

BEFORE THE INDUSTRIAL COMMISSION

OF THE STATE OF NORTH DAKOTA

CASE NO. 7145

ORDER NO. 8341

IN THE MATTER OF A HEARING
CALLED ON A MOTION OF THE
COMMISSION TO CONSIDER THE
APPLICATION OF LYCO OPERATING
COMPANY FOR AN ORDER
ESTABLISHING 320-ACRE TEMPORARY
SPACING FOR THE DEVELOPMENT OF
AN OIL AND/OR GAS POOL IN THE
INTERLAKE FORMATION UNDERLYING
THE SE/4 OF SECTION 24, AND THE
NE/4 OF SECTION 25, T.161N., R.99W.,
DIVIDE COUNTY, NORTH DAKOTA,
DISCOVERED BY APPLICANT'S #25-2
PLUMER-LUNDQUIST WELL, AND
ENACTING SUCH SPECIAL FIELD RULES
AS MAY BE NECESSARY AND/OR
ADVISABLE.

ORDER OF THE COMMISSION

THE COMMISSION FINDS:

(1) This cause came on for hearing at 9:00 a.m. on the 16th day of
September, 1998.

(2) Counsel for the applicant, Lyco Operating Company, requests that
this case be continued to the regularly scheduled hearing on October 21,
1998.

(3) There were no objections to said request.

(4) This case should be continued to the regularly scheduled hearing
on October 21, 1998.

IT IS THEREFORE ORDERED:

(1) This case is hereby continued to the regularly scheduled hearing
on October 21, 1998.

Dated this 15th day of October, 1998.

INDUSTRIAL COMMISSION
STATE OF NORTH DAKOTA

By the Director, on behalf of the Commission.

/s/ Lynn D. Helms, Director

CROWLEY, HAUGHEY, HANSON, TOOLE & DIETRICH P.L.L.C.

ATTORNEYS AT LAW

118 EAST BROADWAY
P.O. BOX 1206
WILLISTON, ND 58802-1206
TELEPHONE (701) 572-2200

490 NORTH 31ST STREET
P.O. BOX 2529
BILLINGS, MT 59103-2529
PHONE (406) 252-3441

100 NORTH PARK AVENUE
SUITE 300, P.O. BOX 797
HELENA, MT 59624
PHONE (406) 449-4185

31 FIRST AVENUE WEST
P.O. BOX 759
GALISPELL, MT 59903-0759
PHONE (406) 752-8844

CALE CROWLEY
(1912-1997)

OF COUNSEL
NORMAN HANSON
BRUCE E. TOOLE
JOHN M. DIETRICH
LOUIS E. MOORE
CARL F. KRUE
NEIL S. KEEFER
FRED E. WHISENAND
CALVIN S. ROBINSON

RETIRED
JAMES M. HAUGHEY
STUART W. CONNER

ARTHUR F. LANEY, JR.
MYLES J. THOMAS
GEORGE C. DALTHORP
DAVID L. JOHNSON
I. JAMES RECKATHORN
KEMP C. WILSON
FRED C. RATHERT
HERBERT I. PIERCE, III
TERRY B. COSOVNOVE
RONALD R. LODDERS
JOHN B. DUDIS, JR.
LAWRENCE B. COZZENS
STEVEN BUFFATTO
ALLAN L. KARELL
JAMES F. SITES
DANIEL D. JOHNS
CAROLYN S. OSTBY
STEVEN J. LENNAN
JOHN H. MAYNARD
CHRISTOPHER MANGEN, JR.
MICHAEL E. WEBSTER
DANIEL M. MCLEAN
ROBERT O. MICHELOTTI, JR.
DONALD R. MURRAY, JR.
JOHN E. ALEXANDER
DONALD L. HARRIS
WILLIAM D. LANDIN, III
WILLIAM J. MATTIX
PETER F. HADWIN
MICHAEL S. DOCKERY
DEBRA D. PARKER
MALCOLM H. GOODRICH
MARY SCRIM DYRE
JON T. DYRE

ERIC K. ANDERSON
BRUCE A. FREDRICKSON
RENNE L. COPPOCK
JANICE L. REHBERG
JOE C. MAYNARD, JR.
PATRICK O. SOGARD
JOHN R. LEE
STEVEN E. MILCH
SCOTT M. HEARD
LEONARD H. SMITH
MARCIA DAVENPORT
NEIL G. WESTEREN
ANTOINETTE M. TRASE
JILL R. KELLER
MICHAEL S. LAHR
KURT G. ALME
MICHAEL E. FRANK
DAVID M. WAGNER
SHANE D. PETERSON
ROBERT G. GRIFFIN
MATTHEW F. MCLEAN
ALICE J. HINSHAW
WILLIAM L. DAVIES
VINCENT G. RIEGER
ALAN C. BRYAN
ALLISON F. FONTEMOT
COLLETTE BAUMGARDNER-DAVIES
JEFFREY A. COOP
KEVIN A. KALVIO
KELLIJE M. GASTON
ASHLEY BURLERSON
IAN MCINTOSH
OARY M. CONNELLEY
ERISTIN L. OMVIO

October 27, 1998



Mr. Bruce Hicks
Manager of Horizontal Drilling
North Dakota Industrial Commission,
Oil and Gas Division
1600 East Interstate Avenue
Bismarck, North Dakota 58505

Re: Supplemental Testimony Re: Flaring -- Lyco Operating Company -- Case No. 7145

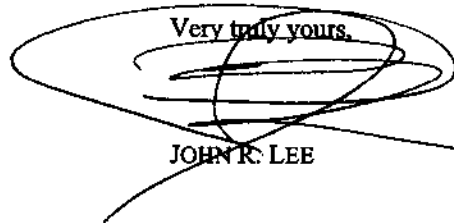
Dear Bruce:

Further to your request at the October 21, 1998 hearing of the captioned, attached hereto is the response of Brian Wright to your inquiry regarding possible future commingling of the Interlake and Red River formations, and the effect thereof on the economics presented in support of a flaring exemption under the field rules to be put in place by the Commission, as well as an exception to the provisions of Section 38-08-06.4 of the North Dakota Century Code. As stated in Mr. Wright's letter, pressure data indicates the Interlake and Red River formations will exhibit cross-flow if commingled, and therefore Lyco has no intentions of attempting such an operation. Further, although not mentioned in Mr. Wright's letter, Lyco anticipates the well will need to go on pump within six months. At such time, lease gas usage will increase as the pumping unit will be powered by casinghead gas, thus decreasing the amount of daily salable gas with a concomitant decrease in the gas value reflected in the "Gas Flaring Exemption Data" exhibit submitted in Case No. 7145.

In view of the data submitted at hearing and this supplemental information, Lyco believes that both a flaring exemption under the pending field rules and an exception to the provisions of Section 38-08-06.4 NDCC are warranted. As I mentioned at the hearing, however, I had some concerns over proper notice having been given regarding these flaring requests, with Charles Carvell indicating that he would look into the matter. If he determines that these matters must be "re-noticed" and advertised for hearing, I would appreciate your giving consideration to merely incorporating the flaring testimony adduced in this Case No. 7145 into the new case by reference.

North Dakota Industrial Commission
October 27, 1998
Page 2

Thank you for your assistance. My understanding is that the original of Brian Wright's letter will be forwarded directly to you from Lyco by overnight courier. If you have any questions, please feel free to contact the undersigned at your convenience.

Very truly yours,

JOHN R. LEE

Enclosure

cc: Mr. Jim Hyink (w/encl.)
Mr. Lynn D. Helms (w/encl.)

LYCO OPERATING COMPANY

Brian J. Wright
Project Engineer

Industrial Commission Of North Dakota, Oil and Gas Division
900 E Blvd.
Bismarck, ND 58505

Gentlemen:

Re: Case # 7145, October, 20, 1998

In response to Red River "C" gas production potential questions regarding Case #7145, Lyco Operating Company submits the following information.

The Red River "C" zone was initially on production in late February of 1998. Production declined rapidly and salt water production began to increase. A 500 gallon acid cleanup resulted in a marginally economic operation in the Red River "C" which produced 48 BO, 204 BSW, and flared an estimated 40-45 MCF of gas on the last day of Red River "C" production, June 11, 1998. The Red River was subsequently isolated behind a bridge plug and the Interlake zone was perforated and is the current producing interval.

Reservoir pressures recorded during pressure build up testing indicates that the Interlake (4,920 psi @ 10,471' datum or 0.469 psi/ft gradient [on 9/21/98]) and the Red River (5,180 psi @ 11,267' datum or 0.459 psi/ft gradient [on 2/16/98]) will exhibit cross flow if co-mingled due to a very strong water drive in the Interlake. This strong water drive is confirmed by no decline in the original DST BHP, after over 90 days of production.

For the above reason, Lyco will make no attempt to co-mingle the production between the Interlake and the Red River zones in the Plumer-Lundquist #25-2. Current plans are to produce the Interlake until it becomes unprofitable, then evaluate additional shallower potential.

Page 2

Clarification of an additional point has been requested regarding the gas bid tendered for the subject well. The original bid was submitted by Custom Energy of Casper, Wyoming from which the installation costs and gas prices submitted were obtained. The actual gas volume test was conducted by Amerada Hess which declined to submit a bid due to limited available volumes.

Please contact me at the below address with any questions.

Regards,



Brian Wright
Project Engineer

Case No. 7145

CROWLEY, HAUGHEY, HANSON, TOOLE & DIETRICH R.L.L.R.

ATTORNEYS AT LAW

113 EAST BROADWAY
P.O. BOX 1206
WILLISTON, ND 58802-1206
TELEPHONE (701) 572-2200

400 NORTH 31ST STREET
P.O. BOX 2529
BILLINGS, MT 59103-2529
PHONE (406) 252-3441

100 NORTH PARK AVENUE
SUITE 300, PO BOX 707
HELENA, MT 59624
PHONE (406) 440-4165

401 FIRST AVENUE WEST
PO BOX 759
KALISPELL, MT 59903-0759
PHONE (406) 752-8644

CALE CROWLEY
(406) 252-3441

OF COUNSEL
NORMAN HANSON
BRUCE R. TOOLE
JOHN M. DIETRICH
LOUIS B. MOORE
GARRETT F. KEEFER
NEIL S. KEEFER
FRED E. WEISENAND
CALVIN S. ROBINSON

RETIREE
JAMES M. HAUGHEY
STUART W. CONNER

ARTHUR F. LANEY, JR.
MYLES J. THOMAS
GEORGE G. DALTRORP
DAVID L. JOHNSON
I. JAMES HECKATHORN
KEMP J. WILSON
HERBERT I. PIERCE, III
TERRY B. COSOROVE
RONALD R. LODDERS
JOHN B. DUDIS, JR.
LAWRENCE B. COZZENS
STEVEN RUFFATTO
ALLAN L. KARELL
JAMES P. SITES
DANIEL D. JOHNS
CAROLYN S. OSTBY
STEVEN J. LEMMAN
CHRISTOPHER MANOEN, JR.
MICHAEL E. WEBSTER
DANIEL N. MCLEAN
ROBERT O. NICHOLTT, JR.
DONALD R. MURRAY, JR.
JOHN B. ALEXANDER
DONALD L. HARRIS
WILLIAM D. LANDIN, III
WILLIAM J. MATTIK
PETER F. HARRIS
MICHAEL S. DOCKERY
DEBRA D. PARKER
MALCOLM H. GOODRICH
MARY SCRIM DYRE
JON T. DYRE

ERIC K. ANDERSON
BRUCE A. FREDRICKSON
BENNE L. COPPOCK
JAMICE L. KENNERO
JOE C. MATWARD, JR.
PATRICK O. SOGARD
JOHN E. LEE
STEVEN R. MILCH
SCOTT M. HEARD
LEONARD R. SMITH
NEIL O. WESTEREN
ANTOINETTE M. TEASE
JILL B. KELLER
MICHAEL S. LAMB
KURT O. ALME
MICHAEL E. FRANK
DAVID M. WAGNER
SHANE D. PETERSON
MATTHEW F. MCLEAN
JOHN W. FITZPATRICK
K. SCOTT BEGAM
WILLIAM L. DAVIES
VINCENT O. RISOER
KRISTA L. NUTCH
ALAN C. BRYAN
ALLISON P. FONTENOT
COLETTE BAUNGARDNER-DAVIES
JEFFREY A. COOP
KEN A. HALVIG
SEABON NOVAK
OARY M. CONNELLEY
KRISTIN L. ONVIO

August 26, 1998

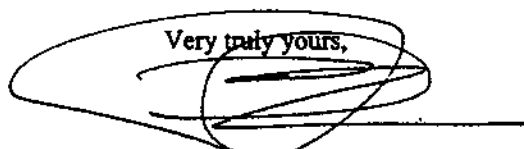
Ms. Karlene Fine
Executive Director and Secretary
North Dakota Industrial Commission
Capitol Building, 10th Floor
600 East Boulevard
Bismarck, North Dakota 58505-0310

Re: Case No. 7145 - September 16, 1998 Docket - Lyco Operating Company

Dear Ms. Fine:

On behalf of Lyco Operating Company, I would respectfully request that the captioned case for hearing on temporary spacing be continued until the Commission's regularly-scheduled docket in October, 1998. The basis for this request is that Lyco has been experiencing mechanical difficulties with the Plumer-Lundquist #25-2 well, and wishes to stabilize production rates and acquire more meaningful production data prior to the hearing on Case No. 7145, which has been noticed for September 16, 1998.

Thank you for your consideration of our request. If you have any questions, please feel free to contact the undersigned at the letterhead address.

Very truly yours,

JOHN R. LEE

cc: Mr. Jim Hyink
Mr. Lynn D. Helms
Mr. F.E. (Jack) Wilborn
Mr. Bruce E. Hicks

CROWLEY, HAUGHEY, HANSON, TOOLE & DIETRICH R.L.L.P.

ATTORNEYS AT LAW

113 EAST BROADWAY
P.O. BOX 1208

WILLISTON, ND 58802-1208
TELEPHONE (701) 572-2200

480 NORTH 31ST STREET
P.O. BOX 2529
BILLINGS, MT 59103-2529
PHONE (406) 252-3441

100 NORTH PARK AVENUE
SUITE 300, PO BOX 797
HELENA, MT 59624
PHONE (406) 449-4165

431 FIRST AVENUE WEST
PO BOX 758
KALISPELL, MT 59903-0758
PHONE (406) 752-6644

CALE CROWLEY
(1912-1997)

OF COUNSEL
NORMAN HANSON
BRUCE E. TOOLE
JOHN N. DIETRICH
LOUIS E. MOORE
GARRELD F. KRISO
NEIL S. KEEFER
FRED E. WHISENAND
CALVIN S. ROBINSON

RETIRED
JAMES M. HAUGHEY
STUART W. CONNER

ARTHUR F. LANEY, JR.
MYLES J. THOMAS
GEORGE C. DALYBONP
DAVID L. JOHNSON
I. JAMES HECKATHORN
KEMP J. WILSON
HERBERT J. PIERCE, III
TERRY B. COSONOVE
DONALD B. LODDERS
JOHN B. DUDIS, JR.
LAWRENCE B. COZZENS
STEVEN RUFFATTO
ALLAN L. KARELL
JAMES P. SITES
DANIEL D. JOHNS
CAROLYN S. OSTBY
STEVEN J. LEHMAN
CHRISTOPHER MANOEN, JR.
MICHAEL E. WEBSTER
DANIEL M. MCLEAN
ROBERT O. MICHELLOTTI, JR.
DONALD B. MURRAY, JR.
JOHN B. ALEXANDER
DONALD L. HARRIS
WILLIAM D. LANDIM, III
WILLIAM J. MATTIK
PETER F. MADEIN
MICHAEL S. DOCHERRY
DEBRA D. PARKER
MALCOLM H. GOODRICH
MARY SCRIM DYRE
JOHN T. DYRE

ERIC K. ANDERSON
BRUCE A. FREDRICKSON
KENNETH L. COPPOCK
JAMICE L. REEBERG
JOE C. MAYNARD, JR.
PATRICK O. BOGARD
JOHN E. LEE
STEVEN R. MILCH
SCOTT M. HEARD
LEONARD H. SMITH
NEIL O. WESTEREN
ANTOINETTE M. TEASE
JILL B. ELLER
MICHAEL E. LAMB
KURT G. ALME
MICHAEL E. FRANK
DAVID M. WAGNER
SEANE D. PETERSON
MATTHEW F. MCLEAN
JOHN M. FITZPATRICK
M. SCOTT REGAN
WILLIAM L. DAVIES
VINCENT O. BIEGER
KRISTA L. MUTCH
ALAN C. BRYAN
ALLISON F. FONTENOT
COLETTE BAUMGARDNER-DAVIES
JEFFREY A. COOP
KEN A. KALVIO
SEABON KONVAK
GARY M. CONNELLEY
KRISTIN L. OMVIO

August 26, 1998

7145

Ms. Karlene Fine
Executive Director and Secretary
North Dakota Industrial Commission
Capitol Building, 10th Floor
600 East Boulevard
Bismarck, North Dakota 58505-0310

Re: Case No. 7145 - September 16, 1998 Docket - Lyco Operating Company

Dear Ms. Fine:

On behalf of Lyco Operating Company, I would respectfully request that the captioned case for hearing on temporary spacing be continued until the Commission's regularly-scheduled docket in October, 1998. The basis for this request is that Lyco has been experiencing mechanical difficulties with the Plumer-Lundquist #25-2 well, and wishes to stabilize production rates and acquire more meaningful production data prior to the hearing on Case No. 7145, which has been noticed for September 16, 1998.

Thank you for your consideration of our request. If you have any questions, please feel free to contact the undersigned at the letterhead address.

Very truly yours,

JOHN R. LEE

cc: Mr. Jim Hyink
Mr. Lynn D. Helms
Mr. F.E. (Jack) Wilborn
Mr. Bruce E. Hicks

BEFORE THE INDUSTRIAL COMMISSION OF THE STATE OF NORTH DAKOTA

IN THE MATTER OF THE APPLICATION OF LYCO OPERATING COMPANY FOR AN ORDER OF THE COMMISSION ESTABLISHING 320-ACRE TEMPORARY SPACING FOR THE DEVELOPMENT OF AN OIL AND/OR GAS POOL IN THE INTERLAKE FORMATION UNDERLYING THE SE/4 OF SECTION 24, AND THE NE/4 OF SECTION 25, TOWNSHIP 161 NORTH, RANGE 99 WEST, 5TH P.M., DIVIDE COUNTY, NORTH DAKOTA, DISCOVERED BY APPLICANT'S #25-2 PLUMER-LUNDQUIST WELL, AND ENACTING SUCH SPECIAL FIELD RULES AS MAY BE NECESSARY AND/OR ADVISEABLE.

CASE NO. 7145



APPLICATION OF LYCO OPERATING COMPANY

COMES NOW the applicant, LYCO OPERATING COMPANY ("Lyco"), 6688 North Central Expressway, Suite 1600, Dallas, Texas 75206-3927, and respectfully states as follows:

1.

That Lyco is the owner of an interest in the oil and gas leasehold estate underlying the SE/4 of Section 24, and the NE/4 of Section 25, Township 161 North, Range 99 West, 5th P.M., Divide County, North Dakota, and its #25-2 Plumer-Lundquist well has resulted in the commercial discovery of oil and associated natural gas in the Interlake formation underlying said lands.

2.

Industrial Commission Order No. 8231 established the SE/4 of Section 24, and the NE/4 of Section 25, Township 161 North, Range 99 West, 5th P.M., Divide County, North Dakota, as a 320-acre drilling unit for the purpose of drilling an Interlake formation test well therein. All owners in said drilling unit have voluntarily pooled their interests for the development of the unit.

3.

Applicant's interpretation of geological and geophysical data indicates that the Interlake formation underlying said lands should be developed on a pattern of one well to 320 acres in order to drain efficiently the recoverable oil from said formation, assure rapid development, avoid the drilling of unnecessary wells, and prevent waste in a manner that will protect correlative rights. Applicant further believes that creation of a 320-acre temporary spacing unit comprised of the SE/4 of Section 24, and the NE/4 of Section 25, Township 161 North, Range 99 West, 5th P.M., would honor its interpretation of the geological and geophysical data regarding the location of the Interlake formation underlying said lands.

4.

There are no unleased mineral owners in the SE/4 of Section 24, or the NE/4 of Section 25, Township 161 North, Range 99 West, 5th P.M., Divide County, North Dakota.

WHEREFORE, Lyco respectfully requests that this matter be set for hearing at the regularly scheduled hearings in September, 1998, and that thereafter the Commission enter its order granting the relief requested.

DATED this 4th day of August, 1998.

LYCO OPERATING COMPANY

CROWLEY, HAUGHEY, HANSON,
TOOLE & DIETRICH P.L.L.P.



By _____

JOHN R. LEE
Attorneys for Applicant
Lyco Operating Company
113 East Broadway, P.O. Box 1206
Williston, ND 58802-1206

STATE OF NORTH DAKOTA)
 :
COUNTY OF WILLIAMS)

JOHN R. LEE, being first duly sworn, deposes and states that he is the attorney for the applicant named herein, that he has read the foregoing application, knows the contents thereof, and that the same is true to the best of this affiant's knowledge, information and belief.



JOHN R. LEE

Subscribed and sworn to before me this 4th day of August, 1998.

ELLEN McCABE-Notary Public
Williams County, Williston, ND
My Commission Expires 6-28-2002
STATE OF NORTH DAKOTA
NOTARY PUBLIC SEAL

Ellen McCabe
Notary Public
Residing at _____
My commission expires _____

STATE OF NORTH DAKOTA)
)
COUNTY OF BURLEIGH)
)


AFFIDAVIT OF MAILING

I, Donna Bauer, being duly sworn upon oath, depose and say: That on the 22nd day of October 1998, enclosed in separate envelopes true and correct copies of the attached Order No. 8341 of the North Dakota Industrial Commission, and deposited the same with the United States Postal Service in Bismarck, North Dakota, with postage thereon fully paid, directed to the following persons by the Industrial Commission in Case No. 7145 :

John Morrison
Fleck, Mather & Strutz Ltd.
P. O. Box 2798
Bismarck, ND 58502

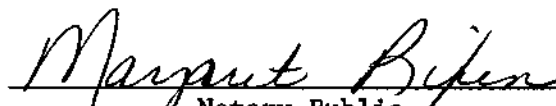
Lawrence Bender
Pearce & Durick
P. O. Box 400
Bismarck, ND 58502

John Lee
Crowley Law Firm
P. O. Box 1206
Williston, ND 58802



Donna Bauer
Oil & Gas Division

On this 22nd day of October 1998, before me personally appeared Donna Bauer to me known as the person described in and who executed the foregoing instrument and acknowledged that she executed the same as her free act and deed.



Notary Public
State of North Dakota County of Burleigh
My Commission expires 9-21-99

STATE OF NORTH DAKOTA)
)
COUNTY OF BURLEIGH)
)

AFFIDAVIT OF MAILING

I, Donna Bauer, being duly sworn upon oath, depose and say: That on the 10th day of November 1998, enclosed in separate envelopes true and correct copies of the attached Order No. 8351 of the North Dakota Industrial Commission, and deposited the same with the United States Postal Service in Bismarck, North Dakota, with postage thereon fully paid, directed to the following persons by the Industrial Commission in Case No. 7145 :

John Morrison
Fleck, Mather & Strutz Ltd.
P. O. Box 2798
Bismarck, ND 58502

Lawrence Bender
Pearce & Durick
P. O. Box 400
Bismarck, ND 58502

John Lee
Crowley Law Firm
P. O. Box 1206
Williston, ND 58802

Roger Borchert
P. O. Box 5006
Bismarck, ND 58502

Donna Bauer
Donna Bauer
Oil & Gas Division

On this 10th day of November 1998, before me personally appeared Donna Bauer to me known as the person described in and who executed the foregoing instrument and acknowledged that she executed the same as her free act and deed.

Margaret Rifen
Notary Public
State of North Dakota County of Burleigh
My Commission expires 9-21-99

BEFORE THE INDUSTRIAL COMMISSION
OF THE STATE OF NORTH DAKOTA

CASE NO. 7145
(CONTINUED)
ORDER NO. 8351

IN THE MATTER OF A HEARING CALLED ON A MOTION OF THE COMMISSION TO CONSIDER THE APPLICATION OF LYCO OPERATING COMPANY FOR AN ORDER ESTABLISHING 320-ACRE TEMPORARY SPACING FOR THE DEVELOPMENT OF AN OIL AND/OR GAS POOL IN THE INTERLAKE FORMATION UNDERLYING THE SE/4 OF SECTION 24, AND THE NE/4 OF SECTION 25, T.161N., R.99W., DIVIDE COUNTY, NORTH DAKOTA, DISCOVERED BY APPLICANT'S #25-2 PLUMER-LUNDQUIST WELL, AND ENACTING SUCH SPECIAL FIELD RULES AS MAY BE NECESSARY AND/OR ADVISABLE.

TEMPORARY ORDER OF THE COMMISSION

THE COMMISSION FINDS:

(1) This cause came on for hearing at 9:00 a.m. on the 21st day of October, 1998.

(2) The record was left open until October 28, 1998 for the submission of additional evidence.

(3) Geological and engineering evidence presented to the Commission relative to the matter of well spacing indicates that the Burg-Silurian Pool, as classified and defined in this order, should be developed on a pattern of one well to 320 acres in order to drain efficiently the recoverable oil from said pool, assure rapid development, avoid the drilling of unnecessary wells, and prevent waste in a manner that will protect correlative rights.

(4) Temporary 320-acre spacing in the Silurian Pool in this field will result in the efficient and economical development of the field as a whole and will operate so as to prevent waste and provide maximum ultimate recovery, will avoid the drilling of unnecessary wells, and will protect correlative rights.

(5) The unrestricted flaring of gas produced from the Burg-Silurian Pool could be considered waste, and in order to minimize such, production

from the pool should be restricted until the wells producing therefrom are connected to a gas gathering and processing facility.

(6) Certain special field rules are necessary to prevent waste and protect against the contamination and pollution of surface lands and fresh waters.

IT IS THEREFORE ORDERED:

(1) The following described tracts of land in Divide County, North Dakota, be, and the same are hereby redesignated the Burg Field:

TOWNSHIP 161 NORTH, RANGE 99 WEST, 5TH PM
THE SE/4 OF SECTION 24 AND THE NE/4 OF SECTION 25,

together with those additional quarter sections or governmental lots corresponding thereto as may be proven productive by wells drilled on lands within one mile of the boundaries of the field as set forth above, provided further that such extensions of the field boundaries shall include only sufficient acreage to form a spacing unit for such wells, and any intervening lands.

(2) The Burg-Silurian Pool be, and the same is hereby defined as that accumulation of oil and gas found in the interval from below the base of the Ashern Formation to above the top of the Middle Member of the Interlake Formation within the limits of the field as set forth above.

(3) Effective this date, the temporary spacing for the development of the Burg-Silurian Pool be, and the same is hereby set at one well to 320 acres.

(4) All wells hereafter drilled to said pool shall be located not less than 660 feet from a spacing unit boundary nor closer than 1980 feet to a well permitted to or producing from the pool. Wells presently permitted to or producing from the pool that do not conform to this spacing pattern shall be considered exceptions.

(5) The SE/4 of Section 24 and the NE/4 of Section 25, Township 161 North, Range 99 West, Divide County, North Dakota, is designated a 320-acre spacing unit for the Burg-Silurian Pool.

(6) Spacing units in the Silurian Pool in the Burg Field shall consist of two adjacent quarter sections, or governmental lots corresponding thereto within the same section. The configuration of spacing units, either standup or laydown, shall be determined by the location of the first well in the section, such that the aforesaid well will be nearest to the center of the spacing unit. Spacing units for wells being equi-distant from the mid-section lines shall be designated by the operator; however, the Commission shall have continuing jurisdiction, and in the event that spacing units hereafter formed by this policy do not coincide with the geological and physical nature of the reservoir, the Commission may alter specific spacing units upon application by any interested party, after due notice and hearing.

(7) No well shall be drilled hereafter in the Burg-Silurian Pool except in conformity with the regulations above without special order of the Commission after due notice and hearing.

(8) The following rules concerning the casing, tubing and equipping of the wells shall apply to the subsequent drilling and operation of wells in the Burg-Silurian Pool:

- (a) The surface casing shall consist of new or reconditioned pipe that has been previously tested to 1000 pounds per square inch. The casing shall be set and cemented at a point not less than 50 feet below the base of the Fox Hills Formation. Sufficient cement shall be used to fill the annular space outside the pipe to the surface of the ground, or the bottom of the cellar, and sufficient scratchers and centralizers shall be used to assure a good cement job. Cement shall be allowed to stand a minimum of 12 hours before drilling the plug or initiating tests. The quality of cement shall conform to the standards provided under North Dakota Administrative Code (NDAC) Section 43-02-03-21;
- (b) The producing or oil string shall consist of new or reconditioned pipe that has been previously tested to 2000 pounds per square inch. Casing shall be set and cemented at a point not higher than the top of the producing formation, or at a point approved by the Director. Sufficient cement shall be used and applied in such manner as to adequately protect and isolate all formations containing oil and/or gas, protect the pipe through salt sections encountered, and to isolate the Dakota-Lakota Series. The cement shall be allowed to stand a minimum of 15 hours before drilling the plug or initiating tests. The quality of cement shall conform to the standards provided under NDAC Section 43-02-03-21. After cementing, the casing shall be tested by application of pump pressure of at least 2000 pounds per square inch. If, at the end of 30 minutes this pressure has dropped 150 pounds per square inch or more, the casing shall be repaired. Thereafter, the casing shall again be tested in the same manner. Further work shall not proceed until a satisfactory test has been obtained;
- (c) All well-head fittings and connections shall have a working pressure in excess of that to which they are expected to be subjected; and,
- (d) All wells shall be equipped with tubing and all flowing wells shall be equipped with tubing and tubing packer; all tubing shall be of sufficient internal diameter to allow the passage of a bottom hole pressure gauge for the purpose of obtaining bottom hole pressure measurements.

(9) The gas-oil ratio of each well shall be measured during the months of May and November, and the reservoir pressure of flowing wells shall be measured in the months of May and November, and in pumping wells when the rods are pulled but at least once annually and reported to

the Commission within 15 days following the end of the month in which they are determined. Pressure measurements shall be made at or adjusted to a subsea datum of 8320 feet after the well has been shut in for 48 hours. All gas-oil ratios and reservoir pressure determinations shall be made by methods approved by the Director. The Director is authorized to waive these requirements if the necessity therefore can be demonstrated to his satisfaction.

(10) No salt water, drilling mud, crude oil or waste oil shall be stored in pits in this field, except in an emergency, and approved by the Director.

(11) For the purposes of division of production to owners of interests in spacing units established by this order, and proven productive prior to the date hereof, this order shall be retroactive to the date of first production.

(12) All wells in the Burg-Silurian Pool shall be allowed to produce at an unrestricted rate for a period of 60 days commencing on the first day oil is produced through well-head equipment into tanks from the ultimate producing interval after casing has been run; after that, oil production from such wells shall not exceed an average of 200 barrels per day for a period of 60 days; after that, oil production from such wells shall not exceed an average of 150 barrels per day for a period of 60 days, thereafter, oil production from such wells shall not exceed an average of 100 barrels of oil per day; if and when such wells are connected to a gas gathering and processing facility the foregoing restrictions shall be removed, and the wells shall be allowed to produce at a maximum efficient rate.

(13) If the flaring of gas produced with crude oil from the Burg-Silurian Pool causes, or threatens to cause, degradation of ambient air quality, production from the pool shall be further restricted.

(14) This order shall cover all of the Burg-Silurian Pool, common source of supply of crude oil and/or natural gas as herein defined, and shall continue in full force and effect until the 31st day of May, 2000. That the proper spacing for the pool will be considered by the Commission on or before the regularly scheduled meeting in April, 2000.

Dated this 4th day of November, 1998.

INDUSTRIAL COMMISSION
STATE OF NORTH DAKOTA

/s/ Edward T. Schafer, Governor

/s/ Heidi Heitkamp, Attorney General

/s/ Roger Johnson, Commissioner of Agriculture

LYCO OPERATING COMPANY

Brian J. Wright
Project Engineer



Industrial Commission Of North Dakota, Oil and Gas Division
900 E Blvd.
Bismarck, ND 58505

Gentlemen:

Re: Case # 7145, October, 20, 1998

In response to Red River "C" gas production potential questions regarding Case #7145, Lyco Operating Company submits the following information.

The Red River "C" zone was initially on production in late February of 1998. Production declined rapidly and salt water production began to increase. A 500 gallon acid cleanup resulted in a marginally economic operation in the Red River "C" which produced 48 BO, 204 BSW, and flared an estimated 40-45 MCF of gas on the last day of Red River "C" production, June 11, 1998. The Red River was subsequently isolated behind a bridge plug and the Interlake zone was perforated and is the current producing interval.

Reservoir pressures recorded during pressure build up testing indicates that the Interlake (4,920 psi @ 10,471' datum or .469 psi/ft gradient [on 9/21/98]) and the Red River (5,180 psi @ 11,267' datum or 0.459 psi/ft gradient [on 2/16/98]) will exhibit cross flow if co-mingled due to a very strong water drive in the Interlake. This strong water drive is confirmed by no decline in the original DST BHP, after over 90 days of production.

For the above reason, Lyco will make no attempt to co-mingle the production between the Interlake and the Red River zones in the Plumer-Lundquist #25-2. Current plans are to produce the Interlake until it becomes unprofitable, then evaluate additional shallower potential.

NORTH DAKOTA INDUSTRIAL COMMISSION HEARING

OCTOBER 21, 1998

**CASE NO. 7145
TEMPORARY SPACING REQUEST
PLUMER-LUNDQUIST #25-2 WELL**

**PLUMER-INTERLAKE POOL
NE/4 OF SECTION 25 & SE/4 OF SECTION 24
T161N-R99W
DIVIDE COUNTY, NORTH DAKOTA**

**LYCO OPERATING COMPANY
6688 NORTH CENTRAL EXPRESSWAY
SUITE 1600
DALLAS, TEXAS 75206-3927**

EXHIBIT "I"

BEFORE THE INDUSTRIAL COMMISSION OF THE STATE OF NORTH DAKOTA

IN THE MATTER OF THE APPLICATION OF LYCO OPERATING COMPANY FOR AN ORDER OF THE COMMISSION ESTABLISHING 320-ACRE TEMPORARY SPACING FOR THE DEVELOPMENT OF AN OIL AND/OR GAS POOL IN THE INTERLAKE FORMATION UNDERLYING THE SE/4 OF SECTION 24, AND THE NE/4 OF SECTION 25 , TOWNSHIP 161 NORTH, RANGE 99 WEST, 5TH P.M., DIVIDE COUNTY NORTH DAKOTA, DISCOVERED BY APPLICANT'S #25-2 PLUMER-LUNDQUIST WELL, AND ENACTING SUCH SPECIAL FIELD RULES AS MAY BE NECESSARY AND/OR ADVISEABLE.

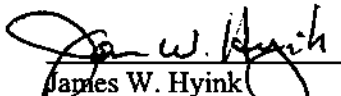
CASE NO. 7145
AFFIDAVIT OF JAMES W. HYINK

LYCO OPERATING COMPANY, 6688 North Central Expressway, Suite 1600, Dallas, Texas 75206-3927:

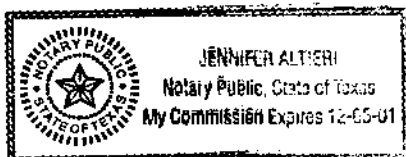
STATE OF TEXAS §
COUNTY OF DALLAS §

James W. Hyink being first duly sworn and says:

1. I am Landman for Lyco Energy Corporation and reside in Richardson, Texas. I have not testified before the North Dakota Industrial Commission. I have been qualified as an expert witness in the field of Petroleum Land Management in the states of Louisiana and Montana. Attached as Exhibit "A" is a resume of my work history and education.
2. Exhibit "A-I" (copy attached) as contained in the Exhibit Packet for Case No. 7145 was prepared under my direction and it is true and correct to the best of my knowledge and belief.
3. Exhibit "A-II" (copy attached) as contained in the Exhibit Packet for Case No. 7145 was prepared from detailed mineral and leasehold information from the records of Divide County, North Dakota by landmen under my direction. Mineral interest and leasehold ownership within the SE/4 of Section 24 and the NE/4 of Section 25, Township 161 North, Range 99 West, 5th P.M., Divide County, North Dakota, are set out in this Exhibit . As indicated on Exhibit "A-I", the ownership within this proposed spacing unit is not common.

By: 
James W. Hyink
Consulting Landman

SUBSCRIBED AND SWORN BEFORE ME, A NOTARY PUBLIC FOR THE STATE OF TEXAS
THIS 5th DAY OF OCTOBER, 1998.



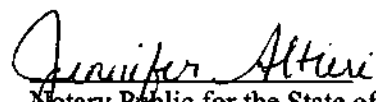
By: 
Notary Public for the State of Texas
Residing at Dallas, TX
My Commission Expires: 12-05-01

EXHIBIT "A"

JAMES W. HYINK, CPL

**729 Pleasant Valley
Richardson, Texas 75080
(972) 231-0545**

SUMMARY OF QUALIFICATIONS

- Experienced in all areas of exploration and development properties, reworks, farmins and farmouts
- Experienced in acquisitions, divestitures of development and exploration properties
- Experienced in all phases of negotiation of contracts for properties regarding drilling rights
- Experienced in all phases of managerial and supervisory phases of departmental goals and functions
- Excellent communication, motivation skills
- Excellent interpersonal skills

BUSINESS EXPERIENCE

- 6/98 to Present** **LYCO ENERGY CORPORATION, Dallas, Texas**
Consulting Landman – Directing land activities in Montana and North Dakota, including acquisition of oil and gas leases, dealing with attorneys and brokers for title and curative, negotiating 3-D trade agreements, joint venture agreements, farmouts and other industry agreements, and coordinating various oil and gas commission hearings.
- 2/98 to 6/98** **INDEPENDENT LANDMAN – Assisted Cross Timbers Oil Company**
in the due diligence phase of their acquisition of East Texas properties owned by Enserch Exploration, Inc.
- 11/92 to 2/98** **ENSERCH EXPLORATION, INC., Dallas, Texas**
Manager, Land Development - Responsible for all producing properties operated and non-operated where Enserch has an interest. Work closely with District Production Managers

in all areas of developed properties, including development drilling, reworks, farmins and farmouts, acquisitions and divestitures.

10/85 to 11/92

Land Manager - Responsible for all district land functions. Work closely with Exploration and Development Departments at the district level to coordinate the company goals in all phases of lease acquisition, curative, titles, negotiation and contracts, primarily in the East Texas area.

7/83 to 10/85

**PENN RESOURCES, INC., Dallas, Texas
Land Manager - Responsible for all department functions and coordination of Exploration/Land/Operations departments to ensure proper paper flow. Responsible for approving invoices and signing checks. Worked closely with senior management as to future planning and strategy to meet company goals.**

3/81 to 7/83

**MOORE MCCORMACK ENERGY, INC., Dallas, Texas
Land Manager - Responsible for land department/ exploration activity, including departmental approval of invoices, initiating AFEs, as well as managing daily departmental managerial and supervisory functions. Extensive work with management as to future planning, acquisitions, etc.**

1/79 to 3/81

Senior Landman - Responsibilities included negotiations farmin/farmout agreements, operating agreements, contracts and assignments, unit designations, division orders, selling and acquiring drilling prospects, preparing management reports, negotiating damages, R.O.W. agreements, surface leases and Salt Water Disposal leases. Extensive work with staff Attorney and outside Counsel in the preparations and curing of drilling title opinions and division order title opinions.

1975 to 1979

**SOUTHWESTERN GAS PIPELINE, INC., Dallas, Texas
Landman - Responsibilities included negotiating farmin/farmout agreements, supervising brokers, training of Jr. Landmen, handling royalty owner problems and working with Houston office in land pre-drilling preparations. Field work included lease acquisitions, title curative and damage negotiations, primarily in the Ft. Worth Basin area.**

AFFILIATIONS

**American Association of Professional Landmen
Dallas Association of Petroleum Landmen**

EDUCATION INFORMATION

Southern Methodist University, Dallas, Texas
3.75/4.0 GPA

Member of Beta Gamma Sigma (National School of Business Scholastic Honorary)

Member of Phi Theta Kappa (National Junior College Scholastic Honorary)

Member SMU Marketing Association

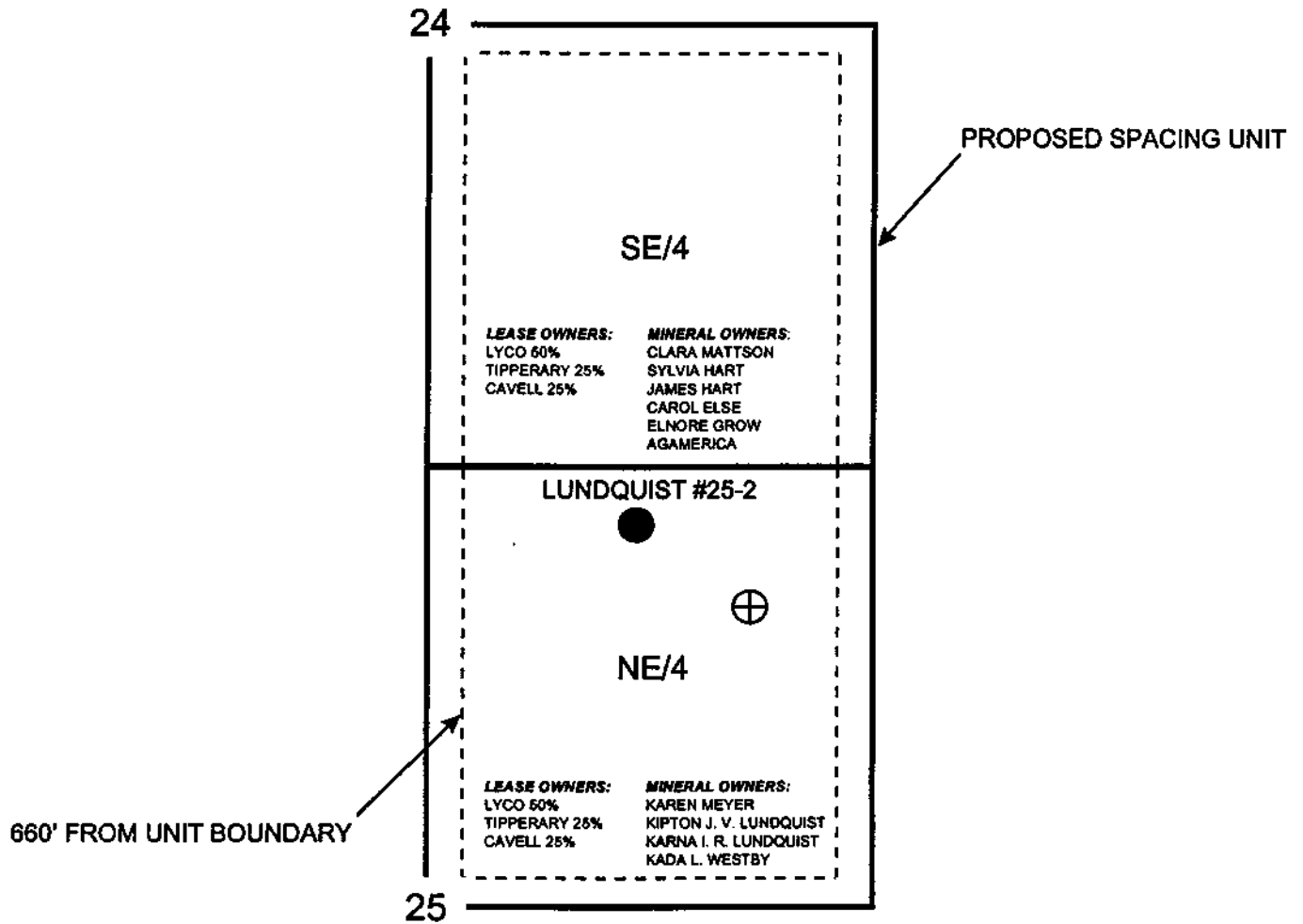
Licensed Texas Real Estate Salesman

MILITARY RECORD

USNR, AMS2 Classification

Draft Status - 4D, Honorable Discharge

TOWNSHIP 161 N, RANGE 99W



NOT DRAWN TO SCALE

LYCO OPERATING COMPANY

**DIVIDE CO., NORTH DAKOTA
PROPOSED TEMPORARY
SPACING UNIT**

EXHIBIT "A-1"

CASE # 7145

OCTOBER, 1998

EXHIBIT "A-II"

CASE # 7145

**Lyco Operating Company
Ownership Summary
Plumer Lundquist # 25-2 well
SE/4 Section 24 & NE/4 Section 25-T161N-R99W
Divide County, North Dakota**

LEASE OWNERS (NE/4 SEC 25 & SE/4 SEC 24):

1. **Lyco Energy Corporation
North Central Expressway
Suite 1600
Dallas, TX 75206-3927
Attn: Mr. Rob Moore**
2. **Tipperary Oil and Gas Corporation
Seventeenth Street
Suite 1550
Denver, Colorado 80202
Attn: Mr. Jeff Obourn**
3. **Cavell Energy (U.S.) Corporation
Suite 1200
500 - 4th Avenue S.W.
Calgary, Alberta T2P2V6
Canada
Attn: Mr. Wallace King**

MINERAL OWNERS (SE/4 SEC24):

1. **Clara Mattson, a Life Estate
c/o Elmore Grow
1021 South Foothill Drive
Lakewood, Colorado 80228**
2. **Sylvia Hart
130 El Portal Drive
Merced, California 95340**
3. **James Hart
12505 Andy Street
Cerritos, California 90703**

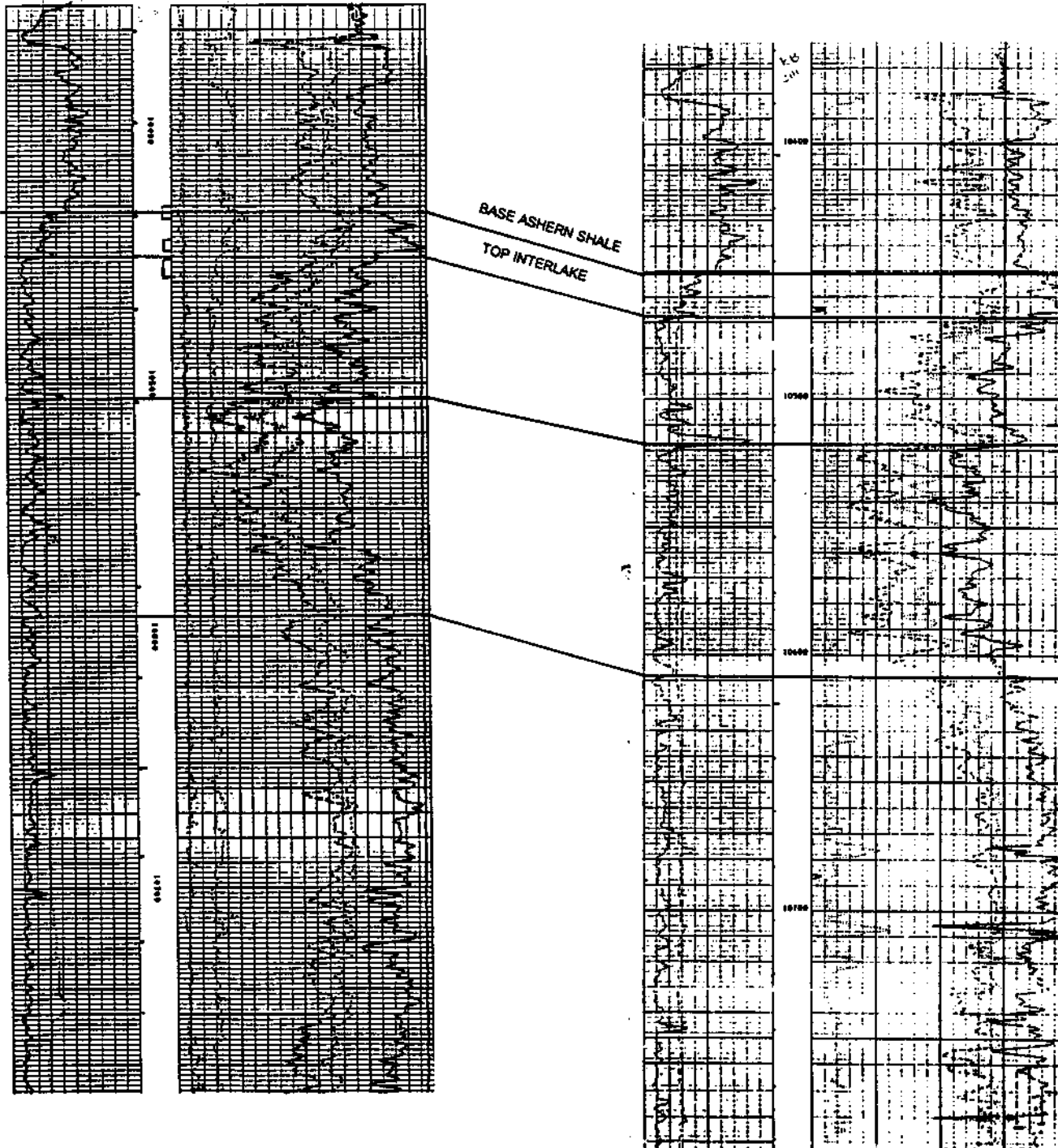
4. Carol Else, aka Carole Else
9116 128th S.W.
Tacoma, Washington 98948
5. Elnore Grow, aka Elnore Hendrikson, aka Eleanore Hendrikson
1021 South Foothill Drive
Lakewood, Colorado 80228
6. AgAmerica, FCB, fka The Federal Land Bank of Saint Paul
375 Jackson Street
Box 64949
St. Paul, Minnesota 55164-0949

MINERAL OWNERS (NE/4 SEC25):

1. Karen L. Meyer, fka Karen L. Nordstrom
18406 Revere Avenue South
Prior Lake, Minnesota 55372
2. Kipton J.V. Lundquist
4805 Sunnyside Road
Edina, Minnesota 55424
3. Karna I.R. Lundquist
6908 Ridgeview Drive
Edira, Minnesota 55439
4. Kada L. Westby, fka Kada I.M. Lundquist
3208 Skyview Drive
Burnsville, Minnesota 55337

EXHIBIT G-II

LYCO OPERATING CO.
PLUMER-LINDQUIST #25-2
NW NW 25-161N-99W
DIVIDE CO., ND
KB: 2118'



COLUMBIA GAS
LINDQUIST #25-1
NE NE 25-161N-99W
DIVIDE CO., ND
KB: 2111'

LYCO ENERGY CORPORATION

INTERLAKE CROSS SECTION

CASE #7145
BY: M. LEWIS

OCTOBER 5, 1996

WELL DATA

1) OPERATOR

Lyco Operating Co.
North Central Expressway
Suite 1600
Dallas, TX 75206-3927

2) REQUESTED SPACING

320 acre spacing
spacing unit for discovery well: SE/4 24, NE/4 25, T161N-R99W, Divide Co, ND
660' set back from spacing unit boundary
1980' between wells

3) FORMATION TO BE SPACED

Silurian Interlake Formation from the Top of the Interlake to the Base of the Interlake or what ever interval the Commission deems releavelent

4) AREA TO BE SPACED

T161N-R99W
Section 24, SE/4
Section 25, NE/4

5) DISCOVERY WELL

Lyco Opersting Co.
Lundquist #25-2
(120' FNL, 1680' FEL)
NE/4 25, T161N-R99W
Divide Co., ND

6) CASING INFORMATION

Surface Casing: 9 5/8" casing set @ 1644', cemented w/1500 sx
(Cement Top @ Surface)
Production Casing: 5 1/2" casing set @ 11670', cemented w/2560 sx
(Cement Top @ 3230')
Production Tubing: 2 7/8" anchored @ 10404', Model 'R' packer @ 11404

7) RESERVOIR DATA

Trap Type:	Structural
Datum:	-8323'
Initial Reservoir Pressure	4940#
Oil Gravity:	45 API
Oil Gas Ratio:	158 CF/BBL
Reservoir Temperature:	223 °F
Gross Pay:	37'
Avg. Porosity of Gross Pay:	14%
Estimated Sw:	25%
Reservoir Drive Mechanism:	Solution Gas & Water Drive
Resistivity of Produced Water:	0.51 @ 67 °F, 200,000 ppm Cl ₂
Formation Volumn Factor:	1.2 RB/STB
Perforated Interval:	10440-10445'

Initial Potential: 10453-10458'
10461-10468'
240 BOPD
0 BSWPD
38 MCFGPD

Current Producing Rate: 140 BOPD
103 BSWPD
23 MCFGPD
Flowing @ 200# Flowing Tubing Pressure

Cum. Production (from 6/16/98 to 10/11/98)
24585 BO
3408 BSW
3885 MCF

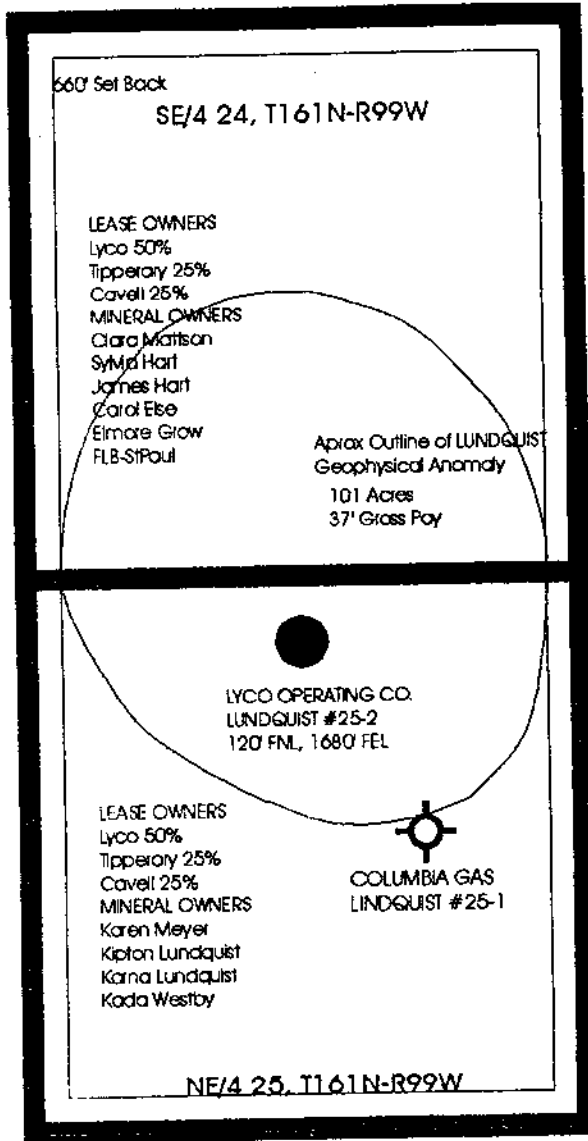
Disposition of Fluids: Oil, Sold to Murphy Oil Company
Water, Trucked to approved SWD in Ambrose Field
Gas, Flared

Electric Logs: DLL-MSFL-GR-CALIP
FDC-CNL-GR-CALIP
BHCI Sonic-GR-CALIP
CBL-GR
(All logs on file with the NDIC)

8) RESERVE DATA

Estimated OOIP: 2.536 Million Barrels
Potential Productive Area: 101 Acres
Estimated Recoverable Oil: 415,000 BO
Estimated recoverable gas: 65,500 MCF
Development Costs: \$1,100,000
Estimated return on Investment: 4.2-1

PROPOSED SPACING UNIT FOR THE LUNDQUIST #25-2
 SE/4 24, NE/4 25, T161N-R99W, DVIDE COUNTY, ND



SI DST DATA
 DST INTERVAL:
 10456'-10529'
 Rec: 6053' Oil
 2650' Sw(20% tracer)
 OIS @ 25 min
 SPLR REC:
 1200 cc Oil
 1000 cc Sw
 Flowing Pressure: 4840#
 Shut-in Pressure: 4940#

Not Drawn To Scale

LYCO OPERATING CO.

Case # 7145

EXHIBIT #3

prepared by RNB

Plumer-Lundquist #25-2

Divide County, North Dakota
 NW/4 NE/4 25-181N-99W
 120' FNL, 1680' FEL

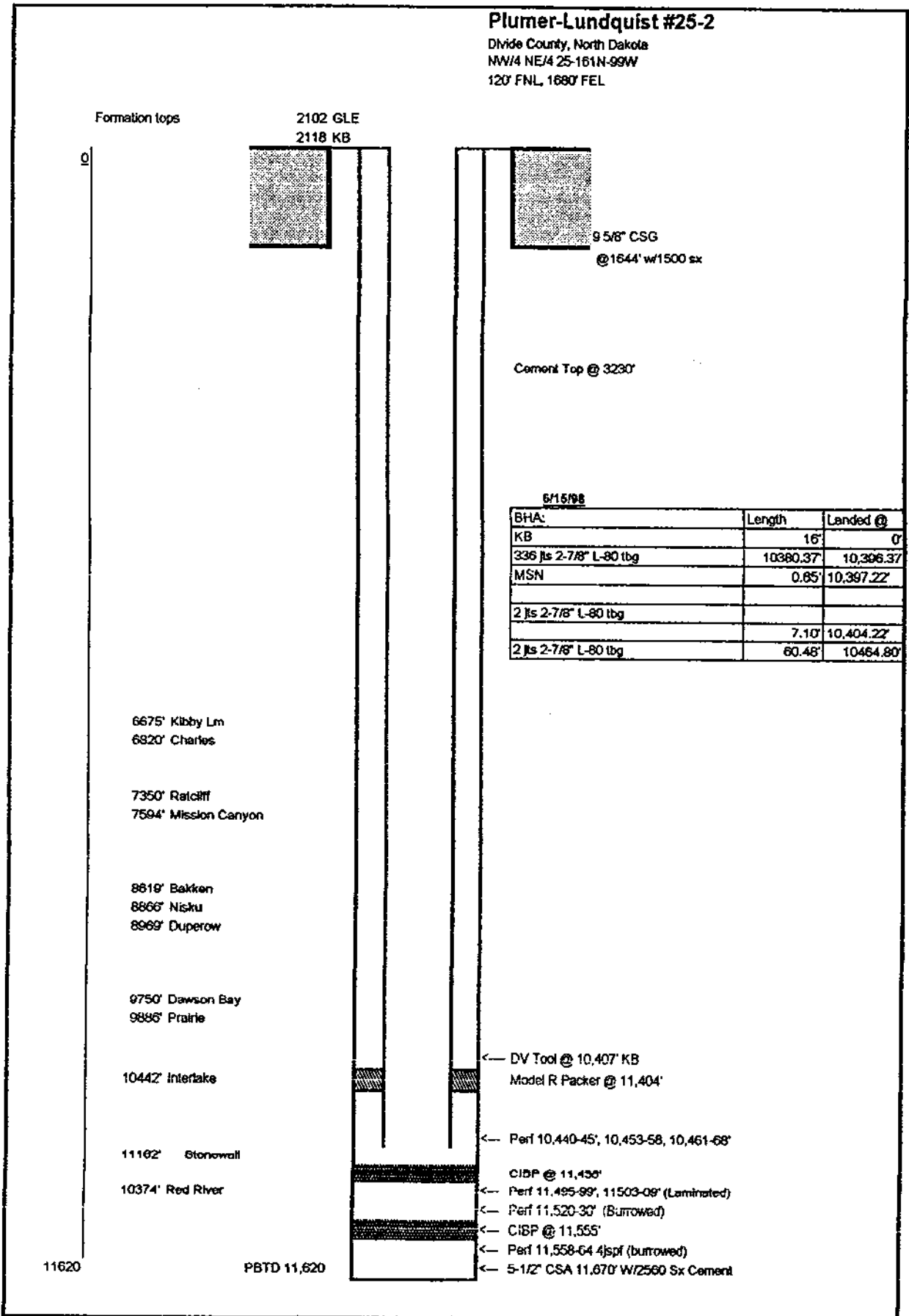
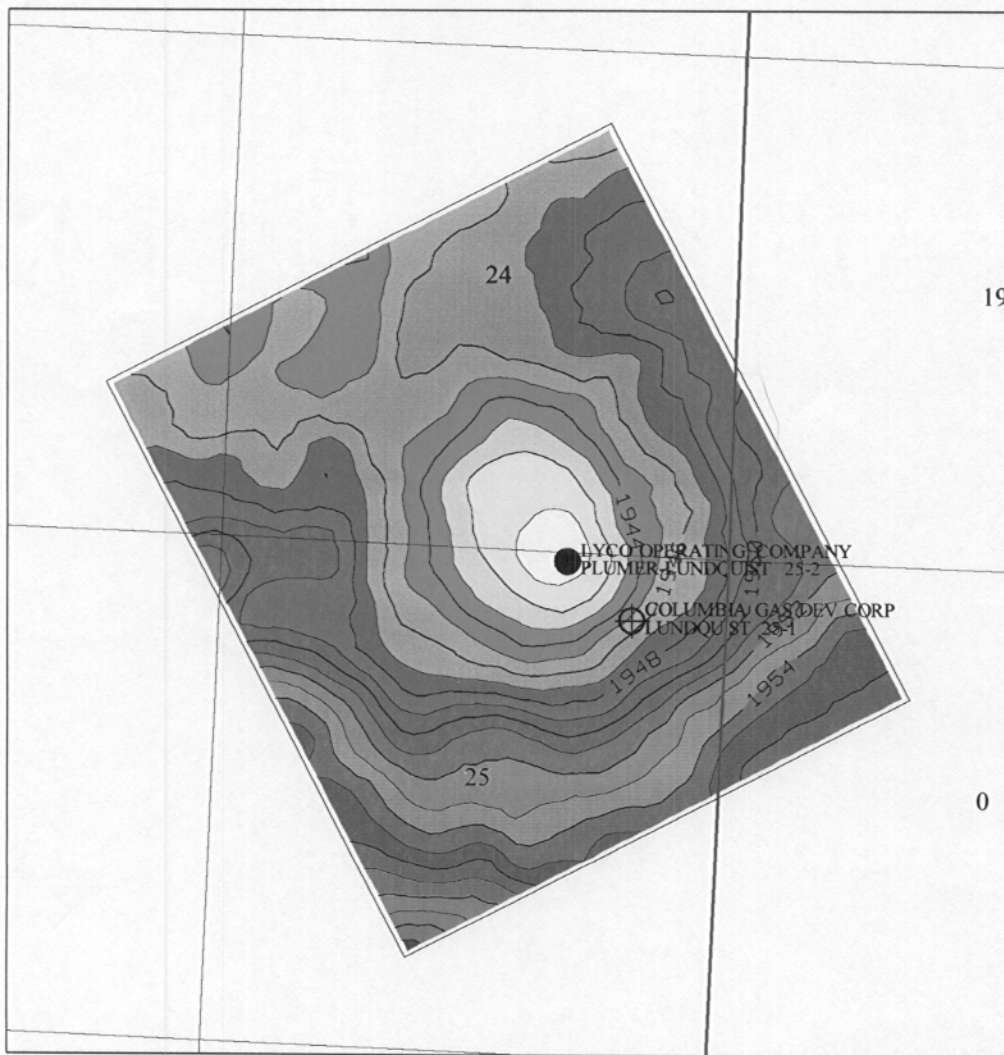


EXHIBIT G-I



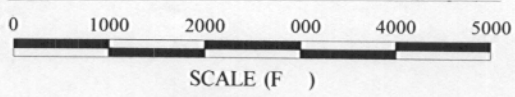
LYCO ENERGY CORPORATION

**GARNET / PLUMER 3-D SURVEY
PLUMER-LUNDQUIST #25-2
WINNIPEGOSIS**

TIME STRUCTURE MAP

CASE #7145
C.I.= 1ms

OCTOBER 5, 1998



Case #7145
Exhibit # 4

GAS FLARING EXEMPTION DATA

GAS CONTRACT DATA:

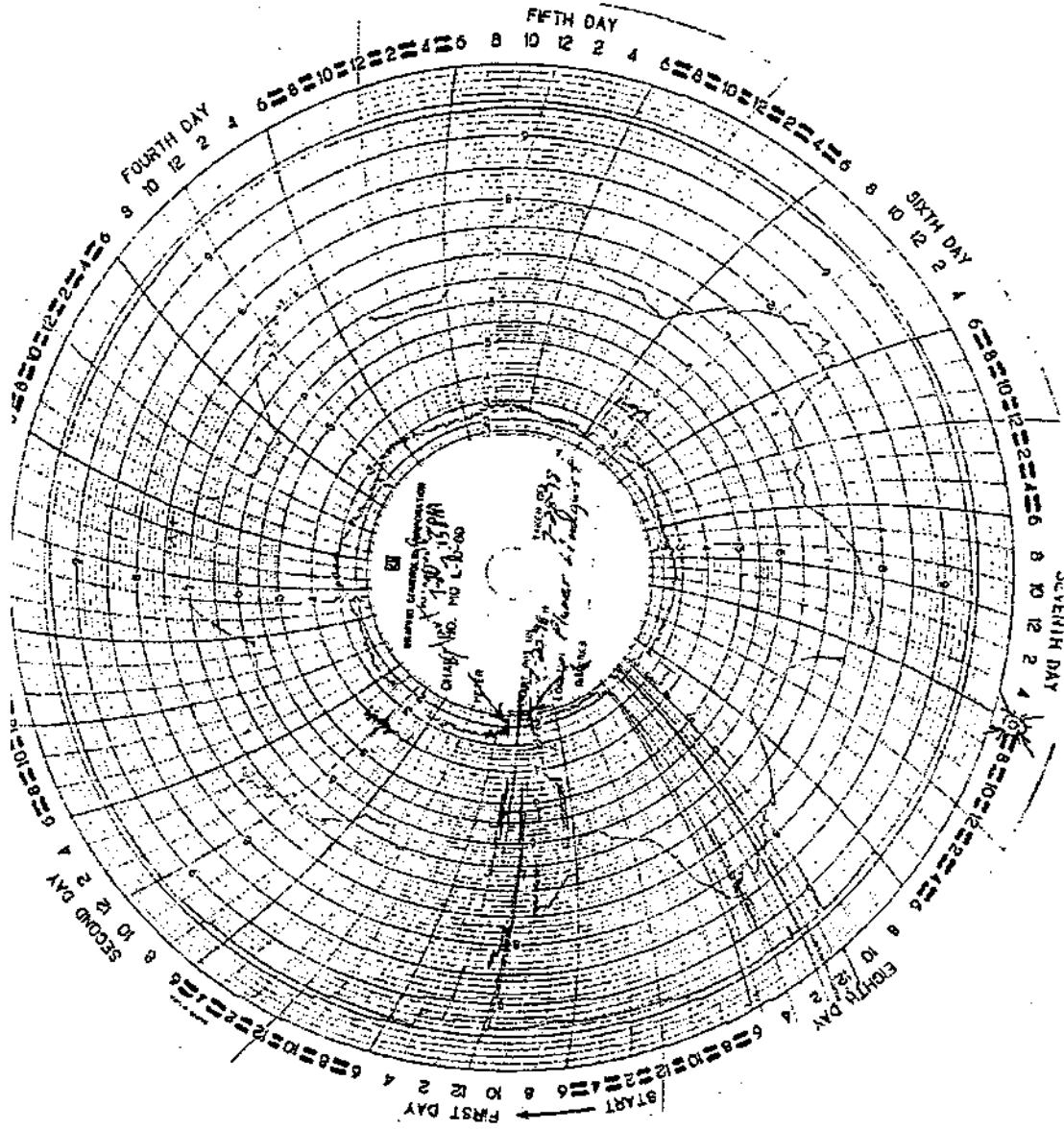
Potential Purchaser:	Custom Energy Construction, Inc. Amerada Hess Corp.
Gas Sale Price	\$ 0.53 MCF
Connecting Costs (as per Purchaser):	\$ 57,000.00
Daily Salable Gas:	31 MCF/CPD
Lease Gas Usage:	4 MCF/CPD
GOR (as determined by Amerada Hess)	158 SCF/BBL
Gas BTU (as determined by Amerada Hess):	1567
Gas Value Adjusted for BTU:	\$ 0.83 MCF
Est. Ultimate Gas Reserves (see Vol. Analysis):	58097 MCF
Estimated value of Gas Reserves:	\$48,220.51
Gas Value (Sales Value- Connection Costs):	-\$8,779.49

VOLUMETRIC ANALYSIS
OIL RESERVOIR WITH SOLUTION GAS

OPERATOR: LYCO ENERGY CORP.
WELL NAME: LUNDQUIST #25-2
FIELD: PLUMBER
LOCATION: NWNW 25, T161N-R99W
COUNTY: DIVIDE
STATE: NORTH DAKOTA
FORMATION: INTERLAKE

BASIC DATA & ESTIMATED RESERVES

DATUM:	-8323 FEET
RESERVOIR PRESSURE:	4940 PSI
RESERVOIR TEMPERATURE:	223 DEGREES F
AVERAGE POROSITY:	14.00%
AVERAGE CONATE WATER SATURATION:	25.00%
OIL GRAVITY (API @ 60 DEGREES F):	45 DEGREES API
SOLUTION GOR (CUBIC FEET/BBL):	158 CUBIC FEET/BBL
FORMATION VOLUME FACTOR:	1.2
SPACING UNIT (ACRES):	101 ACRES
RECOVERY FACTOR:	16.36%
RESERVOIR THICKNESS:	37 FEET
OIL IN PLACE:	2,536,769 BARRELS OIL
RECOVERABLE OIL:	415,015 STOCK TANK BARRELS
RECOVERABLE SOLUTION GAS:	65,572 MCF GAS
LEASE USE GAS	11.4%
GAS AVAILABLE FOR SALE	58097 MCF GAS



Lyc0-Plumer Lindquist.txt

AMERADA HESS CORPORATION

TIOGA GAS PLANT

SETTLEMENT TEST

Well # : PLUMER LINDQUIST Analysis Date : Jul 30 1998
Producer : LYCO Date Sample Taken: 07-28-98
Secured by : KN Effective Date :
Pressure : 32 PSI Temperature : 62 F

Chromatogram 1: \7SETT\PLUM_01.A01
Chromatogram 2: \7SETT\PLUM_01.A02

Component Name	Mole %	GPM
Carbon Dioxide	2.819	
Nitrogen	11.267	
Methane	38.396	
Hydrogen Sulfide	.010	
Ethane	15.498	
Propane	17.189	4.731
Iso-butane	3.268	1.069
N-Butane	5.387	1.698
Iso-pentane	.980	.359
N-Pentane	1.371	.496
Hexanes Plus	.815	.358

GPM for Pentanes+: 1.213
GPM for Butanes+ : 3.980
GPM for Propanes+ : 8.711

Test Correlation: 1.725

Calc BTU# 14.73 Psia (Dry Basis): 1567

Specific Gravity (Measured - Ranarex) : .000
Specific Gravity (Calculated w/H2S - Ideal): 1.078
Specific Gravity (Calculated w/H2S - Real) : 1.084

Distribution

Master Files - Plant
Producer
Gas Measurement- ANC Houston
Field Files - Hawkeys
Kathi Rossland - ANC Williston

Remarks:

Amerada Hess Gas Test Results

Test Dates: July 20-28, 1998

Orifice Size: 0.75"

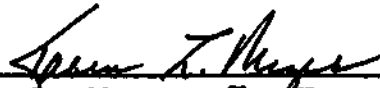
Volumes not Adjusted for Temperature, Visual Chart Readings

		Static	Differential	Coeff.	Daily Rate
7/21/98 Gas	High	9.8	4	1.499	58.8 MCFD
	Low	9.8	2.5	1.499	36.7 MCFD
	Average	9.8	2.75	1.499	40.4 MCFD
Oil					257 BBL
Water					0 BBL
GOR					157 SCF/B
7/22/98 Gas	High	9.8	4	1.499	58.8 MCFD
	Low	9.8	2.25	1.499	33.1 MCFD
	Average	9.8	2.5	1.499	36.7 MCFD
Oil					249 BBL
Water					0 BBL
GOR					147 SCF/B
7/23/98 Gas	High	9.8	3	1.499	44.1 MCFD
	Low	9.8	2.2	1.499	32.3 MCFD
	Daily	9.8	2.3	1.499	33.8 MCFD
Oil					229 BBL
Water					0 BBL
GOR					148 SCF/B
7/24/98 Gas	High	9.8	3.2	1.499	47.0 MCFD
	Low	9.8	2.3	1.499	33.8 MCFD
	Daily	9.8	2.4	1.499	35.3 MCFD
Oil					225 BBL
Water					0 BBL
GOR					157 SCF/B
7/25/98 Gas	High	9.8	4	1.499	58.8 MCFD
	Low	9.8	2.3	1.499	32.3 MCFD
	Daily	9.8	2.7	1.499	39.7 MCFD
Oil					224 BBL
Water					0 BBL
GOR					177 SCF/B
7/26/98 Gas	High	9.8	2.7	1.499	39.7 MCFD
	Low	9.8	2.3	1.499	33.8 MCFD
	Daily	9.8	2.4	1.499	35.3 MCFD
Oil					248 BBL
Water					0 BBL
GOR					142 SCF/B
7/27/98 Gas	High	9.8	2.8	1.499	41.1 MCFD
	Low	9.8	2.3	1.499	33.8 MCFD
	Daily	9.8	2.4	1.499	35.3 MCFD
Oil					212 BBL
Water					0 BBL
GOR					166 SCF/B
7/28/98 Gas	High	9.8	6	1.499	88.1 MCFD
	Low	9.8	1.4	1.499	20.6 MCFD
	Daily	9.8	3	1.499	44.1 MCFD
Oil					262 BBL
Water					0 BBL
GOR					168 SCF/B

3. For all purposes, production of the pooled substances shall be allocated to and shall be deemed to have been produced from each of the separately owned tracts embraced within the pooled area in the proportion that the surface acreage of each such tract bears to the total surface acreage of the entire pooled area.
4. Subject to the terms of this Pooling Agreement, said lease shall continue in full force and effect as originally written.
5. This Agreement shall be binding upon and shall insure to the benefit of the parties to said oil, gas and mineral lease and their respective heirs, successors, legal representatives and assigns.

IN WITNESS WHEREOF, this instrument is executed as of the
12 day of September, 1997.

LESSOR:



Karen L. Meyer, fka Karen L.
Nordstrom

ASSIGNEE:

TIPPERARY OIL & GAS CORPORATION

By:



Jeff T. Obourn
Attorney-In-Fact

3. For all purposes, production of the pooled substances shall be allocated to and shall be deemed to have been produced from each of the separately owned tracts embraced within the pooled area in the proportion that the surface acreage of each such tract bears to the total surface acreage of the entire pooled area.
4. Subject to the terms of this Pooling Agreement, said lease shall continue in full force and effect as originally written.
5. This Agreement shall be binding upon and shall insure to the benefit of the parties to said oil, gas and mineral lease and their respective heirs, successors, legal representatives and assigns.

IN WITNESS WHEREOF, this instrument is executed as of the 12th day of September, 1997.

LESSOR:



Karna I. R. Lundquist

ASSIGNEE:

TIPPERARY OIL & GAS CORPORATION

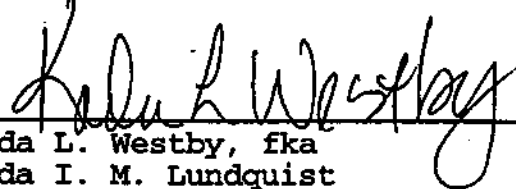


By: Jeff T. Osburn
Attorney-In-Fact

3. For all purposes, production of the pooled substances shall be allocated to and shall be deemed to have been produced from each of the separately owned tracts embraced within the pooled area in the proportion that the surface acreage of each such tract bears to the total surface acreage of the entire pooled area.
4. Subject to the terms of this Pooling Agreement, said lease shall continue in full force and effect as originally written.
5. This Agreement shall be binding upon and shall insure to the benefit of the parties to said oil, gas and mineral lease and their respective heirs, successors, legal representatives and assigns.

IN WITNESS WHEREOF, this instrument is executed as of the
17 day of September, 1997.

LESSOR:

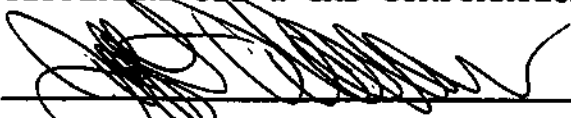


Kada L. Westby, fka
Kada I. M. Lundquist

ASSIGNEE:

TIPPERARY OIL & GAS CORPORATION

By:

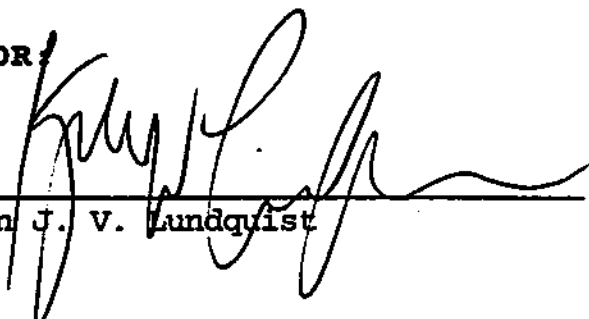


Jeff T. Osburn
Attorney-In-Fact

3. For all purposes, production of the pooled substances shall be allocated to and shall be deemed to have been produced from each of the separately owned tracts embraced within the pooled area in the proportion that the surface acreage of each such tract bears to the total surface acreage of the entire pooled area.
4. Subject to the terms of this Pooling Agreement, said lease shall continue in full force and effect as originally written.
5. This Agreement shall be binding upon and shall insure to the benefit of the parties to said oil, gas and mineral lease and their respective heirs, successors, legal representatives and assigns.

12 IN WITNESS WHEREOF, this instrument is executed as of the day of September, 1997.

LESSOR:



Kipton J. V. Lundquist

ASSIGNEE:

TIPPERARY OIL & GAS CORPORATION

By:




Jeff T. Obourn
Attorney-In-Fact

3. For all purposes, production of the pooled substances shall be allocated to and shall be deemed to have been produced from each of the separately owned tracts embraced within the pooled area in the proportion that the surface acreage of each such tract bears to the total surface acreage of the entire pooled area.
4. Subject to the terms of this Pooling Agreement, said lease shall continue in full force and effect as originally written.
5. This Agreement shall be binding upon and shall insure to the benefit of the parties to said oil, gas and mineral lease and their respective heirs, successors, legal representatives and assigns.

IN WITNESS WHEREOF, this instrument is executed as of the
26th day of September, 1997.

LESSOR:

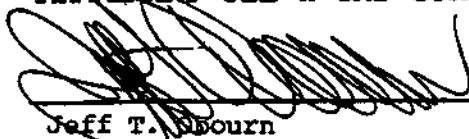
AgriBank, FCB



By: Lee Strom, Director, Real Estate Services

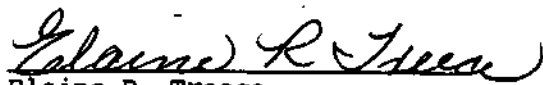
ASSIGNEE:

TIPPERARY OIL & GAS CORPORATION



By: Jeff T. Bourn
Sr. Vice President-Operations

ATTEST:



Elaine R. Treece
Corporate Secretary

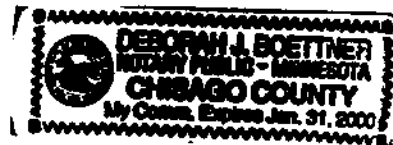
STATE OF Minnesota)
COUNTY OF Ramsey) ss **Corporation**

On this 26th day of September, 1997, before me, a Notary Public, personally appeared Lee Strom known to me to be the Director of Real Estate Services of the Corporation that is described in and that executed the within instrument and acknowledged to me that such Corporation executed the same.

My commission expires:

Jan 31, 2000


Deborah J. Boettner Notary Public



STATE OF COLORADO)
COUNTY OF DENVER) ss

Corporation

On this 14th day of October, 1997, before me, a Notary Public, personally appeared Jeff T. Obourn known to me to be the Sr. Vice President-Operations of the Corporation that is described in and that executed the within instrument and acknowledged to me that such Corporation executed the same.

My commission expires:

December 19, 1998


Michelle R. S. Sullivan Notary Public

2. The pooled area shall be developed and operated as an entirety as though the pooled area were covered by a single oil and gas lease executed by all persons owning interest therein.
3. For all purposes, production of the pooled substances shall be allocated to and shall be deemed to have been produced from each of the separately owned tracts embraced within the pooled area in the proportion that the surface acreage of each such tract bears to the total surface acreage of the entire pooled area.
4. Subject to the terms of this Pooling Agreement, said lease shall continue in full force and effect as originally written.
5. This Agreement shall be binding upon and shall insure to the benefit of the parties to said oil, gas and mineral lease and their respective heirs, successors, legal representatives and assigns.

IN WITNESS WHEREOF, this instrument is executed as of the
29 day of September, 1997.

LESSOR:

Elnore A. Grow

Elnore A. Grow, aka Elnore
Hendrickson, aka Eleanore
Hendrickson

ASSIGNEE:

TIPPERARY OIL & GAS CORPORATION

ATTEST:

Elaine R. Treece

Elaine R. Treece
Corporate Secretary

By:

Jeff T. O'Bourn
Sr. Vice President-Operations

KMB

STATE OF Colorado)
COUNTY OF Jefferson) ss

Acknowledgment

On this 29th day of September, 1997, before me, a Notary Public, personally appeared Elnore A. Grow, aka Elnore Hendrickson, aka Eleanore Hendrickson to me known to be the person described in and who executed the foregoing instrument, and acknowledged to me that she executed the same as her free act and deed.

My commission expires:

1/12/2000

Randi Hollywood

Notary Public

STATE OF Colorado)
COUNTY OF Jefferson) ss

Corporation

On this 29th day of September, 1997, before me, a Notary Public, personally appeared Elnore Hendrickson Grow known to me to be the agent of the Corporation that is described in and that executed the within instrument and acknowledged to me that such Corporation executed the same.

My commission expires:

1/12/2000

Randi Hollywood

Notary Public

2. The pooled area shall be developed and operated as an entirety as though the pooled area were covered by a single oil and gas lease executed by all persons owning interest therein.
3. For all purposes, production of the pooled substances shall be allocated to and shall be deemed to have been produced from each of the separately owned tracts embraced within the pooled area in the proportion that the surface acreage of each such tract bears to the total surface acreage of the entire pooled area.
4. Subject to the terms of this Pooling Agreement, said lease shall continue in full force and effect as originally written.
5. This Agreement shall be binding upon and shall insure to the benefit of the parties to said oil, gas and mineral lease and their respective heirs, successors, legal representatives and assigns.

IN WITNESS WHEREOF, this instrument is executed as of the 3rd day of September, 1997.
October

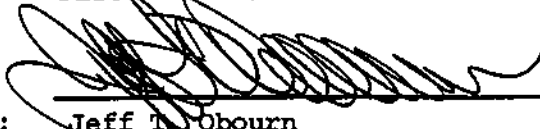
LESSOR:



Carol Else, aka Carole Else

ASSIGNEE:

TIPPERARY OIL & GAS CORPORATION



By: Jeff L. Obourn
Sr. Vice President-Operations

ATTEST:



Elaine R. Treece
Corporate Secretary

STATE OF Washington }
COUNTY OF Pierce } ss

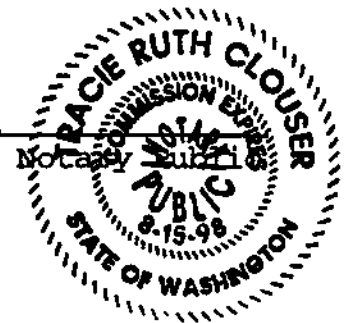
Individual

On this 3rd day of October ~~September~~, 1997, before me, a Notary Public, personally appeared Carol Else, aka Carole Else to me known to be the person described in and who executed the foregoing instrument, and acknowledged to me that she executed the same as her free act and deed.

My commission expires:

8-15-98

Tracie Clouser



STATE OF COLORADO }
COUNTY OF DENVER } ss

Corporation

On this 14th day of October, 1997, before me, a Notary Public, personally appeared Jeff T. Obourn known to me to be the Sr. Vice President-Operations of the Corporation that is described in and that executed the within instrument and acknowledged to me that such Corporation executed the same.

My commission expires:

December 19, 1998

Michelle R. S. Sullivan

Michelle R. S. Sullivan Notary Public

2. The pooled area shall be developed and operated as an entirety as though the pooled area were covered by a single oil and gas lease executed by all persons owning interest therein.
3. For all purposes, production of the pooled substances shall be allocated to and shall be deemed to have been produced from each of the separately owned tracts embraced within the pooled area in the proportion that the surface acreage of each such tract bears to the total surface acreage of the entire pooled area.
4. Subject to the terms of this Pooling Agreement, said lease shall continue in full force and effect as originally written.
5. This Agreement shall be binding upon and shall insure to the benefit of the parties to said oil, gas and mineral lease and their respective heirs, successors, legal representatives and assigns.

IN WITNESS WHEREOF, this instrument is executed as of the 2nd day of September ~~September~~ October, 19 97.

LESSOR:

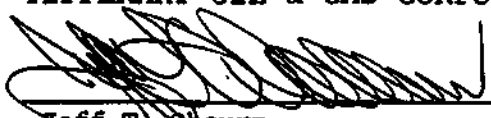


Sylvia Hart

ASSIGNEE:


TIPPERARY OIL & GAS CORPORATION

By:



Jeff T. Shourn
Sr. Vice President-Operations KMS

ATTEST:



Eliane R. Treece
Corporate Secretary

ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of Merced

On October 2, 1997

(DATE)

before me, Hallie Spencer Notary Public

SS.

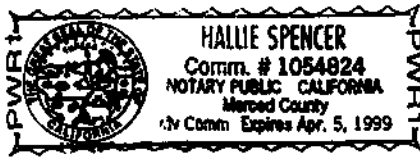
(NOTARY)

personally appeared Sylvia Hart

SIGNER(S)

personally known to me - OR -

proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



WITNESS my hand and official seal.

Hallie Spencer

NOTARY'S SIGNATURE

OPTIONAL INFORMATION

The information below is not required by law. However, it could prevent fraudulent attachment of this acknowledgment to an unauthorized document.

CAPACITY CLAIMED BY SIGNER (PRINCIPAL)

- INDIVIDUAL
- CORPORATE OFFICER

TITLE(S)

- PARTNER(S)
- ATTORNEY-IN-FACT
- TRUSTEE(S)
- GUARDIAN/CONSERVATOR
- OTHER: _____

DESCRIPTION OF ATTACHED DOCUMENT

Pooling agreement.

TITLE OR TYPE OF DOCUMENT

NUMBER OF PAGES

Oct. 2, 1997

DATE OF DOCUMENT

SIGNER IS REPRESENTING:
NAME OF PERSON(S) OR ENTITY(IES)

N/A

OTHER

STATE OF California }
COUNTY OF Merced } ss

Acknowledgment

On this _____ day of September, 1997, before me, a Notary Public, personally appeared Sylvia Hart to me known to be the person described in and who executed the foregoing instrument, and acknowledged to me that she executed the same as her free act and deed.

My commission expires:

See Attached

Notary Public

STATE OF COLORADO }
COUNTY OF DENVER } ss

Corporation

On this 14th day of October, 1997, before me, a Notary Public, personally appeared Jeff T. Obourn known to me to be the Sr. Vice President-Operations of the Corporation that is described in and that executed the within instrument and acknowledged to me that such Corporation executed the same.

My commission expires:

December 19, 1998

Michelle R. Sullivan


Michelle R. S. Sullivan Notary Public



2. The pooled area shall be developed and operated as an entirety as though the pooled area were covered by a single oil and gas lease executed by all persons owning interest therein.
3. For all purposes, production of the pooled substances shall be allocated to and shall be deemed to have been produced from each of the separately owned tracts embraced within the pooled area in the proportion that the surface acreage of each such tract bears to the total surface acreage of the entire pooled area.
4. Subject to the terms of this Pooling Agreement, said lease shall continue in full force and effect as originally written.
5. This Agreement shall be binding upon and shall insure to the benefit of the parties to said oil, gas and mineral lease and their respective heirs, successors, legal representatives and assigns.

IN WITNESS WHEREOF, this instrument is executed as of the
2nd day of ~~September~~ October, 19 97.

LESSOR:



James Hart

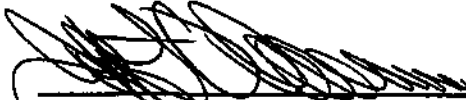
ASSIGNEE:

TIPPERARY OIL & GAS CORPORATION

ATTEST:


Elaine R. Treece
Corporate Secretary

By:



Jeff T. Obourn
Sr. Vice President-Operations KMG

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of Calif.

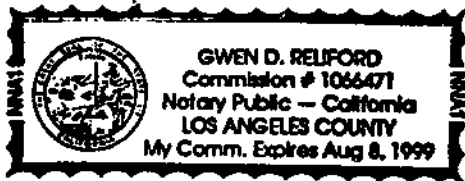
County of Los Angeles

On 10-2-97 before me, Gwen D. Reliford Notary
Date Name and Title of Officer (e.g., "Jane Doe, Notary Public")

personally appeared James Hart
Name(s) of Signer(s)

- personally known to me
- proved to me on the basis of satisfactory evidence

to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



WITNESS my hand and official seal.

Gwen D. Reliford
Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: _____

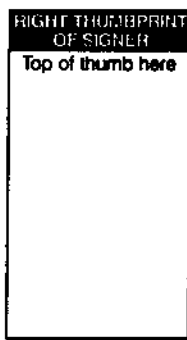
Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____

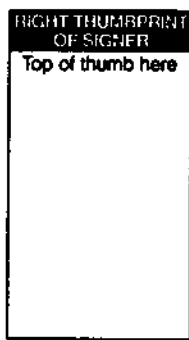
- Individual
- Corporate Officer
Title(s): _____
- Partner — Limited General
- Attorney-in-Fact
- Trustee
- Guardian or Conservator
- Other: _____



Signer Is Representing:

Signer's Name: _____

- Individual
- Corporate Officer
Title(s): _____
- Partner — Limited General
- Attorney-in-Fact
- Trustee
- Guardian or Conservator
- Other: _____



Signer Is Representing:

STATE OF California }
COUNTY OF Los Angeles } ss

Acknowledgment

On this _____ day of September, 1997, before me, a Notary Public, personally appeared James Hart to me known to be the person described in and who executed the foregoing instrument, and acknowledged to me that he executed the same as his free act and deed.

My commission expires:

Notary Public

STATE OF COLORADO }
COUNTY OF DENVER } ss

Corporation

On this 14th day of October, 1997, before me, a Notary Public, personally appeared Jeff T. Obourn known to me to be the Sr. Vice President-Operations of the Corporation that is described in and that executed the within instrument and acknowledged to me that such Corporation executed the same.

My commission expires:
December 19, 1998

Michelle R. S. Sullivan

Michelle R. S. Sullivan Notary Public



3. For all purposes, production of the pooled substances shall be allocated to and shall be deemed to have been produced from each of the separately owned tracts embraced within the pooled area in the proportion that the surface acreage of each such tract bears to the total surface acreage of the entire pooled area.
4. Subject to the terms of this Pooling Agreement, said lease shall continue in full force and effect as originally written.
5. This Agreement shall be binding upon and shall insure to the benefit of the parties to said oil, gas and mineral lease and their respective heirs, successors, legal representatives and assigns.

IN WITNESS WHEREOF, this instrument is executed as of the 10th day of October, 1997.

LESSOR:

La Mae Mitchell ^{POA.} *for Clara Mattson*

La Mae Mitchell, Attorney-in-Fact
for Clara Mattson, fka
Clara Bentson, a widow

ASSIGNEE:

TIPPERARY OIL & GAS CORPORATION

ATTEST:

Elaine R. Treece
Elaine R. Treece
Corporate Secretary

By:

Jeff T. Osborn
Jeff T. Osborn
Sr. Vice President-Operations

STATE OF Montana }
COUNTY OF Yellowstone }

Acknowledgment

ss

On this 10th day of October, 1997, before me, a Notary Public, personally appeared La Mae Mitchell, Attorney-in-Fact for Glara Mattson, fka Clara Bentson, a widow to me known to be the person described in and who executed the foregoing instrument, and acknowledged to me that she executed the same as her free act and deed.

My commission expires:

3-1-99

Kathleen J. Oppenud
Notary Public

STATE OF COLORADO }
COUNTY OF DENVER }

ss

Corporation

On this 16th day of October, 1997, before me, a Notary Public, personally appeared Jeff T. Obourn known to me to be the Sr. Vice President-Operations of the Corporation that is described in and that executed the within instrument and acknowledged to me that such Corporation executed the same.

My commission expires:

December 19, 1998

Michelle R. S. Sullivan
Michelle R. S. Sullivan Notary Public

Burlough County

**Notice of Publication
North Dakota Industrial Commission
Bismarck, North Dakota**

The State of North Dakota by its Industrial Commission hereby gives notice pursuant to law and the rules and regulations of said Commission promulgated thereunder of the following public hearing to be held at 9:00 a.m. on ~~October 7, 1998~~ ~~October 7, 1998~~ Pioneer Room, State Capitol, Bismarck, North Dakota. For the purpose of this hearing, the Commission, any member thereof acting as Examiner, or an Examiner appointed by the Commission will receive testimony and exhibits.

ATTENTION PERSONS WITH DISABILITIES: If you plan to attend the hearing and will need special facilities or assistance relating to a disability, please contact the North Dakota Industrial Commission at 701-328-3722 by October 7, 1998.

STATE OF NORTH DAKOTA TO:
All named parties and persons having any right, title, interest, or claim in the following cases and notices to the public: (CONTINUED) ON A MOTION OF THE COMMISSION TO CONSIDER THE APPLICATION OF LYCO OPERATING COMPANY FOR AN ORDER ESTABLISHING 320-ACRE TEMPORARY SPACING FOR THE DEVELOPMENT OF AN OIL AND/OR GAS POOL IN THE INTERLAKE FORMATION UNDERLYING THE SE¼ OF SECTION 24, AND THE NE¼ OF SECTION 25, T.151N., R.95W., DIVIDE COUNTY, NORTH DAKOTA, DISCOVERED BY APPLICANT'S #25-2 PLUMER-LUNDOQUIST WELL, AND ENACTING SUCH SPECIAL FIELD RULES AS MAY BE NECESSARY AND/OR ADVISABLE. **CASE NO. 7158:** ON A MOTION OF THE COMMISSION TO CONSIDER THE APPLICATION OF CONTINENTAL RESOURCES, INC. FOR AN ORDER AUTHORIZING THE FLARING OF GAS FROM THE FOLLOWING WELLS OPERATED BY THE APPLICANT AND PRODUCING FROM THE CEDAR HILLS-RED RIVER "B" POOL, BOWMAN COUNTY, NORTH DAKOTA:

- TURBIVILLE 1-11-SEC. 11-T130N-R106W;
- HARRY 1-15F-SEC. 15-T130N-R106W;
- BAR LT 1-14-SEC. 14-T130N-R106W;
- ERIC 1-24F-SEC. 24-T130N-R106W;
- PAMELA 1-23F-SEC. 23-T130N-R106W;
- ELSIE 1-22F-SEC. 22-T130N-R106W;
- ADAM 1-26F-SEC. 26-T130N-R106W;
- AGGRAVATION ACRES 1-24F-SEC. 34-T130N-R106W;
- DONALD 1-35-SEC. 35-T130N-R106W;
- BEN 1-28F-SEC. 28-T130N-R106W;
- NAGLE 1-27F-SEC. 27-T130N-R106W.

AS AN EXCEPTION TO THE PROVISIONS OF SECTION 38-08-06.4 OF THE NORTH DAKOTA CENTURY CODE AND/OR SUCH FURTHER AND ADDITIONAL RELIEF AS THE COMMISSION DEEMS JUST AND APPROPRIATE. **CASE NO. 7157:** ON A MOTION OF THE COMMISSION TO CONSIDER THE APPLICATION OF CONTINENTAL RESOURCES, INC. FOR AN ORDER AUTHORIZING THE FLARING OF GAS FROM THE FOLLOWING WELLS OPERATED BY THE APPLICANT AND PRODUCING FROM THE CEDAR HILLS-RED RIVER "B" POOL, BOWMAN AND SLOPE COUNTIES, NORTH DAKOTA:

- CEDAR HILLS 1-32F-SEC. 32-T132N-R105W;
- MARY 1-31-SEC. 31-T131N-R104W;
- CLARA 1-30-SEC. 30-T131N-R104W;
- DOUG 1-18-SEC. 18-T130N-R106W;

AS AN EXCEPTION TO THE PROVISIONS OF SECTION 38-08-06.4 OF THE NORTH DAKOTA CENTURY CODE AND/OR SUCH FURTHER AND ADDITIONAL RELIEF AS THE COMMISSION DEEM JUST AND APPROPRIATE. **CASE NO. 7158:** ON A MOTION OF THE COMMISSION TO CONSIDER THE APPLICATION OF TPC EXPLORATION FOR AN ORDER AMENDING THE FIELD RULES FOR THE NORTHWEST MCGREGOR-MADISON POOL SO AS TO CREATE AND ESTABLISH A ZONE OF 640-ACRE SPACING FOR SECTION 20, T.158N., R.95W., WILLIAMS COUNTY, NORTH DAKOTA, OR CREATING AND ESTABLISHING A 640-ACRE DRILLING UNIT CONSISTING OF ALL OF SAID SECTION 20 FOR THE PURPOSE OF DRILLING A HORIZONTAL WELL IN THE RATCLIFFE FORMATION AND/OR SUCH OTHER AND FURTHER RELIEF AS THE COMMISSION DEEMS APPROPRIATE. **CASE NO. 7159:** ON A MOTION OF THE COMMISSION TO CONSIDER THE APPLICATION OF TPC EXPLORATION FOR AN ORDER AMENDING THE FIELD RULES FOR THE TEMPLE-MADISON POOL AND NORTHWEST MCGREGOR-MADISON POOL SO AS TO CREATE AND ESTABLISH A ZONE OF 640-ACRE SPACING FOR SECTION 31, T.159N., R.95W., WILLIAMS COUNTY, NORTH DAKOTA, OR CREATING AND ESTABLISHING A 640-ACRE DRILLING UNIT CONSISTING OF ALL OF SAID SECTION 31 FOR THE PURPOSE OF DRILLING A HORIZONTAL WELL IN THE RATCLIFFE FORMATION AND/OR SUCH OTHER AND FURTHER RELIEF AS THE COMMISSION DEEMS APPROPRIATE.

CASE NO. 7180: ON A MOTION OF THE COMMISSION TO CONSIDER THE APPLICATION OF TPC EXPLORATION FOR AN ORDER AMENDING THE FIELD RULES FOR THE MCGREGOR-MADISON POOL SO AS TO CREATE AND ESTABLISH A ZONE OF 640-ACRE SPACING FOR SECTION 32, T.159N., R.95W., WILLIAMS COUNTY, NORTH DAKOTA, OR CREATING AND ESTABLISHING A 640-ACRE DRILLING UNIT CONSISTING OF ALL OF SAID SECTION 32 FOR THE PURPOSE OF DRILLING A HORIZONTAL WELL IN THE RATCLIFFE FORMATION AND/OR SUCH OTHER AND FURTHER RELIEF AS THE COMMISSION DEEMS APPROPRIATE. **CASE NO. 7181:** ON A MOTION OF THE COMMISSION TO CONSIDER THE APPLICATION OF TPC EXPLORATION FOR AN ORDER AMENDING THE FIELD RULES FOR THE MCGREGOR-MADISON POOL AND TIoga-MADISON POOL SO AS TO CREATE AND ESTABLISH A ZONE OF 640-ACRE SPACING FOR SECTION 22, T.158N., R.95W., WILLIAMS COUNTY, NORTH DAKOTA, OR CREATING AND ESTABLISHING A 640-ACRE DRILLING UNIT CONSISTING OF ALL OF SAID SECTION 22 FOR THE PURPOSE OF DRILLING A HORIZONTAL WELL IN THE RATCLIFFE FORMATION AND/OR SUCH OTHER AND FURTHER RELIEF AS THE COMMISSION DEEMS APPROPRIATE. **CASE NO. 7182:** ON A MOTION OF THE COMMISSION TO CONSIDER THE APPLICATION OF TPC EXPLORATION FOR AN ORDER AMENDING THE FIELD RULES FOR THE MCGREGOR-MADISON POOL SO AS TO CREATE AND ESTABLISH A ZONE OF 640-ACRE SPACING FOR SECTION 20, T.158N., R.95W., WILLIAMS COUNTY, NORTH DAKOTA, OR CREATING AND ESTABLISHING A 640-ACRE DRILLING UNIT CONSISTING OF ALL OF SAID SECTION 20 FOR THE PURPOSE OF DRILLING A HORIZONTAL WELL IN THE RATCLIFFE FORMATION AND/OR SUCH OTHER AND FURTHER RELIEF AS THE COMMISSION DEEMS APPROPRIATE. **CASE NO. 7183:** ON A MOTION OF THE COMMISSION TO CONSIDER THE APPLICATION OF TPC EXPLORATION FOR AN ORDER AMENDING THE FIELD RULES FOR THE MCGREGOR-MADISON POOL SO AS TO CREATE AND ESTABLISH A ZONE OF 640-ACRE SPACING FOR SECTION 28, T.158N., R.95W., WILLIAMS COUNTY, NORTH DAKOTA, OR CREATING AND ESTABLISHING A 640-ACRE

DRILLING UNIT CONSISTING OF ALL OF SAID SECTION 28 FOR THE PURPOSE OF DRILLING A HORIZONTAL WELL IN THE RATCLIFFE FORMATION AND/OR SUCH OTHER AND FURTHER RELIEF AS THE COMMISSION DEEMS APPROPRIATE. **CASE NO. 7184:** ON A MOTION OF THE COMMISSION TO CONSIDER THE APPLICATION OF ALENCO OIL AND GAS (N.D.) INC. FOR AN ORDER CREATING A 320-ACRE DRILLING UNIT CONSISTING OF THE E/2 OF SECTION 13, T.151N., R.89W., MOUNTRAIL COUNTY, NORTH DAKOTA, AUTHORIZING THE DRILLING OF A WELL AT A LOCATION ANYWHERE WITHIN SAID DRILLING UNIT NOT LESS THAN 680 FEET FROM THE PROPOSED DRILLING UNIT BOUNDARY AS AN EXCEPTION TO THE PROVISIONS OF SECTION 43-02-03-18 OF THE NORTH DAKOTA ADMINISTRATIVE CODE, AND SUCH OTHER AND FURTHER RELIEF AS THE COMMISSION DEEMS APPROPRIATE. **CASE NO. 7185:** ON A MOTION OF THE COMMISSION TO CONSIDER THE APPLICATION OF ALENCO OIL AND GAS (N.D.) INC. FOR AN ORDER CREATING A 320-ACRE DRILLING UNIT CONSISTING OF THE E/2 OF SECTION 35, T.151N., R.88W., MOUNTRAIL COUNTY, NORTH DAKOTA, AUTHORIZING THE DRILLING OF A WELL AT A LOCATION ANYWHERE WITHIN SAID DRILLING UNIT NOT LESS THAN 680 FEET FROM THE PROPOSED DRILLING UNIT BOUNDARY AS AN EXCEPTION TO THE PROVISIONS OF SECTION 43-02-03-18 OF THE NORTH DAKOTA ADMINISTRATIVE CODE, AND SUCH OTHER AND FURTHER RELIEF AS THE COMMISSION DEEMS APPROPRIATE. **CASE NO. 7187:** ON A MOTION OF THE COMMISSION TO CONSIDER THE APPLICATION OF ARMSTRONG RESOURCES, L.L.C. FOR AN ORDER EXTENDING THE FIELD LIMITS OF THE AMBROSE FIELD TO INCLUDE ALL OF SECTION 18, T.163N., R.99W., DIVIDE COUNTY, NORTH DAKOTA, AND ESTABLISH A SPACING UNIT FOR THE AMBROSE-DUPEROW POOL CONSISTING OF ALL OF SAID SECTION 18, AND ALLOWING A HORIZONTAL WELL TO BE DRILLED AT ANY LOCATION THEREON NOT CLOSER THAN 500 FEET TO THE BOUNDARY OF SAID SECTION 18, OR FOR SUCH OTHER AND FURTHER RELIEF AS THE COMMISSION DEEMS APPROPRIATE. **CASE NO. 7188:** ON A MOTION OF THE COMMISSION TO CONSIDER THE APPLICATION OF ARMSTRONG RESOURCES, L.L.C. FOR AN ORDER EXTENDING THE FIELD LIMITS OF THE WEST AMBROSE FIELD TO INCLUDE ALL OF SECTION 23, T.163N., R.100W., DIVIDE COUNTY, NORTH DAKOTA, AND ESTABLISH A SPACING UNIT FOR THE WEST AMBROSE-DUPEROW POOL CONSISTING OF ALL OF SAID SECTION 23, AND ALLOWING A HORIZONTAL WELL TO BE DRILLED AT ANY LOCATION THEREON NOT CLOSER THAN 508 FEET TO THE BOUNDARY OF SAID SECTION 23, OR FOR SUCH OTHER AND FURTHER RELIEF AS THE COMMISSION DEEMS APPROPRIATE. **CASE NO. 7189:** ON A MOTION OF THE COMMISSION TO CONSIDER THE APPLICATION OF AMERADA HESS CORPORATION FOR AN ORDER POOLING ALL INTERESTS IN A SPACING UNIT FOR THE BLUE BUTTES-STONEWALL POOL DESCRIBED AS THE N/2 OF SECTION 30, T.151N., R.95W., MCKENZIE COUNTY, NORTH DAKOTA. **CASE NO. 7190:** ON A MOTION OF THE COMMISSION TO CONSIDER THE PETITION OF BALLANTYNE OIL CO. FOR AN ORDER PROVIDING FOR THE UNITIZED MANAGEMENT, OPERATION, AND FURTHER DEVELOPMENT OF THE KUROKI-MADISON UNIT AREA, CONSISTING OF LANDS WITHIN, AND CONTIGUOUS TO, THE KUROKI FIELD IN BOTTINEAU COUNTY, NORTH DAKOTA; FOR APPROVAL OF THE UNIT AGREEMENT AND UNIT OPERATING AGREEMENT CONSTITUTING THE PLAN OF UNITIZATION FOR THE KUROKI-MADISON UNIT AREA; FOR APPROVAL OF THE PLAN OF OPERATION; VACATING THE APPLICA-

BLE SPACING ORDERS; AND FOR SUCH FURTHER AND ADDITIONAL RELIEF AS THE COMMISSION DEEMS APPROPRIATE. **CASE NO. 7171:** ON A MOTION OF THE COMMISSION TO CONSIDER THE APPLICATION OF BALLANTYNE OIL CO. FOR AN ORDER DETERMINING THAT THE PLAN OF UNITIZATION FOR THE KUROKI-MADISON UNIT AREA, BOTTINEAU COUNTY, NORTH DAKOTA, HAS BEEN SIGNED, RATIFIED OR APPROVED BY OWNERS OF INTEREST OWNING THAT PERCENTAGE OF THE WORKING INTEREST AND ROYALTY INTEREST WITHIN SAID UNIT AS IS REQUIRED BY APPLICABLE STATUTES AND RULES OF THE COMMISSION.

CASE NO. 7191: ON A MOTION OF THE COMMISSION TO CONSIDER THE PROPER SPACING FOR THE DEVELOPMENT OF THE SUNSET BUTTE-RED RIVER "C" POOL, BOWMAN COUNTY, NORTH DAKOTA, DEFINE THE LIMITS OF THE FIELD, AND ENACT SUCH SPECIAL FIELD RULES AS MAY BE NECESSARY. **BURNINGTON RESOURCES OIL & GAS COMPANY. CASE NO. 7187:** ON A MOTION OF THE COMMISSION TO CONSIDER THE APPLICATION OF ARMSTRONG RESOURCES, L.L.C. FOR AN ORDER EXTENDING THE FIELD LIMITS OF THE AMBROSE FIELD TO INCLUDE ALL OF SECTION 18, T.163N., R.99W., DIVIDE COUNTY, NORTH DAKOTA, AND ESTABLISH A SPACING UNIT FOR THE AMBROSE-DUPEROW POOL CONSISTING OF ALL OF SAID SECTION 18, AND ALLOWING A HORIZONTAL WELL TO BE DRILLED AT ANY LOCATION THEREON NOT CLOSER THAN 500 FEET TO THE BOUNDARY OF SAID SECTION 18, OR FOR SUCH OTHER AND FURTHER RELIEF AS THE COMMISSION DEEMS APPROPRIATE. **CASE NO. 7188:** ON A MOTION OF THE COMMISSION TO CONSIDER THE APPLICATION OF ARMSTRONG RESOURCES, L.L.C. FOR AN ORDER EXTENDING THE FIELD LIMITS OF THE WEST AMBROSE FIELD TO INCLUDE ALL OF SECTION 23, T.163N., R.100W., DIVIDE COUNTY, NORTH DAKOTA, AND ESTABLISH A SPACING UNIT FOR THE WEST AMBROSE-DUPEROW POOL CONSISTING OF ALL OF SAID SECTION 23, AND ALLOWING A HORIZONTAL WELL TO BE DRILLED AT ANY LOCATION THEREON NOT CLOSER THAN 508 FEET TO THE BOUNDARY OF SAID SECTION 23, OR FOR SUCH OTHER AND FURTHER RELIEF AS THE COMMISSION DEEMS APPROPRIATE. **CASE NO. 7189:** ON A MOTION OF THE COMMISSION TO CONSIDER THE APPLICATION OF AMERADA HESS CORPORATION FOR AN ORDER POOLING ALL INTERESTS IN A SPACING UNIT FOR THE BLUE BUTTES-STONEWALL POOL DESCRIBED AS THE N/2 OF SECTION 30, T.151N., R.95W., MCKENZIE COUNTY, NORTH DAKOTA. **CASE NO. 7190:** ON A MOTION OF THE COMMISSION TO CONSIDER THE PETITION OF BALLANTYNE OIL CO. FOR AN ORDER PROVIDING FOR THE UNITIZED MANAGEMENT, OPERATION, AND FURTHER DEVELOPMENT OF THE KUROKI-MADISON UNIT AREA, CONSISTING OF LANDS WITHIN, AND CONTIGUOUS TO, THE KUROKI FIELD IN BOTTINEAU COUNTY, NORTH DAKOTA; FOR APPROVAL OF THE UNIT AGREEMENT AND UNIT OPERATING AGREEMENT CONSTITUTING THE PLAN OF UNITIZATION FOR THE KUROKI-MADISON UNIT AREA; FOR APPROVAL OF THE PLAN OF OPERATION; VACATING THE APPLICA-

Signed by:
Edward T. Schafer, Governor
Chairman, ND Industrial Commission
10/2 - 66638

OK

Notice of publication

NORTH DAKOTA INDUSTRIAL COMMISSION BISMARCK, NORTH DAKOTA

The State of North Dakota by its Industrial Commission hereby gives notice pursuant to law and the rules and regulations of said Commission promulgated thereunder of the following public hearing to be held at 9:00 a.m. on October 21, 1998, Pioneer Room, State Capitol, Bismarck, North Dakota. For the purpose of this hearing, the Commission, any member thereof acting as Examiner, or an Examiner appointed by the Commission will receive testimony and exhibits.

ATTENTION PERSONS WITH DISABILITIES: If you plan to attend the hearing and will need special facilities or assistance relating to a disability, please contact the North Dakota Industrial Commission at 701-328-3722 by October 7, 1998.

STATE OF NORTH DAKOTA TO:

All named parties and persons having any right, title, interest, or claim in the following cases and notices to the public. **CASE NO. 7145:** (CONTINUED) ON A MOTION OF THE COMMISSION TO CONSIDER THE APPLICATION OF LYCO OPERATING COMPANY FOR AN ORDER ESTABLISHING 320-ACRE TEMPORARY SPACING FOR THE DEVELOPMENT OF AN OIL AND/OR GAS POOL IN THE INTERLAKE FORMATION UNDERLYING THE SE/4 OF SECTION 24, AND THE NE/4 OF SECTION 25, T.161N., R.99W., DIVIDE COUNTY, NORTH DAKOTA, DISCOVERED BY APPLICANT'S 425-28 LIMER LINDQUIST WELL, AND ENACTING SUCH SPECIAL FIELD RULES AS MAY BE NECESSARY AND/OR APPROPRIATE.

CASE NO. 7167: ON A MOTION OF THE COMMISSION TO CONSIDER THE APPLICATION OF ARMSTRONG RESOURCES, L.L.C. FOR AN ORDER EXTENDING THE FIELD LIMITS OF THE AMBROSE FIELD TO INCLUDE ALL OF SECTION 16, T.163N., R.99W., DIVIDE COUNTY, NORTH DAKOTA, AND ESTABLISH A SPACING UNIT FOR THE AMBROSE-DUPEROW POOL CONSISTING OF ALL OF SAID SECTION 16, AND ALLOWING A HORIZONTAL WELL TO BE DRILLED AT ANY LOCATION THEREON NOT CLOSER THAN 500 FEET TO THE BOUNDARY OF SAID SECTION 16, OR FOR SUCH OTHER AND FURTHER RELIEF AS THE COMMISSION DEEMS APPROPRIATE. **CASE NO. 7168:** ON A MOTION OF THE COMMISSION TO CONSIDER THE APPLICATION OF ARMSTRONG RESOURCES, L.L.C. FOR AN ORDER EXTENDING THE FIELD LIMITS OF THE WEST AMBROSE FIELD TO INCLUDE ALL OF SECTION 23, T.163N., R.100W., DIVIDE COUNTY, NORTH DAKOTA, AND ESTABLISH A SPACING UNIT FOR THE WEST AMBROSE-DUPEROW POOL CONSISTING OF ALL OF SAID SECTION 23, AND ALLOWING A HORIZONTAL WELL TO BE DRILLED AT ANY LOCATION THEREON NOT CLOSER THAN 500 FEET TO THE BOUNDARY OF SAID SECTION 23, OR FOR SUCH OTHER AND FURTHER RELIEF AS THE COMMISSION DEEMS APPROPRIATE.

Signed by,
Edward T. Schafer, Governor
Chairman
ND Industrial Commission (9-30)

Affidavit of Publication

State of North Dakota, County of Divide, ss:

I, Steven J. Andrist, being first duly sworn, on my oath, say that I am the publisher of The Journal, a weekly newspaper of general circulation and official newspaper of Divide County, State of North Dakota, published in the city of Crosby, ND, and that the advertisement headed

Notice of publication

a printed copy of which is here attached, was published in The Journal on the following dates:

_____	Lines @ _____	= \$ _____
_____	Lines @ _____	= \$ _____
_____	Lines @ _____	= \$ _____
September 30, 1998	14 Column Inches @ 3.90	= \$ 54.60
_____	Column Inches @ _____	= \$ _____
_____	Column Inches @ _____	= \$ _____
Notary/Affidavit Fee	_____	\$ _____
Total Charge	_____	\$ 54.60

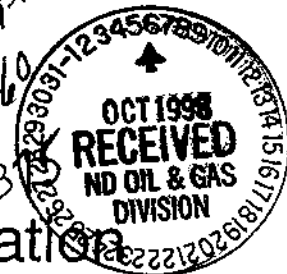
PAID

Signed Steven J. Andrist
Steven J. Andrist, Publisher

Subscribed and sworn to before me October 1, 1998

Donna Molander
Donna Molander
Notary Public, State of North Dakota
My Commission Expires December 14, 2000

4480
cc 2/100
obj. 2440
#5460
#123
10-19-98



PLEASE DETACH AND RETURN UPPER PORTION WITH YOUR REMITTANCE

10	DATE	11	NEWSPAPER PREFERENCE	12	13	14	DESCRIPTION - OTHER COMMENTS, CHANGES	15	16	17	18	19	20	21
								SAU SIZE BILLED UNITS		TIME RUN RATE		GROSS AMOUNT		NET AMOUNT
10-02			00666381 BT				NOTICE OF PUBLICATION CLASS CODE - 0001 FLAT CHARGE 28	275		1		0.00 162.25		0.00 162.25



OK

**AFFIDAVIT OF PUBLICATION
STATE OF NORTH DAKOTA**

County of Burleigh } ss
 BEFORE ME, A NOTARY PUBLIC FOR THE STATE OF NORTH DAKOTA, PERSONALLY APPEARED Kirsten WHO,
 BEING DULY SWORN, DEPOSES AND SAYS THAT HE IS THE CLERK OF THE BISMARCK TRIBUNE COMPANY, AND
 THAT THE ABOVE PUBLICATIONS, Notice of Public WERE MADE THROUGH THE AFORESAID NEWSPAPER
 AT THE TIMES SHOWN, 10/15 SIGNED Austin Hanson
 SWORN AND SUBSCRIBED TO BEFORE ME THIS 15 DAY OF October 1998
 Notary Public in and for the State of North Dakota, Residing at Bismarck

7145

PAID

STATEMENT OF ACCOUNT AGING OF PAST DUE AMOUNTS

21	CURRENT NET AMOUNT DUE	22	30 DAYS	60 DAYS	OVER 90 DAYS	UNAPPLIED AMOUNT	23	TOTAL AMOUNT DUE
								162.25

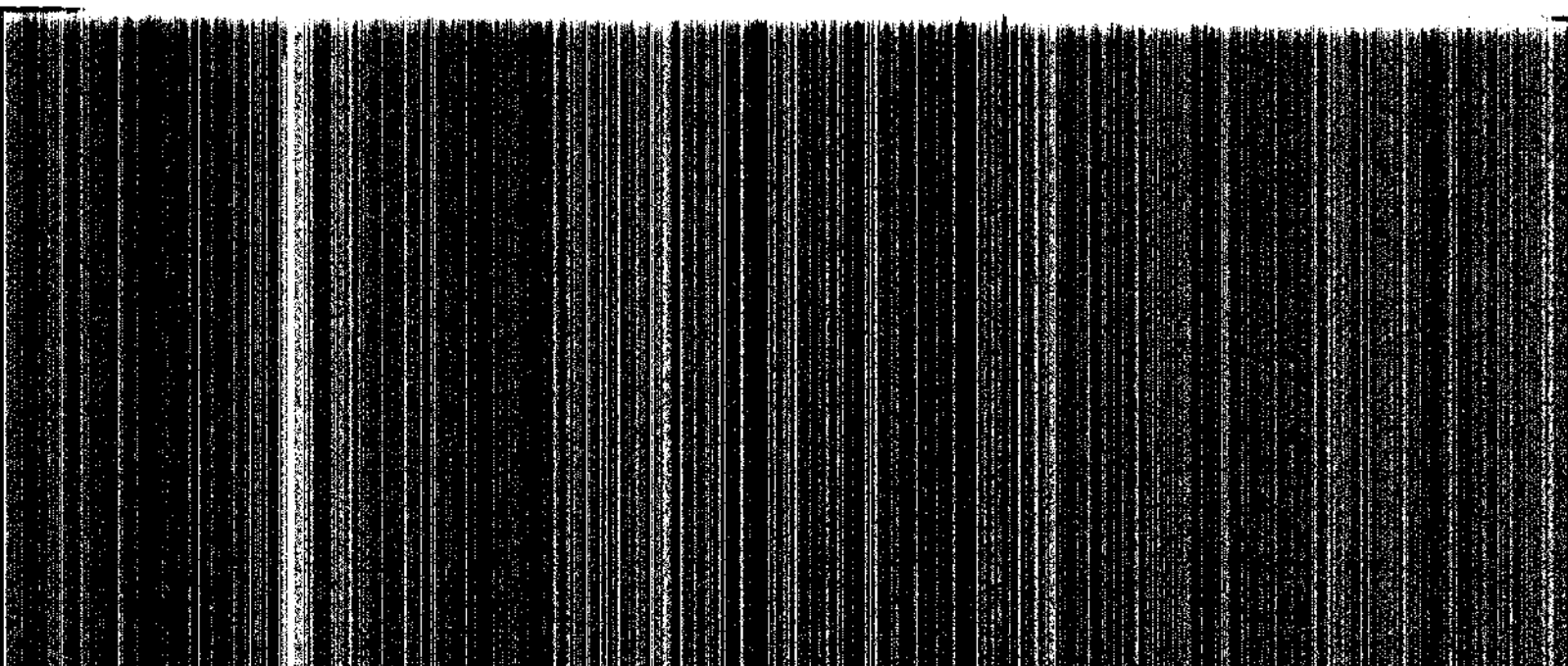


THE BISMARCK TRIBUNE

P.O. BOX 1498 BISMARCK, NORTH DAKOTA 58502-1498
 (701) 223-2500 IN STATE (800) 472-2273 FAX (701) 223-4240

LEGAL PUBLICATIONS

ADVERTISER INFORMATION			
24	25	26	27
BILLING PERIOD	BILLED ACCOUNT NUMBER	ADVERTISER/CLIENT NUMBER	ADVERTISER/CLIENT NAME
666381 10/13/98	66638-1	66638-1	OIL & GAS DIVISION



U

Notice of publication

NORTH DAKOTA INDUSTRIAL COMMISSION BISMARCK, NORTH DAKOTA

The State of North Dakota by its Industrial Commission hereby gives notice pursuant to law and the rules and regulations of said Commission promulgated thereunder of the following public hearing to be held at 9:00 A.M. on September 10, 1998, in the State Capitol, Bismarck, North Dakota. For the purpose of this hearing, the Commission, any member thereof acting as Examiner, or an Examiner appointed by the Commission will receive testimony and exhibit.

ATTENTION PERSONS WITH DISABILITIES: If you plan to attend the hearing and will need special facilities or assistance relating to a disability, please contact the North Dakota Industrial Commission at 701-328-3722 by September 21, 1998.

STATE OF NORTH DAKOTA TO: All named parties and persons having any right, title, interest, or claim in the following cases and notices to the public. **CASE NO. 7054:** (CONTINUED) ON A MOTION OF THE COMMISSION TO CONSIDER THE TEMPORARY SPACING FOR THE DEVELOPMENT OF AN OIL AND/OR GAS POOL DISCOVERED BY THE LYCO OPERATING COMPANY, #21-9 SWAMPY-MOSSER WELL, LOCATED IN THE NE/4 SE/4 OF SECTION 21, T.163N., R.100W., DIVIDE COUNTY, NORTH DAKOTA, AND ENACT SUCH SPECIAL FIELD RULES AS MAY BE NECESSARY. **CASE NO. 7149:** ON A MOTION OF THE COMMISSION TO CONSIDER THE APPLICATION OF LYCO OPERATING COMPANY FOR AN ORDER ESTABLISHING 1320 ACRE TEMPORARY SPACING FOR THE DEVELOPMENT OF AN

OIL AND/OR GAS POOL IN THE INTERLAKE FORMATION UNDERLYING THE SE/4 OF SECTION 24, AND THE NE/4 OF SECTION 25, T.161N., R.99W., DIVIDE COUNTY, NORTH DAKOTA, DISCOVERED BY APPLICANT'S #23-2 PLUMER-LUNDOQUIST WELL, AND ENACTING SUCH SPECIAL FIELD RULES AS MAY BE NECESSARY AND/OR ADVISABLE.

Signed by
Edward T. Schafer, Governor
Chairman
ND Industrial Commission

OK



Affidavit of Publication

I, Steven J. Andrist, County of Divide, ss: Andrist, being first duly sworn, on my oath, say that I am the publisher of The Journal, a newspaper of general circulation and official newspaper of Divide County, State of North Dakota, published and printed in the city of Crosby, ND, and that the advertisement headed

Notice of publication

a printed copy of which is here attached, was published in The Journal on the following dates:

_____	_____	Lines @ _____	= \$ _____
_____	_____	Lines @ _____	= \$ _____
_____	_____	Lines @ _____	= \$ _____
August 26, 1998	10	Column Inches @ 3.90	= \$ 39.00
_____	_____	Column Inches @ _____	= \$ _____
_____	_____	Column Inches @ _____	= \$ _____
Notary/Affidavit Fee	_____	_____	\$ _____
Total Charge	_____	_____	\$ 39.00

Signed Steven J. Andrist
Steven J. Andrist, Publisher

Subscribed and sworn to before me September 2, 1998
Donna Molander
Donna Molander
Notary Public, State of North Dakota
My Commission Expires December 14, 2000