NET	Cumulative	Cumulative	Cumulative
	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Withdrawal MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	MCF	Injection MCF	Withdrawal MCF	MCF
Gas in place Section 34, T21S, R34E and Section 3, T22S, R34E:									47,770		47,770	47,770	-	47,770
Gas in place Section 33, T21S, R34E:									318,519		318,519	368,289	0	368,289
Gas in place Section 10, T22S, R34E:									413,000		413,000	779,289	0	779,289
ion - Progress Report No. 23, For the Six-Month Period Ending December 31, 1984 (converted from 14.85 to 15.025 PB):									18,430,708	10,477,889	5,953,019	17,208,997	10,477,889	6,732,308
Jan-85	103,189	32,302	63,636	21,982	5,928	11,411	166,825	71,821	95,204	17,378,822	10,549,310	6,827,512		
Feb-85	48,396	39,209	111,192	34,221	3,345	19,773	157,587	96,548	61,039	17,534,409	10,645,858	8,888,551		
Mar-85	6,501	22,471	27,920	42,215	10,641	28,383	34,421	103,710	-89,289	17,568,830	10,749,568	8,819,282		
Apr-85	0	32,756	0	53,479	13,178	39,525	0	138,938	-138,938	17,568,830	10,888,508	8,880,324		
May-85	0	93,493	0	173,397	18,228	59,108	0	344,224	-344,224	17,568,830	11,232,730	8,336,100		
Jun-85	332	222,404	8,305	244,877	10,180	97,274	8,637	574,715	-588,078	17,575,467	11,807,445	5,788,022		
Jul-85	0	40,257	88,995	81,320	4,972	33,032	89,995	139,581	-48,588	17,685,462	11,947,028	5,718,433		
Aug-85	19,501	27,856	47,348	58,671	5,826	40,146	66,849	130,489	-83,650	17,732,311	12,077,525	5,654,786		
Sep-85	0	5,242	1,374	19,188	1,616	6,789	1,374	32,835	-31,461	17,733,886	12,110,380	5,623,325		
Oct-85	89,637	173	70,480	5,218	1,194	5,464	180,117	12,049	148,068	17,883,802	12,122,409	5,771,393		
Nov-85	55,112	1,050	41,571	8,591	1,340	7,586	98,683	16,567	80,118	17,960,485	12,138,978	5,851,509		
Dec-85	7,267	9,707	40,136	22,370	3,308	8,511	47,403	43,896	3,507	18,037,888	12,182,872	5,855,018		
Jan-86	5,232	858	20,527	16,488	9,144	8,667	25,759	35,165	-8,406	18,063,647	12,218,037	5,845,610		
Feb-86	8,140	0	59,840	6,977	2,987	10,051	67,980	19,985	47,985	18,131,627	12,238,032	5,893,596		
Mar-86	26,805	1,154	87,385	2,156	8,014	3,737	94,170	15,061	79,109	18,225,797	12,253,083	5,972,704		
Apr-86	0	92,948	0	87,284	17,941	16,858	0	214,832	-214,832	18,225,797	12,467,925	5,757,872		
May-86	0	295,023	0	294,329	33,475	108,260	0	731,087	-731,087	18,225,797	13,199,012	5,026,785		
Jun-86	0	268,943	0	205,168	24,273	73,654	0	570,038	-570,038	18,225,797	13,769,050	4,468,747		
Jul-86	0	238,772	0	180,454	15,018	78,689	0	510,931	-510,931	18,225,797	14,279,981	3,945,816		
Aug-86	0	132,924	0	108,821	7,738	40,010	0	289,483	-289,483	18,225,797	14,569,474	3,659,323		
Sep-86	0	72,527	0	12,532	1	40,692	0	197,579	-197,579	18,225,797	14,767,053	3,458,744		
Oct-86	0	16,003	0	15,294	5,085	4,787	0	41,149	-41,149	18,225,797	14,808,202	3,417,596		
Nov-86	0	0	0	0	0	0	0	0	0	18,225,797	14,808,202	3,417,596		
Dec-86	0	28,789	0	0	5,614	8,738	0	43,141	-43,141	18,225,797	14,851,343	3,374,464		
Jan-87	0	14,670	0	7,991	5,003	5,931	0	33,596	-33,596	18,225,797	14,884,938	3,340,869		
Feb-87	0	19,981	0	50,203	10,109	12,078	0	92,351	-92,351	18,225,797	14,977,289	3,248,508		
Mar-87	0	706	0	39,872	798	90	0	41,484	-41,484	18,225,797	15,018,753	3,207,044		
Apr-87	0	2,323	0	0	1,880	2,501	0	6,704	-6,704	18,225,797	15,025,457	3,200,340		
May-87	0	0	0	0	0	0	0	0	0	18,225,797	15,025,457	3,200,340		
Jun-87	0	17,829	0	0	9,074	11,369	0	38,072	-38,072	18,225,797	15,063,529	3,162,268		
Jul-87	182	0	0	0	0	0	182	0	182	18,225,797	15,063,529	3,162,268		
Aug-87	185,385	0	0	0	0	0	185,385	0	185,385	18,411,364	15,063,529	3,347,835		
Sep-87	20,729	0	0	0	0	0	20,729	0	20,729	18,432,093	15,063,529	3,368,564		
Oct-87	42,172	0	0	0	0	0	42,172	0	42,172	18,474,285	15,063,529	3,410,738		
Nov-87	15,238	33,281	0	0	18,537	25,087	15,238	78,885	-81,647	18,489,503	15,140,414	3,349,089		
Dec-87	0	140,415	0	0	30,715	48,990	0	220,120	-220,120	18,489,503	15,360,534	3,128,969		
Jan-88	0	62,368	0	0	17,978	27,883	0	108,225	-108,225	18,489,503	15,488,759	3,020,744		
Feb-88	0	44,949	0	0	12,857	14,098	0	71,904	-71,904	18,489,503	15,540,883	2,948,840		
Mar-88	0	45,347	0	0	13,402	25,828	0	84,377	-84,377	18,489,503	15,625,040	2,884,483		
Apr-88	0	337	0	0	772	1,653	0	2,762	-2,762	18,489,503	15,627,802	2,861,701		
May-88	168,247	0	0	0	0	0	168,247	0	168,247	18,655,750	15,627,802	3,027,948		
Jun-88	97,977	0	0	0	0	0	97,977	0	97,977	18,753,727	15,627,802	3,125,925		
Jul-88	0	90,382	0	0	0	0	0	90,382	-90,382	18,753,727	15,718,184	3,035,563		
Aug-88	0	133,428	0	0	16,946	33,497	0	183,871	-183,871	18,753,727	15,902,035	2,851,692		
Sep-88	94,708	489	0	0	150	278	94,708	895	93,813	18,848,435	15,902,930	2,845,505		
Oct-88	25,905	0	0	0	0	0	25,905	0	25,905	18,874,340	15,902,930	2,871,410		
Nov-88	1,891	131,470	0	0	0	0	1,891	131,470	-129,579	18,878,231	16,034,400	2,841,831		
Dec-88	0	175,213	0	50,924	55,381	31,511	0	313,009	-313,009	18,878,231	16,347,409	2,528,822		
Jan-89	12,460	2,385	0	45,081	6,151	2,832	12,460	58,449	-43,989	18,888,691	16,403,858	2,484,833		
Feb-89	14,763	9,032	0	18,503	11,475	0	14,763	39,010	-24,247	18,903,454	16,442,888	2,480,588		
Mar-89	32,020	997	23,342	1,391	99	0	55,382	2,487	52,875	18,958,816	16,445,355	2,513,461		
Apr-89	95,429	0	85	0	0	0	95,524	0	95,524	19,054,340	16,445,355	2,608,985		
May-89	203,321	0	153,637	0	0	0	358,958	0	358,958	19,413,298	16,445,355	2,987,943		
Jun-89	152,529	0	140,019	0	0	0	292,548	0	292,548	19,705,846	16,445,355	3,260,491		
Jul-89	39,421	4,995	34,788	2,019	6,743	4,325	74,207	18,082	58,125	19,780,053	16,483,437	3,318,818		
Aug-89	178,392	0	132,517	0	0	0	310,909	0	310,909	20,090,962	16,483,437	3,627,525		
Sep-89	2,559	0	39,163	0	0	3,041	41,712	3,041	38,671	20,132,874	16,468,478	3,666,196		
Oct-89	57,158	0	12,202	0	0	0	68,360	0	68,360	20,202,034	16,468,478	3,736,556		
Nov-89	9,187	111,755	0	104,988	0	0	9,187	216,741	-207,554	20,211,221	16,683,219	3,528,002		
Dec-89	0	198,443	0	135,341	38,154	45,718	0	415,658	-415,658	20,211,221	17,098,875	3,112,348		
Jan-90	0	129,815	0	92,520	12,404	22,304	0	257,043	-257,043	20,211,221	17,355,918	2,856,303		
Feb-90	0	179,922	0	128,940	9,357	3,028	0	321,247	-321,247	20,211,221	17,677,165	2,534,058		
Mar-90	0	8,488	0	5,841	0	0	0	14,329	-14,329	20,211,221	17,891,494	2,519,727		
Apr-90	80,697	0	257	0	0	0	80,954	0	80,954	20,282,175	17,891,494	2,600,881		
May-90	53,578	14,978	32,600	48,228	0	0	88,178	61,206	24,972	20,378,353	17,752,700	2,625,853		
Jun-90	158,091	1,009	190,654	0	0	0	348,745	1,009	347,736	20,727,096	17,753,708	2,973,389		
Jul-90	185,603	0	274,125	0	6,021	3,149	469,728	9,170	450,558	21,188,628	17,762,879	3,423,947		
Aug-90	181,589	0	300,680	0	0	0	482,149	0	482,149	21,688,975	17,762,879	3,908,098		
Sep-90	171,280	0	338,400	0	0	6,709	507,880	8,709	500,971	22,178,655	17,769,588	4,407,087		
Oct-90	153,228	8,778	381,085	0	10,475	534,311	19,253	515,058	0	22,710,988	17,788,841	4,922,125		
Nov-90	628	101,450	20,548	100,047	22,119	32,163	21,172	255,779	-234,607	22,732,138	18,044,820	4,987,518		
Dec-90	0	227,491	0	547,612	28,477	45,510	0	849,080	-849,080	22,732,138	18,893,710	3,838,428		
Jan-91	0	235,781	0	536,817	11,311	39,355	0	823,284	-823,284	22,732,138	18,978,974	3,015,184		
Feb-91	0	189,174	0	239,878	10,518	30,937	0	450,507	-450,507	22,732,138	20,167,481	2,584,657		
Mar-91	23,296	103,005	0	139,184	5,748	21,098	23,296	269,026	-245,729	22,755,434	20,436,506	2,318,928		
Apr-91	180,607	1,204	257,157	0	0	0	437,764	1,204	438,560	23,193,198	20,437,710	2,755,488		
May-91	205,772	0	333,894	0	0	0	539,666	0	539,666	23,732,864	20,437,710	3,296,154		

Jun-91	293,399	0	294,011	0	0	356	587,410	356	587,054	24,320,274	20,438,068	3,882,208
Jul-91	390,012	0	447,125	0	0	0	837,137	0	837,137	25,157,411	20,438,068	4,719,345
Aug-91	339,998	0	374,752	0	0	0	714,750	0	714,750	25,872,181	20,438,068	5,434,095
Sep-91	393,880	0	432,834	0	0	0	828,514	0	828,514	26,698,675	20,438,068	6,260,608
Oct-91	329,898	0	316,627	0	0	0	848,525	0	848,525	27,345,200	20,438,068	6,907,134
Nov-91	0	325,188	0	373,504	15,893	44,219	0	758,784	-758,784	27,345,200	21,198,850	6,148,350
Dec-91	0	382,311	0	478,867	15,111	72,548	0	928,837	-928,837	27,345,200	22,125,687	5,218,513
Jan-92	0	393,443	0	538,359	13,503	88,085	0	1,013,370	-1,013,370	27,345,200	23,139,057	4,208,143
Feb-92	67	281,122	0	357,597	12,644	37,584	87	888,957	-888,957	27,345,287	23,808,014	3,537,253
Mar-92	0	176,785	0	234,889	8,193	31,922	0	450,749	-450,749	27,345,287	24,258,783	3,086,504
Apr-92	11,035	172,647	109,742	38,380	772	3,731	120,777	0	-94,753	27,488,044	24,474,293	2,991,751
May-92	336,008	14,877	208,754	0	0	0	542,780	14,877	527,883	28,008,804	24,488,170	3,519,634
Jun-92	387,015	0	358,989	0	0	0	745,984	0	745,984	28,754,788	24,488,170	4,265,618
Jul-92	387,488	0	321,837	0	0	0	889,303	0	889,303	29,444,091	24,488,170	4,854,921
Aug-92	384,532	0	388,181	0	0	0	752,893	0	752,893	30,198,784	24,488,170	5,707,814
Sep-92	341,320	0	228,291	0	0	0	567,811	0	567,811	30,784,395	24,488,170	6,275,225
Oct-92	32,061	259,380	82,795	41,077	0	0	114,858	300,437	-185,581	30,879,251	24,788,607	6,089,644
Nov-92	489	408,479	0	468,602	21,729	90,567	489	989,377	-988,888	30,879,740	25,778,984	5,100,758
Dec-92	0	357,123	0	488,654	7,659	72,868	0	928,104	-928,104	30,879,740	26,705,088	4,174,652
Jan-93	0	314,012	0	488,165	11,887	55,153	0	849,017	-849,017	30,879,740	27,554,105	3,325,835
Feb-93	0	271,105	0	311,000	29,595	44,477	0	858,177	-858,177	30,879,740	28,210,282	2,689,458
Mar-93	0	269,271	0	203,447	12,981	40,075	0	515,754	-515,754	30,879,740	28,728,038	2,153,704
Apr-93	0	198,808	0	42,940	9,458	32,240	0	281,444	-281,444	30,879,740	29,007,480	1,872,260
May-93	424,878	277	428,794	0	0	0	854,872	277	854,395	31,734,412	29,007,757	2,729,655
Jun-93	496,780	0	508,449	0	0	0	1,003,229	0	1,003,229	32,737,841	29,007,757	3,729,884
Jul-93	478,231	0	325,025	0	0	0	801,258	0	801,258	33,538,897	29,007,757	4,531,140
Aug-93	260,872	125,438	256,560	107,115	0	0	517,432	232,553	284,879	34,058,329	29,240,310	4,818,019
Sep-93	488,297	0	257,159	0	0	0	745,458	0	745,458	34,801,785	29,240,310	5,581,475
Oct-93	144,748	65,010	152,538	32,641	0	0	297,282	97,851	189,631	35,089,087	29,337,981	5,781,108
Nov-93	0	387,198	0	489,889	21,482	30,338	0	938,885	-938,885	35,089,087	30,278,848	4,822,221
Dec-93	8,881	205,512	9,932	342,855	4,939	64,394	18,813	617,700	-598,887	35,117,880	30,894,548	4,223,334
Jan-94	0	272,101	0	485,579	8,155	70,292	0	814,127	-814,127	35,117,880	30,894,548	4,223,334
Feb-94	0	231,875	0	284,678	7,872	51,888	0	555,891	-555,891	35,117,880	32,284,584	2,853,318
Mar-94	0	163,120	0	100,361	11,135	38,161	0	310,777	-310,777	35,117,880	32,575,341	2,542,539
Apr-94	103,607	53,500	1,587	6,071	0	0	105,184	58,571	45,593	35,223,044	32,634,912	2,588,132
May-94	459,982	0	348,946	0	0	0	808,628	0	808,628	36,029,972	32,634,912	3,395,060
Jun-94	370,783	4,310	340,209	0	0	0	710,992	4,310	706,682	36,740,984	32,639,222	4,101,742
Jul-94	278,895	0	113,070	0	0	0	391,985	0	391,985	37,132,929	32,639,222	4,493,707
Aug-94	108,072	0	118,624	0	0	0	224,696	0	224,696	37,357,825	32,639,222	4,718,403
Sep-94	542,198	0	538,629	0	0	0	1,081,827	0	1,081,827	38,439,452	32,639,222	5,800,230
Oct-94	486,455	0	488,757	0	0	0	955,212	0	955,212	38,394,684	32,639,222	6,756,442
Nov-94	28,187	270,491	38,000	167,210	3,892	19,280	66,167	460,883	-394,718	39,480,831	33,100,106	6,380,728
Dec-94	0	449,876	0	767,248	12,638	100,607	0	1,330,187	-1,330,187	39,480,831	34,430,272	5,030,559
Jan-95	0	244,828	27,302	318,742	5,295	28,999	27,302	597,662	-570,360	39,480,831	35,027,934	4,480,199
Feb-95	101,883	210,325	17,427	225,287	9,589	63,818	119,090	508,819	-389,729	39,807,223	35,536,753	4,070,470
Mar-95	364,808	118,740	318,775	40,373	9,838	18,881	683,593	185,810	497,773	40,290,808	35,722,563	4,568,243
Apr-95	193,050	17,170	177,790	0	0	3,571	370,840	20,741	350,099	40,881,848	35,743,304	4,918,342
May-95	383,844	0	379,017	0	0	0	782,881	0	782,881	41,424,507	35,743,304	5,681,203
Jun-95	415,253	0	402,900	0	0	0	818,183	0	818,183	42,242,880	35,743,304	6,499,356
Jul-95	352,384	0	281,301	0	0	0	633,685	0	633,685	42,878,325	35,743,304	7,133,021
Aug-95	342,003	0	258,678	0	0	0	600,881	0	600,881	43,477,008	35,743,304	7,733,702
Sep-95	32,981	161,535	20,913	232,584	12,033	68,285	53,894	474,437	-420,543	43,530,900	36,217,741	7,313,159
Oct-95	4,174	311,408	18,844	100,541	0	47,738	21,018	459,683	-438,685	43,551,918	36,877,424	6,874,494
Nov-95	0	398,780	0	398,825	9,224	108,718	0	911,546	-911,546	43,551,918	37,598,969	5,962,949
Dec-95	7,877	302,371	18,194	375,528	15,787	84,286	24,071	757,970	-733,899	43,576,989	38,348,939	5,229,050
Jan-96	0	357,838	0	488,411	11,819	88,418	0	928,484	-928,484	43,576,989	39,273,423	4,302,566
Feb-96	0	303,126	0	319,615	22,592	55,185	0	700,488	-700,488	43,576,989	39,973,921	3,802,068
Mar-96	0	322,259	0	252,482	9,780	59,243	0	843,774	-843,774	43,576,989	40,817,695	2,958,294
Apr-96	7,479	208,188	5,082	133,658	0	39,131	12,571	378,876	-386,304	43,588,560	40,998,570	2,591,990
May-96	327,999	8,830	157,064	3,295	0	0	485,083	11,925	473,138	44,073,623	41,008,495	3,065,128
Jun-96	14,831	19,166	83,745	0	0	0	98,378	19,158	79,220	44,171,999	41,027,851	3,144,348
Jul-96	8,187	0	36,412	0	0	0	42,609	0	42,609	44,214,808	41,027,851	3,186,957
Aug-96	28,833	0	123,199	0	0	0	149,832	0	149,832	44,384,440	41,027,851	3,338,789
Sep-96	445,453	0	488,982	0	0	0	914,435	0	914,435	45,278,875	41,027,851	4,251,224
Oct-96	188,805	30,412	239,882	37,131	0	428,687	67,543	359,124	-359,124	45,705,542	41,098,194	4,810,348
Nov-96	0	394,835	12,438	474,949	15,674	0	885,268	-872,820	45,717,980	45,717,980	41,980,452	3,737,528
Dec-96	30,677	285,547	48,735	281,830	8,223	0	79,412	555,400	-475,988	45,797,392	42,535,852	3,281,540
Jan-97	0	273,303	0	231,475	7,928	0	0	512,704	-512,704	45,797,392	43,048,558	2,748,838
Feb-97	0	225,723	2,988	140,078	10,941	0	2,988	378,742	-373,774	45,800,380	43,425,298	2,375,062
Mar-97	0	203,398	0	36,791	3,794	0	0	243,981	-243,981	45,800,380	43,889,279	2,131,081
Apr-97	3,593	36,598	76,200	0	0	0	79,793	38,598	43,197	45,880,153	43,705,875	2,174,278
May-97	0	22,188	162,956	0	0	0	162,956	22,188	140,770	46,043,109	43,728,081	2,316,048
Jun-97	0	0	336,887	0	0	0	336,887	0	336,887	46,379,998	43,728,081	2,851,935
Jul-97	48,371	9,785	177,584	0	0	0	223,655	9,785	214,190	46,603,861	43,737,828	2,888,125
Aug-97	428,938	0	357,335	0	0	0	786,273	0	786,273	47,390,224	43,737,828	3,652,398
Sep-97	354,835	0	318,732	0	0	0	673,687	0	673,687	48,083,891	43,737,828	4,328,065
Oct-97	143,610	57,605	153,973	28,849	268	0	297,583	84,922	212,661	48,381,474	43,822,748	4,538,728
Nov-97	11,488	247,107	23,069	318,792	6,565	0	34,527	570,454	-535,927	48,398,001	44,393,202	4,002,799
Dec-97	0	192,137	0	438,301	2,419	0	0	632,857	-632,857	48,398,001	45,028,059	3,369,942
Jan-98	140,921	7,485	0	109,235	0	0	140,921	118,730	24,191	48,536,922	45,142,789	3,384,133
Feb-98	678,888	0	3,708	0	0	0	682,374	0	682,374	49,219,298	45,142,789	4,076,507
Mar-98	81,810	98,563	52,288	112,795	0	0	113,878	209,368	-95,482	49,333,172	45,352,147	3,881,025
Apr-98	479,796	94,861	2,820	517	0	0	482,418	95,178	387,238	49,815,588	45,447,325	4,388,283
May-98	433,078	0	322,356	0	0	0	755,435	0	755,435	50,571,023	45,447,325	5,123,898
Jun-98	247,582	8,220	199,859	0	0	0	447,441	8,220	439,221	51,018,484	45,455,545	5,562,919
Jul-98	303,618	3,250	287,394									

Apr-99	117,574	410,787	642	2,243	0	0	118,218	413,030	-294,814	53,569,005	48,780,142	4,788,883
May-99	258,931	19,488	158,886	45,322	0	0	415,797	84,810	350,987	53,984,802	48,844,952	5,139,850
Jun-99	370,830	37,157	418,289	0	0	0	789,899	37,167	752,742	54,774,701	48,882,109	5,882,592
Jul-99	102,957	184,511	88,123	127,735	0	0	189,080	312,248	-123,188	54,983,781	49,194,355	5,789,428
Aug-99	302,549	47,899	317,810	13,668	0	1,547	620,359	82,914	557,445	55,584,140	49,257,289	6,328,871
Sep-99	281,430	534	384,038	1,155	0	12,123	845,488	13,812	831,654	56,229,808	49,271,081	6,958,525
Oct-99	270,177	802,877	1,475	3,291	0	0	271,652	805,988	-334,316	56,501,259	49,877,049	6,624,209
Nov-99	377,341	48,524	348,471	43,084	0	38,355	723,812	125,943	598,869	57,227,071	50,002,092	7,224,078
Dec-99	88,060	178,943	51,335	182,999	0	40,024	117,395	381,988	-264,571	57,344,488	50,384,958	6,959,507
							0	0	0	57,344,488	50,384,958	6,959,507
Jan-00	0	405,838	0	581,507	0	13,003	0	1,010,148	-1,010,148	57,344,488	51,395,108	5,949,359
Feb-00	26,351	358,538	37,393	490,772	0	5,885	83,744	854,895	-791,251	57,408,210	52,250,101	5,158,108
Mar-00	46,153	201,295	0	208,712	0	11,540	46,153	421,547	-375,394	57,454,363	52,871,848	4,782,714
Apr-00	388,042	517	474,804	0	0	23,488	860,846	24,015	836,831	58,315,009	52,695,883	5,619,345
May-00	312,055	85,718	330,873	88,802	0	42,308	642,728	218,828	425,902	58,957,737	52,912,489	6,045,247
Jun-00	232,311	43,225	290,284	0	0	47,787	522,575	91,012	431,563	59,480,312	53,003,501	6,478,810
Jul-00	29,840	422,747	41,867	333,897	0	48,378	71,507	804,822	-733,315	59,551,819	53,808,323	5,743,495
Aug-00	84,138	315,770	113,226	274,855	0	39,453	197,384	629,878	-432,514	59,748,183	54,438,201	5,310,881
Sep-00	80,802	144,392	158,008	165,243	0	33,599	238,910	343,234	-103,324	59,989,093	54,781,435	5,207,857
Oct-00	147,985	26,159	178,818	37,915	0	0	327,811	84,074	263,637	60,318,704	54,845,509	5,471,194
Nov-00	171,955	158,953	130,788	125,723	0	0	302,741	284,878	18,085	60,618,445	55,130,185	5,489,269
Dec-00	115,854	180,888	83,438	287,328	0	0	179,082	478,218	-299,124	60,798,537	55,808,401	5,190,135
							0	0	0	60,798,537	55,808,401	5,190,135
Jan-01	-23	273,119	-38	288,080	8,988	22,683	-61	592,830	-592,882	60,798,475	58,201,232	4,587,244
Feb-01	27,421	188,238	-127	196,585	7,011	21,550	27,294	411,385	-384,091	60,825,789	58,812,818	4,213,153
Mar-01	352,811	8,295	488,274	8,133	1,088	371	838,885	17,827	821,058	61,884,854	59,830,443	5,034,211
Apr-01	301,215	0	443,378	0	0	0	744,591	0	744,591	62,409,245	59,830,443	5,778,802
May-01	330,282	0	468,887	0	0	0	790,189	0	790,189	63,199,415	59,830,443	8,568,971
Jun-01	145,844	110,811	240,318	83,575	0	0	388,182	174,388	211,777	63,585,577	59,804,829	6,780,748
Jul-01	103,059	119,414	148,282	129,282	197	131	248,342	249,024	318	63,834,919	57,053,853	6,781,088
Aug-01	105,010	133,447	113,811	132,799	124	0	218,821	268,370	-47,549	64,053,740	57,320,223	6,733,517
Sep-01	265,408	34,347	237,909	22,411	0	0	503,318	58,759	448,558	64,557,058	57,378,981	7,180,075
Oct-01	187,287	53,584	248,375	13,878	0	0	433,682	87442	366,220	64,960,718	57,444,423	7,548,295
Nov-01	272,284	24,025	297,077	11,418	0	0	589,381	35443	533,918	65,560,079	57,479,888	8,080,213
Dec-01	82,892	99,175	28,237	161,868	0	0	88829	281041	-172,112	65,849,008	57,740,907	7,908,101

EXHIBIT "F"

Injection / Withdrawal MMBTU

Raptor Natural Pipeline Actuals: 14.65 PB	Month:	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01	Oct-01	Nov-01	Dec-01	Cumulative
MMBTU															
Total Injection		193,667	(64)	29,508	905,558	813,537	845,814	417,364	273,151	238,487	551,367	473,879	627,830	97,960	5,468,058
Total Withdrawal		(502,935)	(622,178)	(432,154)	(18,708)	-	-	(178,857)	(262,171)	(280,146)	(59,667)	(73,026)	(38,305)	(284,036)	(2,752,183)
MCF															
Total Injection		183,694	(63)	27,994	860,395	763,683	810,430	396,064	255,735	224,432	516,222	444,763	583,936	91,206	5,158,481
Total Withdrawal		(490,478)	(608,031)	(421,933)	(18,284)	-	-	(178,857)	(255,409)	(273,200)	(59,214)	(69,188)	(36,350)	(267,724)	(2,677,648)
MMBTU / MCF															
Injection		1.05435		1.05408	1.05249	1.06528	1.04366	1.05378	1.06810	1.06262	1.06808	1.06546	1.07517	1.07405	1.06001
Withdrawal		1.02540	1.02327	1.02422	1.02319	1.06528		1.00000	1.02648	1.02542	1.02496	1.05578	1.05378	1.06093	1.02784

Weighted Average MMBTU / MCF: For time period December 1, 2000 through December 31, 2001
 Injection 1.06001
 Withdrawal 1.02784

Weighted Average MMBTU / MCF: For time period December 1, 2000 through December 31, 2001
 Converted from 14.65 to 15.025 PB

Injection 1.08715
 Withdrawal 1.05415

	Nov-00 and Prior	Dec-00 thru Dec-01	Total as of Dec. 31, 2001
	MCF	MMBTU	MCF
Cumulative Injections	60,819,445	65,902,228	5,029,734
Cumulative Withdrawals	55,130,185	58,115,253	2,610,818
	(1)	(2)	(3)
			(4)

Net Balance - MMBTU
 as of December 31, 2001

10,502,849

- (1) From "Exhibit E" Cumulative Volumes
 (2) MCF Multiplied by Weighted Average MMBTU / MCF (15.025 PB)
 (3) Raptor Natural Pipeline Actuals Converted from 14.65 to 15.025 PB
 (4) Raptor Natural Pipeline Actuals

Exhibit "G"

Example Report Format

RAPTOR NATURAL PIPELINE LLC
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO
PLAN OF OPERATION - PROGRESS REPORT
FOR THE SIX-MONTH PERIOD ENDING
June, 2001

Month:	GRM Unit No. 1		GRM Unit No. 2		GRM Unit No. 3		GRM Unit No. 4		Total	
	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF
Jan-01	0	0	0	0	0	0	0	0	0	0
Feb-01	0	0	0	0	0	0	0	0	0	0
Mar-01	0	0	0	0	0	0	0	0	0	0
Apr-01	0	0	0	0	0	0	0	0	0	0
May-01	0	0	0	0	0	0	0	0	0	0
Jun-01	0	0	0	0	0	0	0	0	0	0

Current Period:

0 0 0 0 0 0 0 0 0 0 0

Prior Periods:

0 0 0 0

Cumulative:

0 0 0 0

Net MCF Balance:

0

Month:	GRM Unit No. 1		GRM Unit No. 2		GRM Unit No. 3		GRM Unit No. 4		Total	
	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU
Jan-01	0	0	0	0	0	0	0	0	0	0
Feb-01	0	0	0	0	0	0	0	0	0	0
Mar-01	0	0	0	0	0	0	0	0	0	0
Apr-01	0	0	0	0	0	0	0	0	0	0
May-01	0	0	0	0	0	0	0	0	0	0
Jun-01	0	0	0	0	0	0	0	0	0	0

Current Period:

0 0 0 0 0 0 0 0 0 0 0

Prior Periods:

0 0 0 0

Cumulative:

0 0 0 0

Net MMBTU Balance:

0

Condensate Sales
(Barrels)

GRM Unit No. 1 GRM Unit No. 2 GRM Unit No. 3 GRM Unit No. 4

Current Period: 0 0 0 0 0

Send one copy to each:
Commissioner of Public Lands
Bureau of Land Management
New Mexico State Land Office
Roswell District Office
Division of Minerals Resources
P.O. Box 1148
Santa Fe, New Mexico 87503
2809 West Second Street
Roswell, New Mexico 88201

OG5PGRA1
OG5BPGRAONGARD
LAND SECTION REPORT06/12/2001
10:44 AM

PAGE NO: 1

SECT:04 TWP:22S RNG:34E SECTION TYPE:NORMAL

SOURCE CODE:3

Surface

4	3	2	1	
40.99	41.12	41.26	41.39	
		CB	CB	
		GT2533 09/03	GT2533 09/03	
Federal owned	Federal owned	MERCHANT LIVESTOC	MERCHANT LIVESTOC	
		R	R	
E	F	G	H	
40.00	40.00	40.00	40.00	
		CB	CB	
		GT2533 09/03	GT2533 09/03	
Federal owned	Federal owned	MERCHANT LIVESTOC	MERCHANT LIVESTOC	
		R	R	
L	K	J	I	
40.00	40.00	40.00	40.00	
Federal owned	Federal owned	Federal owned	Federal owned	
M	N	O	P	
40.00	40.00	40.00	40.00	
Federal owned	Federal owned	Federal owned	Federal owned	

OG5PSEC1
OG5BPSECONGARD
LAND SECTION REPORT06/12/2001
10:44 AM
PAGE NO: 1*Mineral*

SECT:04 TWP:22S RNG:34E SECTION TYPE:NORMAL

4	3	2	1	
40.99	41.12	41.26	41.39	
		CB	CB	
		OPEN	OPEN	
Federal owned	Federal owned			
		R	R	
E	F	G	H	
40.00	40.00	40.00	40.00	
		CB	CB	
		OPEN	OPEN	
Federal owned	Federal owned			
		R	R	
	A			
L	K	J	I	
40.00	40.00	40.00	40.00	
Federal owned	Federal owned	Federal owned	Federal owned	
M	N	O	P	
40.00	40.00	40.00	40.00	
Federal owned	Federal owned	Federal owned	Federal owned	

OG5PSEC1

ONGAL

06/12/2001

OG5BSEC

LAND SECTION REPORT

10:44 AM

PAGE NO: 2

SECT:04 TWP:22S RNG:34E SECTION TYPE:NORMAL

U LOT/	QTR	L	SRF	SUB	ACTIVE	REMARKS
L TRCT	QTR	W	ACREAGE	OWNER	LEASE #	(MAY SHOW RESTRICTION CODES)

A 1		N	41.39	ST	ST	GT 2533 0000 OGR PRU
A 1						R1 4258 0000
A 1						R2 4651 0000
B 2		N	41.26	ST	ST	GT 2533 0000 OGR PRU
C 3		N	41.12	FD	FD	
D 4		N	40.99	FD	FD	
E E	SW4NW4	N	40.00	FD	FD	
F F	SE4NW4	N	40.00	FD	FD	
G G	SW4NE4	N	40.00	ST	ST	GT 2533 0000 OGR PRU
H H	SE4NE4	N	40.00	ST	ST	GT 2533 0000 OGR PRU
H H						R1 4258 0000
H H						R2 4829 0000
I I	NE4SE4	N	40.00	FD	FD	
J J	NW4SE4	N	40.00	FD	FD	
K K	NE4SW4	N	40.00	FD	FD	
L L	NW4SW4	N	40.00	FD	FD	
M M	SW4SW4	N	40.00	FD	FD	
N N	SE4SW4	N	40.00	FD	FD	
O O	SW4SE4	N	40.00	FD	FD	
P P	SE4SE4	N	40.00	FD	FD	

END OF REPORT

**Grama Ridge Morrow Unit
Lea County, New Mexico**

Plan of Operation

This is a revised Plan of Operation as required, from time to time, pursuant to Section 9 of the UNIT AGREEMENT FOR THE OPERATION OF THE GRAMA RIDGE MORROW UNIT AREA, LEA COUNTY, NEW MEXICO dated April 25, 1973, as amended (the "Unit Agreement"), for the Grama Ridge Morrow Unit (hereinafter, "Unit").

Effective December 1, 2000, Conoco Inc. acquired LG&E Natural Pipeline LLC, successor in interest to Llano, Inc. Subsequently, the name of LG&E Natural Pipeline LLC was changed to Raptor Natural Pipeline LLC (hereinafter, "Unit Operator").

This Plan of Operation constitutes the operating procedures and conditions in which the Unit Operator will continue to operate the Unit pursuant to the following:

Grama Ridge Morrow Unit:

- Unit Agreement For The Operation Of The Grama Ridge Morrow Unit Area
Lea County, New Mexico
By and between the State of New Mexico and Llano, Inc. (among others)
Effective April 25, 1973

Unit Area: Section 34, T21S, R34E - All 640 acres
 Section 3, T22S, R34E - All 647.16 acres

Unitized Formation: 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.

Wells: Shell Oil Company State GRA Well No. 1 – SW1/4NW1/4 Section 3, T22S, R34E
 Shell State GRB Well No. 1 – NW1/4SW1/4 Section 34, T21S, R34E

- Amendment - Unit Agreement For The Operation Of The Grama Ridge Morrow Unit Area
Lea County, New Mexico
By and between the State of New Mexico and Llano, Inc. (among others)
Effective September 1, 1976

Unit Area: Added - Section 33, T21S, R34E - All 640 acres

Wells: Added - South Wilson Deep Unit No. 1 well – NW1/4SE1/4 Section 33, T21S, R34E

- Second Amendment to Unit Agreement For The Operation Of The Grama Ridge Morrow Unit Area

Lea County, New Mexico

By and Between the State of New Mexico and Raptor Natural Pipeline, LLC

Executed by Raptor on May 23, 2001 and Effective on Approval by the Commissioner

Unit Area: Clarified the legal description of the Unit Area as follows:

T-21-S, R-34-E

Section 33 – All

Section 34 – All

T-22-S, R-34-E

Section 3 – All

Section 4 – Lot 1, Lot 2, S/2 NE/4

Containing 2,089.81 acres, more or less

In addition, the following Federal agreements and lands comprise the remainder of the Unit:

- Agreement For Subsurface Storage Of Gas, Morrow Formation, Grama Ridge Unit Area

Lea County, New Mexico

By and between the United States of America and Llano, Inc.

Effective November 1, 1975

Unit Area: Section 4, T22S, R34E - All 640 acres

Unitized Formation: Vertical interval between 12,778 feet and 13,255 feet below the surface in the Morrow formation in the Federal GR-4 No. 1.

Wells: Llano Federal GR-4 No. 1 – SE1/4SE1/4NW1/4 Section 4, T22S, R34E

- Amendment - Agreement For Subsurface Storage Of Gas, Morrow Formation, Grama Ridge Unit Area

Lea County, New Mexico

By and between the United States of America and Llano, Inc.

Effective April 1, 1981

Unit Area: Added - Section 10, T22S, R34E - All 640 acres

Wells: Added – Llano Government “A” No. 1 – SE1/4NW1/4 Section 10, T22S, R34E

The New Mexico Department of Energy and Minerals, Oil Conservation Division’s Order No. R-7582, effective June 27, 1984, subsequently acknowledged this expansion by amendment.

Exhibit "A" and Exhibit "B" attached are a map and schedule showing United States of America, State of New Mexico and fee-owned acreage committed to the Unit along with the identity of mineral tract owners to the extent known to the Unit Operator as of January 1, 2002.

Exhibit "C" and Exhibit "D" attached are a map and schedule showing United States of America, State of New Mexico and fee-owned acreage subject to the Unit along with the identity of land surface ownership to the extent known to the Unit Operator as of January 1, 2002.

Wells - Name Changes and Usage:

Original Well Name:

Well Name Change:

Shell Oil Company State GRA Well No. 1	GRM Unit No. 1
Shell State GRB Well No. 1	GRM Unit No. 2
South Wilson Deep Unit No. 1	GRM Unit No. 3
Llano Federal GR-4 No. 1	GRM Unit No. 4
Llano Government "A" No. 1	GRM Unit No. 5

Effective March 15, 1978, at the request of the New Mexico Department of Energy and Minerals, Oil Conservation Division, Shell Oil Company State GRA Well No. 1, Shell State GRB Well No. 1, South Wilson Deep Unit No. 1, and Llano Federal GR-4 No. 1 were renamed GRM Unit No.1, GRM Unit No. 2, GRM Unit No. 3, and GRM Unit No. 4, respectively, to reflect the unit status.

Effective April 1, 1981 the amendment to the Agreement For Subsurface Storage Of Gas, Morrow Formation, Grama Ridge Unit Area, by and between the United States of America and Llano, Inc. expanded the Unit to include Section 10, T22S, R34E and the Llano Government "A" No. 1. The Llano Government "A" No. 1 was renamed GRM Unit No. 5 effective May 18, 1984. In June 1985 the GRM Unit No. 5 was withdrawn from the Unit and recompleted as a gas well in another producing interval.

The wells are used for the injection and withdrawal of gas into and out of the Unit in the following manner:

- GRM Unit No. 1: Used for injection and withdrawal.
- GRM Unit No. 2: Used for injection and withdrawal.
- GRM Unit No. 3: Used for withdrawal only.
- GRM Unit No. 4: Used for withdrawal only.

Facilities and Measurement:

Unit Operator will maintain equipment to separate the gas from the liquid hydrocarbons produced from the withdrawal of gas from the Unit wells, as stipulated in Section 11(A) of the Unit Agreement, as amended. Liquid hydrocarbons will be sold and the proceeds allocated according to the provisions of Section 11(A) of the Unit Agreement, as amended. Sales volumes will be reported every six months in accordance with the form attached hereto as Exhibit "G".

Unit Operator will maintain natural gas measuring stations properly equipped with an orifice meter and an electronic flow recorder of standard design and manufacture. The measurements of this measuring station will fix the cumulative quantity of gas injected and withdrawn from the Unit wells. Orifice meter installations will conform to the recommendations for design and installation contained in

ANSI/API 2530-AGA Report No. 3 (1985) and any supplements thereto as deemed appropriate by the Unit Operator. Unit Operator will keep the measuring equipment accurate and in repair and will test the orifice meter in service quarterly or more often if deemed necessary by Unit Operator. Samples of the injected and withdrawn gas will be obtained monthly, or more often as Unit Operator deems necessary, and tested by chromatography to determine the composition of the gas.

Injection, Withdrawal, and Cumulative Volumes:

The net balance of gas volumes in storage in the Unit as of December 31, 2001 was 7,908,101 Mcf (or 10,502,849MMBtu), determined by the Unit Operator as follows:

Through provisions outlined in the Unit Agreement For The Operation Of The Grama Ridge Morrow Unit Area, Lea County, New Mexico, by and between the State of New Mexico and Llano, Inc., effective April 25, 1973, the Unit Operator paid the State in-full for royalties otherwise due on primary gas and liquid hydrocarbons left in Section 34, T21S, R34E and Section 3, T22S, R34E of the Unit. It was determined that 47,770 MCF of primary production existed at that time.

Through provisions outlined in the amendment to the Unit Agreement For The Operation Of The Grama Ridge Morrow Unit Area, Lea County, New Mexico, by and between the State of New Mexico and Llano, Inc., effective September 1, 1976, the Unit Operator paid for royalties due on primary gas and liquid hydrocarbons left in Section 33, T21S, R34E of the Unit. It was determined that 318,519 MCF of primary production existed at that time.

Through provisions outlined in the amendment to the Agreement For Subsurface Storage Of Gas, Morrow Formation, Grama Ridge Unit Area, Lea County, New Mexico, by and between the United States of America and Llano, Inc., effective April 1, 1981, the Unit Operator paid for royalties due on primary gas and liquid hydrocarbons left in Section 10, T22S, R34E and Section 3, T22S, R34E of the Unit. It was determined that 413,000 MCF of primary production existed at that time.

Beginning with the Llano, Inc., Progress Report No. 23 for the six-month period ending December 31, 1984 and accounting for monthly injections and withdrawals utilizing State of New Mexico, Energy Minerals and Natural Resources, Oil Conservation Division, Form C-131A Monthly Gas Storage Reports, the cumulative injected gas has totaled 64,869,719 MCF and cumulative withdrawn gas has totaled 57,740,907 MCF as of December 31, 2001. The net cumulative balance of gas being 7,128,812 MCF. See Exhibit "E" for supporting documentation.

Therefore, the net balance of gas in storage within the Unit as of December 31, 2001 is 47,770 MCF plus 318,519 MCF plus 413,000 MCF plus 7,128,812 MCF totaling 7,908,101 MCF.

The Unit Operator is not able to accumulate monthly chromatograph analyses documentation for the same time periods as described above, however, beginning with Conoco Inc. involvement on December 1, 2000, the Unit Operator has analyses for injected and withdrawn gas. The Unit Operator will apply the average British Thermal Units as calculated for the time period December 1, 2000 through December 31, 2001 to cumulative injection and withdrawn gas volumes, and primary production gas volumes purchased in place. Therefore, the net balance of gas in storage within the Unit as of December 31, 2001 is 10,502,849 MMBtu. See Exhibit "F" for supporting documentation.

Reporting:

All future six-month progress reports shall include both MCF and MMBtu injection, withdrawal and cumulative reporting for the Unit in accordance with the form attached hereto as Exhibit "G". Injection, withdrawal and cumulative balance volumes will also be reported monthly to the New Mexico Oil Conservation Division in accordance with NMOCD Form C-131-A (Exhibit "H", attached). British Thermal Units per MCF shall be determined utilizing monthly chromatograph analyses for gas that is injected and withdrawn.

Purpose and Continued Use of Unit:

The purpose of the Unit is to provide commercial storage of gas to third party customers. Customers will be allowed to request the injection and withdrawal of their gas pursuant to contractual agreements entered into between them and the Unit Operator. For the foreseeable life of the Unit, injection of gas into the storage facility shall proceed according to a plan of typically injecting gas April through October and withdrawing gas November through March of each year. However, typical injection and withdrawal cycles may vary depending on the requirements of the customers and their contracts associated with the storage facility. The Unit Operator will continue to operate the Unit in accordance with the terms and conditions of Unit Agreement.

Term and Termination:

This Plan of Operations shall be effective beginning January 1, 2002 and shall remain in effect for a period of time equal to the lesser of five (5) years from the date the Commissioner of Public Lands (the "Commissioner") approves the same or until conditions warrant a change in operating procedures as described in this Plan of Operations. At such time, a new plan of operation shall be submitted to the Commissioner for approval.

Upon termination or cancellation of the Unit Agreement as to all of the Unit Area, Unit Operator will remove all improvements placed on the premises and will restore the premises as provided in the Unit Agreement or the respective Oil and Gas Leases, as applicable; if the Unit Agreement or the respective Oil and Gas Leases do not provide for restoration, Unit Operator shall restore the premises, to the extent reasonably possible, to the same condition as it existed prior to placement of the improvements.

This Plan of Operation is respectfully submitted for approval effective January 1, 2002.

RAPTOR NATURAL PIPELINE LLC

By: M. L. Johnson
M. L. Johnson, President

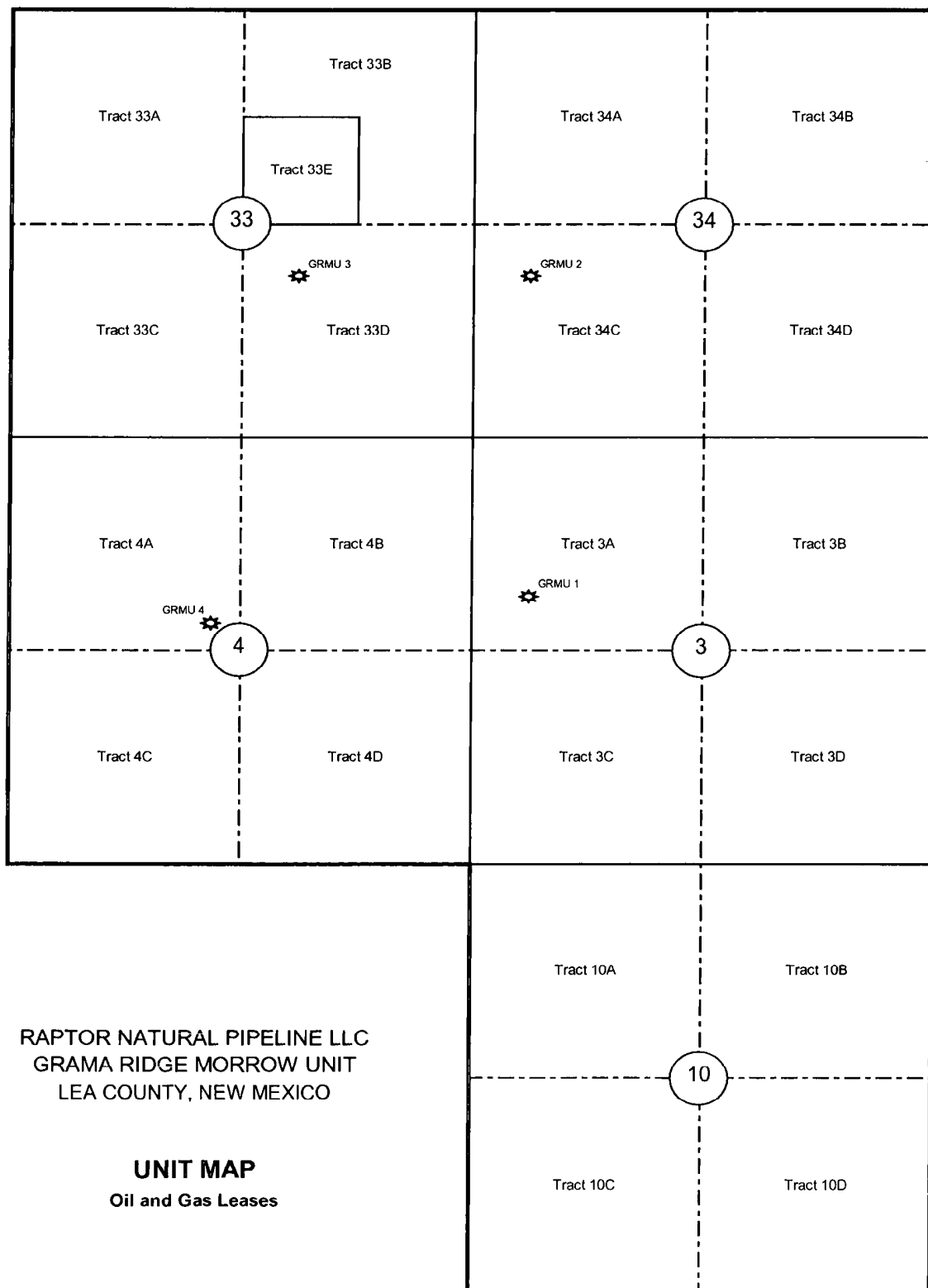
Approved: Ray Powell
By: Ray Powell
Commissioner of Public Lands

Date: 8/24/02

EXHIBIT "A"

GRAMA RIDGE MORROW UNIT

R34E



T21S

T22S

RAPTOR NATURAL PIPELINE LLC
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO

UNIT MAP
Oil and Gas Leases

EXHIBIT "B"

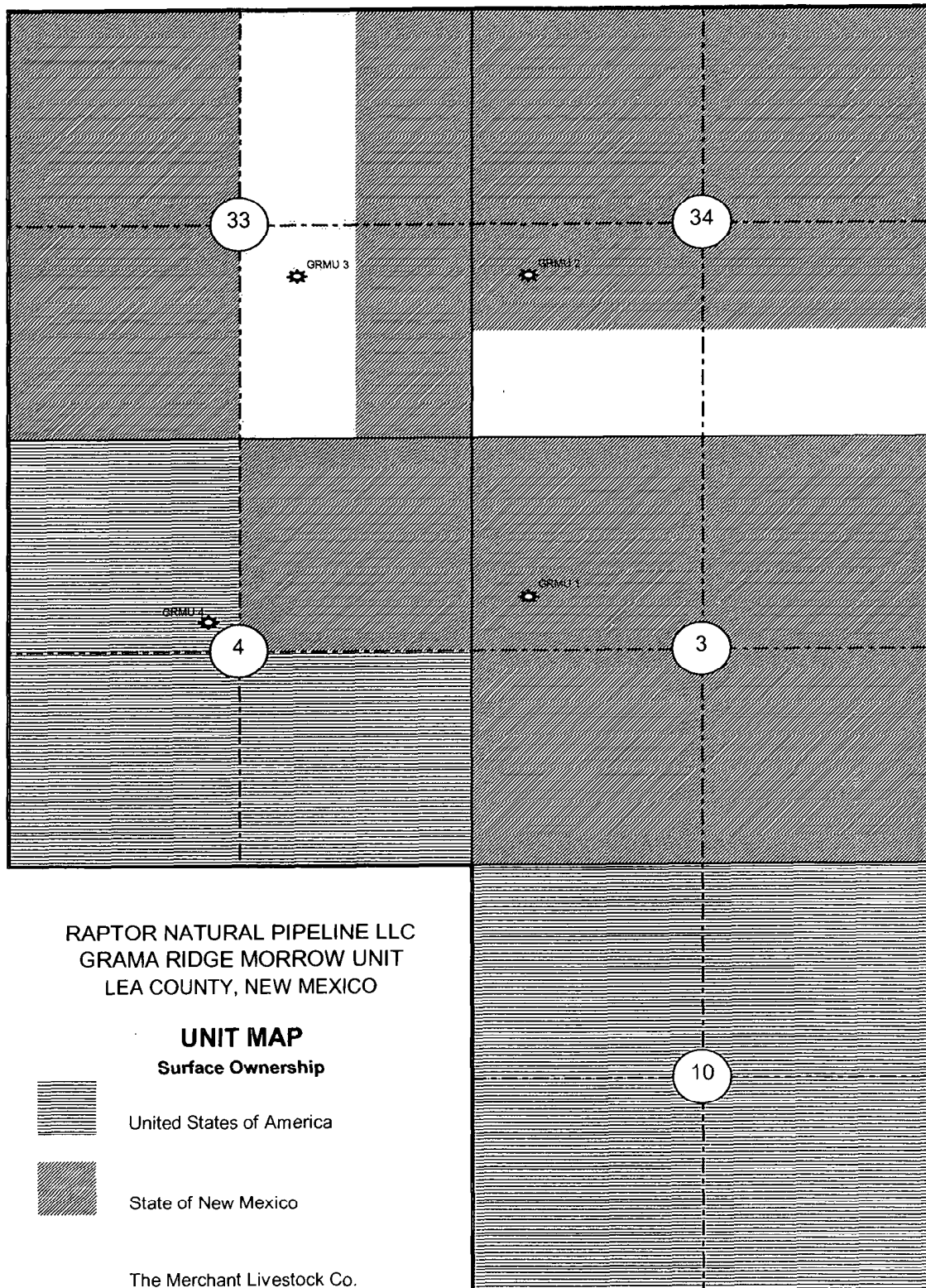
GRAMA RIDGE MORROW UNIT AGREEMENT

Tract No.	Description	Lease No.	Acreage	Basic Royalty	Lessee of Record	Working Interest Owner and Percentage	% Tract Participation
3C	SW¼ Sec. 3, T. 22 S., R. 34 E.	SNM B-1583	160	12.50%	Apache Corp.	Raptor Natural Pipeline LLC 100%	4.9814
3D	SE¼ Sec. 3, T. 22 S., R. 34 E.	SNM B-1583	160	12.50%	Apache Corp.	Chaparral Energy, Inc. 100%	4.9814
3B	NE¼ Sec. 3, T. 22 S., R. 34 E.	SNM E-9141	163.91	12.50%	Apache Corp.	Chaparral Energy, Inc. 100%	5.1032
3A	NW¼ Sec. 3, T. 22 S., R. 34 E.	SNM E-9141	163.25	12.50%	Apache Corp.	Raptor Natural Pipeline LLC 100%	5.0826
34C	SW¼ Sec. 34, T. 21 S., R. 34 E.	SNM E-9659	160	12.50%	Chevron USA, Inc.	Raptor Natural Pipeline LLC 100%	4.9814
34D	SE¼ Sec. 34, T. 21 S., R. 34 E.	SNM E-9659	160	12.50%	Chevron USA, Inc.	EOG Resources Inc. 100%	4.9814
34A & 34B	N¼ Sec. 34, T. 21 S., R. 34 E.	SNM V-5683	320	16.67%	Great Western Drilling Co.	Great Western Drilling Co. 25% Continental Land and Fur Co. 18.75% Nearburg Exploration Co. LLC 56.25%	9.9629
33A, 33B, 33C & 33D	W¼, SE¼, N¼NE¼, SE¼NE¼ Sec. 33, T. 21 S., R. 34 E.	SNM V-5682	600	16.67%	Raptor Natural Pipeline LLC	Raptor Natural Pipeline LLC 100%	18.6804
33E	SW¼ NE¼ Sec. 33, T. 21 S., R. 34 E.	Fee	40	The Merchant Livestock Co. 67.63% of 12.5% Don E. Gridley & wife 50% of 32.37% of 12.5% John E. Bosserman & wife 50% of 32.37% of 12.5%	Wilson Oil Co. and Francis P. Bolton, dba Wyoming Oil	Raptor Natural Pipeline LLC 67.63% Gridley/Bosserman, et al (unleased) 32.37%	1.2454
4A & 4B	N¼ Sec. 4, T. 22 S., R. 34 E.	US NM-058678	324.76	12.50%	Raptor Natural Pipeline LLC	Raptor Natural Pipeline LLC 100%	10.1111
4D	SE¼ Sec. 4, T. 22 S., R. 34 E.	US NM-033312-A	160	12.50%	Raptor Natural Pipeline LLC	Raptor Natural Pipeline LLC 100%	4.9814
4C	SW¼ Sec. 4, T. 22 S., R. 34 E.	US NM-0381970	160	12.50%	Raptor Natural Pipeline LLC	Raptor Natural Pipeline LLC 100%	4.9814
10A, 10C, & 10D	W¼ SE¼ Sec. 10, T. 22 S., R. 34 E.	US NM-033312	480	12.50%	EOG Resources, Inc.	EOG Resources, Inc. 100%	14.9443
10B	NE¼ Sec. 10, T. 22 S., R. 34 E.	US NM-049943	160	12.50%	EOG Resources, Inc.	EOG Resources, Inc. 100%	4.9814
Total:			3,211.92				100.00

EXHIBIT "C"

GRAMA RIDGE MORROW UNIT

R34E



T21S

T22S

EXHIBIT "D"

GRAMA RIDGE MORROW UNIT AGREEMENT

Description	Surface Ownership	Acreage
W½, SE¼ Section 4, T. 22 S., R. 34 E.	United States of America	482.11
All Section 10, T. 22 S., R. 34 E.	United States of America	640
All Section 3, T. 22 S., R. 34 E.	State of New Mexico	647.16
NE¼ Section 4, T. 22 S., R. 34 E.	State of New Mexico	162.65
W½, E½E½ Section 33, T. 21 S., R. 34 E.	State of New Mexico	480
N½, N½S½ Section 34, T. 21 S., R. 34 E.	State of New Mexico	480
W½E½ Section 33, T. 21 S., R. 34 E.	The Merchant Livestock Company	160
S½S½ Section 34, T. 21 S., R. 34 E.	The Merchant Livestock Company	160
<u>Total</u>		3,211.92
	United States of America	1,122.11
	State of New Mexico	1,769.81
	The Merchant Livestock Company	320

Exhibit "E"

**Grama Ridge Morrow Unit
Lea County, New Mexico
New Mexico Oil Conservation Division
Monthly Gas Storage Report, Form C-131-A**

Month:	GRM Unit No. 1		GRM Unit No. 2		GRM Unit No. 3		GRM Unit No. 4		Total		NET MCF	Cumulative Injection MCF	Cumulative Withdrawal MCF	Cumulative MCF
	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Withdrawal MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF				
				Gas in place Section 34, T21S, R34E and Section 3, T22S, R34E:					47,770		47,770	47,770	-	47,770
				Gas in place Section 33, T21S, R34E:					318,519		318,519	366,289	0	366,289
				Gas in place Section 10, T22S, R34E:					413,000		413,000	779,289	0	779,289
											0	779,289	0	779,289
- Progress Report No. 23, For the Six-Month Period Ending December 31, 1984 (converted from 14.65 to 15.025 PB):									16,430,708	10,477,689	5,953,019	17,209,997	10,477,689	6,732,308
											0	17,209,997	10,477,689	6,732,308
Jan-85	103,189	32,302	63,636	21,982	5,926	11,411	166,825	71,621	95,204	17,376,822	61,039	17,549,310	10,549,310	6,827,512
Feb-85	46,395	39,209	111,192	34,221	3,345	19,773	157,587	96,548	61,039	17,534,409	10,645,858	6,888,551	6,819,262	6,888,551
Mar-85	6,501	22,471	27,920	42,215	10,641	28,383	34,421	103,710	-69,289	17,568,830	10,749,568	6,819,262	6,819,262	6,819,262
Apr-85	0	32,756	0	53,479	13,178	39,525	0	138,938	-138,938	17,568,830	10,888,506	6,680,324	6,680,324	6,680,324
May-85	0	93,493	0	173,397	18,228	59,106	0	344,224	-344,224	17,568,830	11,232,730	6,336,100	6,336,100	6,336,100
Jun-85	332	222,404	6,305	244,877	10,160	97,274	6,637	574,715	-568,078	17,575,467	11,807,445	5,768,022	5,768,022	5,768,022
Jul-85	0	40,257	89,995	61,320	4,972	33,032	89,995	139,581	-49,586	17,665,462	11,947,026	5,718,436	5,718,436	5,718,436
Aug-85	19,501	27,856	47,348	56,671	5,826	40,146	66,649	130,499	63,650	17,732,311	12,077,525	5,654,786	5,654,786	5,654,786
Sep-85	0	5,242	1,374	19,188	1,616	6,789	1,374	32,835	-31,461	17,733,685	12,110,360	5,623,325	5,623,325	5,623,325
Oct-85	89,637	173	70,480	5,218	1,194	5,464	160,117	12,049	148,068	17,893,802	12,122,409	5,771,393	5,771,393	5,771,393
Nov-85	55,112	1,050	41,571	6,591	1,340	7,586	96,683	16,567	80,116	17,990,485	12,138,976	5,851,509	5,851,509	5,851,509
Dec-85	7,267	9,707	40,136	22,370	3,308	8,511	47,403	43,896	3,507	18,037,888	12,182,872	5,855,016	5,855,016	5,855,016
									0	18,037,888	12,182,872	5,855,016	5,855,016	5,855,016
Jan-86	5,232	856	20,527	16,498	9,144	8,667	25,759	35,165	-9,406	18,063,647	12,218,037	5,845,610	5,845,610	5,845,610
Feb-86	8,140	0	59,840	6,977	2,967	10,051	67,980	19,995	47,985	18,131,627	12,238,032	5,893,695	5,893,695	5,893,695
Mar-86	26,805	1,154	67,365	2,156	8,014	3,737	94,170	15,061	79,109	18,225,797	12,253,093	5,972,704	5,972,704	5,972,704
Apr-86	0	92,948	0	87,284	17,941	16,859	0	214,832	-214,832	18,225,797	12,267,925	5,757,872	5,757,872	5,757,872
May-86	0	295,023	0	294,329	33,475	108,260	0	731,087	-731,087	18,225,797	13,199,012	5,026,785	5,026,785	5,026,785
Jun-86	0	266,943	0	205,168	24,273	73,654	0	570,038	-570,038	18,225,797	13,769,050	4,456,747	4,456,747	4,456,747
Jul-86	0	238,772	0	180,454	15,016	76,689	0	510,931	-510,931	18,225,797	14,279,981	3,945,816	3,945,816	3,945,816
Aug-86	0	132,924	0	108,821	7,738	40,010	0	289,493	-289,493	18,225,797	14,569,474	3,656,323	3,656,323	3,656,323
Sep-86	0	72,527	0	71,828	12,532	40,692	0	197,579	-197,579	18,225,797	14,767,053	3,458,744	3,458,744	3,458,744
Oct-86	0	16,003	0	15,294	5,085	4,767	0	41,149	-41,149	18,225,797	14,808,202	3,417,595	3,417,595	3,417,595
Nov-86	0	0	0	0	0	0	0	0	0	18,225,797	14,808,202	3,417,595	3,417,595	3,417,595
Dec-86	0	28,789	0	0	5,614	8,738	0	43,141	-43,141	18,225,797	14,851,343	3,374,454	3,374,454	3,374,454
									0	18,225,797	14,851,343	3,374,454	3,374,454	3,374,454
Jan-87	0	14,670	0	7,991	5,003	5,931	0	33,595	-33,595	18,225,797	14,884,938	3,340,859	3,340,859	3,340,859
Feb-87	0	19,961	0	50,203	10,109	12,078	0	92,351	-92,351	18,225,797	14,977,289	3,248,508	3,248,508	3,248,508
Mar-87	0	706	0	39,872	796	90	0	41,464	-41,464	18,225,797	15,018,753	3,207,044	3,207,044	3,207,044
Apr-87	0	2,323	0	0	1,880	2,501	0	6,704	-6,704	18,225,797	15,025,457	3,200,340	3,200,340	3,200,340
May-87	0	0	0	0	0	0	0	0	0	18,225,797	15,025,457	3,200,340	3,200,340	3,200,340
Jun-87	0	17,629	0	0	9,074	11,369	0	38,072	-38,072	18,225,797	15,063,529	3,162,268	3,162,268	3,162,268
Jul-87	182	0	0	0	0	0	182	0	182	18,225,979	15,063,529	3,162,450	3,162,450	3,162,450
Aug-87	185,385	0	0	0	0	0	185,385	0	185,385	18,411,364	15,063,529	3,347,835	3,347,835	3,347,835
Sep-87	20,729	0	0	0	0	0	20,729	0	20,729	18,432,093	15,063,529	3,368,564	3,368,564	3,368,564
Oct-87	42,172	0	0	0	0	0	42,172	0	42,172	18,474,265	15,063,529	3,410,736	3,410,736	3,410,736
Nov-87	15,238	33,281	0	0	18,537	25,067	15,238	76,885	-61,647	18,489,503	15,140,414	3,349,089	3,349,089	3,349,089
Dec-87	0	140,415	0	0	30,715	48,990	0	220,120	-220,120	18,489,503	15,360,534	3,128,969	3,128,969	3,128,969
									0	18,489,503	15,360,534	3,128,969	3,128,969	3,128,969
Jan-88	0	62,366	0	0	17,976	27,883	0	108,225	-108,225	18,489,503	15,468,759	3,020,744	3,020,744	3,020,744
Feb-88	0	44,949	0	0	12,857	14,098	0	71,904	-71,904	18,489,503	15,540,663	2,948,840	2,948,840	2,948,840
Mar-88	0	45,347	0	0	13,402	25,628	0	84,377	-84,377	18,489,503	15,625,040	2,864,463	2,864,463	2,864,463
Apr-88	0	337	0	0	772	1,653	0	2,762	-2,762	18,489,503	15,627,802	2,861,701	2,861,701	2,861,701
May-88	166,247	0	0	0	0	0	166,247	0	166,247	18,655,750	15,627,802	3,027,948	3,027,948	3,027,948
Jun-88	97,977	0	0	0	0	0	97,977	0	97,977	18,753,727	15,627,802	3,125,925	3,125,925	3,125,925
Jul-88	0	90,362	0	0	0	0	0	90,362	-90,362	18,753,727	15,718,164	3,035,563	3,035,563	3,035,563
Aug-88	0	133,428	0	0	16,946	33,497	0	183,871	-183,871	18,753,727	15,902,035	2,851,692	2,851,692	2,851,692
Sep-88	94,708	469	0	0	150	276	94,708	895	93,813	18,848,435	15,902,930	2,945,505	2,945,505	2,945,505
Oct-88	25,905	0	0	0	0	0	25,905	0	25,905	18,874,340	15,902,930	2,971,410	2,971,410	2,971,410
Nov-88	1,891	131,470	0	0	0	0	1,891	131,470	-129,579	18,876,231	16,034,400	2,841,831	2,841,831	2,841,831
Dec-88	0	175,213	0	50,924	55,361	31,511	0	313,009	-313,009	18,876,231	16,347,409	2,528,822	2,528,822	2,528,822
									0	18,876,231	16,347,409	2,528,822	2,528,822	2,528,822
Jan-89	12,460	2,385	0	45,081	6,151	2,832	12,460	56,449	-43,989	18,888,691	16,403,858	2,484,833	2,484,833	2,484,833
Feb-89	14,763	9,032	0	18,503	11,475	0	14,763	39,010	-24,247	18,903,454	16,442,868	2,460,586	2,460,586	2,460,586
Mar-89	32,020	997	23,342	1,391	99	0	55,362	2,487	52,875	18,958,816	16,445,355	2,513,461	2,513,461	2,513,461
Apr-89	95,429	0	95	0	0	0	95,524	0	95,524	19,054,340	16,445,355	2,608,985	2,608,985	2,608,985
May-89	203,321	0	155,637	0	0	0	358,958	0	358,958	19,413,298	16,445,355	2,967,943	2,967,943	2,967,943
Jun-89	152,529	0	140,019	0	0	0	292,548	0	292,548	19,705,846	16,445,355	3,260,491	3,260,491	3,260,491
Jul-89	39,421	4,995	34,786	2,019	6,743	4,325								

Aug-91	339,998	0	374,752	0	0	0	714,750	0	714,750	25,872,161	20,438,066	5,434,095
Sep-91	393,880	0	432,634	0	0	0	826,514	0	826,514	26,698,675	20,438,066	6,260,609
Oct-91	329,898	0	316,627	0	0	0	646,525	0	646,525	27,345,200	20,438,066	6,907,134
Nov-91	0	325,169	0	373,504	15,893	44,219	0	758,784	-758,784	27,345,200	21,196,850	6,148,350
Dec-91	0	362,311	0	478,867	15,111	72,548	0	928,837	-928,837	27,345,200	22,125,687	5,219,513
							0	0	0	27,345,200	22,125,687	5,219,513
Jan-92	0	393,443	0	538,359	13,503	68,065	0	1,013,370	-1,013,370	27,345,200	23,139,057	4,206,143
Feb-92	67	261,122	0	357,597	12,644	37,594	67	668,957	-668,957	27,345,267	23,808,014	3,537,253
Mar-92	0	175,765	0	234,869	8,193	31,922	0	450,749	-450,749	27,345,267	24,256,763	3,086,504
Apr-92	11,035	172,647	109,742	38,380	772	3,731	120,777	215,530	-94,753	27,466,044	24,474,293	2,991,751
May-92	336,006	14,877	206,754	0	0	0	542,760	14,877	542,760	28,008,804	24,489,170	3,519,634
Jun-92	387,015	0	358,969	0	0	0	745,984	0	745,984	28,754,788	24,489,170	4,265,618
Jul-92	367,466	0	321,837	0	0	0	689,303	0	689,303	29,444,091	24,489,170	4,954,921
Aug-92	384,532	0	368,161	0	0	0	752,693	0	752,693	30,196,784	24,489,170	5,707,614
Sep-92	341,320	0	226,291	0	0	0	567,611	0	567,611	30,764,395	24,489,170	6,275,225
Oct-92	32,061	259,360	82,795	41,077	0	0	114,856	300,437	-185,581	30,879,251	24,789,607	6,089,644
Nov-92	489	408,479	0	468,602	21,729	90,567	489	989,377	-988,888	30,879,740	25,778,984	5,100,756
Dec-92	0	357,123	0	488,654	7,659	72,668	0	926,104	-926,104	30,879,740	26,705,088	4,174,652
							0	0	0	30,879,740	26,705,088	4,174,652
Jan-93	0	314,012	0	468,165	11,687	55,153	0	849,017	-849,017	30,879,740	27,554,105	3,325,635
Feb-93	0	271,105	0	311,000	29,595	44,477	0	656,177	-656,177	30,879,740	28,210,282	2,869,458
Mar-93	0	259,271	0	203,447	12,961	40,075	0	515,754	-515,754	30,879,740	28,726,036	2,153,704
Apr-93	0	196,808	0	42,940	9,456	32,240	0	281,444	-281,444	30,879,740	29,007,480	1,872,260
May-93	424,878	277	429,794	0	0	0	854,672	277	854,395	31,734,412	29,007,757	2,726,655
Jun-93	496,780	0	506,449	0	0	0	1,003,229	0	1,003,229	32,737,641	29,007,757	3,729,884
Jul-93	476,231	0	325,025	0	0	0	801,256	0	801,256	33,538,897	29,007,757	4,531,140
Aug-93	260,872	125,438	256,560	107,115	0	0	617,432	232,553	-284,879	34,056,329	29,240,310	4,816,019
Sep-93	488,297	0	257,159	0	0	0	745,456	0	745,456	34,801,785	29,240,310	5,561,475
Oct-93	144,746	65,010	152,536	32,641	0	0	297,282	97,651	199,631	35,099,067	29,337,961	5,761,106
Nov-93	0	387,196	0	499,889	21,462	30,338	0	938,885	-938,885	35,099,067	30,276,846	4,822,221
Dec-93	8,881	205,512	9,932	342,855	4,939	64,394	18,813	617,700	-598,887	35,117,880	30,894,546	4,223,334
							0	0	0	35,117,880	30,894,546	4,223,334
Jan-94	0	272,101	0	465,579	6,155	70,292	0	814,127	-814,127	35,117,880	31,708,673	3,409,207
Feb-94	0	231,675	0	264,678	7,872	61,666	0	555,891	-555,891	35,117,880	32,264,564	2,853,316
Mar-94	0	163,120	0	100,361	11,135	36,161	0	310,777	-310,777	35,117,880	32,575,341	2,542,539
Apr-94	103,607	53,500	1,557	6,071	0	0	105,164	59,571	45,593	35,223,044	32,634,912	2,588,132
May-94	459,982	0	346,946	0	0	0	806,928	0	806,928	36,029,972	32,634,912	3,395,060
Jun-94	370,783	4,310	340,209	0	0	0	710,992	4,310	706,682	36,740,964	32,639,222	4,101,742
Jul-94	278,895	0	113,070	0	0	0	391,965	0	391,965	37,132,929	32,639,222	4,993,707
Aug-94	106,072	0	118,624	0	0	0	224,696	0	224,696	37,357,625	32,639,222	4,718,403
Sep-94	542,198	0	539,629	0	0	0	1,081,827	0	1,081,827	38,439,452	32,639,222	5,800,230
Oct-94	486,455	0	468,757	0	0	0	955,212	0	955,212	39,394,664	32,639,222	6,755,442
Nov-94	28,167	270,491	38,000	167,210	3,892	19,290	66,167	460,883	-394,716	39,480,831	33,100,105	6,360,726
Dec-94	0	449,676	0	767,248	12,636	100,607	0	1,330,167	-1,330,167	39,480,831	34,430,272	5,030,559
							0	0	0	39,480,831	34,430,272	5,030,559
Jan-95	0	244,626	27,302	318,742	5,295	28,999	27,302	597,662	-570,360	39,488,133	35,027,934	4,460,199
Feb-95	101,663	210,325	17,427	225,287	9,589	63,618	119,090	508,819	-389,729	39,607,223	35,536,753	4,070,470
Mar-95	364,808	118,740	318,775	40,373	9,836	16,861	683,583	185,810	497,773	40,290,806	35,722,563	4,568,243
Apr-95	193,050	17,170	177,790	0	0	3,571	370,840	20,741	350,099	40,661,646	35,743,304	4,918,342
May-95	393,844	0	379,017	0	0	0	762,861	0	762,861	41,424,507	35,743,304	5,681,203
Jun-95	415,253	0	402,900	0	0	0	818,153	0	818,153	42,242,660	35,743,304	6,499,356
Jul-95	352,364	0	281,301	0	0	0	633,665	0	633,665	42,876,325	35,743,304	7,133,021
Aug-95	342,003	0	258,678	0	0	0	600,681	0	600,681	43,477,006	35,743,304	7,733,702
Sep-95	32,981	161,535	20,913	232,584	12,033	68,285	53,894	474,437	-420,543	43,530,900	36,217,741	7,313,159
Oct-95	4,174	311,406	16,844	100,541	47,736	21,818	459,683	459,683	-438,665	43,551,918	36,677,424	6,874,494
Nov-95	0	398,780	0	396,825	9,224	106,716	0	911,545	-911,545	43,551,918	37,588,969	5,962,949
Dec-95	7,877	302,371	16,194	375,526	15,787	64,286	24,071	757,970	-733,899	43,575,989	38,346,939	5,229,050
							0	0	0	43,575,989	38,346,939	5,229,050
Jan-96	0	357,838	0	488,411	11,819	68,416	0	926,484	-926,484	43,575,989	39,273,423	4,302,566
Feb-96	0	303,126	0	319,615	22,592	55,165	0	700,498	-700,498	43,575,989	39,973,921	3,602,068
Mar-96	0	322,259	0	252,492	9,780	59,243	0	643,774	-643,774	43,575,989	40,617,695	2,958,294
Apr-96	7,479	206,186	5,092	133,558	0	39,131	12,571	378,875	-366,304	43,586,560	40,996,570	2,591,990
May-96	327,999	8,630	157,064	3,295	0	0	485,063	11,925	473,138	44,073,623	41,008,495	3,065,128
Jun-96	14,631	19,156	83,745	0	0	0	98,376	19,156	79,220	44,171,999	41,027,651	3,144,348
Jul-96	6,197	0	36,412	0	0	0	42,609	0	42,609	44,214,608	41,027,651	3,186,957
Aug-96	26,633	0	123,199	0	0	0	149,832	0	149,832	44,364,440	41,027,651	3,336,789
Sep-96	445,453	0	468,982	0	0	0	914,435	0	914,435	45,278,875	41,027,651	4,251,224
Oct-96	186,805	30,412	239,862	37,131	0	0	426,667	67,543	359,124	45,705,542	41,095,194	4,610,348
Nov-96	0	394,635	12,438	474,949	15,674	0	12,438	885,258	-872,820	45,717,980	41,980,452	3,737,528
Dec-96	30,677	265,547	48,735	281,630	8,223	0	79,412	555,400	-475,988	45,797,392	42,535,852	3,261,540
							0	0	0	45,797,392	42,535,852	3,261,540
Jan-97	0	273,303	0	231,475	7,926	0	0	512,704	-512,704	45,797,392	43,048,556	2,748,836
Feb-97	0	225,723	2,968	140,078	10,941	2,968	0	376,742	-373,774	45,800,360	43,425,298	2,375,062
Mar-97	0	203,396	0	36,791	3,794	0	0	243,981	-243,981	45,800,360	43,669,279	2,131,081
Apr-97	3,593	36,596	76,200	0	0	0	79,793	36,596	43,197	45,880,153	43,705,875	2,174,278
May-97	0	22,186	162,956	0	0	0	162,956	22,186	140,770	46,043,109	43,728,061	2,315,048
Jun-97	0	0	336,887	0	0	0	336,887	0	336,887	46,379,996	43,728,061	2,651,935
Jul-97	46,371	9,765	177,584	0	0	0	223,955	9,765	214,190	46,603,951	43,737,826	2,866,125
Aug-97	428,938	0	357,335	0	0	0	786,273	0	786,273	47,390,224	43,737,826	3,652,398
Sep-97	354,935	0	318,732	0	0	0	673,667	0	673,667	48,063,891	43,737,826	4,326,065
Oct-97	143,610	57,805	153,973	26,849	268	0	297,583	84,922	212,661	48,361,474	43,822,748	4,538,726
Nov-97	11,468	247,107	23,059	316,792	6,555	0	34,527	570,454	-535,927	48,396,001	44,393,202	4,002,799
Dec-97	0	192,137	0	438,301	2,419	0	0	632,857	-632,857	48,396,001	45,026,059	3,369,942
							0	0	0	48,396,001	45,026,059	3,369,942
Jan-98	140,921	7,495	0	109,235	0	0	140,921	116,730	24,191	48,536,822	45,142,789	3,394,133
Feb-98	678,668	0	3,706	0	0	0	682,374	0	682,374	49,219,296	45,142,789	4,076,507
Mar-98	61,610	96,563	52,266	112,795	0	0	113,876	209,358	-95,482	49,333,172	45,352,147	3,981,025
Apr-98	479,796	94,661	2,620	517	0	0	482,416	95,178	387,238	49,815,588	45,447,325	4,368,263
May-98	433,079</											

Aug-99	302,549	47,699	317,810	13,668	0	1,547	620,359	62,914	557,445	55,584,140	49,257,269	6,326,871
Sep-99	281,430	534	364,036	1,155	0	12,123	645,466	13,812	631,654	56,229,606	49,271,081	6,958,525
Oct-99	270,177	602,677	1,475	3,291	0	0	271,652	605,968	-334,316	56,501,259	49,877,049	6,624,209
Nov-99	377,341	46,524	348,471	43,064	0	36,355	725,812	125,943	599,869	57,227,071	50,002,992	7,224,078
Dec-99	66,060	178,943	51,335	162,999	0	40,024	117,395	381,966	-264,571	57,344,466	50,384,958	6,959,507
							0	0	0	57,344,466	50,384,958	6,959,507
Jan-00	0	405,638	0	591,507	0	13,003	0	1,010,148	-1,010,148	57,344,466	51,395,106	5,949,359
Feb-00	26,351	358,538	37,393	490,772	0	5,885	63,744	854,995	-791,251	57,408,210	52,250,101	5,158,108
Mar-00	46,153	201,295	0	208,712	0	11,540	46,153	421,547	-375,394	57,454,363	52,671,648	4,782,714
Apr-00	386,042	517	474,604	0	0	23,498	860,646	24,015	836,631	58,315,009	52,695,663	5,619,345
May-00	312,055	85,718	330,673	88,802	0	42,306	642,728	216,826	425,902	58,957,737	52,912,489	6,045,247
Jun-00	232,311	43,225	290,264	0	0	47,787	522,575	91,012	431,563	59,480,312	53,003,501	6,476,810
Jul-00	29,640	422,747	41,867	333,697	0	48,378	71,507	804,822	-733,315	59,551,819	53,808,323	5,743,495
Aug-00	84,138	315,770	113,226	274,655	0	39,453	197,364	629,878	-432,514	59,749,183	54,438,201	5,310,981
Sep-00	80,902	144,392	159,008	165,243	0	33,599	239,910	343,234	-103,324	59,989,093	54,781,435	5,207,657
Oct-00	147,995	26,159	179,616	37,915	0	0	327,611	64,074	263,537	60,316,704	54,845,509	5,471,194
Nov-00	171,955	158,953	130,786	125,723	0	0	302,741	284,676	18,065	60,619,445	55,130,185	5,489,259
Dec-00	115,654	190,888	63,438	287,328	0	0	179,092	478,216	-299,124	60,798,537	55,808,401	5,190,135
							0	0	0	60,798,537	55,808,401	5,190,135
Jan-01	-23	273,119	38	288,080	8,968	22,663	-61	592,830	-592,892	60,798,475	56,201,232	4,597,244
Feb-01	27,421	186,238	-127	196,585	7,011	21,550	27,294	411,385	-384,091	60,825,769	56,612,616	4,213,153
Mar-01	352,611	8,255	486,274	8,133	1,068	371	838,885	17,827	821,058	61,664,654	56,630,443	5,034,211
Apr-01	301,215	0	443,376	0	0	0	744,591	0	744,591	62,409,245	56,630,443	5,778,802
May-01	330,282	0	459,887	0	0	0	790,169	0	790,169	63,199,415	56,630,443	6,568,971
Jun-01	145,844	110,811	240,318	63,575	0	0	386,162	174,386	211,777	63,585,577	56,804,829	6,780,748
Jul-01	103,059	119,414	146,282	129,282	197	131	249,342	249,024	318	63,834,919	57,053,853	6,781,066
Aug-01	105,010	133,447	113,811	132,799	124	0	218,821	266,370	-47,549	64,053,740	57,320,223	6,733,517
Sep-01	265,408	34,347	237,909	22,411	0	0	503,316	56,759	446,558	64,557,056	57,376,981	7,180,075
Oct-01	187,287	53,564	246,375	13,878	0	0	433,662	67442	366,220	64,990,718	57,444,423	7,546,295
Nov-01	272,284	24,025	297,077	11,418	0	0	569,361	35443	533,918	65,560,079	57,479,866	8,080,213
Dec-01	62,692	99,175	26,237	161,866	0	0	88929	261041	-172,112	65,649,008	57,740,907	7,908,101

EXHIBIT "F"

Injection / Withdrawal MMBTU

Raptor Natural Pipeline Actuals: 14.65 PB	Month:	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01	Oct-01	Nov-01	Dec-01	Cumulative
MMBTU															
Total Injection		193,667	(64)	29,508	905,558	813,537	845,814	417,364	273,151	238,487	551,367	473,879	627,830	97,960	5,468,058
Total Withdrawal		(502,935)	(622,178)	(432,154)	(18,709)	-	-	(178,857)	(262,171)	(280,146)	(59,667)	(73,026)	(38,305)	(284,036)	(2,752,183)
MCF															
Total Injection		183,684	(63)	27,994	860,395	763,683	810,430	396,064	255,735	224,432	516,222	444,763	583,936	91,206	5,158,481
Total Withdrawal		(490,478)	(608,031)	(421,933)	(18,284)	-	-	(178,857)	(255,409)	(273,200)	(58,214)	(69,168)	(36,350)	(267,724)	(2,677,648)
MMBTU / MCF															
Injection		1,05435		1,05408	1,05249	1,06528	1,04366	1,05378	1,06810	1,06262	1,06808	1,06546	1,07517	1,07405	1,06001
Withdrawal		1,02540	1,02327	1,02422	1,02319			1,00000	1,02648	1,02542	1,02496	1,05578	1,05378	1,06093	1,02784
Weighted Average MMBTU / MCF: For time period December 1, 2000 through December 31, 2001															
Injection		1,06001													
Withdrawal		1,02784													
Weighted Average MMBTU / MCF: For time period December 1, 2000 through December 31, 2001															
Converted from 14.65 to 15.025 PB															
Injection		1,08715													
Withdrawal		1,05415													

	Nov-00 and Prior	Dec-00 thru Dec01	Total as of Dec. 31, 2001
	MCF	MCF	MCF
Cumulative Injections	60,619,445	5,029,734	65,649,178
Cumulative Withdrawals	55,130,185	2,610,818	57,741,004
	(1)	(3)	(4)

Net Balance - MMBTU
as of December 31, 2001

10,502,849

- (1) From "Exhibit E" Cumulative Volumes
(2) MCF Multiplied by Weighted Average MMBTU / MCF (15.025 PB)
(3) Raptor Natural Pipeline Actuals Converted from 14.65 to 15.025 PB
(4) Raptor Natural Pipeline Actuals

Exhibit "G"

Example Report Format

RAPTOR NATURAL PIPELINE LLC
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO
PLAN OF OPERATION - PROGRESS REPORT
FOR THE SIX-MONTH PERIOD ENDING
June, 2001

Month:	GRM Unit No. 1		GRM Unit No. 2		GRM Unit No. 3		GRM Unit No. 4		Total	
	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF	Injection MCF	Withdrawal MCF
Jan-01	0	0	0	0	0	0	0	0	0	0
Feb-01	0	0	0	0	0	0	0	0	0	0
Mar-01	0	0	0	0	0	0	0	0	0	0
Apr-01	0	0	0	0	0	0	0	0	0	0
May-01	0	0	0	0	0	0	0	0	0	0
Jun-01	0	0	0	0	0	0	0	0	0	0

Current Period:

0 0 0 0 0 0 0 0 0 0

Prior Periods: 0 0

Cumulative: 0 0

Net MCF Balance: 0

Month:	GRM Unit No. 1		GRM Unit No. 2		GRM Unit No. 3		GRM Unit No. 4		Total	
	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU	Injection MMBTU	Withdrawal MMBTU
Jan-01	0	0	0	0	0	0	0	0	0	0
Feb-01	0	0	0	0	0	0	0	0	0	0
Mar-01	0	0	0	0	0	0	0	0	0	0
Apr-01	0	0	0	0	0	0	0	0	0	0
May-01	0	0	0	0	0	0	0	0	0	0
Jun-01	0	0	0	0	0	0	0	0	0	0

Current Period:

0 0 0 0 0 0 0 0 0 0

Prior Periods: 0 0

Cumulative: 0 0

Net MMBTU Balance: 0

Condensate Sales
(Barrels)

GRM Unit No. 1	GRM Unit No. 2	GRM Unit No. 3	GRM Unit No. 4
0	0	0	0

Current Period:

Commissioner of Public Lands
New Mexico State Land Office
P.O. Box 1148
Santa Fe, New Mexico 87503

Send one copy to each:
Bureau of Land Management
Roswell District Office
Division of Minerals Resources
2909 West Second Street
Roswell, New Mexico 88201

NEW MEXICO STATE LAND OFFICE

CERTIFICATE OF APPROVAL (Second Amendment to Unit Agreement)

COMMISSIONER OF PUBLIC LANDS, STATE OF NEW MEXICO

Raptor Natural Pipeline LLC
Second Amendment to the Unit Agreement
For the Operation of the
GRAMA RIDGE-MORROW UNIT AREA
LEA COUNTY, NEW MEXICO

There having been presented to the undersigned Commissioner of Public Lands of the State of New Mexico for examination, the Second Amendment to the Unit Agreement for the Operation of the Grama Ridge-Morrow Unit Area that is described within the referenced Agreement, dated **May 23, 2001**, which said Agreement has been 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 19-10-45, 19-10-46, 19-10-47, New Mexico Statutes Annotated, 1978 Compilation, I, the undersigned Commissioner of Public Lands of the State of New Mexico, do hereby consent to and approve the Second Amendment to the Unit Agreement; provided, however, that such consent and approval being limited and restricted to such lands within the Unit Area, which are effectively committed to the Unit Agreement as of this date, and further, that leases insofar as the lands covered thereby committed to this Unit Agreement shall be and the same are hereby amended to conform with the terms of such Second Amendment, and said leases shall remain in full force and effect in accordance 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 **19TH** day of **AUGUST** **2002**.


COMMISSIONER OF PUBLIC LANDS
of the State of New Mexico

NEW MEXICO STATE LAND OFFICE

CERTIFICATE OF APPROVAL (Second Amendment to Unit Agreement)

COMMISSIONER OF PUBLIC LANDS, STATE OF NEW MEXICO

Raptor Natural Pipeline LLC
Second Amendment to the Unit Agreement
For the Operation of the
GRAMA RIDGE-MORROW UNIT AREA
LEA COUNTY, NEW MEXICO

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COMMISSIONER OF PUBLIC LANDS
of the State of New Mexico

NEW MEXICO STATE LAND OFFICE

CERTIFICATE OF APPROVAL (Second Amendment to Unit Agreement)

COMMISSIONER OF PUBLIC LANDS, STATE OF NEW MEXICO

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Second Amendment to the Unit Agreement
For the Operation of the
GRAMA RIDGE-MORROW UNIT AREA
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COMMISSIONER OF PUBLIC LANDS
of the State of New Mexico

NEW MEXICO STATE LAND OFFICE

CERTIFICATE OF APPROVAL (Second Amendment to Unit Agreement)

COMMISSIONER OF PUBLIC LANDS, STATE OF NEW MEXICO

Raptor Natural Pipeline LLC
Second Amendment to the Unit Agreement
For the Operation of the
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LEA COUNTY, NEW MEXICO

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COMMISSIONER OF PUBLIC LANDS
of the State of New Mexico

NEW MEXICO STATE LAND OFFICE

CERTIFICATE OF APPROVAL (Second Amendment to Unit Agreement)

COMMISSIONER OF PUBLIC LANDS, STATE OF NEW MEXICO

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Second Amendment to the Unit Agreement
For the Operation of the
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LEA COUNTY, NEW MEXICO

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IN WITNESS WHEREOF, this Certificate of Approval is executed, with seal affixed, this 19TH day of AUGUST 2002.


COMMISSIONER OF PUBLIC LANDS
of the State of New Mexico

**LG&E ENERGY
MARKETING_{SM}**

July 19, 2000

LG&E Energy Marketing Inc.
921 West Sanger
Hobbs, New Mexico 88240
505-393-2153
505-393-0381 FAX

Mr. Ray Powell
Commissioner of Public Lands
New Mexico State Land Office
P.O. Box 1148
Santa Fe, New Mexico 87503

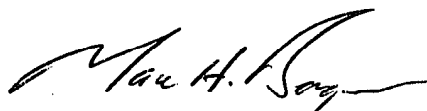
Re: Grama Ridge Morrow Unit
Dated November 1, 1975
Lea County, New Mexico

Dear Mr. Powell:

In accordance with the terms of the Unit Agreement for the operation of the Grama Ridge Morrow Unit, LG&E Natural Pipeline Co. hereby submits two (2) copies of the Plan of Operation - Progress Report No. 50 for the 6 month period of January 1, 2000 through June 30, 2000. Attached is the liquid volume report showing production during the same period.

Very truly yours,

LG&E Natural Pipeline Co.



Marc H. Bergen, Superintendent
Pipeline Operations

MHB/am
enclosures
cc: Alice Major
Gail Russell

A SUBSIDIARY OF
LG&E ENERGY

RECEIVED
20 JUL 21 11 34
STANFORD UNIVERSITY
LIBRARY

LG&E NATURAL PIPELINE COMPANY
GRAMA RIDGE MORROW UNIT
PLAN OF OPERATION - PROGRESS REPORT NO. 50
FOR THE SIX MONTH PERIOD OF
JANUARY 1, 2000 THROUGH JUNE 30, 2000

RECEIVED

200 JUL 21 AM 8:41

STANFORD UNIV

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I - Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of down hole well equipment and installation of surface, testing and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II - Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III - Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 h.p. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 wells. As of April 1, 1991, the GRM Unit No. 1, 1,000 h.p. electric motor was replaced with a natural gas fueled 1,000 h.p. motor, and an additional 1,000 h.p. natural gas fueled compressor was installed on each injection well, giving a total of 4,000 h.p. available for injection. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of Interior executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10-T22S-R34E. The Government A Well No. 1 was then converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984. However, in June 1985, GRM Unit No. 5 was withdrawn from the unit and recompleted as a gas well in another producing interval.

As of June 30, 2000, injection of gas into the unitized storage interval has totaled 2,190,520 MCF, being 1,028,586 MCF injected into the GRM Unit No. 1 and 1,161,934 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, LG&E Natural has withdrawn a total of 2,685,572 MCF. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	1,122,959
GRMU No. 2	1,415,113
GRMU No. 3	0
GRMU No. 4	147,500
TOTAL	2,685,572

The net balance of gas in storage on June 30, 2000 is 9,153,166 MCF.

For the ensuing six month period and throughout Phase III, injection of gas into the storage facility shall proceed according to a plan of injecting gas April through October each year and withdrawing gas November through March to meet the requirements of LG&E Natural and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia base.

GRMU - Injections & Withdrawals

		14.65 Injections	14.65 Withdrawals
January, 2000	#1	-	416,021
	#2	-	606,648
	#3	-	0
	#4	-	13336
February, 2000	#1	27,026	367,716
	#2	38,350	503,335
	#3	-	0
	#4	-	5830
March, 2000	#1	47,335	206,448
	#2	-	214,055
	#3	-	-
	#4	-	11,835
April, 2000	#1	395,924	530
	#2	486,753	-
	#3	-	-
	#4	-	24,100
May, 2000	#1	320,043	87,912
	#2	339,137	91,075
	#3	-	-
	#4	-	43,389
June, 2000	#1	238,258	44,332
	#2	297,694	-
	#3	-	-
	#4	-	49,010
Recap by well:	#1	1,028,586	1,122,959
	#2	1,161,934	1,415,113
	#3	-	-
	#4	-	147,500
		2,190,520	2,685,572

GRAMA RIDGE STORAGE UNIT**Production - Condensate**

	GRM #1	GRM #2	GRM #3	GRM #4
2000				
January	0	0	0	46
February	0	0	0	0
March	0	47	0	58
April	0	0	0	27
May	0	0	0	68
June	0	0	0	73
 Total	 0	 47	 0	 272

Condensate Sales

2000	175.12	GRM#2
	175.20	GRM #4

Prepared by:

Alice Major

19-Jul-00

LG&E NATURAL PIPELINE COMPANY
GRAMA RIDGE MORROW UNIT
PLAN OF OPERATION - PROGRESS REPORT NO. 50
FOR THE SIX MONTH PERIOD OF
JANUARY 1, 2000 THROUGH JUNE 30, 2000

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

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Phase I - Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of down hole well equipment and installation of surface, testing and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II - Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III - Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 h.p. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 wells. As of April 1, 1991, the GRM Unit No. 1, 1,000 h.p. electric motor was replaced with a natural gas fueled 1,000 h.p. motor, and an additional 1,000 h.p. natural gas fueled compressor was installed on each injection well, giving a total of 4,000 h.p. available for injection. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of Interior executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10-T22S-R34E. The Government A Well No. 1 was then converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984. However, in June 1985, GRM Unit No. 5 was withdrawn from the unit and recompleted as a gas well in another producing interval.

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<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	1,122,959
GRMU No. 2	1,415,113
GRMU No. 3	0
GRMU No. 4	147,500
TOTAL	2,685,572

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Note: Volumes reported herein are at 14.65 psia base.

GRMU - Injections & Withdrawals

		14.65 Injections	14.65 Withdrawals
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	#2	-	214,055
	#3	-	-
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	#2	339,137	91,075
	#3	-	-
	#4	-	43,389
June, 2000	#1	238,258	44,332
	#2	297,694	-
	#3	-	-
	#4	-	49,010
Recap by well:			
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	#2	1,161,934	1,415,113
	#3	-	-
	#4	-	147,500
		2,190,520	2,685,572

GRAMA RIDGE STORAGE UNIT**Production - Condensate**

	GRM #1	GRM #2	GRM #3	GRM #4
2000				
January	0	0	0	46
February	0	0	0	0
March	0	47	0	58
April	0	0	0	27
May	0	0	0	68
June	0	0	0	73
 Total	 0	 47	 0	 272

Condensate Sales

2000	175.12	GRM#2
	175.20	GRM #4

Prepared by:

Alice Major

19-Jul-00

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LG&E NATURAL PIPELINE COMPANY
GRAMA RIDGE MORROW UNIT
PLAN OF OPERATION - PROGRESS REPORT NO. 49
FOR THE SIX MONTH PERIOD OF
JULY 1, 1999 THROUGH DECEMBER 31, 1999

RECEIVED

00 JUN 34 AM 10 02

STATE LAND OFFICE,
SANTA FE, N.M.

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I - Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of down hole well equipment and installation of surface, testing and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II - Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III - Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

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STATE OF TEXAS
COUNTY OF DALLAS

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 h.p. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 wells. As of April 1, 1991, the GRM Unit No. 1, 1,000 h.p. electric motor was replaced with a natural gas fueled 1,000 h.p. motor, and an additional 1,000 h.p. natural gas fueled compressor was installed on each injection well, giving a total of 4,000 h.p. available for injection. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of Interior executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10-T22S-R34E. The Government A Well No. 1 was then converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984. However, in June 1985, GRM Unit No. 5 was withdrawn from the unit and recompleted as a gas well in another producing interval.

As of December 31, 1999, injection of gas into the unitized storage interval has totaled 2,628,590 MCF, being 1,306,181 MCF injected into the GRM Unit No. 1 and 1,322,409 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, LG&E Natural has withdrawn a total of 1,525,809 MCF. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	701,437
GRMU No. 2	704,589
GRMU No. 3	0
GRMU No. 4	119,783
TOTAL	<u>1,525,809</u>

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STATE OF TEXAS
COUNTY OF [illegible]

The net balance of gas in storage on December 31, 1999 is 9,648,218 MCF.

For the ensuing six month period and throughout Phase III, injection of gas into the storage facility shall proceed according to a plan of injecting gas April through October each year and withdrawing gas November through March to meet the requirements of LG&E Natural and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia base.

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30 JUL 84 11 00

COMMUNICATIONS
SECTION

GRAMA RIDGE STORAGE UNIT**Production - Condensate**

	GRM #1	GRM #2	GRM #3	GRM #4
1999				
July	0	0	0	0
August	0	0	0	0
September	0	0	0	0
October	51	69	0	0
November	0	0	0	86
December	0	0	0	0
 Total	 51	 69	 0	 86

Condensate Sales

1999	0

Prepared by:

Alice Major

31-Jan-00

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2007 JUN 24 11 3 02

STREET 12-11-02
9 11 11



July 23, 1999

LG&E Natural Gathering & Processing Co.
921 West Sanger
Hobbs, New Mexico 88240
505-393-2153
505-393-0381 FAX

Mr. Jim Baca
Commissioner of Public Lands
New Mexico State Land Office
P.O. Box 1148
Santa Fe, New Mexico 87503

Re: Grama Ridge Morrow Unit
Dated November 1, 1975
Lea County, New Mexico

Dear Mr. Baca:

In accordance with the terms of the Unit Agreement for the operation of the Grama Ridge Morrow Unit, LG&E Natural Pipeline Co. hereby submits two (2) copies of the Plan of Operation - Progress Report No. 48 for the 6 month period of January 1, 1999 through June 30, 1999. Attached is the liquid volume report showing production during the same period.

Very truly yours,

LG&E Natural Pipeline Co.

A handwritten signature in black ink, appearing to read "Marc H. Bergen".

Marc H. Bergen, Superintendent
Pipeline Operations

MHB/am
enclosures

cc: Alice Major
Carol Kocher

A SUBSIDIARY OF
LG&E ENERGY

LG&E NATURAL PIPELINE COMPANY
GRAMA RIDGE MORROW UNIT
PLAN OF OPERATION - PROGRESS REPORT NO. 48
FOR THE SIX MONTH PERIOD OF
JANUARY 1, 1999 THROUGH JUNE 30, 1999

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

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Phase II - Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III - Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

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As of June 30, 1999, injection of gas into the unitized storage interval has totaled 1,444,685 MCF, being 762,381 MCF injected into the GRM Unit No. 1 and 682,304 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, LG&E Natural has withdrawn a total of 2,632,708 MCF. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	1,481,668
GRMU No. 2	1,151,040
GRMU No. 3	0
GRMU No. 4	0
TOTAL	<u>2,632,708</u>

The net balance of gas in storage on June 30, 1999 is 8,545,437 MCF.

For the ensuing six month period and throughout Phase III, injection of gas into the storage facility shall proceed according to a plan of injecting gas April through October each year and withdrawing gas November through March to meet the requirements of LG&E Natural and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia base.

GRAMA RIDGE STORAGE UNIT**Production - Condensate**

	GRM #1	GRM #2	GRM #3	GRM #4
1999				
January	0	11	0	0
February	0	0	0	0
March	0	0	6	0
April	0	0	0	0
May	0	0	0	0
June	0	0	0	0
 Total	 0	 11	 6	 0

Condensate Sales

1999	173

Prepared by:

Alice Major

23-Jul-99

LG&E NATURAL PIPELINE COMPANY
GRAMA RIDGE MORROW UNIT
PLAN OF OPERATION - PROGRESS REPORT NO. 48
FOR THE SIX MONTH PERIOD OF
JANUARY 1, 1999 THROUGH JUNE 30, 1999

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GRMU No. 3	0
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TOTAL	<u>2,632,708</u>

The net balance of gas in storage on June 30, 1999 is 8,545,437 MCF.

For the ensuing six month period and throughout Phase III, injection of gas into the storage facility shall proceed according to a plan of injecting gas April through October each year and withdrawing gas November through March to meet the requirements of LG&E Natural and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia base.

GRAMA RIDGE STORAGE UNIT**Production - Condensate**

	GRM #1	GRM #2	GRM #3	GRM #4
1999				
January	0	11	0	0
February	0	0	0	0
March	0	0	6	0
April	0	0	0	0
May	0	0	0	0
June	0	0	0	0
 Total	 0	 11	 6	 0

Condensate Sales

1999	173

Prepared by:

Alice Major

23-Jul-99

LG&E NATURAL PIPELINE COMPANY
GRAMA RIDGE MORROW UNIT
PLAN OF OPERATION - PROGRESS REPORT NO. 47
FOR THE SIX MONTH PERIOD OF
JULY 1, 1998 THROUGH DECEMBER 31, 1998

RECEIVED

99 JAN 20 PM 8 24

STATE LAND OFFICE
SANTA FE, N.M.

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I - Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of down hole well equipment and installation of surface, testing and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II - Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III - Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

RECEIVED

199 JAN 20 PM 8 24

STATE LAND OFFICE
SANTA FE, N.M.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 h.p. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 wells. As of April 1, 1991, the GRM Unit No. 1, 1,000 h.p. electric motor was replaced with a natural gas fueled 1,000 h.p. motor, and an additional 1,000 h.p. natural gas fueled compressor was installed on each injection well, giving a total of 4,000 h.p. available for injection. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of Interior executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10-T22S-R34E. The Government A Well No. 1 was then converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984. However, in June 1985, GRM Unit No. 5 was withdrawn from the unit and recompleted as a gas well in another producing interval.

As of December 31, 1998, injection of gas into the unitized storage interval has totaled 2,382,631 MCF, being 1,271,197 MCF injected into the GRM Unit No. 1 and 1,111,434 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, LG&E Natural has withdrawn a total of 903,835 MCF. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	473,204
GRMU No. 2	430,631
GRMU No. 3	0
GRMU No. 4	0
TOTAL	903,835

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09 JAN 20 PM 8 24

STATE LAND OFFICE
SANTA FE, N.M.

The net balance of gas in storage on December 31, 1998 is 9,733,460 MCF.

For the ensuing six month period and throughout Phase III, injection of gas into the storage facility shall proceed according to a plan of injecting gas April through October each year and withdrawing gas November through March to meet the requirements of LG&E Natural and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia base.

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1999 JAN 20 PM 8 24

STATE LAND OFFICE
SANTA FE, N.M.

• **GRAMA RIDGE STORAGE UNIT**

Production - Condensate

	GRM #1	GRM #2	GRM #3	GRM #4
1998				
January	0	0	0	0
February	0	0	0	0
March	0	0	0	0
April	0	0	0	0
May	0	0	0	0
June	0	0	0	0
July	0	0	0	0
August	0	0	0	0
September	0	0	0	0
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
Total	0	0	0	0

Condensate Sales

1998 **0**

Prepared by:

Alice Major

18-Jan-99

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CS JA 121 PM 8 24

STATE LAND OFFICE
SALT LAKE CITY, UTAH

1991

LG&E NATURAL PIPELINE COMPANY
GRAMA RIDGE MORROW UNIT
PLAN OF OPERATION - PROGRESS REPORT NO. 47
FOR THE SIX MONTH PERIOD OF
JULY 1, 1998 THROUGH DECEMBER 31, 1998

RECEIVED

99 JAN 20 PM 8 24

STATE LAND OFFICE
SANTA FE, N.M.

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I - Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of down hole well equipment and installation of surface, testing and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II - Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III - Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

RECEIVED

'09 JUN 20 PM 8 24

STATE LAND OFFICE
SANTA FE, N.M.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 h.p. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 wells. As of April 1, 1991, the GRM Unit No. 1, 1,000 h.p. electric motor was replaced with a natural gas fueled 1,000 h.p. motor, and an additional 1,000 h.p. natural gas fueled compressor was installed on each injection well, giving a total of 4,000 h.p. available for injection. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of Interior executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10-T22S-R34E. The Government A Well No. 1 was then converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984. However, in June 1985, GRM Unit No. 5 was withdrawn from the unit and recompleted as a gas well in another producing interval.

As of December 31, 1998, injection of gas into the unitized storage interval has totaled 2,382,631 MCF, being 1,271,197 MCF injected into the GRM Unit No. 1 and 1,111,434 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, LG&E Natural has withdrawn a total of 903,835 MCF. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	473,204
GRMU No. 2	430,631
GRMU No. 3	0
GRMU No. 4	0
TOTAL	<u>903,835</u>

RECEIVED

'99 JAN 20 PM 8 24

STATE LAND OFFICE
SANTA FE, N.M.

The net balance of gas in storage on December 31, 1998 is 9,733,460 MCF.

For the ensuing six month period and throughout Phase III, injection of gas into the storage facility shall proceed according to a plan of injecting gas April through October each year and withdrawing gas November through March to meet the requirements of LG&E Natural and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia base.

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'89 JAN 20 PM 8 24
STATE LAND OFFICE
SANTA FE, N.M.

GRAMA RIDGE STORAGE UNIT**Production - Condensate**

	GRM #1	GRM #2	GRM #3	GRM #4
1998				
January	0	0	0	0
February	0	0	0	0
March	0	0	0	0
April	0	0	0	0
May	0	0	0	0
June	0	0	0	0
July	0	0	0	0
August	0	0	0	0
September	0	0	0	0
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
Total	0	0	0	0

Condensate Sales

1998	0

Prepared by:

Alice Major

18-Jan-99

RECEIVED

109 JUN 20 PM 8 24

STATE LAND OFFICE
SANTA FE, N.M.

LG&E NATURAL PIPELINE COMPANY
GRAMA RIDGE MORROW UNIT
PLAN OF OPERATION - PROGRESS REPORT NO. 46
FOR THE SIX MONTH PERIOD OF
JANUARY 1, 1998 THROUGH JUNE 30, 1998

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I - Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of down hole well equipment and installation of surface, testing and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II - Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III - Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 h.p. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 wells. As of April 1, 1991, the GRM Unit No. 1, 1,000 h.p. electric motor was replaced with a natural gas fueled 1,000 h.p. motor, and an additional 1,000 h.p. natural gas fueled compressor was installed on each injection well, giving a total of 4,000 h.p. available for injection. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of Interior executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10-T22S-R34E. The Government A Well No. 1 was then converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984. However, in June 1985, GRM Unit No. 5 was withdrawn from the unit and recompleted as a gas well in another producing interval.

As of June 30, 1998, injection of gas into the unitized storage interval has totaled 2,659,776 MCF, being 1,569,856 MCF injected into the GRM Unit No. 1 and 1,089,920 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, LG&E Natural has withdrawn a total of 438,045 MCF. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	161,022
GRMU No. 2	277,023
GRMU No. 3	0
GRMU No. 4	<u>0</u>
TOTAL	438,045

The net balance of gas in storage on June 30, 1998 is 8,254,666 MCF.

For the ensuing six month period and throughout Phase III, injection of gas into the storage facility shall proceed according to a plan of injecting gas April through October each year and withdrawing gas November through March to meet the requirements of LG&E Natural and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia base.

GRAMA RIDGE STORAGE UNIT**Production - Condensate**

	GRM #1	GRM #2	GRM #3	GRM #4
1998				
January	0	0	0	0
February	0	0	0	0
March	0	0	0	0
April	0	0	0	0
May	0	0	0	0
June	0	0	0	0
Total	0	0	0	0

Condensate Sales

1998	0

Prepared by:

Alice Major

11-Aug-98

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FBI
SANTA FE, N.M.

LG&E NATURAL PIPELINE COMPANY
GRAMA RIDGE MORROW UNIT
PLAN OF OPERATION - PROGRESS REPORT NO. 46
FOR THE SIX MONTH PERIOD OF
JANUARY 1, 1998 THROUGH JUNE 30, 1998

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I - Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of down hole well equipment and installation of surface, testing and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II - Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III - Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 h.p. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 wells. As of April 1, 1991, the GRM Unit No. 1, 1,000 h.p. electric motor was replaced with a natural gas fueled 1,000 h.p. motor, and an additional 1,000 h.p. natural gas fueled compressor was installed on each injection well, giving a total of 4,000 h.p. available for injection. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of Interior executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10-T22S-R34E. The Government A Well No. 1 was then converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984. However, in June 1985, GRM Unit No. 5 was withdrawn from the unit and recompleted as a gas well in another producing interval.

As of June 30, 1998, injection of gas into the unitized storage interval has totaled 2,659,776 MCF, being 1,569,856 MCF injected into the GRM Unit No. 1 and 1,089,920 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, LG&E Natural has withdrawn a total of 438,045 MCF. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	161,022
GRMU No. 2	277,023
GRMU No. 3	0
GRMU No. 4	0
TOTAL	438,045

The net balance of gas in storage on June 30, 1998 is 8,254,666 MCF.

For the ensuing six month period and throughout Phase III, injection of gas into the storage facility shall proceed according to a plan of injecting gas April through October each year and withdrawing gas November through March to meet the requirements of LG&E Natural and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia base.

GRAMA RIDGE STORAGE UNIT**Production - Condensate**

	GRM #1	GRM #2	GRM #3	GRM #4
1998				
January	0	0	0	0
February	0	0	0	0
March	0	0	0	0
April	0	0	0	0
May	0	0	0	0
June	0	0	0	0
Total	0	0	0	0

Condensate Sales

1998	0

Prepared by:

Alice Major

11-Aug-98

LG&E NATURAL PIPELINE COMPANY
GRAMA RIDGE MORROW UNIT
PLAN OF OPERATION - PROGRESS REPORT NO. 45
FOR THE THIRTY MONTH PERIOD OF
JULY 1, 1995 THROUGH DECEMBER 31, 1997

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding thirty months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I - Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of down hole well equipment and installation of surface, testing and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II - Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III - Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 h.p. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 wells. As of April 1, 1991, the GRM Unit No. 1, 1,000 h.p. electric motor was replaced with a natural gas fueled 1,000 h.p. motor, and an additional 1,000 h.p. natural gas fueled compressor was installed on each injection well, giving a total of 4,000 h.p. available for injection. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of Interior executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10-T22S-R34E. The Government A Well No. 1 was then converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984. However, in June 1985, GRM Unit No. 5 was withdrawn from the unit and recompleted as a gas well in another producing interval.

As of December 31, 1997, injection of gas into the unitized storage interval has totaled 6,310,857 MCF, being 2,845,203 MCF injected into the GRM Unit No. 1 and 3,465,654 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, LG&E Natural has withdrawn a total of 9,519,814 MCF. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	4,460,682
GRMU No. 2	4,396,580
GRMU No. 3	140,543
GRMU No. 4	<u>522,009</u>
TOTAL	9,519,814

The net balance of gas in storage (less fuel) on December 31, 1997 is 4,532,931 MCF.

For the ensuing thirty month period and throughout Phase III, injection of gas into the storage facility shall proceed according to a plan of injecting gas April through October each year and withdrawing gas November through March to meet the requirements of LG&E Natural and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia base.

GRAMA RIDGE STORAGE UNIT**Production - Condensate**

	GRM #1	GRM #2	GRM #3	GRM #4
1995				
January	0	0	23	5
February	0	17	0	51
March	0	0	131	6
April	40	4	13	0
May	0	0	0	0
June	0	0	0	0
July	0	0	0	0
August	0	0	0	0
September	0	0	14	31
October	0	0	0	27
November	0	0	43	55
December	0	0	20	87
Total	40	21	244	262

	GRM #1	GRM #2	GRM #3	GRM #4
1996				
January	0	0	26	3
February	0	0	34	38
March	0	0	0	25
April	0	0	20	94
May	0	0	0	0
June	0	0	0	0
July	0	0	0	0
August	0	0	0	0
September	0	0	0	0
October	0	0	0	0
November	0	0	0	0
December	0	0	16	0
Total	0	0	96	160

GRAMA RIDGE STORAGE UNIT**Production - Condensate**

1997	GRM #1	GRM #2	GRM #3	GRM #4
January	0	42	50	0
February	0	0	32	0
March	0	0	21	0
April	9	0	0	0
May	0	0	0	0
June	0	0	0	0
July	0	0	0	0
August	0	0	0	0
September	0	0	0	0
October	0	0	0	0
November	0	0	35	0
December	0	0	2	0
Total	9	42	140	0

Condensate Sales**1995**

March	158.89	From GRM #4
March	168.17	From GRM #3
December	156.64	From GRM #4

1996

April	150	From GRM #3 - Field Transfer
April	125	From GRM #4 - Field Transfer

Prepared by:

Alice Major

5-May-98

LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO
PLAN OF OPERATION - PROGRESS REPORT NO. 44
FOR THE SIX-MONTH PERIOD ENDING
JUNE 30, 1995

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STATE LAND OFFICE
SANTA FE, N.M.

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation," as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I - Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing, and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II - Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III - Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 PSIG.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

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SANTA FE, N.M.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October 1974 installation of 1,000 h.p. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 wells. As of April 1, 1991, the GRM Unit No. 1, 1,000 h.p. electric motor was replaced with a natural gas fueled 1,000 h.p. motor, and an additional 1,000 h.p. natural gas fueled compressor was installed on each injection well, giving a total of 4,000 h.p. available for injection. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of the Interior executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10-T22S-R34E. The Government A Well No. 1 was then converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984. However, in June 1985, the GRM Unit No. 5 was withdrawn from the unit and re-completed as a gas well in another producing interval.

As of June 30, 1995, injection of gas into the unitized storage interval has totaled 40,074,538 MCF, being 22,096,086 MCF injected into the GRM Unit No. 1 and 17,978,452 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn a total of 34,782,963 MCF at June 30, 1995. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	15,205,710
GRMU No. 2	14,959,790
GRMU No. 3	1,263,409
GRMU No. 4	<u>3,354,054</u>
TOTAL:	<u>34,782,963</u>

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SANTA FE, N.M.

The net balance of gas in storage (less fuel) on June 30, 1995, is 5,291,575 MCF at an average reservoir pressure of 2,320 PSIG.

For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to a plan of injecting gas April through October each year and withdrawing gas November through March to meet the requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and the GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

NOTE: Volumes reported herein are at 14.65 psia base.

APPROVED

JAN 29 1996

Jerry L. Ferguson
**AUTHORIZED OFFICER, MINERALS
BUREAU OF LAND MANAGEMENT**

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SANTA FE, N.M.

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JAN 30 1996

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Production - Condensate

GRAMA RIDGE STORAGE UNIT

1994	GRM #1	GRM #2	GRM #3	GRM #4
January	0	0	33	41
February	0	0	51	42
March	0	0	72	17
April	0	0	17	8
May	0	0	0	0
June	0	0	0	0
July	0	0	0	0
August	0	0	0	0
September	0	0	0	0
October	0	0	0	0
November	0	0	28	24
December	0	3	56	70
Total for Year	0	3	257	202

1995	GRM #1	GRM #2	GRM #3	GRM #4
January	0	0	23	5
February	0	17	0	51
March	0	0	131	6
April	40	4	13	0
May	0	0	0	0
June	0	0	0	0
July	0	0	0	0
August	0	0	0	0
September	0	0	14	31
October	0	0	0	27
November	0	0	43	55
December	0	0	20	87
Total for Year	40	21	244	262

Prepared by: Alice Major

Date: 12-08-95

Condensate Sales for 1994 & 1995

	Barrels	
April, 1994	171.94	From GRM #4
December 1994	179.46	From GRM #3
March, 1995	166.17	From GRM #3
March, 1995	158.89	From GRM #4
December, 1995	156.64	From GRM #4

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STATE LAND OFFICE
SANTA FE, N.M.

LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO

CUM. 01-01-88	GRMU #1		GRMU #2		GRMU #3		GRMU #4		GRMU TOTAL	
	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL
1988										
JANUARY	0	63,962	0	0	0	18,436	0	28,597	0	110,995
FEBRUARY	0	46,389	0	0	0	13,453	0	14,535	0	74,377
MARCH	0	46,811	0	0	0	14,009	0	26,439	0	87,259
APRIL	0	346	0	0	0	792	0	1,695	0	2,833
MAY	170,502	0	0	0	0	0	0	0	170,502	0
JUNE	100,485	0	0	0	0	0	0	0	100,485	0
JULY	0	92,675	0	0	0	0	0	0	0	92,675
AUGUST	0	136,844	0	0	0	17,380	0	34,354	0	188,578
SEPTEMBER	97,132	504	0	0	0	176	0	294	97,132	974
OCTOBER	26,568	0	0	0	0	0	0	0	26,568	0
NOVEMBER	0	134,836	1,939	0	0	0	0	56,447	1,939	134,836
DECEMBER	0	179,698	0	52,228	0	32,649	0	0	0	321,022
TOTALS	394,687	702,065	1,939	52,228	0	96,895	0	162,361	396,626	1,013,549
	GRMU #1		GRMU #2		GRMU #3		GRMU #4		GRMU TOTAL	
1989	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL
JANUARY	12,779	2,446	0	46,235	0	6,308	0	2,904	12,779	57,893
FEBRUARY	15,141	9,345	0	19,209	0	11,980	0	0	15,141	40,534
MARCH	32,840	1,145	23,940	1,559	0	124	0	0	56,780	2,828
APRIL	97,872	0	97	0	0	0	0	0	97,969	0
MAY	208,526	0	159,621	0	0	0	0	0	368,147	0
JUNE	156,433	0	143,603	0	0	0	0	0	300,036	0
JULY	40,430	5,123	35,676	2,099	0	6,959	0	4,455	76,106	18,636
AUGUST	182,959	0	135,909	0	0	0	0	0	318,868	0
SEPTEMBER	40,155	0	2,624	0	0	0	0	3,142	42,779	3,142
OCTOBER	58,621	0	12,514	0	0	0	0	0	71,135	0
NOVEMBER	9,422	115,056	0	108,034	0	0	0	0	9,422	223,090
DECEMBER	0	204,153	0	139,426	0	37,741	0	47,235	0	428,555
TOTALS	855,178	337,268	513,984	316,562	0	63,112	0	57,736	1,369,162	774,678

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1991 JUN 18 12

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LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO

	GRMU #1		GRMU #2		GRMU #3		GRMU #4		GRMU TOTAL	
	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL
1990										
JANUARY	0	133,509	0	95,265	0	13,069	0	23,070	0	264,913
FEBRUARY	0	185,119	0	132,861	0	10,191	0	3,181	0	331,352
MARCH	0	8,754	0	6,041	0	0	0	0	0	14,795
APRIL	82,763	0	264	0	0	0	0	0	83,027	0
MAY	54,949	15,361	33,434	47,411	0	0	0	0	88,383	62,772
JUNE	162,138	1,035	195,534	0	0	0	0	0	357,672	1,035
JULY	190,354	0	281,142	0	0	6,175	0	3,230	471,496	9,405
AUGUST	186,237	0	308,254	0	0	0	0	0	494,491	0
SEPTEMBER	175,664	0	345,011	0	0	0	0	6,881	520,675	6,881
OCTOBER	157,148	9,003	390,840	0	0	0	0	10,743	547,988	19,746
NOVEMBER	642	104,047	21,072	102,608	0	22,685	0	32,986	21,714	262,326
DECEMBER	0	233,314	0	561,629	0	29,206	0	46,675	0	870,824
TOTALS	1,009,895	690,142	1,575,551	945,815	0	81,326	0	126,766	2,585,446	1,844,049
	GRMU #1		GRMU #2		GRMU #3		GRMU #4		GRMU TOTAL	
1991	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL
JANUARY	0	242,496	0	551,253	0	12,273	0	40,716	0	846,738
FEBRUARY	0	174,186	0	246,985	0	10,829	0	31,854	0	463,854
MARCH	23,892	105,938	0	143,289	0	6,127	0	21,829	23,892	277,183
APRIL	185,230	1,235	263,740	0	0	0	0	0	448,970	1,235
MAY	206,123	0	337,614	0	0	0	0	0	543,737	0
JUNE	300,909	0	301,537	0	0	0	0	365	602,446	365
JULY	399,995	0	458,570	0	0	0	0	0	858,565	0
AUGUST	410,236	0	384,345	0	0	0	0	0	794,581	0
SEPTEMBER	403,962	0	443,708	0	0	0	0	0	847,670	0
OCTOBER	329,898	0	316,627	0	0	0	0	0	646,525	0
NOVEMBER	0	333,491	0	383,065	0	16,300	0	45,351	0	778,207
DECEMBER	0	371,585	0	491,124	0	15,498	0	74,405	0	952,612
TOTALS	2,260,245	1,228,931	2,506,141	1,815,716	0	61,027	0	214,520	4,766,386	3,320,194

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U.S. DEPT. OF JUSTICE

WASHINGTON, D.C.

LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO

	GRMU #1		GRMU #2		GRMU #3		GRMU #4		GRMU TOTAL	
	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL
1992										
JANUARY	0	403,514	0	552,140	0	13,849	0	69,807	0	1,039,310
FEBRUARY	69	267,806	0	366,751	0	12,968	0	38,556	69	686,081
MARCH	0	180,264	0	240,881	0	8,403	0	32,739	0	462,287
APRIL	11,317	177,066	112,551	39,362	0	792	0	3,827	123,868	221,047
MAY	344,607	15,258	212,046	0	0	0	0	0	556,653	15,258
JUNE	401,246	0	373,236	0	0	0	0	0	774,482	0
JULY	376,872	0	330,075	0	0	0	0	0	706,947	0
AUGUST	394,375	0	377,585	0	0	0	0	0	771,960	0
SEPTEMBER	350,057	0	232,083	0	0	0	0	0	582,140	0
OCTOBER	32,882	265,999	84,914	42,128	0	0	0	0	117,796	308,127
NOVEMBER	0	418,935	502	480,597	0	22,285	0	92,885	502	1,014,702
DECEMBER	0	366,264	0	501,162	0	7,855	0	74,528	0	949,809
TOTALS	1,911,425	2,095,106	1,722,992	2,223,021	0	66,152	0	312,342	3,634,417	4,696,621
1993										
JANUARY	0	322,050	0	480,149	0	11,986	0	56,565	0	870,750
FEBRUARY	0	278,045	0	318,961	0	30,353	0	45,615	0	672,974
MARCH	0	265,908	0	208,655	0	13,293	0	41,101	0	528,957
APRIL	0	201,846	0	44,039	0	9,698	0	33,065	0	288,648
MAY	445,754	284	440,796	0	0	0	0	0	886,550	284
JUNE	509,496	0	519,413	0	0	0	0	0	1,028,909	0
JULY	448,421	0	333,345	0	0	0	0	0	781,766	0
AUGUST	267,550	128,906	263,127	110,114	0	0	0	0	530,677	239,020
SEPTEMBER	500,796	0	263,742	0	0	0	0	0	764,538	0
OCTOBER	148,451	66,770	156,441	33,574	0	0	0	0	304,892	100,344
NOVEMBER	0	397,828	0	513,405	0	22,682	0	31,466	0	965,381
DECEMBER	9,108	211,518	10,186	352,376	0	5,758	0	66,404	19,294	636,056
TOTALS	2,329,576	1,873,155	1,987,050	2,061,273	0	93,770	0	274,216	4,316,626	4,302,414

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LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO

1994	GRMU #1		GRMU #2		GRMU #3		GRMU #4		GRMU TOTAL	
	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL
JANUARY	0	279,786	0	478,224	0	7,015	0	72,453	0	837,478
FEBRUARY	0	238,251		272,114	0	8,703	0	52,802	0	571,870
MARCH	0	167,962	0	103,551	0	11,792	0	37,415	0	320,720
APRIL	106,259	57,250	1,597	6,310	0	3,859	0	9,850	107,856	77,269
MAY	480,689	0	359,857	0	0	0	0	0	840,546	0
JUNE	389,041	4,420	353,654	0	0	0	0	0	742,695	4,420
JULY					0		0		0	0
AUGUST					0		0		0	0
SEPTEMBER					0		0		0	0
OCTOBER					0		0		0	0
NOVEMBER					0		0		0	0
DECEMBER					0		0		0	0
TOTALS	975,989	747,669	715,108	860,199	0	31,369	0	172,520	1,691,097	1,811,757
CUM 07-01-94	20,790,578	14,570,522	16,131,848	14,536,834	0	1,255,777	0	3,140,684	36,922,426	33,506,817

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U.S. AIR FORCE

WASH. D.C.

LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO
PLAN OF OPERATION - PROGRESS REPORT NO. 43
FOR THE SIX-MONTH PERIOD ENDING
DECEMBER 31, 1994

RECEIVED
JUL 12 PM 3 37
RECORDS OFFICE
SANTA FE, N. M.

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation," as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I - Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing, and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II - Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III - Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 PSIG.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

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RECORDS OFFICE
SANTA FE, N. M.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October 1974 installation of 1,000 h.p. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 wells. As of April 1, 1991, the GRM Unit No. 1, 1,000 h.p. electric motor was replaced with a natural gas fueled 1,000 h.p. motor, and an additional 1,000 h.p. natural gas fueled compressor was installed on each injection well, giving a total of 4,000 h.p. available for injection. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of the Interior executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10-T22S-R34E. The Government A Well No. 1 was then converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984. However, in June 1985, the GRM Unit No. 5 was withdrawn from the unit and recompleted as a gas well in another producing interval.

As of December 31, 1994, injection of gas into the unitized storage interval has totaled 37,221,518 MCF, being 20,600,129 MCF injected into the GRM Unit No. 1 and 16,621,389 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn a total of 33,436,318 MCF at December 31, 1994. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	14,599,723
GRMU No. 2	14,360,429
GRMU No. 3	1,238,056
GRMU No. 4	3,238,110
TOTAL:	<u>33,436,318</u>

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SANTA FE, N. M.

The net balance of gas in storage on December 31, 1994, is 4,104,634 MCF at an average reservoir pressure of 2,320 PSIG.

For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to a plan of injecting gas April through October each year and withdrawing gas November through March to meet the requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and the GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

NOTE: Volumes reported herein are at 14.65 psia base.

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FIELD OFFICE
SANTA FE, N. M.

GRAMA RIDGE MORROW STORAGE UNIT
JULY 1, 1994 - DECEMBER 31, 1994

GRMU UNIT #1

PROD MO.	VOL. INJECTED MCF	VOL WITHDRAWN MCF
JUL	279,727	
AUG	106,777	
SEP	543,821	
OCT	487,604	
NOV	27,879	277,415
DEC		461,187
TOTAL:	1,445,808	738,602

GRMU UNIT #2

PROD MO.	VOL. INJECTED MCF	VOL WITHDRAWN MCF
JUL	113,848	
AUG	119,598	
SEP	547,769	
OCT	475,799	
NOV	38,142	171,490
DEC		786,899
TOTAL:	1,295,156	958,389

GRMU UNIT #3

PROD MO.	VOL. INJECTED MCF	VOL WITHDRAWN MCF
JUL		0
AUG		0
SEP		0
OCT		0
NOV		3,992
DEC		12,959
TOTAL:	0	16,951

GRMU UNIT #4

PROD MO.	VOL. INJECTED MCF	VOL WITHDRAWN MCF
JUL		0
AUG		0
SEP		0
OCT		0
NOV		19,784
DEC		103,182
TOTAL:	0	122,966

GRMU UNIT SUMMARY

PROD MO.	VOL. INJECTED MCF	VOL WITHDRAWN MCF
JUL	393,575	
AUG	226,375	
SEP	1,091,590	
OCT	963,403	
NOV	66,021	472,681
DEC		1,364,217
TOTAL:	2,740,964	1,836,898

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DE LAND OFFICE
SANTA FE, N.M.

LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO
PLAN OF OPERATION - PROGRESS REPORT NO. 42
FOR THE SIX-MONTH PERIOD ENDING
Jan⁹⁴ to JUNE 30, 1994

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OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

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The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I: Injection of gas into the State GRA No. 1 and State GRB N. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing, and metering facilities on the Federal GR-4 No. q and South Wilson Deep Unit No. 1.

Phase II: Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

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Phase III: Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 h.p. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 Wells. As of April 1, 1991 the GRM Unit No. 1, 1000 h.p. electric motor was replaced with a natural gas fueled 1,000 h.p. motor, and an additional 1,000 h.p. natural gas fueled compressor was installed on each injection well, giving a total of 4,000 h.p. available for injection. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of the Interior executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10, T22S, R34E. The Government A Well No. 1 was then converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New

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Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984. However, in June, 1985, the GRMU No. 5 was withdrawn from the unit and recompleted as a gas well in another producing interval.

As of June 30, 1994, injection of gas into the unitized storage interval has totaled 36,922,426 MCF, being 20,790,578 MCF injected into the GRM Unit No. 1 and 16,131,848 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn a total of 33,506,817 MCF at June 30, 1994.

Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	14,570,522
GRMU No. 2	14,536,834
GRMU No. 3	1,255,777
GRMU No. 4	3,140,684
GRMU No. 5	<u>- 0 -</u>
	33,506,817

The net balance of gas in storage at June 30, 1994, is 3,415,609 MCF at an average reservoir pressure of 2,265 psig.

For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to a Plan of injecting gas April through October each year and withdrawing gas November through March to meet the requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and the GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia base.



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LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO
PLAN OF OPERATION - PROGRESS REPORT NO. 42
FOR THE SIX-MONTH PERIOD ENDING
JUNE 30, 1994

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OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation," as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I - Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing, and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II - Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III - Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 PSIG.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

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SANTA FE, N.M.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October 1974 installation of 1,000 h.p. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 wells. As of April 1, 1991, the GRM Unit No. 1, 1,000 h.p. electric motor was replaced with a natural gas fueled 1,000 h.p. motor, and an additional 1,000 h.p. natural gas fueled compressor was installed on each injection well, giving a total of 4,000 h.p. available for injection. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of the Interior executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10-T22S-R34E. The Government A Well No. 1 was then converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984. However, in June 1985, the GRM Unit No. 5 was withdrawn from the unit and recompleted as a gas well in another producing interval.

As of June 30, 1994, injection of gas into the unitized storage interval has totaled 34,432,028 MCF, being 19,121,436 MCF injected into the GRM Unit No. 1 and 15,310,592 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn a total of 31,599,420 MCF at June 30, 1994. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	13,861,121
GRMU No. 2	13,402,050
GRMU No. 3	1,221,105
GRMU No. 4	3,115,144
GRMU No. 5	31,599,420

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The net balance of gas in storage on June 30, 1994, is 2,832,608 MCF at an average reservoir pressure of 2,320 PSIG.

For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to a plan of injecting gas April through October each year and withdrawing gas November through March to meet the requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and the GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

NOTE: Volumes reported herein are at 14.65 psia base.

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GRAMA RIDGE MORROW STORAGE UNIT
JANUARY 1, 1994 - JUNE 30, 1994

GRMU UNIT #1

PROD MO.	VOL. INJECTED MMBTU	VOL WITHDRAWN MMBTU
JAN		288,275
FEB		247,109
MAR		172,372
APR	119,186	57,120
MAY	518,225	
JUN	400,454	4,545
TOTAL:	1,037,865	769,421

GRMU UNIT #2

PROD MO.	VOL. INJECTED MMBTU	VOL WITHDRAWN MMBTU
JAN		488,479
FEB		275,796
MAR		104,833
APR	1,610	6,419
MAY	388,417	
JUN	366,054	
TOTAL:	756,081	875,527

GRMU UNIT #3

PROD MO.	VOL. INJECTED MMBTU	VOL WITHDRAWN MMBTU
JAN		6,692
FEB		8,623
MAR		12,173
APR		4,107
MAY		
JUN		
TOTAL:	0	31,595

GRMU UNIT #4

PROD MO.	VOL. INJECTED MMBTU	VOL WITHDRAWN MMBTU
JAN		74,037
FEB		54,015
MAR		38,432
APR		10,189
MAY		
JUN		
TOTAL:	0	176,673

GRMU UNIT SUMMARY

PROD MO.	VOL. INJECTED MMBTU	VOL WITHDRAWN MMBTU
JAN		857,483
FEB		585,578
MAR		327,810
APR	120,796	77,835
MAY	906,643	
JUN	766,508	4,545
TOTAL:	1,793,947	1,853,251

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SANTA FE, N.M.

LLANO

February 1, 1994

Commissioner of Public Lands
State of New Mexico
P. O. Box 1148
Santa Fe, New Mexico 87501

Attention: Floyd Prando, Director
Oil and Gas Division

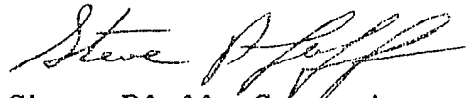
Re: Grama Ridge Morrow Unit
Lea County, New Mexico

Gentlemen:

In accordance with the terms of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit, Llano, Inc. hereby submits two (2) copies of the Plan of Operation - Progress Report No. 41 for the six-month period July 1, 1993 through December 31, 1993. Also attached are a tabulation of monthly injection and withdrawal volumes by well.

Very truly yours,

LLANO, INC.



Steve Pfaff, Supervisor
Contract Administration

Enclosures
SP/MKS/am

xc: GRMU-6

Llano File No. P.02.15.94.

LLANO, INC.

A SUBSIDIARY OF HADSON ENERGY PRODUCTS & SERVICES, INC.
921 W. Sanger / Hobbs, New Mexico 88240
Telephone (505) 393-2153 / FAX (505) 393-0381

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LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO
PLAN OF OPERATION - PROGRESS REPORT NO. 41
FOR THE SIX-MONTH PERIOD ENDING
DECEMBER 31, 1993

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OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I -- Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing, and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II -- Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

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Phase III -- Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 h.p. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 Wells. As of April 1, 1991 the GRM Unit No. 1, 1000 h.p. electric motor was replaced with a natural gas fueled 1,000 h.p. motor, and an additional 1,000 h.p. natural gas fueled compressor was installed on each injection well, giving a total of 4,000 h.p. available for injection. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of the Interior executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10, T22S, R34E. The Government A Well No. 1 was then converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New

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Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984. However, in June, 1985, the GRMU No. 5 was withdrawn from the unit and recompleted as a gas well in another producing interval.

As of December 31, 1993, injection of gas into the unitized storage interval has totaled 35,231,329 MCF, being 19,814,589 MCF injected into the GRM Unit No. 1 and 15,416,740 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn a total of 31,695,060 MCF at December 31, 1993. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	13,822,853
GRMU No. 2	13,679,635
GRMU No. 3	1,224,408
GRMU No. 4	2,968,164
GRMU No. 5	-0-
	31,695,060

The net balance of gas in storage at December 31, 1993, is 3,536,269 MCF at an average reservoir pressure of 2,320 psig.

For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to a Plan of injecting gas April through October each year and withdrawing gas November through March to meet the requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and the GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia base.

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LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO

GRMU #1

CUM. 01-01-88	11,053,583	6,896,186
DATES	INJECTION	WITHDRAWAL
1988		
JANUARY	0	63,962
FEBRUARY	0	46,389
MARCH	0	46,811
APRIL	0	346
MAY	170,502	0
JUNE	100,485	0
JULY	0	92,675
AUGUST	0	136,844
SEPTEMBER	97,132	504
OCTOBER	26,568	0
NOVEMBER	0	134,836
DECEMBER	0	179,698
1988 TOTAL	394,687	702,065

GRMU #2

7,109,083	6,285,020
INJECTION	WITHDRAWAL
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
1,939	0
0	52,228
1,939	52,228

GRMU #3

0	762,126
INJECTION	WITHDRAWAL
0	18,436
0	13,453
0	14,009
0	792
0	0
0	0
0	0
0	0
0	17,380
0	176
0	0
0	0
0	32,649

GRMU #4

0	1,820,223
INJECTION	WITHDRAWAL
0	28,597
0	14,535
0	26,439
0	1,695
0	0
0	0
0	0
0	0
0	34,354
0	294
0	0
0	0
0	56,447

GRMU TOTAL

18,162,666	15,743,555
INJECTION	WITHDRAWAL
0	110,985
0	74,377
0	87,259
0	2,333
170,502	0
100,485	0
0	92,675
0	188,578
97,132	974
26,568	0
1,939	134,836
0	321,022

GRMU #1

1988 TOTAL	394,687	702,065
CUM 01-01-89	11,448,270	7,598,251

GRMU #2

7,111,022	6,317,248
INJECTION	WITHDRAWAL
0	46,235
0	19,209
23,940	1,559
97	0
159,621	0
143,603	0
35,676	2,099
135,909	0
2,624	0
12,514	0
0	108,034
0	139,426

GRMU #3

0	96,895
INJECTION	WITHDRAWAL
0	6,300
0	11,960
0	124
0	0
0	0
0	0
0	0
0	0
0	6,959
0	0
0	0
0	0
0	37,741

GRMU #4

0	162,361
INJECTION	WITHDRAWAL
0	2,904
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	4,455
0	0
0	3,142
0	0
0	0
0	47,235

GRMU TOTAL

396,626	1,013,549
INJECTION	WITHDRAWAL
18,559,292	16,757,104

DATES	INJECTION	WITHDRAWAL
1989		
JANUARY	12,779	2,446
FEBRUARY	15,141	9,345
MARCH	32,840	1,145
APRIL	97,872	0
MAY	208,526	0
JUNE	156,433	0
JULY	40,430	5,123
AUGUST	182,969	0
SEPTEMBER	40,155	0
OCTOBER	58,621	0
NOVEMBER	9,422	115,056
DECEMBER	0	204,153
1989 TOTAL	855,178	337,268

513,984	316,562
INJECTION	WITHDRAWAL
0	0
0	0
23,940	1,559
97	0
159,621	0
143,603	0
35,676	2,099
135,909	0
2,624	0
12,514	0
0	108,034
0	139,426
513,984	316,562

0	63,112
INJECTION	WITHDRAWAL
0	6,300
0	11,960
0	124
0	0
0	0
0	0
0	0
0	0
0	6,959
0	0
0	0
0	0
0	37,741

0	57,736
INJECTION	WITHDRAWAL
0	2,904
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	4,455
0	0
0	3,142
0	0
0	0
0	47,235

1,369,162	774,678
INJECTION	WITHDRAWAL
19,928,454	17,531,762

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LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO

GRMU #1				GRMU #2				GRMU #3				GRMU #4				GRMU TOTAL			
DATES	INJECTION	WITHDRAWAL		INJECTION	WITHDRAWAL			INJECTION	WITHDRAWAL			INJECTION	WITHDRAWAL			INJECTION	WITHDRAWAL		
1990																			
JANUARY	0	133,509		0	95,265			0	13,069			0	23,070			0	264,913		
FEBRUARY	0	185,119		0	132,861			0	10,191			0	3,181			0	331,352		
MARCH	0	8,754		0	6,041			0	0			0	0			0	14,795		
APRIL	82,763	0		264	0			0	0			0	0			83,027	0		
MAY	54,949	15,361		33,434	47,411			0	0			0	0			88,383	62,772		
JUNE	162,138	1,035		195,534	0			0	0			0	0			357,672	1,035		
JULY	190,354	0		281,142	0			0	6,175			0	3,230			471,496	9,405		
AUGUST	186,237	0		308,254	0			0	0			0	0			520,675	0		
SEPTEMBER	175,664	0		345,011	0			0	0			0	6,881			547,988	19,746		
OCTOBER	157,148	9,003		390,840	0			0	0			0	10,743			21,714	262,326		
NOVEMBER	642	104,047		21,072	102,608			0	22,685			0	32,986			0	870,824		
DECEMBER	0	233,314		0	561,629			0	29,206			0	46,675			0			
1990 TOTAL	1,009,885	690,142		1,575,551	945,815			0	81,326			0	126,766			2,565,446	1,844,049		
CUM. 01-01-91	13,313,343	8,625,661		9,200,557	7,579,625			0	1,003,459			0	2,167,086			22,513,900	19,375,831		

GRMU #1				GRMU #2				GRMU #3				GRMU #4				GRMU TOTAL			
DATES	INJECTION	WITHDRAWAL		INJECTION	WITHDRAWAL			INJECTION	WITHDRAWAL			INJECTION	WITHDRAWAL			INJECTION	WITHDRAWAL		
1991																			
JANUARY	0	242,496		0	551,253			0	12,273			0	40,716			0	846,738		
FEBRUARY	0	174,186		0	246,985			0	10,829			0	31,854			0	463,854		
MARCH	23,892	105,938		0	143,289			0	6,127			0	21,829			23,892	277,183		
APRIL	185,230	1,235		263,740	0			0	0			0	0			448,970	1,235		
MAY	206,123	0		337,614	0			0	0			0	365			543,737	0		
JUNE	300,909	0		301,537	0			0	0			0	365			602,446	365		
JULY	399,995	0		458,570	0			0	0			0	0			858,565	0		
AUGUST	410,236	0		384,345	0			0	0			0	0			794,581	0		
SEPTEMBER	403,962	0		443,708	0			0	0			0	0			847,670	0		
OCTOBER	329,898	0		316,627	0			0	0			0	0			646,525	0		
NOVEMBER	0	333,491		0	383,065			0	16,300			0	45,351			0	778,207		
DECEMBER	0	371,585		0	491,124			0	15,498			0	74,405			0	952,612		
1991 TOTAL	2,260,245	1,228,931		2,506,141	1,815,716			0	61,027			0	214,520			4,766,386	3,320,194		
CUM. 01-01-92	15,573,588	9,854,592		11,706,698	9,395,341			0	1,064,486			0	2,381,606			27,280,286	22,696,025		

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SANTA FE, N.M.

LLANO, INC.

GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO

GRMU #1

DATES	INJECTION	WITHDRAWAL
1992		
JANUARY	0	403,514
FEBRUARY	69	267,806
MARCH	0	180,264
APRIL	11,317	177,066
MAY	344,607	15,258
JUNE	401,246	0
JULY	376,872	0
AUGUST	394,375	0
SEPTEMBER	350,057	0
OCTOBER	32,882	265,999
NOVEMBER	0	418,935
DECEMBER	0	366,264
1992 TOTAL	1,911,425	2,095,106
CUM. 01-01-93	17,485,013	11,949,698

GRMU #2

DATES	INJECTION	WITHDRAWAL
1993		
JANUARY	0	552,140
FEBRUARY	0	366,751
MARCH	0	240,881
APRIL	0	39,362
MAY	112,551	0
JUNE	212,046	0
JULY	373,236	0
AUGUST	330,075	0
SEPTEMBER	377,585	0
OCTOBER	232,083	0
NOVEMBER	84,914	42,128
DECEMBER	502	480,597
1993 TOTAL	1,722,992	2,223,021
CUM. 01-01-93	13,429,690	11,618,362

GRMU #3

DATES	INJECTION	WITHDRAWAL
1993		
JANUARY	0	13,849
FEBRUARY	0	12,966
MARCH	0	8,403
APRIL	0	792
MAY	0	0
JUNE	0	0
JULY	0	0
AUGUST	0	0
SEPTEMBER	0	0
OCTOBER	0	22,285
NOVEMBER	0	7,855
DECEMBER	0	0
1993 TOTAL	0	66,152
CUM. 01-01-93	0	1,130,638

GRMU #4

DATES	INJECTION	WITHDRAWAL
1993		
JANUARY	0	69,807
FEBRUARY	0	38,556
MARCH	0	32,739
APRIL	0	3,827
MAY	0	0
JUNE	0	0
JULY	0	0
AUGUST	0	0
SEPTEMBER	0	0
OCTOBER	0	0
NOVEMBER	0	92,885
DECEMBER	0	74,528
1993 TOTAL	0	312,342
CUM. 01-01-93	0	2,693,948

GRMU TOTAL

DATES	INJECTION	WITHDRAWAL
1992		
JANUARY	0	1,039,310
FEBRUARY	69	686,061
MARCH	0	462,287
APRIL	0	221,047
MAY	123,868	15,258
JUNE	556,653	0
JULY	774,482	0
AUGUST	706,947	0
SEPTEMBER	771,960	0
OCTOBER	582,140	308,127
NOVEMBER	117,796	1,014,702
DECEMBER	502	949,809
1992 TOTAL	3,634,417	4,696,621
CUM. 01-01-93	30,914,703	27,392,646

GRMU #1

DATES	INJECTION	WITHDRAWAL
1993		
JANUARY	0	322,050
FEBRUARY	0	278,045
MARCH	0	265,908
APRIL	0	201,846
MAY	445,754	284
JUNE	509,496	0
JULY	448,421	0
AUGUST	267,550	128,906
SEPTEMBER	500,796	0
OCTOBER	148,451	66,770
NOVEMBER	0	397,828
DECEMBER	9,108	211,518
1993 TOTAL	2,329,576	1,873,155
CUM. 01-01-94	19,814,589	13,822,653

GRMU #2

DATES	INJECTION	WITHDRAWAL
1993		
JANUARY	0	480,149
FEBRUARY	0	318,961
MARCH	0	208,655
APRIL	0	44,039
MAY	440,796	0
JUNE	519,413	0
JULY	333,345	0
AUGUST	263,127	110,114
SEPTEMBER	263,742	0
OCTOBER	156,441	33,574
NOVEMBER	0	513,405
DECEMBER	10,186	352,376
1993 TOTAL	1,987,050	2,061,273
CUM. 01-01-94	15,416,740	13,679,635

GRMU #3

DATES	INJECTION	WITHDRAWAL
1993		
JANUARY	0	11,986
FEBRUARY	0	30,353
MARCH	0	13,293
APRIL	0	9,698
MAY	0	0
JUNE	0	0
JULY	0	0
AUGUST	0	0
SEPTEMBER	0	0
OCTOBER	0	0
NOVEMBER	0	22,682
DECEMBER	0	5,758
1993 TOTAL	0	93,770
CUM. 01-01-94	0	1,224,408

GRMU #4

DATES	INJECTION	WITHDRAWAL
1993		
JANUARY	0	56,565
FEBRUARY	0	45,615
MARCH	0	41,101
APRIL	0	33,065
MAY	0	0
JUNE	0	0
JULY	0	0
AUGUST	0	0
SEPTEMBER	0	0
OCTOBER	0	0
NOVEMBER	0	31,466
DECEMBER	0	66,404
1993 TOTAL	0	274,216
CUM. 01-01-94	0	2,986,164

GRMU TOTAL

DATES	INJECTION	WITHDRAWAL
1993		
JANUARY	0	870,750
FEBRUARY	0	672,974
MARCH	0	528,957
APRIL	0	288,648
MAY	886,550	284
JUNE	1,028,909	0
JULY	781,766	0
AUGUST	530,677	239,020
SEPTEMBER	764,538	0
OCTOBER	304,892	100,344
NOVEMBER	0	965,361
DECEMBER	19,294	636,056
1993 TOTAL	4,316,626	4,302,414
CUM. 01-01-94	35,231,329	31,695,060

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SANTA FE, N. M.

LLANO, INC.

PHONE 393-2153 921 West Sanger
HOBBS, NEW MEXICO 88241

STATEMENT OF ACCOUNT TO:

MONTH OF Nov. 93

STATEMENT NO. SW-184

COMMISSIONER OF PUBLIC LANDS
STATE OF NEW MEXICO
P. O. BOX 1148
SANTA FE, NEW MEXICO 87501

WITHDRAWAL FEE FROM GAS STORAGE
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO

Gross volume withdrawn @ 15.025 psi	938,884 MCF
State acreage as percentage of unit area	x 47/64
Volume due state withdrawal fee	689,493 MCF
Withdrawal fee per MCF	x \$.01762
Withdrawal fee payable	\$ 12,148.86

GSU02E

Check No. _____

Date _____

Amount Paid \$ _____

0035 12/23/93 09:09A \$12,148.86+ XX



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POST OFFICE
SANTA FE, N. M.

HADSON

August 30, 1993

d/g

Commissioner of Public Lands
State of New Mexico
P. O. Box 1148
Santa Fe, New Mexico 87501

Attention: Floyd Prando, Director
Oil and Gas Division

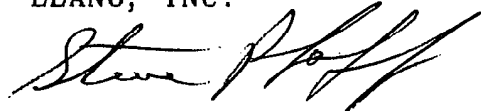
Re: Grama Ridge Morrow Unit
Lea County, New Mexico

Gentlemen:

In accordance with the terms of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit, Llano, Inc. hereby submits two (2) copies of the Plan of Operation - Progress Report No. 40 for the six-month period January 1, 1993 through June 30, 1993. Also attached are a tabulation of monthly injection and withdrawal volumes by well.

Very truly yours,

LLANO, INC.



Steve Pfaff, Supervisor
Contract Administration

Enclosures
SP/MKS/am

xc: GRMU-6

Llano File No. P.09.01.93.

LLANO, INC.

A SUBSIDIARY OF HADSON ENERGY PRODUCTS & SERVICES, INC.

921 W. Sanger / Hobbs, New Mexico 88240
Telephone (505) 393-2153 / FAX (505) 393-0381

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STATE L. & OFFICE
SANTA CLARA CO.

LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO
PLAN OF OPERATION - PROGRESS REPORT NO. 40
FOR THE SIX-MONTH PERIOD ENDING
JUNE 30, 1993

RECEIVED
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STATE OFFICE
S.M.

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I -- Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing, and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II -- Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

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STATE L. OFFICE
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Phase III -- Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 h.p. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 Wells. As of April 1, 1991 the GRM Unit No. 1, 1000 h.p. electric motor was replaced with a natural gas fueled 1,000 h.p. motor, and an additional 1,000 h.p. natural gas fueled compressor was installed on each injection well, giving a total of 4,000 h.p. available for injection. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of the Interior executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10, T22S, R34E. The Government A Well No. 1 was then converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New

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SARASOTA, FLA.

Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984. However, in June, 1985, the GRMU No. 5 was withdrawn from the unit and recompleted as a gas well in another producing interval.

As of June 30, 1993, injection of gas into the unitized storage interval has totaled 32,830,162 MCF, being 18,440,263 MCF injected into the GRM Unit No. 1 and 14,389,899 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn a total of 29,754,259 MCF at June 30, 1993. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	13,017,831
GRMU No. 2	12,670,166
GRMU No. 3	1,195,968
GRMU No. 4	2,870,294
GRMU No. 5	-0-
	<u>29,754,259</u>

The net balance of gas in storage at June 30, 1993, is 3,075,903 MCF at an average reservoir pressure of 2,111 psig.

For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to a Plan of injecting gas April through October each year and withdrawing gas November through March to meet the requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and the GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia base.

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SANTA FE, N.M.

LEANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO

LEANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO

DATES	GRMU #1		GRMU #2		GRMU #3		GRMU #4		GRM UNIT TOTALS	
	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL
1992										
JANUARY	0	403,514	0	552,140	0	13,849	0	69,807	0	1,039,310
FEBRUARY	69	267,806	0	366,751	0	12,968	0	38,556	69	686,081
MARCH	0	180,264	0	240,881	0	8,403	0	32,739	0	462,287
APRIL	11,317	177,066	112,551	39,362	0	792	0	3,827	123,868	221,047
MAY	344,607	15,258	212,046	0	0	0	0	0	556,653	15,258
JUNE	401,246	0	373,236	0	0	0	0	0	774,482	0
JULY	376,872	0	330,075	0	0	0	0	0	706,947	0
AUGUST	394,375	0	377,585	0	0	0	0	0	771,960	0
SEPTEMBER	350,057	0	232,083	0	0	0	0	0	582,140	0
OCTOBER	32,882	0	84,914	0	0	0	0	0	117,796	0
NOVEMBER	0	265,999	502	42,128	0	22,285	0	92,885	117,796	308,127
DECEMBER	0	418,935	0	480,597	0	7,855	0	74,528	502	1,014,702
		366,264		501,162						949,809
1992 TOTAL	1,911,425	2,095,106	1,722,992	2,223,021	0	66,152	0	312,342	3,634,417	4,696,621
CUMULATIVE 01-01-93	17,485,013	11,949,698	13,429,690	11,618,362	0	1,130,638	0	2,693,948	30,914,703	27,392,646
DATES	GRMU #1		GRMU #2		GRMU #3		GRMU #4		GRM UNIT TOTALS	
	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL
1993										
JANUARY	0	322,050	0	480,149	0	11,986	0	56,565	0	870,750
FEBRUARY	0	278,045	0	318,961	0	30,353	0	45,615	0	672,974
MARCH	0	265,908	0	208,655	0	13,293	0	41,101	0	528,957
APRIL	0	201,846	0	44,039	0	9,698	0	33,065	0	288,648
MAY	445,754	284	440,796	0	0	0	0	0	886,550	284
JUNE	509,496	0	519,413	0	0	0	0	0	1,028,909	0
JULY										
AUGUST										
SEPTEMBER										
OCTOBER										
NOVEMBER										
DECEMBER										
1993 TOTAL	955,250	1,068,133	960,209	1,051,804	0	65,330	0	176,346	1,915,459	2,361,613
CUMULATIVE 07-01-93	18,440,263	13,017,831	14,389,899	12,670,166	0	1,195,968	0	2,870,294	32,830,162	29,754,259

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LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO

DATES	GRMU #1		GRMU #2		GRMU #3		GRMU #4		GRM UNIT TOTALS	
	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL
1990										
JANUARY	0	133,509	0	95,265	0	13,069	0	23,070	0	264,913
FEBRUARY	0	185,119	0	132,861	0	10,191	0	3,181	0	331,352
MARCH	0	8,754	0	6,041	0	0	0	0	0	14,795
APRIL	82,763	0	264	0	0	0	0	0	83,027	0
MAY	54,949	15,361	33,434	47,411	0	0	0	0	88,383	0
JUNE	162,138	1,035	195,534	0	0	0	0	0	357,672	62,772
JULY	190,354	0	281,142	0	0	0	0	0	471,496	1,035
AUGUST	186,237	0	308,254	0	0	6,175	0	3,230	494,491	9,405
SEPTEMBER	175,664	0	345,011	0	0	0	0	0	520,675	6,881
OCTOBER	157,148	9,003	390,840	0	0	0	0	0	547,988	19,746
NOVEMBER	642	104,047	21,072	102,608	0	22,685	0	10,743	21,714	262,326
DECEMBER	0	233,314	0	561,629	0	29,206	0	46,675	0	870,824
1990 TOTAL	1,009,895	690,142	1,575,551	945,815	0	81,326	0	126,766	2,585,446	1,844,049
CUMULATIVE 01-01-91	13,313,343	8,625,661	9,200,557	7,579,625	0	1,003,459	0	2,167,086	22,513,900	19,375,831
1991										
JANUARY	0	242,496	0	551,253	0	12,273	0	40,716	0	846,738
FEBRUARY	0	174,186	0	246,985	0	10,829	0	31,854	0	463,854
MARCH	23,892	105,938	0	143,289	0	6,127	0	21,829	23,892	277,183
APRIL	185,230	1,235	263,740	0	0	0	0	0	548,970	1,235
MAY	206,123	0	337,614	0	0	0	0	0	448,737	0
JUNE	300,909	0	301,537	0	0	0	0	0	602,446	365
JULY	399,995	0	458,570	0	0	0	0	0	858,565	0
AUGUST	410,236	0	384,345	0	0	0	0	0	794,581	0
SEPTEMBER	403,962	0	443,708	0	0	0	0	0	847,670	0
OCTOBER	329,898	0	316,627	0	0	0	0	0	646,525	0
NOVEMBER	0	333,491	0	383,065	0	16,300	0	45,351	0	778,207
DECEMBER	0	371,585	0	491,124	0	15,498	0	74,405	0	952,612
1991 TOTAL	2,260,245	1,228,931	2,506,141	1,815,716	0	61,027	0	214,520	4,766,386	3,320,194
CUMULATIVE 01-01-92	15,573,588	9,854,592	11,706,698	9,395,341	0	1,064,486	0	2,381,606	27,280,286	22,696,025

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SANDHILL

LIANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO

DATES	GRMU #1	GRMU #2	GRMU #3	GRMU #4	GRM UNIT TOTALS					
CUMULATIVE 01-01-88	INJECTION 11,053,583	WITHDRAWAL 6,896,186	INJECTION 7,109,083	WITHDRAWAL 6,265,020	INJECTION 0	WITHDRAWAL 762,126	INJECTION 0	WITHDRAWAL 1,820,223	INJECTION 18,162,666	WITHDRAWAL 15,743,555
1988										
JANUARY	0	63,962	0	0	0	18,436	0	28,597	0	110,995
FEBRUARY	0	46,389	0	0	0	13,453	0	14,535	0	74,377
MARCH	0	46,811	0	0	0	14,009	0	26,439	0	87,259
APRIL	0	346	0	0	0	792	0	1,695	0	2,833
MAY	170,502	0	0	0	0	0	0	0	170,502	0
JUNE	100,485	0	0	0	0	0	0	0	100,485	0
JULY	0	92,675	0	0	0	0	0	0	92,675	0
AUGUST	0	136,844	0	0	0	17,380	0	34,354	0	188,578
SEPTEMBER	97,132	504	0	0	0	176	0	294	97,132	974
OCTOBER	26,568	0	0	0	0	0	0	0	26,568	0
NOVEMBER	0	134,836	1,939	0	0	0	0	0	1,939	134,836
DECEMBER	0	179,698	0	52,228	0	32,649	0	56,447	0	321,022
1988 TOTAL	394,687	702,065	1,939	52,228	0	96,895	0	162,361	396,626	1,013,549
CUMULATIVE 01-01-89	11,448,270	7,598,251	7,111,022	6,317,248	0	859,021	0	1,982,584	18,559,292	16,757,104
1989										
JANUARY	12,779	2,446	0	46,235	0	6,308	0	2,904	12,779	57,893
FEBRUARY	15,141	9,345	0	19,209	0	11,980	0	0	15,141	40,534
MARCH	32,840	1,145	23,940	1,559	0	124	0	0	56,780	2,828
APRIL	97,872	0	97	0	0	0	0	0	97,872	0
MAY	208,526	0	159,621	0	0	0	0	0	368,147	0
JUNE	156,433	0	143,603	0	0	0	0	0	300,036	0
JULY	40,430	5,123	35,676	2,099	0	6,959	0	4,455	76,106	18,636
AUGUST	182,959	0	135,909	0	0	0	0	0	318,868	0
SEPTEMBER	40,155	0	2,624	0	0	0	0	3,142	42,779	3,142
OCTOBER	58,621	0	12,514	0	0	0	0	0	71,135	0
NOVEMBER	9,422	115,056	0	108,034	0	0	0	0	9,422	223,090
DECEMBER	0	204,153	0	139,426	0	37,741	0	47,235	0	428,555
1989 TOTAL	855,178	337,268	513,984	316,562	0	63,112	0	57,736	1,369,162	774,678
CUMULATIVE 01-01-90	12,303,448	7,935,519	7,625,006	6,633,810	0	922,133	0	2,040,320	19,928,454	17,531,782

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HADSON

March 4, 1993

Commissioner of Public Lands
State of New Mexico
P. O. Box 1148
Santa Fe, New Mexico 87501

Attention: Floyd Prado, Director
Oil and Gas Division

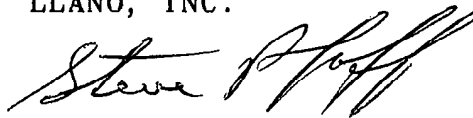
Re: Grama Ridge Morrow Unit
Lea County, New Mexico

Gentlemen:

In accordance with the terms of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit, Llano, Inc. hereby submits two (2) copies of the Plan of Operation - Progress Report No. 39 for the six-month period July 1, 1992 through December 31, 1992. Also attached are a tabulation of monthly injection and withdrawal volumes by well.

Very truly yours,

LLANO, INC.



Steve Pfaff, Manager
Contract Administration

Enclosures
SP/MKS/am

xc: GRMU-6

Llano File No. P.03.03.93.

LLANO, INC.

A SUBSIDIARY OF HADSON ENERGY PRODUCTS & SERVICES, INC.

921 W. Sanger / Hobbs, New Mexico 88240
Telephone (505) 393-2153 / FAX (505) 393-0381

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SANTA FE, N.M.

LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO
PLAN OF OPERATION - PROGRESS REPORT NO. 39
FOR THE SIX-MONTH PERIOD ENDING
DECEMBER 31, 1992

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I -- Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing, and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II -- Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III -- Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 h.p. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 Wells. As of April 1, 1991 the GRM Unit No. 1, 1000 h.p. electric motor was replaced with a natural gas fueled 1,000 h.p. motor, and an additional 1,000 h.p. natural gas fueled compressor was installed on each injection well, giving a total of 4,000 h.p. available for injection. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of the Interior executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10, T22S, R34E. The Government A Well No. 1 was then converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New

Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984. However, in June, 1985, the GRMU No. 5 was withdrawn from the unit and recompleted as a gas well in another producing interval.

As of December 31, 1992, injection of gas into the unitized storage interval has totaled 30,914,703 MCF, being 17,485,013 MCF injected into the GRM Unit No. 1 and 13,429,690 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn a total of 27,392,646 MCF at December 31, 1992. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	11,949,698
GRMU No. 2	11,618,362
GRMU No. 3	2,693,948
GRMU No. 4	2,693,948
GRMU No. 5	-0-
	<u>27,392,646</u>

The net balance of gas in storage at December 31, 1992, is 3,522,057 MCF at an average reservoir pressure of 2,299 psig.

For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to a Plan of injecting gas April through October each year and withdrawing gas November through March to meet the requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and the GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia base.

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LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO

DATES	GRMU #1		GRMU #2		GRMU #3		GRMU #4		GRM UNIT TOTALS	
	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL
1990										
JANUARY	0	133,509	0	95,265	0	13,069	0	23,070	0	264,913
FEBRUARY	0	185,119	0	132,861	0	10,191	0	3,181	0	331,352
MARCH	0	8,754	0	6,041	0	0	0	0	0	14,795
APRIL	82,763	0	254	0	0	0	0	0	83,027	0
MAY	54,949	15,361	33,434	47,411	0	0	0	0	88,383	62,772
JUNE	162,138	1,035	195,534	0	0	0	0	0	357,672	1,035
JULY	196,354	0	281,142	0	0	6,175	0	3,230	471,496	9,405
AUGUST	188,237	0	308,254	0	0	0	0	6,881	494,491	0
SEPTEMBER	175,664	0	345,011	0	0	0	0	10,743	520,875	6,881
OCTOBER	157,148	9,003	390,840	0	0	22,685	0	32,986	547,988	19,746
NOVEMBER	642	104,047	21,072	0	0	29,206	0	46,675	21,714	262,326
DECEMBER	0	233,314	0	561,629	0	0	0	0	0	870,824
1990 TOTAL	1,009,895	690,142	1,575,551	945,815	0	81,326	0	126,766	2,585,446	1,844,049
CUMULATIVE 01-01-91	13,313,343	8,625,661	9,200,557	7,579,625	0	1,003,459	0	2,167,086	22,513,900	19,375,831
1991										
JANUARY	0	242,496	0	551,253	0	12,273	0	40,716	0	846,738
FEBRUARY	0	174,186	0	245,985	0	10,829	0	31,854	0	463,854
MARCH	22,892	105,938	0	145,289	0	6,127	0	21,829	23,892	277,183
APRIL	185,230	1,235	263,740	0	0	0	0	0	543,770	1,235
MAY	206,123	0	337,614	0	0	0	0	0	448,970	0
JUNE	300,909	0	301,537	0	0	0	0	365	602,446	0
JULY	398,995	0	458,570	0	0	0	0	0	858,565	365
AUGUST	410,236	0	384,345	0	0	0	0	0	794,581	0
SEPTEMBER	403,962	0	443,708	0	0	0	0	0	847,570	0
OCTOBER	329,898	0	316,627	0	0	0	0	0	646,525	0
NOVEMBER	0	333,491	0	383,065	0	16,300	0	45,351	0	778,207
DECEMBER	0	371,585	0	491,124	0	15,498	0	74,405	0	952,612
1991 TOTAL	2,260,245	1,228,931	2,506,141	1,815,716	0	61,027	0	214,520	4,766,386	3,320,194
CUMULATIVE 01-01-92	15,573,588	9,854,592	11,706,698	9,395,341	0	1,064,486	0	2,381,606	27,280,286	22,696,025

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DATE	GRMU #1	GRMU #2	GRMU #3	GRMU #4	GRM UNIT TOTALS	
CUMULATIVE	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL
01-01-88	11,053,583	6,896,186	7,109,083	6,265,020	0	762,126
1988						
JANUARY	0	63,962	0	0	0	18,436
FEBRUARY	0	46,389	0	0	0	13,453
MARCH	0	46,811	0	0	0	14,009
APRIL	0	346	0	0	0	792
MAY	170,502	0	0	0	0	0
JUNE	100,485	0	0	0	0	0
JULY	0	92,675	0	0	0	0
AUGUST	0	136,844	0	0	0	17,380
SEPTEMBER	97,132	504	0	0	0	176
OCTOBER	26,566	0	0	0	0	0
NOVEMBER	0	134,836	1,939	0	0	32,649
DECEMBER	0	179,698	0	52,228	0	0
1988 TOTAL	394,687	702,065	1,939	52,228	0	96,895
CUMULATIVE						
01-01-89	11,448,270	7,598,251	7,111,022	6,317,248	0	859,021
1989						
JANUARY	12,779	2,446	0	46,235	0	6,308
FEBRUARY	15,141	9,345	0	19,209	0	11,980
MARCH	32,840	1,145	23,940	1,559	0	124
APRIL	97,872	0	97	0	0	0
MAY	208,526	0	159,621	0	0	0
JUNE	156,433	0	143,603	0	0	0
JULY	40,430	5,123	35,676	2,099	0	6,959
AUGUST	182,959	0	135,909	0	0	0
SEPTEMBER	40,155	0	2,624	0	0	0
OCTOBER	58,621	0	12,514	0	0	0
NOVEMBER	9,422	115,056	0	108,034	0	0
DECEMBER	0	204,153	0	139,426	0	37,741
1989 TOTAL	855,178	337,268	513,984	316,562	0	63,112
CUMULATIVE						
01-01-90	12,303,448	7,935,519	7,625,006	6,633,810	0	922,133
					0	2,040,320
						19,928,454
						17,531,782

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SANTA FE, N.M.

LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO

DATES	GRMU #1		GRMU #2		GRMU #3		GRMU #4		GRM UNIT TOTALS	
1992	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL
JANUARY	0	403,514	0	552,140	0	69,807	0	1,039,310	0	1,039,310
FEBRUARY	69	267,806	0	366,751	0	38,556	69	686,081	0	686,081
MARCH	0	180,264	0	240,881	0	32,739	0	462,287	0	462,287
APRIL	11,317	177,066	112,551	39,362	0	3,827	123,868	221,047	15,258	221,047
MAY	344,607	15,258	212,046	0	0	0	556,653	0	0	556,653
JUNE	401,246	0	373,236	0	0	0	774,482	0	0	774,482
JULY	376,872	0	330,075	0	0	0	706,947	0	0	706,947
AUGUST	394,375	0	377,585	0	0	0	771,960	0	0	771,960
SEPTEMBER	350,057	0	232,083	0	0	0	582,140	0	0	582,140
OCTOBER	32,882	265,989	84,914	42,128	0	92,885	117,796	308,127	0	308,127
NOVEMBER	0	418,935	502	480,597	0	74,528	502	1,014,702	0	1,014,702
DECEMBER	0	366,264	0	501,162	0	0	0	949,809	0	949,809
1992 TOTAL	1,911,425	2,095,106	1,722,992	2,223,021	0	66,152	0	3,634,417	4,696,621	4,696,621
CUMULATIVE 01-01-93	17,485,013	11,949,698	13,429,690	11,618,362	0	1,130,638	0	2,693,948	30,914,703	27,392,646

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STATE LAND OFFICE
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HADSON

July 28, 1992

Commissioner of Public Lands
State of New Mexico
P. O. Box 1148
Santa Fe, New Mexico 87501

Attention: Floyd Prando, Director
Oil and Gas Division

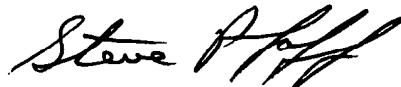
Re: Grama Ridge Morrow Unit
Lea County, New Mexico

Gentlemen:

In accordance with the terms of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit, Llano, Inc. hereby submits two (2) copies of the Plan of Operation - Progress Report No. 38 for the six-month period January 1, 1992 through June 30, 1992. Also attached are a tabulation of monthly injection and withdrawal volumes by well.

Very truly yours,

LLANO, INC.



Steve Pfaff, Supervisor
Contract Administration

Enclosures
SP/MKS/am

xc: GRMU-6

Llano File No. P.07.06.92.

LLANO, INC.



A SUBSIDIARY OF HADSON NEW MEXICO, INC.

921 W. Senger / Hobbs, New Mexico 88240
Telephone (505) 393-2153

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COMMUNICATIONS SECTION

LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO
PLAN OF OPERATION - PROGRESS REPORT NO. 38
FOR THE SIX-MONTH PERIOD ENDING
JUNE 30, 1992

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I -- Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing, and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II -- Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III -- Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 h.p. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 Wells. As of April 1, 1991 the GRM Unit No. 1, 1000 h.p. electric motor was replaced with a natural gas fueled 1,000 h.p. motor, and an additional 1,000 h.p. natural gas fueled compressor was installed on each injection well, giving a total of 4,000 h.p. available for injection. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of the Interior executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10, T22S, R34E. The Government A Well No. 1 was then converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New

Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984. However, in June, 1985, the GRMU No. 5 was withdrawn from the unit and recompleted as a gas well in another producing interval.

As of June 30, 1992, injection of gas into the unitized storage interval has totaled 28,735,358 MCF, being 16,330,827 MCF injected into the GRM Unit No. 1 and 12,404,531 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn a total of 25,120,008 MCF at June 30, 1992. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	10,898,500
GRMU No. 2	10,594,475
GRMU No. 3	1,100,498
GRMU No. 4	2,526,535
GRMU No. 5	-0-
	25,120,008

The net balance of gas in storage at June 30, 1992, is 3,615,350 MCF at an average reservoir pressure of 2,349 psig.

For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to a Plan of injecting gas April through October each year and withdrawing gas November through March to meet the requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and the GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia base.

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July 28, 1992
BUREAU OF LAND MGMT
ROSWELL DISTRICT

Copy

Bureau of Land Management
P. O. Box 1397
Roswell, New Mexico 88201-1397

Attention: Mr. Joe G. Lara
Assistant District Manager,
Minerals

Dear Mr. Lara:

Please find enclosed a copy of the semi-annual Plan of Operation - Progress Report No. 38 as filed with the Commissioner of Public Lands for the six month period ending June 30, 1992. *(Injection Storage)*

If you should have questions or comments concerning this report, please feel free to call.

Very truly yours,

LLANO, INC.

Steve Pfaff
Steve Pfaff, Supervisor
Contract Administration

SP/MKS/am
Enclosures

Llano File No. P.07.07.92.

Accepted FOR RECORD
AUGUST 4, 1992

ADM. MINERALS *Richard W. Melts*

LLANO, INC.



A SUBSIDIARY OF HADSON NEW MEXICO, INC.
921 W. Sanger / Hobbs, New Mexico 88240
Telephone (505) 393-2153

ASSIGNMENT CONTROL SLIP

DATE RECEIVED: 07-30-92

CONTROL NUMBER: 07/28

Please return this slip to _____
with file copy.

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JAMES H. JOSE
CIVIL ENGINEER

LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO
PLAN OF OPERATION - PROGRESS REPORT NO. 38
FOR THE SIX-MONTH PERIOD ENDING
JUNE 30, 1992

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

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Phase II -- Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

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W. FAYE

Phase III -- Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

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GRMU No. 4	2,526,535
GRMU No. 5	-0-
	<u>25,120,008</u>

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Note: Volumes reported herein are at 14.65 psia base.

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COMMISSIONER OF PUBLIC LANDS

LLAND, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO

DATES	GRU #1	GRU #2	GRU #3
1992			
JANUARY	INJECTION 0 WITHDRAWAL 403,514	INJECTION 0 WITHDRAWAL 552,140	INJECTION 0 WITHDRAWAL 13,849
FEBRUARY	69 287,806	0 386,751	0 12,968
MARCH	0 180,284	0 240,881	0 8,403
APRIL	11,317 177,066	112,551 39,362	0 792
MAY	344,607 15,258	212,046 0	0 0
JUNE	401,246 0	373,236 0	0 0
JULY			
AUGUST			
SEPTEMBER			
OCTOBER			
NOVEMBER			
DECEMBER			
1992 TOTAL	757,239 1,043,908	697,833 1,199,134	0 36,012
CUMULATIVE 07-01-92	16,330,827 10,898,500	12,404,531 10,594,475	0 1,100,498

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COMMISSIONER OF PUBLIC LANDS

DATES	GRU #1		GRU #2		GRU #3	
	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL
1990						
JANUARY	0	133,509	0	95,265	0	13,069
FEBRUARY	0	185,119	0	132,861	0	10,151
MARCH	0	8,754	0	6,041	0	0
APRIL	82,763	0	264	47,410	0	0
MAY	32,949	15,361	123,534	0	0	6,175
JUNE	1,864,439	1,020	287,127	0	0	0
JULY	186,1237	0	386,234	0	0	0
AUGUST	172,1664	0	345,011	0	0	0
SEPTEMBER	157,148	9,003	390,840	0	0	22,652
OCTOBER	0	104,047	21,072	0	0	25,206
NOVEMBER	642	233,314	0	561,825	0	0
DECEMBER	0	0	0	0	0	0
1990 TOTAL	1,009,895	680,142	1,575,531	945,815	0	81,326
CUMULATIVE 01-01-91	13,333,343	8,625,661	9,200,557	7,579,625	0	1,003,459
1991						
JANUARY	0	242,496	0	551,253	0	13,273
FEBRUARY	0	77,188	0	246,985	0	10,829
MARCH	182,230	105,938	0	143,289	0	6,127
APRIL	205,123	1,225	263,740	0	0	0
MAY	305,913	0	337,514	0	0	0
JUNE	395,985	0	488,370	0	0	0
JULY	410,136	0	384,343	0	0	0
AUGUST	502,952	0	419,425	0	0	0
SEPTEMBER	329,870	0	316,627	0	0	0
OCTOBER	0	332,491	0	383,065	0	0
NOVEMBER	0	371,585	0	491,124	0	15,496
DECEMBER	0	0	0	0	0	0
1991 TOTAL	2,260,245	1,228,931	2,506,141	1,815,716	0	61,027
CUMULATIVE 01-01-92	15,573,588	9,854,592	11,706,698	9,395,341	0	1,064,486

LLAND, INC.
GRAMA RIDGE HORROR UNIT
LEA COUNTY, NEW MEXICO

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COMMISSIONER OF PUBLIC LANDS

GRAMA FIDEL MORROM UNIT LEA COUNTY, NEW MEXICO											
LLANO, INC.											
DATES		GRMU #1	GRMU #2	GRMU #3	GRMU #4	GRMU UNIT TOTALS					
		INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL		
CUMULATIVE 01-01-88		11,053,583	6,896,186	7,109,063	6,265,020	0	762,126	0	1,820,223	18,162,665	15,743,555
1988											
JANUARY		0	63,962	0	0	0	18,436	0	28,597	0	110,995
FEBRUARY		0	46,389	0	0	0	13,453	0	17,327	0	74,327
MARCH		0	46,811	0	0	0	14,062	0	26,123	0	67,259
APRIL		0	346	0	0	0	792	0	1,655	0	2,883
MAY		170,502	0	0	0	0	0	0	0	170,502	92,675
JUNE		100,485	92,675	0	0	0	0	0	0	100,485	0
JULY		0	136,844	0	0	0	17,380	0	34,254	0	188,578
AUGUST		97,132	0	0	0	0	176	0	294	0	974
SEPTEMBER		26,568	0	0	0	0	0	0	0	0	0
OCTOBER		0	134,836	0	0	0	0	0	0	0	134,836
NOVEMBER		0	179,658	0	0	0	32,649	0	56,447	0	321,022
DECEMBER		0	0	0	0	0	0	0	0	0	0
1988 TOTAL		394,687	702,065	1,935	52,226	0	96,955	0	162,361	396,626	1,013,549
CUMULATIVE 01-01-89		11,448,270	7,598,251	7,111,022	6,317,248	0	859,021	0	1,982,584	18,559,292	16,757,104
1989											
JANUARY		15,779	2,446	0	46,235	0	6,308	0	2,904	15,779	57,893
FEBRUARY		15,141	2,345	0	19,009	0	11,980	0	0	15,141	40,534
MARCH		32,840	1,145	0	1,559	0	124	0	0	32,840	2,829
APRIL		97,872	0	22,940	0	0	0	0	0	97,872	0
MAY		208,526	0	57	0	0	0	0	0	208,526	0
JUNE		156,433	0	159,621	0	0	0	0	0	316,054	0
JULY		40,430	5,123	143,603	0	0	6,959	0	4,455	356,403	18,635
AUGUST		182,959	0	135,905	0	0	0	0	0	318,864	0
SEPTEMBER		40,125	0	12,824	0	0	0	0	3,142	71,135	3,142
OCTOBER		58,621	0	12,514	0	0	0	0	0	71,135	0
NOVEMBER		3,422	115,056	0	108,026	0	37,741	0	47,235	3,422	223,090
DECEMBER		0	204,155	0	139,526	0	0	0	0	0	428,555
1989 TOTAL		855,178	337,266	513,984	316,562	0	63,112	0	57,736	1,369,162	774,678
CUMULATIVE 01-01-90		12,303,448	7,935,519	7,625,006	6,633,810	0	922,133	0	2,040,320	19,928,454	17,531,782

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CAPTAIN R.

HADSON

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January 23, 1992

Commissioner of Public Lands
State of New Mexico
P. O. Box 1148
Santa Fe, New Mexico 87501

Attention: Floyd Prando, Director
Oil and Gas Division

Re: Grama Ridge Morrow Unit
Lea County, New Mexico

Gentlemen:

In accordance with the terms of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit, Llano, Inc. hereby submits two (2) copies of the Plan of Operation - Progress Report No. 37 for the six-month period July 1, 1991 through December 31, 1991. Also attached are a tabulation of monthly injection and withdrawal volumes by well.

Very truly yours,

LLANO, INC.

Steve Pfaff
Steve Pfaff, Supervisor
Contract Administration

Enclosures
SP/MKS/am

xc: GRMU-6

Llano File No. P.01.10.92.

LLANO, INC.



A SUBSIDIARY OF HADSON NEW MEXICO, INC.

921 W. Sanger / Hobbs, New Mexico 88240
Telephone (505) 393-2153

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STATE LAND OFFICE
SANTA FE, N. M.

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STATE LAND OFFICE
SANTA FE, N.M.

LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO
PLAN OF OPERATION - PROGRESS REPORT NO. 37
FOR THE SIX-MONTH PERIOD ENDING
DECEMBER, 31, 1991

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I -- Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing, and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II -- Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III -- Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 h.p. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 Wells. As of April 1, 1991 the GRM Unit No. 1, 1000 h.p. electric motor was replaced with a natural gas fueled 1,000 h.p. motor, and an additional 1,000 h.p. natural gas fueled compressor was installed on each injection well, giving a total of 4,000 h.p. available for injection. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of the Interior executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10, T22S, R34E. The Government A Well No. 1 was then converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New

Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984. However, in June, 1985, the GRMU No. 5 was withdrawn from the unit and recompleted as a gas well in another producing interval.

As of December 31, 1991, injection of gas into the unitized storage interval has totaled 27,280,286 MCF, being 15,573,588 MCF injected into the GRM Unit No. 1 and 11,706,698 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn a total of 22,696,025 MCF at December 31, 1991. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	9,854,592
GRMU No. 2	9,395,341
GRMU No. 3	1,064,486
GRMU No. 4	2,381,606
GRMU No. 5	-0-
	22,696,025

The net balance of gas in storage at December 31, 1991, is 4,584,261 MCF at an average reservoir pressure of 2,718 psig.

For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to a Plan of injecting gas April through October each year and withdrawing gas November through March to meet the requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and the GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia base.

GRAMA RIDGE NO

176

WILSON

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GRAMA RIDGE E

GRAMU #2

GRAMU #1

LLANO INC (OPER)

GRAMA RIDGE

MORROW UNIT

GRAMU #5

QUARK UNIT

B STAPLER (OPER)

22 34

CHISO

LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO

DATES		GRMU #1	GRMU #2	GRMU #3	GRMU #4	GRM UNIT TOTALS				
CUMULATIVE	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL		
01-01-88	11,053,583	6,896,186	7,109,083	6,265,020	0	762,126	0	1,820,223	18,162,666	15,743,555
1988										
JANUARY	0	63,962	0	0	0	18,436	0	28,597	0	110,995
FEBRUARY	0	46,389	0	0	0	13,453	0	14,535	0	74,377
MARCH	0	46,811	0	0	0	14,009	0	26,439	0	87,259
APRIL	0	346	0	0	0	792	0	1,695	0	2,833
MAY	170,502	0	0	0	0	0	0	0	170,502	0
JUNE	100,485	0	0	0	0	0	0	0	100,485	0
JULY	0	92,675	0	0	0	0	0	0	0	92,675
AUGUST	0	136,844	0	0	0	17,380	0	34,354	0	188,578
SEPTEMBER	97,132	504	0	0	0	176	0	294	0	97,132
OCTOBER	26,568	0	0	0	0	0	0	0	0	26,568
NOVEMBER	0	134,836	1,939	0	0	0	0	0	1,939	134,836
DECEMBER	0	179,698	0	52,228	0	32,649	0	56,447	0	321,022
1988 TOTAL	394,687	702,065	1,939	52,228	0	96,895	0	162,361	396,626	1,013,549
CUMULATIVE										
01-01-89	11,448,270	7,598,251	7,111,022	6,317,248	0	859,021	0	1,982,584	18,559,292	16,757,104
1989										
JANUARY	12,779	2,446	0	46,235	0	6,308	0	2,904	12,779	57,893
FEBRUARY	15,141	9,345	0	19,209	0	11,980	0	0	15,141	40,534
MARCH	32,840	1,145	23,940	1,559	0	124	0	0	32,840	2,828
APRIL	97,872	0	97	0	0	0	0	0	97,872	0
MAY	208,526	0	159,621	0	0	0	0	0	208,526	0
JUNE	156,433	0	143,603	0	0	0	0	0	156,433	0
JULY	40,155	5,123	35,676	2,099	0	6,959	0	4,455	40,155	18,636
AUGUST	182,959	0	135,909	0	0	0	0	3,142	182,959	0
SEPTEMBER	40,155	0	2,624	0	0	0	0	0	40,155	3,142
OCTOBER	58,621	0	12,514	0	0	0	0	0	58,621	71,135
NOVEMBER	9,422	115,056	0	108,034	0	0	0	0	9,422	223,090
DECEMBER	0	204,153	0	139,426	0	37,741	0	47,235	0	428,555
1989 TOTAL	855,178	337,268	513,984	316,562	0	63,112	0	57,736	1,369,162	774,678
CUMULATIVE										
01-01-90	12,303,448	7,935,519	7,625,006	6,633,810	0	922,133	0	2,040,320	19,928,454	17,531,782

[illegible]

CUMULATIVE 01-01-91	1991
13,313,343	8,625,661
9,200,557	7,579,625
0	1,003,459
0	2,167,086
22,513,900	19,375,831

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	1991 TOTAL	CUMULATIVE 01-01-92
	0	0	0	0	0	0	0	0	0	0	0	0	2,260,245	15,573,588
	242,496	174,186	105,938	1,235	0	0	0	0	0	0	333,491	371,585	1,228,931	9,854,592
	0	0	0	0	0	0	0	0	0	0	0	0	2,506,141	11,706,698
	551,253	246,985	143,289	0	0	0	0	0	0	0	383,065	491,124	1,815,716	9,395,341
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12,273	10,854	6,127	0	0	0	0	0	0	0	16,300	15,498	61,027	1,064,486
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	40,716	31,854	21,829	0	0	365	0	0	0	0	45,351	74,405	214,520	2,381,606
	0	0	0	0	0	0	0	0	0	0	0	0	4,766,386	27,280,286
	0	0	0	0	0	0	0	0	0	0	0	0	3,320,194	22,696,025
	846,738	463,854	277,183	1,235	365	0	0	0	0	0	778,207	952,612		
	23,892	448,737	502,446	565	858	794,581	847,870	646,525	0	0	0	0		

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I -- Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing, and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II -- Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

HADSON

July 29, 1991 8 55 AM '91

STATE OFFICE
SANTA FE, N.M.

Commissioner of Public Lands
State of New Mexico
P. O. Box 1148
Santa Fe, New Mexico 87501

Attention: Floyd Prando, Director
Oil and Gas Division

#2

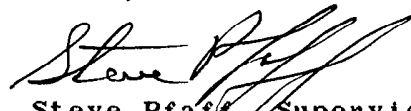
Re: Grama Ridge Morrow Unit
Lea County, New Mexico

Gentlemen:

In accordance with the terms of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit, Llano, Inc. hereby submits two (2) copies of the Plan of Operation - Progress Report No. 36 for the six-month period January 1, 1991 through June 30, 1991. Also attached are a tabulation of monthly injection and withdrawal volumes by well.

Very truly yours,

LLANO, INC.



Steve Pfaff, Supervisor
Contract Administration

Enclosures
SP/MKS/am

xc: GRMU-6

Llano File No. P.07.23.91.

LLANO, INC.



A SUBSIDIARY OF HADSON NEW MEXICO, INC.

921 W. Sanger / Hobbs, New Mexico 88240

Telephone (505) 393-2153

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STATE POLICE
SANTA FE, N.M.

LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO
PLAN OF OPERATION - PROGRESS REPORT NO. 36
FOR THE SIX-MONTH PERIOD ENDING
JUNE, 30, 1991

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I -- Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing, and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II -- Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III -- Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 h.p. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 Wells. As of April 1, 1991 the GRM Unit No. 1, 1000 h.p. electric motor was replaced with a natural gas fueled 1,000 h.p. motor, and an additional 1,000 h.p. natural gas fueled compressor was installed on each injection well, giving a total of 4,000 h.p. available for injection. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of the Interior executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10, T22S, R34E. The Government A Well No. 1 was then converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New

Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984. However, in June, 1985, the GRMU No. 5 was withdrawn from the unit and recompleted as a gas well in another producing interval.

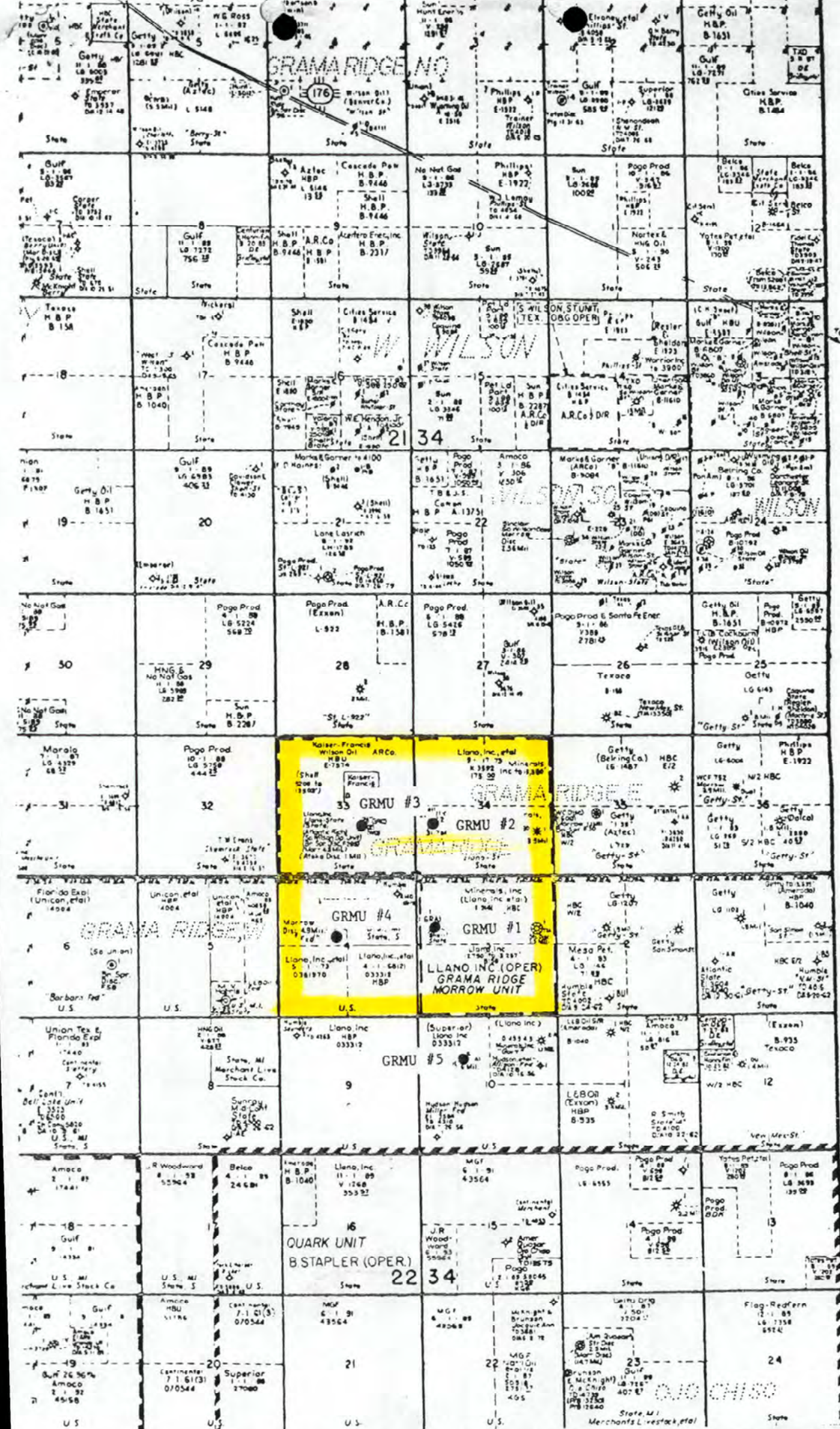
As of June 30, 1991, injection of gas into the unitized storage interval has totaled 24,132,945 MCF, being 14,029,497 MCF injected into the GRM Unit No. 1 and 10,103,448 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn a total of 20,965,206 MCF at June 30, 1991. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	9,149,516
GRMU No. 2	8,521,152
GRMU No. 3	1,032,688
GRMU No. 4	2,261,850
GRMU No. 5	-0-
	<u>20,965,206</u>

The net balance of gas in storage at June 30, 1991, is 3,167,739 MCF at an average reservoir pressure of 2,168 psig.

For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to a Plan of injecting gas April through October each year and withdrawing gas November through March to meet the requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and the GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia base.



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CHISO

DATES	GRMU #1	GRMU #2	GRMU #3	GRMU #4	GRM UNIT TOTALS					
CUMULATIVE 01-01-88	INJECTION 11,053,583	WITHDRAWAL 6,896,186	INJECTION 7,109,083	WITHDRAWAL 6,265,020	INJECTION 0	WITHDRAWAL 762,126	INJECTION 0	WITHDRAWAL 1,820,223	INJECTION 18,162,666	WITHDRAWAL 15,743,555
1988										
JANUARY	0	63,962	0	0	0	18,436	0	28,597	0	110,995
FEBRUARY	0	46,389	0	0	0	13,453	0	14,535	0	74,377
MARCH	0	46,811	0	0	0	14,009	0	26,489	0	87,259
APRIL	0	346	0	0	0	792	0	1,695	0	2,833
MAY	170,502	0	0	0	0	0	0	0	170,502	0
JUNE	100,485	0	0	0	0	0	0	0	100,485	0
JULY	0	92,675	0	0	0	0	0	0	0	92,675
AUGUST	0	136,844	0	0	0	17,380	0	34,354	0	188,578
SEPTEMBER	97,132	504	0	0	0	176	0	294	97,132	974
OCTOBER	26,568	0	0	0	0	0	0	0	26,568	0
NOVEMBER	0	134,836	1,939	0	0	0	0	0	1,939	134,836
DECEMBER	0	179,698	0	0	0	32,649	0	56,447	0	321,022
1988 TOTAL	394,687	702,065	1,939	52,228	0	96,895	0	162,361	396,626	1,013,549
CUMULATIVE 01-01-89	11,448,270	7,598,251	7,111,022	6,317,248	0	859,021	0	1,982,584	18,559,292	16,757,104
1989										
JANUARY	12,779	2,446	0	46,235	0	6,308	0	2,904	12,779	57,893
FEBRUARY	15,141	9,345	0	19,209	0	11,980	0	0	15,141	40,534
MARCH	32,840	1,145	23,940	1,559	0	124	0	0	56,780	2,828
APRIL	97,872	0	97	0	0	0	0	0	97,969	0
MAY	208,526	0	159,621	0	0	0	0	0	368,147	0
JUNE	156,433	0	143,603	0	0	0	0	0	300,036	0
JULY	40,430	5,123	33,676	2,099	0	6,959	0	4,455	76,106	18,636
AUGUST	182,959	0	135,909	0	0	0	0	0	318,868	0
SEPTEMBER	40,155	0	2,624	0	0	0	0	3,142	42,779	3,142
OCTOBER	58,621	0	12,514	0	0	0	0	0	71,135	0
NOVEMBER	9,422	115,056	0	108,034	0	0	0	0	9,422	223,090
DECEMBER	0	204,153	0	139,426	0	37,741	0	47,235	0	428,555
1989 TOTAL	855,178	337,268	513,984	316,562	0	63,112	0	57,736	1,369,162	774,678
CUMULATIVE 01-01-90	12,303,448	7,935,519	7,625,006	6,633,810	0	922,133	0	2,040,320	19,928,454	17,531,782

[illegible]

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JUL 31 3 55 PM '91
STATION OFFICE
SANTA CRUZ

HADSON

January 31, 1991

Commissioner of Public Lands
State of New Mexico
P. O. Box 1148
Santa Fe, New Mexico 87501

Attention: Floyd Prando, Director
Oil and Gas Division

Re: Grama Ridge Morrow Unit
Lea County, New Mexico

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JAN 31 8 26 AM '91
STATE OF NEW MEXICO
#1

Gentlemen:

In accordance with the terms of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit, Llano, Inc. hereby submits two (2) copies of the Plan of Operation - Progress Report No. 35 for the six-month period July 1, 1990 through December 31, 1990. Also attached are a tabulation of monthly injection and withdrawal volumes by well.

Very truly yours,

LLANO, INC.



Steve Pfaff, Supervisor
Contract Administration

Enclosures
SP/MKS/am

xc: GRMU-6

Llano File No. P.01.47.91.

LLANO, INC.



A SUBSIDIARY OF HADSON NEW MEXICO, INC.

921 W. Sanger / Hobbs, New Mexico 88240
Telephone (505) 393-2153

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STATE POLICE
SANTA FE, N.M.

LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO
PLAN OF OPERATION - PROGRESS REPORT NO. 35
FOR THE SIX-MONTH PERIOD ENDING
DECEMBER 31, 1990

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I -- Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing, and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II -- Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III -- Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 h.p. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 Wells. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of the Interior executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10, T22S, R34E. The Government A Well No. 1 was then converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984. However, in June, 1985, the GRMU No. 5 was withdrawn from the unit and recompleted as a gas well in another producing interval.

As of December 31, 1990, injection of gas into the unitized storage interval has totaled 22,513,900 MCF, being 13,313,343 MCF injected into the GRM Unit No. 1 and 9,200,557 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn a total of 19,375,831 MCF at December 31, 1990. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	8,625,661
GRMU No. 2	7,579,625
GRMU No. 3	1,003,459
GRMU No. 4	2,167,086
GRMU No. 5	-0-
	<u>19,375,831</u>

The net balance of gas in storage at December 31, 1990, is 3,138,069 MCF at an average reservoir pressure of 2,182 psig.

For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to the Plan of Operation with occasional withdrawal periods to meet the peak market requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and the GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.66 psia base.

LLAND, INC.
GRAMA RIDGE MORRON UNIT
LEA COUNTY, NEW MEXICO

DATES	GRMU #1		GRMU #2		GRMU #3		GRMU #4		GRM UNIT TOTALS	
	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL
CUMULATIVE 01-01-88	11,053,583	6,896,186	7,109,083	6,265,020	0	762,126	0	1,820,223	18,162,666	15,743,555
1988										
JANUARY	0	63,962	0	0	0	18,436	0	28,597	0	110,995
FEBRUARY	0	46,389	0	0	0	13,453	0	14,535	0	74,377
MARCH	0	46,811	0	0	0	14,009	0	26,439	0	87,259
APRIL	0	346	0	0	0	792	0	1,695	0	2,833
MAY	170,502	0	0	0	0	0	0	0	170,502	0
JUNE	100,485	0	0	0	0	0	0	0	100,485	0
JULY	0	32,675	0	0	0	0	0	0	0	92,675
AUGUST	0	136,844	0	0	0	17,380	0	34,354	0	188,576
SEPTEMBER	97,132	504	0	0	0	176	0	294	97,132	974
OCTOBER	26,568	0	0	0	0	0	0	0	26,568	0
NOVEMBER	0	134,836	1,939	0	0	0	0	0	1,939	134,836
DECEMBER	0	179,698	0	52,228	0	32,649	0	56,447	0	321,022
1988 TOTAL	394,687	702,065	1,939	52,228	0	96,895	0	162,361	396,626	1,013,549
CUMULATIVE 01-01-89	11,448,270	7,598,251	7,111,022	6,317,248	0	859,021	0	1,982,584	18,559,292	16,757,104
1989										
JANUARY	12,779	2,446	0	46,235	0	6,308	0	2,904	12,779	57,893
FEBRUARY	13,141	9,345	0	19,209	0	11,980	0	0	15,141	40,534
MARCH	32,840	1,145	23,940	1,559	0	124	0	0	56,780	2,828
APRIL	97,872	0	37	0	0	0	0	0	97,969	0
MAY	208,526	0	159,621	0	0	0	0	0	368,147	0
JUNE	156,433	0	143,603	0	0	0	0	0	300,036	0
JULY	40,430	5,123	35,676	2,099	0	6,959	0	4,455	76,106	18,636
AUGUST	183,959	0	135,309	0	0	0	0	0	318,868	0
SEPTEMBER	40,155	0	2,624	0	0	0	0	3,142	42,779	3,142
OCTOBER	58,621	0	12,514	0	0	0	0	0	71,135	0
NOVEMBER	9,422	115,056	0	108,034	0	0	0	0	9,422	228,090
DECEMBER	0	204,153	0	139,426	0	37,741	0	47,235	0	428,555
1989 TOTAL	855,178	337,268	513,984	316,562	0	63,112	0	57,736	1,369,162	774,678
CUMULATIVE 01-01-90	12,303,448	7,935,519	7,625,006	6,633,810	0	922,133	0	2,040,320	19,928,454	17,531,782

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STATE POLICE
SANTA FE

LLANO, INC.

GRAMA RIDGE MORROW UNIT

LEA COUNTY, NEW MEXICO

PLAN OF OPERATION - PROGRESS REPORT NO. 34

FOR THE SIX-MONTH PERIOD ENDING

JUNE 30, 1990

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I -- Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing, and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II -- Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III -- Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 h.p. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 Wells. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of the Interior executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10, T22S, R34E. The Government A Well No. 1 was then converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984. However, in June, 1985, the GRMU No. 5 was withdrawn from the unit and recompleted as a gas well in another producing interval.

As of June 30, 1990, injection of gas into the unitized storage interval has totaled 20,457,536 MCF, being 12,603,298 MCF injected into the GRM Unit No. 1 and 7,854,238 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn a total of 18,206,649 MCF at June 30, 1990. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	8,279,297
GRMU No. 2	6,915,388
GRMU No. 3	945,393
GRMU No. 4	2,066,571
GRMU No. 5	-0-
	<u>18,206,649</u>

The net balance of gas in storage at June 30, 1990, is 2,250,887 MCF at an average reservoir pressure of 1,830 psig.

For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to the Plan of Operation with occasional withdrawal periods to meet the peak market requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and the GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia base.

LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO
PLAN OF OPERATION - PROGRESS REPORT NO. 32
FOR THE SIX-MONTH PERIOD ENDING
JUNE, 30, 1989

COMMISSIONER OF PUBLIC LANDS
Approved
COMMISSIONER OF PUBLIC LANDS

Does not
need to
be approved.
Sm H 7/27/89

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STATE LAND OFFICE
SANTA FE, N.M.

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I -- Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing, and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II -- Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

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STATE LAND OFFICE
SANTA FE, N.M.

Phase III -- Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 h.p. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 Wells. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of the Interior executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10, T22S, R34E. The Government A Well No. 1 was then converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984. However, in June, 1985, the GRMU No. 5 was withdrawn from the unit and recompleted as a gas well in another producing interval.

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STATE LAND OFFICE
SANTA FE, N.M.

As of June 30, 1989, injection of gas into the unitized storage interval has totaled 19,410,144 MCF, being 11,971,861 MCF injected into the GRM Unit No. 1 and 7,438,283 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn a total of 16,858,359 MCF at June 30, 1989. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	7,611,187
GRMU No. 2	6,384,251
GRMU No. 3	877,433
GRMU No. 4	1,985,488
GRMU No. 5	-0-
	<u>16,858,359</u>

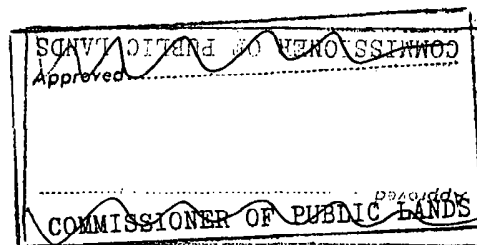
The net balance of gas in storage at June 30, 1989, is 2,551,785 MCF at an average reservoir pressure of 1,948 psig.

For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to the Plan of Operation with occasional withdrawal periods to meet the peak market requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and the GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia base.

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STATE LAND OFFICE
SANTA FE, N.M.

LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO
PLAN OF OPERATION - PROGRESS REPORT NO. 32
FOR THE SIX-MONTH PERIOD ENDING
JUNE, 30, 1989



Does not need to
be approved. smt
7/27/89

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JUL 24 8 54 AM '89
STATE LAND OFFICE
SANTA FE, N.M.

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

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Phase II -- Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

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STATE LAND OFFICE
SANTA FE, N.M.

Phase III -- Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

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STATE LAND OFFICE
SANTA FE, N.M.

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<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	7,611,187
GRMU No. 2	6,384,251
GRMU No. 3	877,433
GRMU No. 4	1,985,488
GRMU No. 5	-0-
	16,858,359

The net balance of gas in storage at June 30, 1989, is 2,551,785 MCF at an average reservoir pressure of 1,948 psig.

For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to the Plan of Operation with occasional withdrawal periods to meet the peak market requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and the GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia base.

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STATE LAND OFFICE
SANTA FE, N.M.

State of New Mexico



W.R. HUMPHRIES
COMMISSIONER



Commissioner of Public Lands

P.O. BOX 1148
SANTA FE, NEW MEXICO 87504-1148

November 7, 1990

Llano Incorporated
Hadson New Mexico Incorporated
921 W. Sanger
Hobbs, NM 88240

Attn: Steve Pfaff, Supervisor

Re: Grama Ridge Morrow Unit
Lea County, New Mexico
Plan of Development

Dear Mr. Pfaff:

The Commissioner of Public Lands this date approved the 1990 Plan of Development for the Grama Ridge Morrow Unit. Our approval is subject to like approval by all other appropriate agencies. Please submit to this office current copies of Exhibits "A" and "B".

The possibility of drainage by wells outside of the Unit Area and the need for further development may exist. You will be contacted at a later date regarding these possibilities.

If we may be of further help, please do not hesitate to contact Clyde Langdale at (505) 827-5791.

Sincerely,

W. R. HUMPHRIES

BY: *Floyd O. Prando*
Floyd O. Prando, Director
Oil, Gas & Minerals Division

cc: OCD
Unit Corresp.
Unit POD

State of New Mexico



W.R. HUMPHRIES
COMMISSIONER



Commissioner of Public Lands

P.O. BOX 1148
SANTA FE, NEW MEXICO 87504-1148

October 5, 1990

Llano Inc.,
Hadson New Mexico Inc.,
921 W. Sanger
Hobbs, NM 88240

Attn: Steve Pfaff, Supervisor

Re: Grama Ridge Morrow Unit
Lea County, New Mexico
Plan of Development

Gentlemen:

We received your letter dated January 25, 1990 where in you request approval of your 1990 Plan of Development for the Grama Ridge Morrow Unit. We must reserve approval for the Plan of Development until we received additional information regarding the Unit (please see attached checklist).

As stated in our January 3, 1990 letter to you, we need this information to update our files. We can begin processing your Plan of Development when we receive the additional information.

If you have any questions, please contact Clyde Langdale at (505) 827-5791.

Sincerely,

W. R. HUMPHRIES
COMMISSIONER OF PUBLIC LANDS

BY: *Floyd O. Prando*
Floyd O. Prando, Director
Oil, Gas & Minerals Division
(505) 827-5744

HADSON

January 25, 1990

Commissioner of Public Lands
State of New Mexico
P. O. Box 1148
Santa Fe, New Mexico 87501

Attention: Susan Howarth

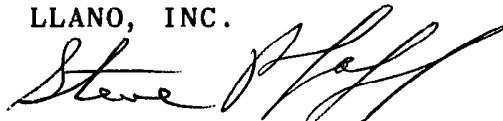
Re: Grama Ridge Morrow Unit
Lea County, New Mexico

Gentlemen:

In accordance with the terms of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit, Llano, Inc. hereby submits two (2) copies of the Plan of Operation - Progress Report No. 33 for the six-month period July 1, 1989 through December 31, 1989. Also attached are a tabulation of monthly injection and withdrawal volumes by well and a map of the unit area.

Very truly yours,

LLANO, INC.



Steve Pfaff, Supervisor
Contract Administration

Enclosures
SP/MKS/am

xc: GRMU-6

Llano File No. P.01.45.90.

LLANO, INC.



A SUBSIDIARY OF HADSON NEW MEXICO, INC.

921 W. Sanger / Hobbs, New Mexico 88240

Telephone (505) 393-2153

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LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO
PLAN OF OPERATION - PROGRESS REPORT NO. 33
FOR THE SIX-MONTH PERIOD ENDING
DECEMBER 31, 1989

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STATE LAND OFFICE
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OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I -- Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing, and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II -- Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

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Phase III -- Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 h.p. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 Wells. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of the Interior executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10, T22S, R34E. The Government A Well No. 1 was then converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984. However, in June, 1985, the GRMU No. 5 was withdrawn from the unit and recompleted as a gas well in another producing interval.

As of December 31, 1989, injection of gas into the unitized storage interval has totaled 19,928,454 MCF, being 12,303,448 MCF injected into the GRM Unit No. 1 and 7,625,006 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn a total of 17,531,782 MCF at December 31, 1989. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	7,935,519
GRMU No. 2	6,633,810
GRMU No. 3	922,133
GRMU No. 4	2,040,320
GRMU No. 5	-0-
	<u>17,531,782</u>

The net balance of gas in storage at December 31, 1989, is 2,396,672 MCF at an average reservoir pressure of 1,887 psig.

For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to the Plan of Operation with occasional withdrawal periods to meet the peak market requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and the GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia base.

LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO

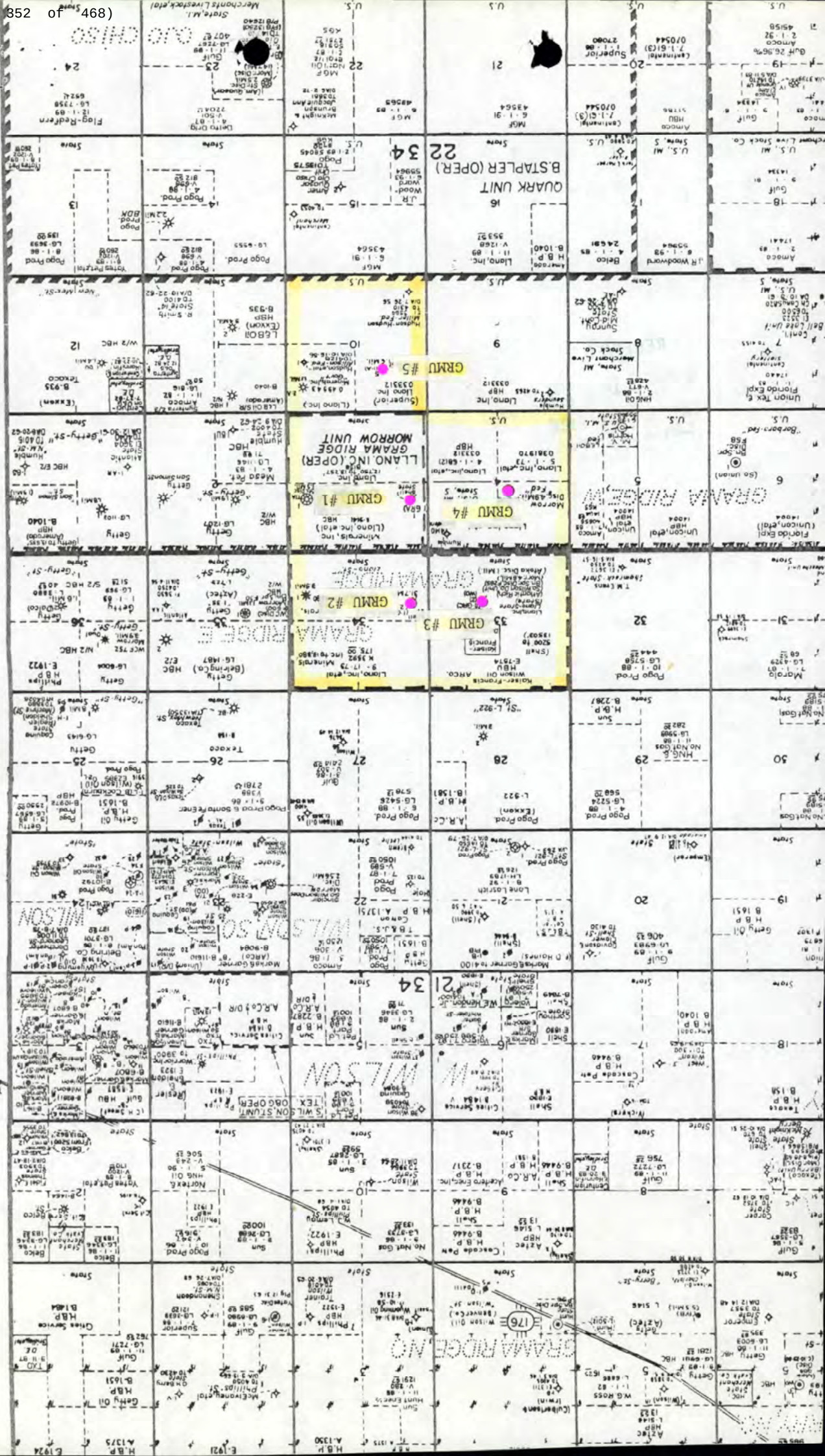
DATES	GRMU #1	GRMU #2	GRMU #3	GRMU #4	GRM UNIT TOTALS					
	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL				
CUMULATIVE										
01-01-88	11,053,583	6,896,186	7,109,083	6,265,020	0	762,126	0	1,820,223	18,162,666	15,743,555
1988										
JANUARY	0	63,962	0	0	0	18,436	28,597	0	110,995	
FEBRUARY	0	46,389	0	0	0	13,453	14,535	0	74,377	
MARCH	0	46,811	0	0	0	14,009	26,439	0	87,259	
APRIL	0	346	0	0	0	792	1,695	0	2,833	
MAY	170,502	0	0	0	0	0	0	170,502	0	
JUNE	100,485	0	0	0	0	0	0	100,485	0	
JULY	0	92,675	0	0	0	0	0	0	92,675	
AUGUST	0	136,844	0	0	0	17,380	34,354	0	188,578	
SEPTEMBER	97,132	504	0	0	0	176	294	0	974	
OCTOBER	26,568	0	0	0	0	0	0	0	26,568	
NOVEMBER	0	134,836	1,939	0	0	0	0	0	1,939	
DECEMBER	0	179,698	0	52,228	0	32,649	56,447	0	321,022	
1988 TOTAL	394,687	702,065	1,939	52,228	0	96,895	162,361	396,626	1,013,549	
CUMULATIVE										
01-01-89	11,448,270	7,598,251	7,111,022	6,317,248	0	859,021	1,982,584	18,559,292	16,757,104	
1989										
JANUARY	12,779	2,446	0	46,235	0	6,308	2,904	12,779	57,893	
FEBRUARY	15,141	3,345	0	19,209	0	11,980	0	15,141	40,534	
MARCH	32,840	1,145	23,940	1,559	0	124	0	56,780	2,828	
APRIL	97,872	0	97	0	0	0	0	97,969	0	
MAY	208,526	0	159,621	0	0	0	0	368,147	0	
JUNE	156,433	0	143,603	0	0	0	0	300,036	0	
JULY	40,430	5,123	35,676	2,099	0	6,959	4,455	76,106	18,636	
AUGUST	182,959	0	135,909	0	0	0	0	318,868	0	
SEPTEMBER	40,155	0	2,624	0	0	0	3,142	42,779	3,142	
OCTOBER	58,621	0	12,514	0	0	0	0	71,135	0	
NOVEMBER	9,422	115,056	0	108,034	0	37,741	47,235	9,422	223,090	
DECEMBER	0	204,153	0	139,426	0	0	0	0	428,555	
1989 TOTAL	855,178	337,268	513,984	316,562	0	63,112	57,736	1,369,162	774,678	
CUMULATIVE										
01-01-90	12,303,448	7,935,519	7,625,006	6,633,810	0	922,133	2,040,320	19,928,454	17,531,782	

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LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO
PLAN OF OPERATION - PROGRESS REPORT NO. 33
FOR THE SIX-MONTH PERIOD ENDING
DECEMBER 31, 1989

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I -- Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing, and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II -- Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III -- Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 h.p. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 Wells. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of the Interior executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10, T22S, R34E. The Government A Well No. 1 was then converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984. However, in June, 1985, the GRMU No. 5 was withdrawn from the unit and recompleted as a gas well in another producing interval.

As of December 31, 1989, injection of gas into the unitized storage interval has totaled 19,928,454 MCF, being 12,303,448 MCF injected into the GRM Unit No. 1 and 7,625,006 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn a total of 17,531,782 MCF at December 31, 1989. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
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GRMU No. 2	6,633,810
GRMU No. 3	922,133
GRMU No. 4	2,040,320
GRMU No. 5	-0-
	<u>17,531,782</u>

The net balance of gas in storage at December 31, 1989, is 2,396,672 MCF at an average reservoir pressure of 1,887 psig.

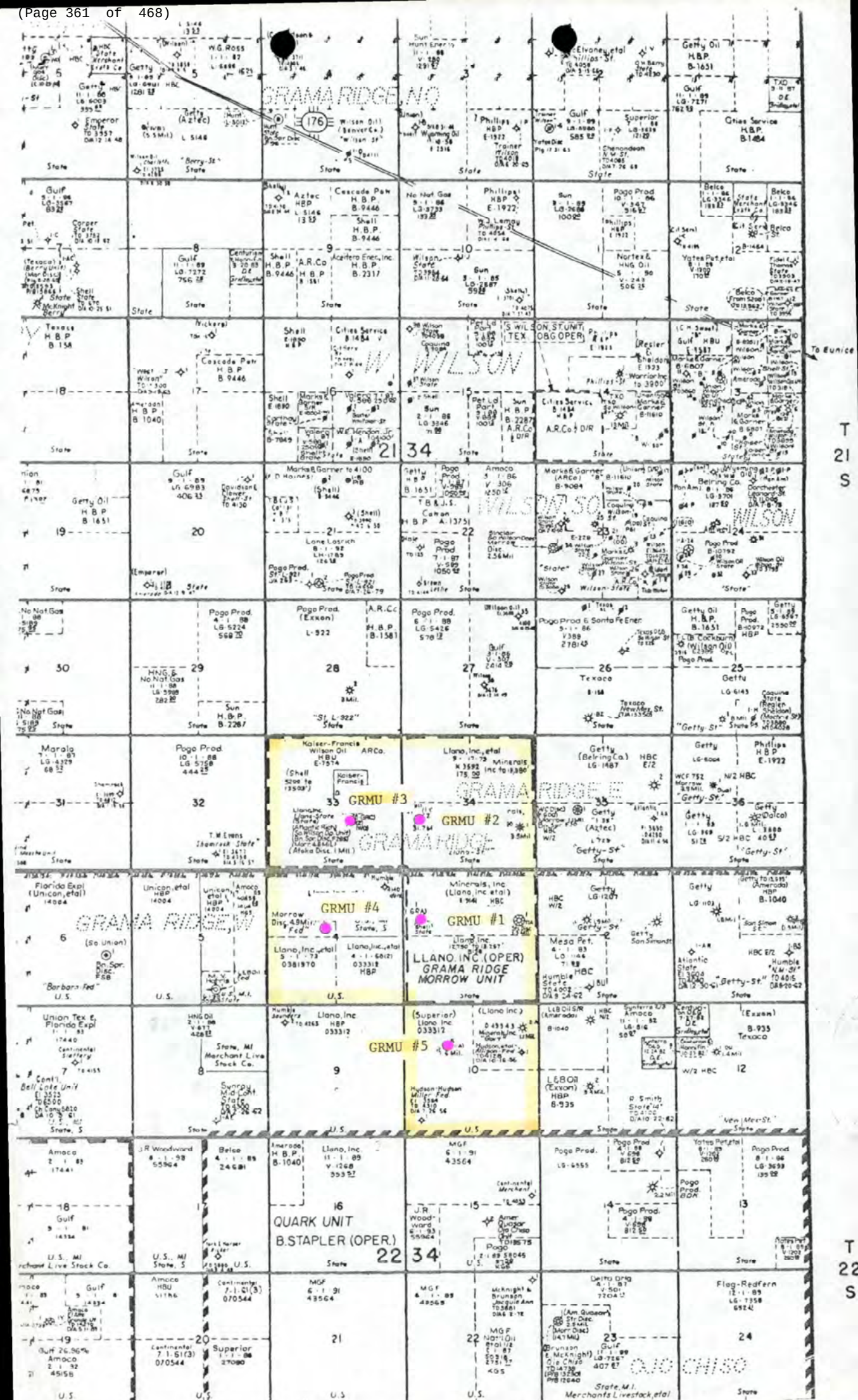
For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to the Plan of Operation with occasional withdrawal periods to meet the peak market requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and the GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

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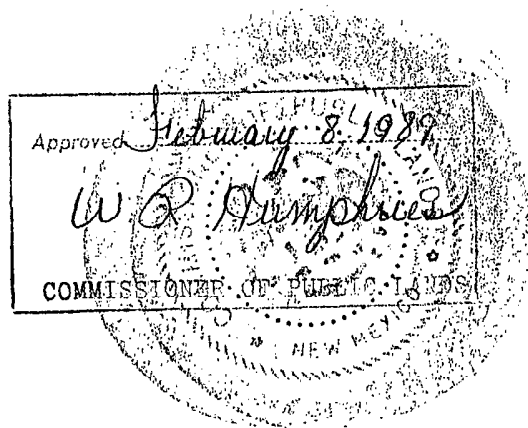
DATES	GRMU #1	GRMU #2	GRMU #3	GRMU #4	GRM UNIT TOTALS					
CUMULATIVE	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL	INJECTION	WITHDRAWAL				
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JANUARY	0	63,962	0	0	0	18,436	0	28,597	0	110,995
FEBRUARY	0	46,389	0	0	0	13,453	0	14,535	0	74,377
MARCH	0	46,811	0	0	0	14,009	0	26,439	0	87,259
APRIL	0	346	0	0	0	792	0	1,695	0	2,833
MAY	170,502	0	0	0	0	0	0	0	170,502	0
JUNE	100,485	0	0	0	0	0	0	0	100,485	0
JULY	0	92,675	0	0	0	0	0	0	92,675	0
AUGUST	0	136,844	0	0	0	17,380	0	34,354	0	188,578
SEPTEMBER	97,132	504	0	0	0	176	0	294	0	974
OCTOBER	26,568	0	0	0	0	0	0	0	26,568	0
NOVEMBER	0	134,836	1,939	0	0	0	0	0	1,939	134,836
DECEMBER	0	179,698	0	52,228	0	32,649	0	56,447	0	321,022
1988 TOTAL	394,687	702,065	1,939	52,228	0	96,895	0	162,361	396,626	1,013,549
CUMULATIVE										
01-01-89	11,448,270	7,598,251	7,111,022	6,317,248	0	859,021	0	1,982,584	18,559,292	16,757,104
1989										
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FEBRUARY	15,141	3,345	0	19,209	0	11,980	0	0	15,141	40,534
MARCH	32,840	1,145	23,940	1,559	0	124	0	0	56,780	2,828
APRIL	97,872	0	97	0	0	0	0	0	97,969	0
MAY	208,526	0	159,621	0	0	0	0	0	368,147	0
JUNE	156,433	0	143,603	0	0	0	0	0	300,036	0
JULY	40,480	5,123	35,676	2,099	0	6,959	0	4,455	76,106	18,636
AUGUST	182,959	0	135,909	0	0	0	0	0	318,868	0
SEPTEMBER	40,155	0	2,624	0	0	0	0	3,142	42,779	3,142
OCTOBER	58,621	0	12,514	0	0	0	0	0	71,135	0
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1989 TOTAL	855,178	337,268	513,984	316,562	0	63,112	0	57,736	1,369,162	774,678
CUMULATIVE										
01-01-90	12,303,448	7,935,519	7,625,006	6,633,810	0	922,133	0	2,040,320	19,928,454	17,531,782

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LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO
PLAN OF OPERATION - PROGRESS REPORT NO. 31
FOR THE SIX-MONTH PERIOD ENDING
DECEMBER 31, 1988



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STATE LAND OFFICE
SANTA FE, N.M.

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I -- Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing, and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II -- Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

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SANTA FE, N.M.

Phase III -- Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 h.p. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 Wells. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of the Interior executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10, T22S, R34E. The Government A Well No. 1 was then converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984. However, in June, 1985, the GRMU No. 5 was withdrawn from the unit and recompleted as a gas well in another producing interval.

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As of December 31, 1988, injection of gas into the unitized storage interval has totaled 18,559,292 MCF, being 11,448,270 MCF injected into the GRM Unit No. 1 and 7,111,022 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn a total of 16,757,104 MCF at December 31, 1988. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	7,598,251
GRMU No. 2	6,317,248
GRMU No. 3	859,021
GRMU No. 4	1,982,584
GRMU No. 5	-0-
	<u>16,757,104</u>

The net balance of gas in storage at December 31, 1988, is 1,802,188 MCF at an average reservoir pressure of 1,648 psig.

For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to the Plan of Operation with occasional withdrawal periods to meet the peak market requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and the GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia base.

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SANTA FE, N.M.

LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO
PLAN OF OPERATION - PROGRESS REPORT NO. 30
FOR THE SIX-MONTH PERIOD ENDING
JUNE 30, 1988

Approved Aug. 26, 1988
W. R. Humphries
COMMISSIONER OF PUBLIC LANDS

PLAN OF OPERATION PROGRESS REPORT NO. 20
FOR THE SIX-MONTH PERIOD ENDING
JUNE 30, 1958
DIA COUNTY, NEW MEXICO
GRAMA RIDGE MORROW UNIT
LAWSON, INC.

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STATE OF NEW MEXICO
SANTA FE

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I -- Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing, and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II -- Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III -- Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

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As of June 30, 1988, injection of gas into the unitized storage interval has totaled 18,433,653 MCF, being 11,324,570 MCF injected into the GRM Unit No. 1 and 7,109,083 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn a total of 16,019,019 MCF at June 30, 1988. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	7,053,694
GRMU No. 2	6,265,020
GRMU No. 3	808,816
GRMU No. 4	1,891,489
GRMU No. 5	-0-
	<u>16,019,019</u>

The net balance of gas in storage at June 30, 1988, is 2,414,634 MCF at an average reservoir pressure of 1,880 psig.

For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to the Plan of Operation with occasional withdrawal periods to meet the peak market requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and the GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia base.

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1. The first step in the process of the investigation is the identification of the problem. This is done by the investigator who is responsible for the investigation. The investigator must identify the problem and the scope of the investigation. The investigator must also identify the objectives of the investigation and the methods to be used.

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DATE	TIME	TYPE	STATION	REMARKS
08/20/00	10:00	1	1000	1000
08/20/00	10:00	2	1000	1000
08/20/00	10:00	3	1000	1000
08/20/00	10:00	4	1000	1000
08/20/00	10:00	5	1000	1000
08/20/00	10:00	6	1000	1000
08/20/00	10:00	7	1000	1000
08/20/00	10:00	8	1000	1000
08/20/00	10:00	9	1000	1000
08/20/00	10:00	10	1000	1000

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1. The first step is to identify the problem or goal. This involves understanding the current situation and what needs to be achieved.

2. The second step is to gather information. This includes researching the problem, identifying resources, and consulting with experts.

3. The third step is to develop a plan. This involves setting priorities, determining the steps to be taken, and allocating resources.

4. The fourth step is to implement the plan. This involves putting the plan into action and monitoring progress.

5. The fifth step is to evaluate the results. This involves assessing the outcomes of the plan and determining whether the goal has been achieved.

LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO
PLAN OF OPERATION - PROGRESS REPORT NO. 29
FOR THE SIX-MONTH PERIOD ENDING
DECEMBER 31, 1987

Approved *J R Humphries*
2/9/88
COMMISSIONER OF PUBLIC LANDS

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I -- Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing, and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II -- Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III -- Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 h.p. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 Wells. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of the Interior executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10, T22S, R34E. The Government A Well No. 1 was then converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984. However, in June, 1985, the GRMU No. 5 was withdrawn from the unit and recompleted as a gas well in another producing interval.

As of December 31, 1987, injection of gas into the unitized storage interval has totaled 18,162,666 MCF, being 11,053,583 MCF injected into the GRM Unit No. 1 and 7,109,083 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn a total of 15,743,555 MCF at December 31, 1987. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	6,896,186
GRMU No. 2	6,265,020
GRMU No. 3	762,126
GRMU No. 4	1,820,223
GRMU No. 5	-0-
	<u>15,743,555</u>

The net balance of gas in storage at December 31, 1987, is 2,419,111 MCF at an average reservoir pressure of 1,880 psig.

For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to the Plan of Operation with occasional withdrawal periods to meet the peak market requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and the GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia base.

RECEIVED
JAN 20 8 59 AM '88
STATE LAND OFFICE
SANTA FE, N.M.

LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO
PLAN OF OPERATION - PROGRESS REPORT NO. 28
FOR THE SIX-MONTH PERIOD ENDING
JUNE 30, 1987

Approved... *August 11, 1987*
W. R. Humphries
COMMISSIONER OF PUBLIC LANDS

RECEIVED
JUL 29 9 19 AM '87
STATE POLICE
SANTA FE, N.M.

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I -- Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing, and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II -- Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III -- Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 h.p. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 Wells. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of the Interior executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10, T22S, R34E. The Government A Well No. 1 was then converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984. However, in June, 1985, the GRMU No. 5 was withdrawn from the unit and recompleted as a gas well in another producing interval.

As of December 31, 1986, injection of gas into the unitized storage interval has totaled 17,893,090 MCF, being 10,784,007 MCF injected into the GRM Unit No. 1 and 7,109,083 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn a total of 15,438,947 MCF at June 30, 1987. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	6,718,044
GRMU No. 2	6,265,020
GRMU No. 3	711,613
GRMU No. 4	1,744,270
GRMU No. 5	-0-
	<u>15,438,947</u>

The net balance of gas in storage at June 30, 1987, is 2,454,143 MCF at an average reservoir pressure of 1,899 psig.

For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to the Plan of Operation with occasional withdrawal periods to meet the peak market requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and the GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia base.

LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO
PLAN OF OPERATION - PROGRESS REPORT NO. 27
FOR THE SIX-MONTH PERIOD ENDING
DECEMBER 31, 1986

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I -- Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing, and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II -- Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III -- Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 h.p. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 Wells. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of the Interior executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10, T22S, R34E. The Government A Well No. 1 was then converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984. However, in June, 1985, the GRMU No. 5 was withdrawn from the unit and recompleted as a gas well in another producing interval.

As of December 31, 1986, injection of gas into the unitized storage interval has totaled 17,893,090 MCF, being 10,784,007 MCF injected into the GRM Unit No. 1 and 7,109,083 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn a total of 15,221,330 MCF at December 31, 1986. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	6,661,340
GRMU No. 2	6,164,443
GRMU No. 3	684,064
GRMU No. 4	1,711,483
GRMU No. 5	-0-
	<u>15,221,330</u>

The net balance of gas in storage at December 31, 1986, is 2,671,760 MCF at an average reservoir pressure of 1,988 psig.

For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to the Plan of Operation with occasional withdrawal periods to meet the peak market requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and the GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia base.

Approved 1/28/87
W. R. Humphreys
 COMMISSIONER OF PUBLIC LANDS

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JAN 21 10 01 AM '87

STATE POLICE
SANTA FE, N.M.

LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO
PLAN OF OPERATION - PROGRESS REPORT NO. 26
FOR THE SIX-MONTH PERIOD ENDING
JUNE 30, 1986

RECEIVED
JUL 31 11 22 AM '66
STATE LAND OFFICE
SANTA FE, N. M.

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceeding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I -- Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing, and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II -- Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III -- Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 h.p. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 Wells. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of the Interior executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10, T22S, R34E. The Government A Well No. 1 was then converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984. However, in June, 1985, the GRMU No. 5 was withdrawn from the unit and recompleted as a gas well in another producing interval.

As of June 30, 1986, injection of gas into the unitized storage interval has totaled 17,893,090 MCF, being 10,784,007 MCF injected into the GRM Unit No. 1 and 7,109,083 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn a total of 14,007,799 MCF at June 30, 1986. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u> (MCF)
GRMU No. 1	6,130,883
GRMU No. 2	5,741,441
GRMU No. 3	611,724
GRMU No. 4	1,523,751
GRMU No. 5	-0-
	<u>14,007,799</u>

The net balance of gas in storage at June 30, 1986, is 3,885,291 MCF at an average reservoir pressure of 2,440 psig.

For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to the Plan of Operation with occasional withdrawal periods to meet the peak market requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and the GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia base.

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STATE LAND OFFICE
SANTA FE, N. M.

LLANO, INC.

GRAMA RIDGE MORROW UNIT

LEA COUNTY, NEW MEXICO

PLAN OF OPERATION - PROGRESS REPORT NO. 25

FOR THE SIX-MONTH PERIOD ENDING

DECEMBER 31, 1985

RECEIVED
JAN 16 3 57 AM '86
STATIONER
SANTA FE, N.M.

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceeding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I — Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing, and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II — Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III — Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 h.p. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 Wells. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of the Interior executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10, T22S, R34E. The Government A Well No. 1 was then converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984. However, in June, 1985, the GRMU No. 5 was withdrawn from the unit and recompleted as a gas well in another producing interval.

As of December 31, 1985, injection of gas into the unitized storage interval has totaled 17,700,372 MCF, being 10,742,802 MCF injected into the GRM Unit No. 1 and 6,957,570 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn a total of 12,494,727 MCF at December 31, 1985. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u> (MCF)
GRMU No. 1	5,498,937
GRMU No. 2	5,150,218
GRMU No. 3	537,496
GRMU No. 4	1,308,076
GRMU No. 5	-0-
	<u>12,494,727</u>

The net balance of gas in storage at December 31, 1985, is 5,205,645 MCF at an average reservoir pressure of 3,020 psig.

For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to the Plan of Operation with occasional withdrawal periods to meet the peak market requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and the GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia base.

LLANO, INC.

GRAMA RIDGE MORROW UNIT

LEA COUNTY, NEW MEXICO

PLAN OF OPERATION - PROGRESS REPORT NO. 24

FOR THE SIX-MONTH PERIOD ENDING

JUNE 30, 1985

OFFICE

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JUL 30 9 00 AM '85

STATE LAND OFFICE
SANTA FE, N. M.

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceeding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I -- Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing, and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II -- Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

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JUL 30 9 00 AM '85

STATE LAND OFFICE
SANTA FE, N. M.

Phase III -- Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 h.p. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 Wells. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of the Interior executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10, T22S, R34E. The Government A Well No. 1 was then converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984. However, in June, 1985, the GRMU No. 5 was withdrawn from the unit and recompleted as a gas well in another producing interval.

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STATE LAND OFFICE
SANTA FE, N. M.

As of June 30, 1985, injection of gas into the unitized storage interval has totaled 17,226,114 MCF, being 10,566,894 MCF injected into the GRM Unit No. 1 and 6,659,220 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn a total of 12,109,687 MCF at June 30, 1985. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u> (MCF)
GRMU No. 1	5,412,494
GRMU No. 2	4,974,472
GRMU No. 3	518,773
GRMU No. 4	1,203,948
GRMU No. 5	-0-
	<u>12,109,687</u>

The net balance of gas in storage at June 30, 1985, is 5,116,427 MCF at an average reservoir pressure of 2,984 psig.

For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to the Plan of Operation with occasional withdrawal periods to meet the peak market requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and the GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia base.

RECEIVED

JUL 30 9 00 AM '85

STATE LAND OFFICE
SANTA FE N. M.

LLANO, INC.
GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO
PLAN OF OPERATION - PROGRESS REPORT NO. 23
FOR THE SIX-MONTH PERIOD ENDING
DECEMBER 31, 1984

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceeding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I -- Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing, and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II -- Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III -- Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 H.P. electric motor driven Compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 wells. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of the Interior has executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10, T22S, R34E. Therefore, the Government A Well No. 1 was converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984.

As of December 31, 1984, injection of gas into the unitized storage interval has totaled 16,851,289 MCF, being 10,406,473 MCF injected into the GRM Unit No. 1 and 6,444,816 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn a total of 10,745,889 MCF at December 31, 1984. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	4,958,528
GRMU No. 2	4,389,704
GRMU No. 3	455,721
GRMU No. 4	941,936
GRUM No. 5	-0-
	<u>10,745,889</u>

The net balance of gas in storage at December 31, 1984, is 6,105,400 MCF at an average reservoir pressure of 3,355 psig.

For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to the Plan of Operation with occasional withdrawal periods to meet the peak market requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and the GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary. Present plans are for the GRM Unit No. 5 to be used as an observation well.

Note: Volumes reported herein are at 14.65 psia base.

JAN 21 8 46 AM '95

ST. LOUIS

LLANO, INC.

GRAMA RIDGE MORROW UNIT

LEA COUNTY, NEW MEXICO

PLAN OF OPERATION - PROGRESS REPORT NO. 22

FOR THE SIX-MONTH PERIOD ENDING

JUNE 30, 1984

RECEIVED
JUL 31 11 30 AM '04
STATE LAND OFFICE
SANTA FE, N. M.

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceeding six months with regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I -- Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing, and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II -- Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III -- Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

RECEIVED
JUL 31 11 30 AM '84
STATE LAND OFFICE
SANTA FE, N. M.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 H.P. electric motor driven Compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 wells. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively. In addition, the United States Department of the Interior has executed the Amendment to the Agreement for Subsurface Storage of Gas, Morrow Formation, Grama Ridge Area, which expanded the Grama Ridge Morrow Unit to include all of Section 10, T22S, R34E. Therefore, the Government A Well No. 1 was converted to a storage and withdrawal well and renamed GRM Unit No. 5 effective May 18, 1984. This expansion was subsequently acknowledged by the New Mexico Energy and Minerals Department Oil Conservation Division's Order No. R-7582 effective June 27, 1984.

As of June 30, 1984, injection of gas into the unitized storage interval has totaled 16,240,424 MCF, being 10,076,164 MCF injected into the GRM Unit No. 1 and 6,164,260 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn a total of 10,326,652 MCF at June 30, 1984. Withdrawal by well is as follows:

RECEIVED
JUL 31 11 30 AM '84
STATE LAND OFFICE
SANTA FE, N. M.

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	4,774,836
GRMU No. 2	4,292,911
GRMU No. 3	413,723
GRMU No. 4	845,182
GRMU No. 5	-0-
TOTAL	<u>10,326,652</u>

The net balance of gas in storage at June 30, 1984, is 5,913,772 MCF at an average reservoir pressure of 3,310 psig.

For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to the Plan of Operation with occasional withdrawal periods to meet the peak market requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and the GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary. Present plans are for the GRM Unit No. 5 to be used only as an observation well.

Note: Volumes reported herein are at 14.65 psia base.

RECEIVED

JUL 31 11 30 AM '84

STATE LAND OFFICE
SANTA FE, N. M.

LLANO, INC.

GRAMA RIDGE MORROW UNIT

LEA COUNTY, NEW MEXICO

PLAN OF OPERATION - PROGRESS REPORT NO. 21

FOR THE SIX-MONTH PERIOD ENDING

DECEMBER 31, 1983

RECEIVED
JAN 27 11 00 AM '84
STATE LAND OFFICE
SANTA FE, N. M.

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceeding six months in regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit Was approved by the Commissioner April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I -- Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing, and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II -- Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No.1 at a total rate of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III -- Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

RECEIVED

JAN 27 11 00 AM '84

STATE LAND OFFICE
SANTA FE, N. M.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 H.P. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 wells. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and the Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively.

As of December 31, 1983, injection of gas into the unitized storage interval has totaled 15,939,013 MCF, being 9,891,039 MCF injected into the GRM Unit No. 1 and 6,047,974 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn a total of 9,075,181 MCF at December 31, 1983. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	4,245,605
GRMU No. 2	3,887,842
GRMU No. 3	338,413
GRMU No. 4	603,321
TOTAL	<u>9,075,181</u>

The net balance of gas in storage at December 31, 1983, is 6,863,832 MCF at an average reservoir pressure of 3,697 psig.

RECEIVED
JAN 27 11 00 AM '84
STATE LAND OFFICE
SANTA FE, N. M.

For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to the Plan of Operation with occasional withdrawal periods to meet the peak market requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and the GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia pressure base.

RECEIVED
JAN 27 11 00 AM '84
STATE LAND OFFICE
SANTA FE, N. M.

LLANO, INC.

GRAMA RIDGE MORROW UNIT

LEA COUNTY, NEW MEXICO

PLAN OF OPERATION - PROGRESS REPORT NO. 20

FOR THE SIX-MONTH PERIOD ENDING

JUNE 30, 1983

REC'D

AUG 18 8 15 AM '83

STATE DEPT. OF
SANTA FE, N.M.

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months in regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commission on April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I -- Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing, and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II -- Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total rate of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III -- Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

RECEIVED

AUG 18 8 15 AM '83

STATE DEPT. OF CORRECTIONS
SANTA FE, N.M.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 H.P. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 wells. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and the Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively.

As of June 30, 1983, injection of gas into the unitized storage interval has totaled 15,627,113 MCF, being 9,638,387 MCF injected into the GRM Unit No. 1 and 5,988,726 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn a total of 8,397,700 MCF at June 30, 1983. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	3,987,832
GRMU No. 2	3,619,451
GRMU No. 3	310,229
GRMU No. 4	561,098
TOTAL	8,478,610

The net balance of gas in storage at June 30, 1983, is 7,148,503 MCF at an average reservoir pressure of 3,735 psig.

RECEIVED
AUG 18 8 15 AM '83
STATE OF NEW MEXICO
SANTA FE, N.M.

For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to the Plan of Operation with occasional withdrawal periods to meet the peak market requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 and the GRM Unit No. 4 wells will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia pressure base.

RECEIVED
AUG 10 8 15 AM '03
STATE OF
SANTA FE, N.M.

LLANO, INC.

PHONE 393-2153

P. O. DRAWER 1320

HOBBS, NEW MEXICO 88240

AL KLAAR
VICE PRESIDENT
ENGINEERING

January 17, 1983

Mr. Jim Baca
Commissioner of Public Lands
State of New Mexico
P.O. Box 1148
Santa Fe, New Mexico 87501

Re: Grama Ridge Morrow Unit
Lea County, New Mexico

Dear Mr. Baca:

In accordance with the terms of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit, Llano, Inc. hereby submits two (2) copies of the Plan of Operation - Progress Report No. 19 for the six-month period July 1, 1982 through December 31, 1982.

Very truly yours,

LLANO, INC.



Al Klaar

MKS/jc

Enclosures

xc: Mr. Donald L. Garey

Llano File No. K.01.45.83



A SUBSIDIARY OF HOUSTON NATURAL GAS CORPORATION

RECEIVED

JAN 21 10 13 AM '83

STATE LAND OFFICE
SANTA FE, N.M.

LLANO, INC.

GRAMA RIDGE MORROW UNIT

LEA COUNTY, NEW MEXICO

PLAN OF OPERATION - PROGRESS REPORT NO. 19

FOR THE SIX-MONTH PERIOD ENDING

DECEMBER 31, 1982

RECEIVED

JAN 21 10 13 AM '83

STATE LAND OFFICE
SANTA FE, N. M.

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months in regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commission on April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I -- Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II -- Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total rate of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III -- Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 H.P. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 wells. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and the Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively.

As of December 31, 1982, injection of gas into the unitized storage interval has totaled 15,342,731 MCF, being 9,383,050 MCF injected into the GRM Unit No. 1 and 5,959,681 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn a total of 8,029,228 MCF at December 31, 1982. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	3,887,766
GRMU No. 2	3,443,104
GRMU No. 3	226,215
GRMU No. 4	472,143
TOTAL	<u>8,029,228</u>

The net balance of gas in storage at December 31, 1982, is 7,313,503 MCF at an average reservoir pressure of 3,881 psig.

For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to the Plan of Operation with occasional withdrawal periods to meet the peak market requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells. The GRM Unit No. 3 well, which has been returned to its former status as an observation and withdrawal well, and the GRM Unit No. 4 well will be used primarily as observation wells and as withdrawal wells only when high capacity withdrawal is necessary.

Note: Volumes reported herein are at 14.65 psia pressure base.

RECEIVED
JAN 21 10 13 AM '83
STATE LAND OFFICE
SANTA FE, N. M.

LLANO, INC.

GRAMA RIDGE MORROW UNIT

LEA COUNTY, NEW MEXICO

PLAN OF OPERATION - PROGRESS REPORT NO. 18

FOR THE SIX-MONTH PERIOD ENDING

JUNE 30, 1982

RECEIVED
AUG 20 9 46 AM '82
STATE LAND OFFICE
SANTA FE, N.M.

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months in regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commission on April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I -- Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II -- Injection of gas into State GRA No. 1, State GRB No. 1, Federal Gr-4 No. 1 and South Wilson Deep Unit No. 1 at a total rate of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III -- Injection of gas into the Grama Ridge Morrow Unit for a fill-up at a surface injection pressure of approximately 5,500 psig.

RECEIVED
AUG 20 9 47 AM '82
STATE LANDS OFFICE
SANTA FE, N.M.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 H.P. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 wells. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and the Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively.

As of June 30, 1982, injection of gas into the unitized storage interval has totaled 14,512,369 MCF, being 8,812,332 MCF injected into the GRM Unit No. 1 and 5,700,037 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn a total of 7,815,434 MCF at June 30, 1982. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	3,763,987
GRMU No. 2	3,356,179
GRMU No. 3	223,125
GRMU No. 4	472,143
TOTAL	7,815,434

The net balance of gas in storage at June 30, 1982, is 6,696,935 MCF at an average reservoir pressure of 3,629 psig.

RECEIVED
 AUG 20 9 42AM '82
 STATE LAND OFFICE
 SANTA FE, N.M.

For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to the Plan of Operation with occasional withdrawal periods to meet the peak market requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells with the GRM Unit No. 4 well to be used primarily as an observation well and as a withdrawal well only when high capacity withdrawal is necessary. A workover is in progress to return the GRM Unit No. 3 to its status as an observation and withdrawal well in the gas storage unit.

Note: Volumes reported herein are at 14.65 psia pressure base.

RECEIVED
AUG 20 9 47 AM '82
STATE LAND OFFICE
SANTA FE, N.M.

LLANO, INC.

PHONE 393-2153

P. O. DRAWER 1320

HOBBS, NEW MEXICO 88240

G. W. EDWARDS
EXECUTIVE VICE PRESIDENT

September 25, 1981

SEP 29 10 01 AM '81

STATE LAND OFFICE

Mr. Alex Armijo
Commissioner of Public Lands
State of New Mexico
P. O. Box 1148
Santa Fe, New Mexico 87501

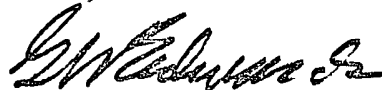
Re: Grama Ridge Morrow Unit
Lea County, New Mexico

Dear Mr. Armijo:

In accordance with the terms of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit, Llano, Inc. hereby submits two copies of the Plan of Operation - Progress Report No. 16 for the six-month period January 1, 1981 through June 30, 1981.

Very truly yours,

LLANO, INC.



G. W. Edwards

MKS/pk

Enclosures

xc: Donald L. Garey

Llano File No. E9.69.81



LLANO, INC.

GRAMA RIDGE MORROW UNIT

LEA COUNTY, NEW MEXICO

PLAN OF OPERATION - PROGRESS REPORT NO. 17

FOR THE SIX-MONTH PERIOD ENDING

DECEMBER 31, 1981

RECEIVED

JAN 26 9 24 AM '82

STATE LAND OFFICE
SANTA FE, N.M.

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months in regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commission on April 25, 1973, and expansion of the Unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I -- Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II -- Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total rate of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

Phase III -- Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October, 1974 installation of 1,000 H.P. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 wells. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and the Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively.

As of December 31, 1981, injection of gas into the unitized storage interval has totaled 13,872,376 MCF, being 8,394,338 MCF injected into the GRM Unit No. 1 and 5,478,038 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn 7,177,486 MCF at December 31, 1981. Withdrawal by well is as follows:

<u>Well Name and No.</u>	<u>Withdrawal</u>
GRMU No. 1	3,430,117
GRMU No. 2	3,052,101
GRMU No. 3	223,125
GRMU No. 4	472,143
TOTAL	<u>7,177,486</u>

The net balance of gas in storage at December 31, 1981, is 6,694,890 MCF at an average reservoir pressure of 3,628 psig.

For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to the Plan of Operation with occasional withdrawal periods to meet the peak market requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells with the GRM Unit No. 4 well to be used primarily as an observation well and as a withdrawal well only when high capacity withdrawal is necessary. The GRM Unit No. 3 has been temporarily completed as a producing oil well in a shallower zone and will be returned to its status of an observation and withdrawal well upon cessation of primary producing operations.

Note: Volumes reported herein are at 14.65 psia pressure base.

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PLAN OF OPERATION - PROGRESS REPORT NO. 16
IN THE GRAMA RIDGE MORROW UNIT
LEA COUNTY, NEW MEXICO
LLANO, INC.

OBJECT

The object of this report, in accordance with Article IX of the Unit Agreement for the Operation of the Grama Ridge Morrow Unit Area, is to inform the Commissioner of Public Lands of the State of New Mexico as to the progress of the Grama Ridge Morrow Unit in the preceding six months in regard to the manner in which the plan in effect for such period has been carried out.

SUMMARY

The Grama Ridge Morrow Unit was approved by the Commissioner on April 25, 1973, and expansion of the unit was approved effective September 1, 1976. Injection with temporary compression equipment was commenced into the State GRA No. 1 on April 26, 1973, and into the State GRB No. 1 on December 29, 1973.

The "Plan of Operation", as approved by the Commissioner, amended September 1, 1976, was presented in three phases in regard to desired achievements as follows:

Phase I -- Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five to ten million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

Phase II -- Injection of gas into State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total rate of five to ten million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

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Phase III -- Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

DISCUSSION

The Grama Ridge Morrow Unit commenced Phase II of the Plan of Operation with the October 1974 installation of 1000 H.P. electric motor driven compressors on what are now named the GRM Unit No. 1 and GRM Unit No. 2 wells. At the request of the Oil Conservation Division, New Mexico Department of Energy and Minerals, the well names were changed effective March 15, 1978, to reflect the unit status. Due to the 1976 expansion of the unit area to include the two adjoining westward sections, the well name change also affected the South Wilson Deep Unit No. 1 and the Federal GR-4 No. 1. These wells were renamed GRM Unit No. 3 and GRM Unit No. 4, respectively.

As of June 30, 1981, injection of gas into the unitized storage interval has total 13,038,695 MCF, being 7,826,977 MCF injected into the GRM Unit No. 1 and 5,211,718 MCF injected into the GRM Unit No. 2. In order to meet the peak market demands of its transportation customers, Llano has withdrawn 6,921,624 MCF at June 30, 1981. Withdrawal by well is as follows:

<u>Well Name & No.</u>	<u>Withdrawal</u>
GRMU No. 1	3,284,123 MCF
GRMU No. 2	2,942,233 MCF
GRMU No. 3	223,125 MCF
GRMU No. 4	472,143 MCF
Total	6,921,624 MCF

The net balance of gas in storage at June 30, 1981, is 6,117,071 MCF at an average reservoir pressure of 3231 psig.

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For the ensuing six-month period and throughout Phase III, injection of gas into the storage facility shall proceed according to the Plan of Operation with occasional withdrawal periods to meet the peak market requirements of Llano and its transportation customers. Injection and withdrawal will continue in the GRM Unit No. 1 and GRM Unit No. 2 wells with the GRM Unit No. 4 well to be used primarily as an observation well and as a withdrawal well only when high capacity withdrawal is necessary. The GRM Unit No. 3 has been temporarily completed as a producing oil well in a shallower zone and will be returned to its status of an observation and withdrawal well upon cessation of primary producing operations.

Note: Volumes reported herein are at 14.65 psia pressure base.

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GRAMA RIDGE MORROW UNIT
GRAMA RIDGE FIELD
LEA COUNTY, NEW MEXICO

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PLAN OF OPERATION

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This is the plan of operation as referred to in Article No. 9 of the UNIT AGREEMENT FOR THE OPERATION OF THE GRAMA RIDGE MORROW UNIT AREA, LEA COUNTY, NEW MEXICO.

The plan is submitted in three (3) phases in regard to what is desired to be accomplished by the completion of a specific phase as follows:

PHASE I - Injection of gas into the State GRA No. 1 and State GRB No. 1 at a total rate of five (5) to ten (10) million cubic feet of gas per day with existing permanent compression. Conditioning of downhole well equipment and installation of surface, testing and metering facilities on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1.

PHASE II - Injection of gas into the State GRA No. 1, State GRB No. 1, Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 at a total rate of five (5) to ten (10) million cubic feet of gas per day. Test in order to determine by pressure analysis the limits of the Morrow Reservoir and the compatibility for gas storage in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1.

PHASE III - Injection of gas into the Grama Ridge Morrow Unit to final fill-up at a surface injection pressure of approximately 5,500 psig.

Should any divergence in the overall plan be made, an alternative plan of operation will be filed with the Commissioner of Public Lands of the State of New Mexico for approval.

PHASE I

1st Quarter 1977 - (Assuming approval of Unit Amendment is granted in late December 1976)

- (a) Continue injecting gas into the State GRA No. 1 and State GRB No. 1 wells.

- (b) Pull tubing and test casing in the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1 wells to determine condition.
- (c) Condition the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 for both injection and withdrawal purposes.
- (d) Fill annular space with treated water to prevent corrosion on the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 wells. Monitor casing for any leaks that might occur.
- (e) Install metering and BTU measurement equipment for gas injection and withdrawal from the Federal GR-4 No. 1 and South Wilson Deep Unit No. 1 wells.
- (f) The successful conclusion of part (e) above concludes Phase I of the Plan of Operation.

PHASE II

2nd Quarter 1977

- (a) Continue injecting gas into the State GRA No. 1 and the State GRB No. 1 wells.
- (b) Commence injecting gas into the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1 wells and monitor total performance.

3rd Quarter 1977

- (a) Continue injecting gas into the State No. 1 GRA and the State GRB No. 1 wells.
- (b) Continue injecting gas into the Federal GR-4 No. 1 and the South Wilson Deep Unit No. 1 until the reservoir volume is determined by the increased pressure build-up incurred with the measured gas volume.
- (c) The successful conclusion of part (b) above concludes Phase II of the Plan of Operation.

PHASE III

4th Quarter 1977 to Fill-up

- (a) Continue injecting gas into the Grama Ridge Morrow Unit at a total rate of five (5) to ten (10) million cubic feet per day to fill-up at a surface injection pressure of 5,500 psig which is the limit of the permanent compression equipment.
- (b) The successful conclusion of part (2) above concludes Phase III of the Plan of Operation.

The unit operator, in accordance with the Unit Agreement, shall furnish to the Commissioner within thirty (30) days from the expiration of each six (6) months period, a report giving full factual information as to the manner in which the plan in effect for such period was carried out.

At the successful conclusion of Phase III, the storage facility will have reached fill-up and the general operation will depend on market demand and contractual obligations. At that time, a new plan of operation will be submitted.

Respectfully submitted,

LLANO, INC.

By *G. W. Edwards*
Executive Vice President

