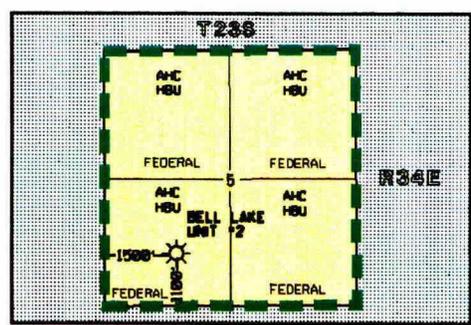
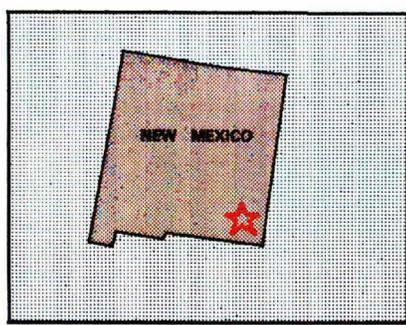
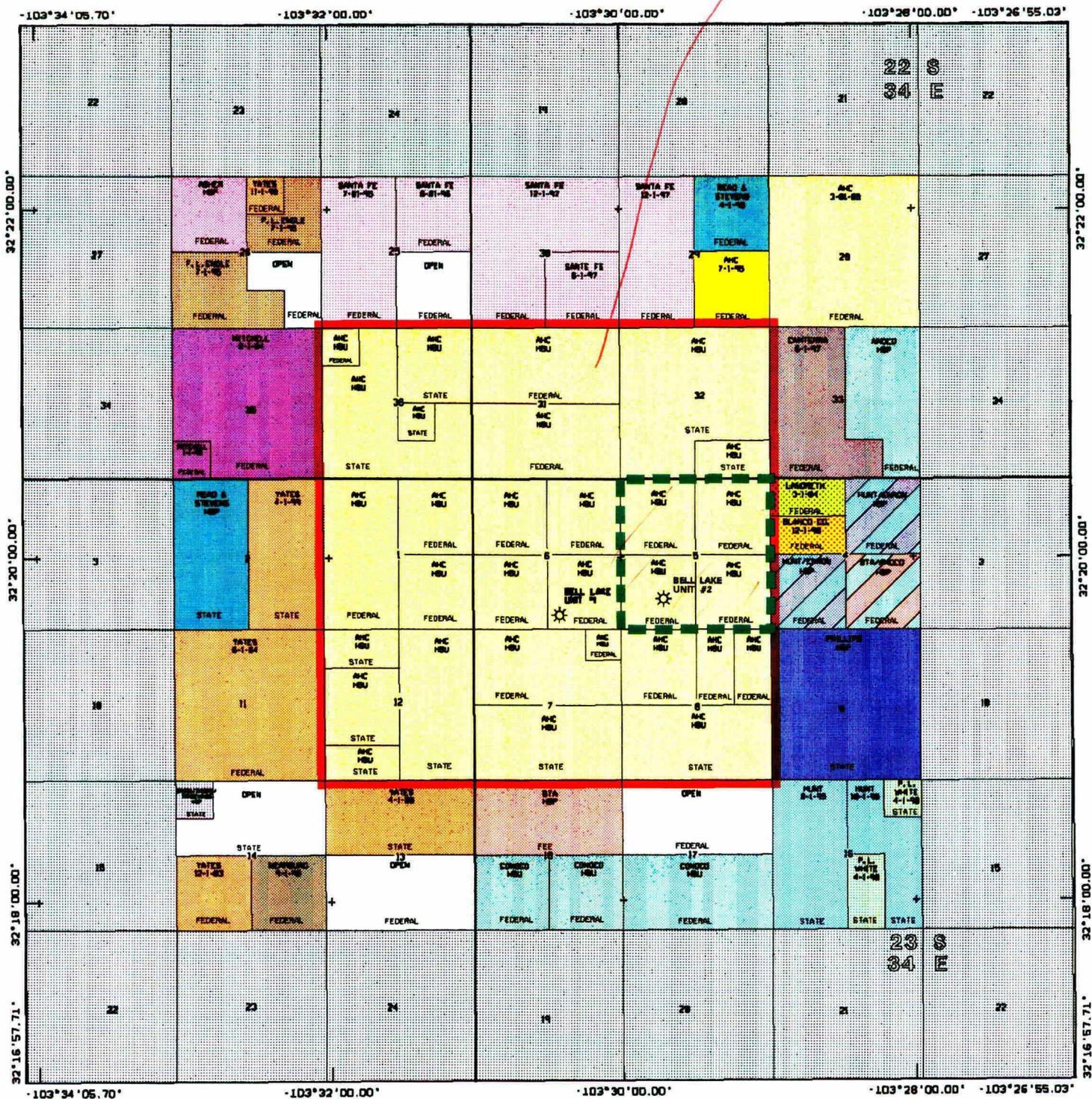


Bell Lake Unit #1

R-355

Fed



**AMERADA HESS CORPORATION**  
U.S. ONSHORE EXPLORATION

**BELL LAKE FEDERAL UNIT**  
LEA COUNTY, NEW MEXICO

NEW MEXICO OIL CONSERVATION DIVISION  
APRIL 20, 1995  
EXHIBIT

Geologist: JIM MCCARTHY Date: APRIL 1995  
Geophysicist: STEVE KERLICK Document No.: OPR308LN  
Landman: JEFF NIDMEYER Copy No.:

**BEFORE THE  
OIL CONSERVATION DIVISION**  
Santa Fe, New Mexico

Case No. 11269 Exhibit No. 1

Submitted by: Amerada Hess Corporation

Hearing Date: April 20, 1995



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

BRUCE KING  
GOVERNOR

2040 S. RACHECO  
SANTA FE, NEW MEXICO 87508  
(505) 827-7131

December 5, 1994

Amerada Hess Corporation  
c/o William F. Carr  
P. O. Box 2208  
Santa Fe, NM 87504-2208

*Administrative Order NSL-3439*

Dear Mr. Carr:

Reference is made to your application dated September 30, 1994, on behalf of the operator Amerada Hess Corporation, for a non-standard gas well location for the North Bell Lake Federal Well No. 2 to be drilled 1100 feet from the South line and 1500 feet from the West line (Unit N) of Section 5, Township 23 South, Range 34 East, NMPM, to test the Ellenburger formation, Lea County, New Mexico. Lots 3 and 4, the S/2 NW/4, and the SW/4 (W/2 equivalent) of said Section 5 shall be dedicated to the well forming a standard 320.09-acre gas spacing and proration unit.

By the authority granted me under the provisions of General Rule 104.F(2) the above-described unorthodox gas well location is hereby approved.

Sincerely,

William J. LeMay  
Director

WJL/MES/kv

cc: Oil Conservation Division - Hobbs  
US Bureau of Land Management - Carlsbad

BEFORE THE  
OIL CONSERVATION DIVISION  
Santa Fe, New Mexico

Case No. 11269 Exhibit No. 2

Submitted by: Amerada Hess Corporation

Hearing Date: April 20, 1995



**EXHIBIT A**

Conoco, Inc.  
10 Desta Drive, Suite 100 W  
Midland, TX 79705-4500  
Attn: Jerry Hoover

Conoco, Inc.  
Post Office Box 2197  
Houston, TX 77252

Kaiser-Francis Oil Company  
Post Office Box 21468  
Tulsa, OK 74121-1468

**BEFORE THE  
OIL CONSERVATION DIVISION**  
Santa Fe, New Mexico

Case No. 11269 Exhibit No. 3

**AFFIDAVIT,  
Page 2**

Submitted by: Amerada Hess Corporation

Hearing Date: April 20, 1995

CAMPBELL, CARR, BERGE  
& SHERIDAN, P.A.  
LAWYERS

MICHAEL B. CAMPBELL  
WILLIAM F. CARR  
BRADFORD C. BERGE  
MARK F. SHERIDAN

MICHAEL H. FELDEWERT  
TANYA M. TRUJILLO  
NANCY A. RATH

JACK M. CAMPBELL  
OF COUNSEL

JEFFERSON PLACE  
SUITE 1 - 110 NORTH GUADALUPE  
POST OFFICE BOX 2208  
SANTA FE, NEW MEXICO 87504-2208  
TELEPHONE: (505) 988-4421  
TELECOPIER: (505) 983-6043

March 30, 1995

**CERTIFIED-MAIL**  
**RETURN RECEIPT REQUESTED**

Conoco, Inc.  
10 Desta Drive, Suite 100 W  
Midland, TX 79705-4500  
Attn: Jerry Hoover

Re: Application of Amerada Hess Corporation for Pool Creation, Promulgation of Special Pool Rules and an Unorthodox Well Location, Lea County, New Mexico

Gentlemen:

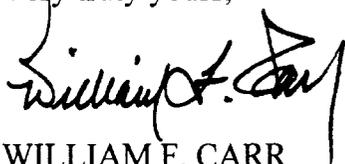
This letter is to advise you that Amerada Hess Corporation has filed the enclosed application with the New Mexico Oil Conservation Division seeking an order creating a new pool in the Ellenberger formation in Section 5, Township 23 South, Range 34 East, N.M.P.M., Lea County, New Mexico, promulgating Special Pool Rules and Regulations therefore including 640-acre spacing or proration units and approval of an unorthodox location under the new rules for its North Bell Lake Unit Well No. 2 which has been drilled 1100 feet from the South line and 1500 feet from the West line of said Section 5.

This application has been set for hearing before an Examiner of the Oil Conservation Division on April 20, 1995. You are not required to attend the hearing, but as the owner of an interest that may be affected by this application, you may appear at the hearing and present testimony. Failure to appear at that time or otherwise become a party of record will preclude you from challenging this application at a later date.

Conoco, Inc.  
March 30, 1995  
Page 2

Parties appearing in cases before the Division have been requested to file a Pre-hearing Statement substantially in the form prescribed by the Division (Oil Conservation Division Memorandum 2-90). Pre-hearing statements should be filed by 4:00 o'clock p.m., on the Friday before a scheduled hearing.

Very truly yours,

A handwritten signature in black ink, appearing to read "William F. Carr". The signature is written in a cursive style with a large, sweeping initial "W".

WILLIAM F. CARR  
ATTORNEY FOR AMERADA HESS CORPORATION  
WFC:mlh  
Enclosure



CAMPBELL, CARR, BERGE  
& SHERIDAN, P.A.  
LAWYERS

MICHAEL B. CAMPBELL  
WILLIAM F. CARR  
BRADFORD C. BERGE  
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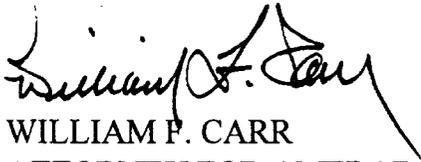
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Very truly yours,

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WILLIAM F. CARR  
ATTORNEY FOR AMERADA HESS CORPORATION  
WFC:mlh  
Enclosure



CAMPBELL, CARR, BERGE  
& SHERIDAN, P.A.  
LAWYERS

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TELEPHONE: (505) 988-4421  
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March 30, 1995

**CERTIFIED-MAIL**  
**RETURN RECEIPT REQUESTED**

Kaiser-Francis Oil Company  
Post Office Box 21468  
Tulsa, OK 74121-1468

Re: Application of Amerada Hess Corporation for Pool Creation, Promulgation of Special Pool Rules and an Unorthodox Well Location, Lea County, New Mexico

Gentlemen:

This letter is to advise you that Amerada Hess Corporation has filed the enclosed application with the New Mexico Oil Conservation Division seeking an order creating a new pool in the Ellenberger formation in Section 5, Township 23 South, Range 34 East, N.M.P.M., Lea County, New Mexico, promulgating Special Pool Rules and Regulations therefore including 640-acre spacing or proration units and approval of an unorthodox location under the new rules for its North Bell Lake Unit Well No. 2 which has been drilled 1100 feet from the South line and 1500 feet from the West line of said Section 5.

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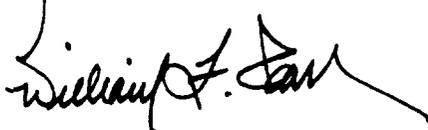
Kaiser-Francis Oil Company

March 30, 1995

Page 2

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Very truly yours,

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WILLIAM F. CARR

ATTORNEY FOR AMERADA HESS CORPORATION

WFC:mlh

Enclosure



LARGE FORMAT  
EXHIBIT HAS  
BEEN REMOVED  
AND IS LOCATED  
IN THE NEXT FILE

**Bell Lake Ellenburger Analogy Well Information**

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Field	API#	Cumulative (mmscf)	Cumulative (mbc)	Cumulative (mbw)	IPF (mcf)
Cheyenne	4249530525	1089	0	15	47000 (AOF)
Cheyenne	4249530537	9607	37	237	5000
Crittendon	4249510811	23822	0	211	14500 (AOF)
Evetts	4249530025	1963	0	41	?
Evetts	4249530032	47287	0	352	6000
Evetts	4249530132	1671	0	20	9100
Evetts	4249530144	7795	0	247	13500 (AOF)
Evetts	4249530186	22877	0	772	36000 (AOF)
Langley	3002525699	2256	100	5	4737
Langley	3002525961	7888	207	11	405 bopd
Langley	3002526040	1977	62	3	7962
Langley	3002526175	12206	376	29	110433 (AOF)
Average		11703	65	162	

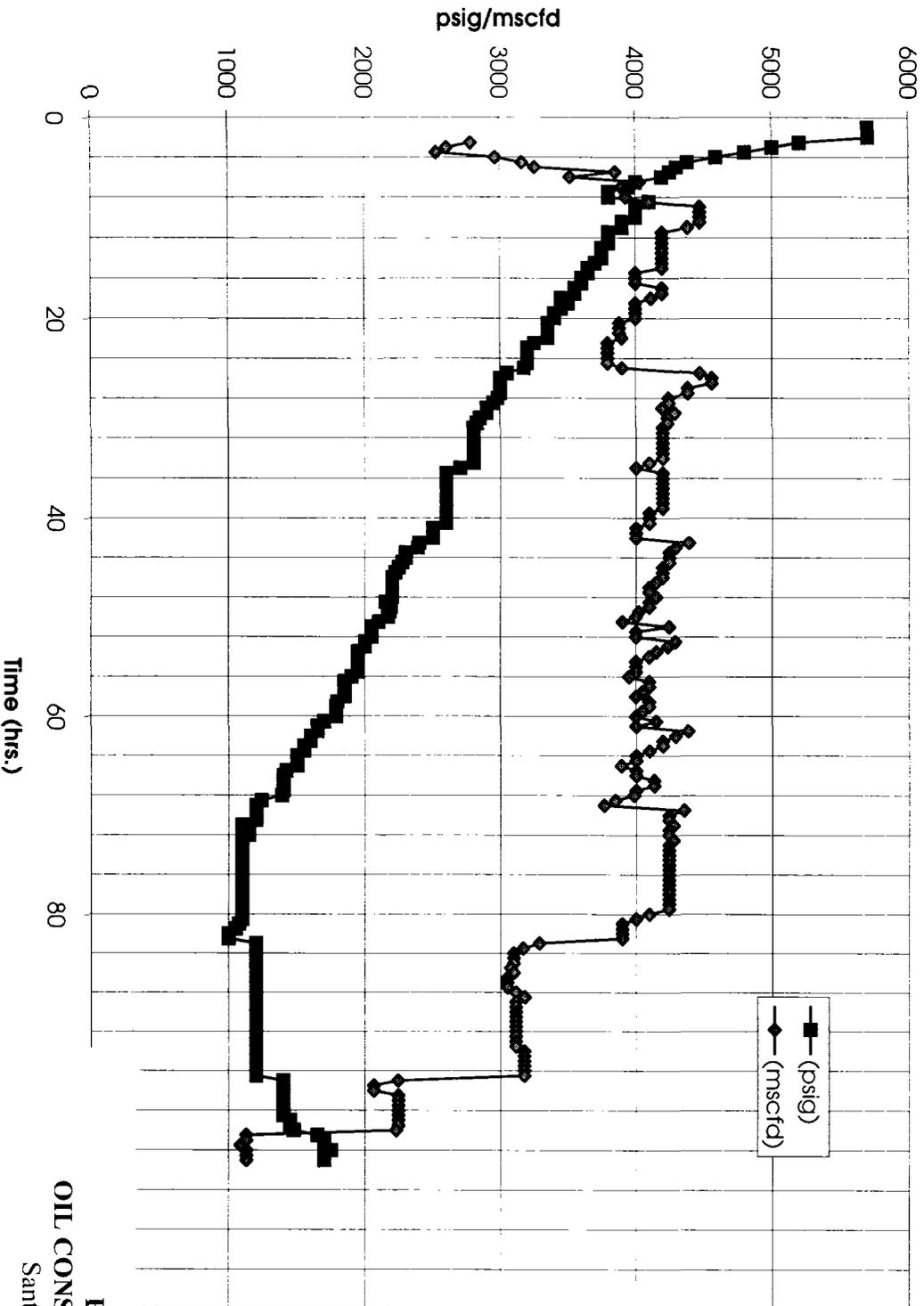
**BEFORE THE  
OIL CONSERVATION DIVISION  
Santa Fe, New Mexico**

Case No. 11269 Exhibit No. 5

Submitted by: Amerada Hess Corporation

Hearing Date: April 20, 1995

North Bell Lake Federal #2 Flow Test



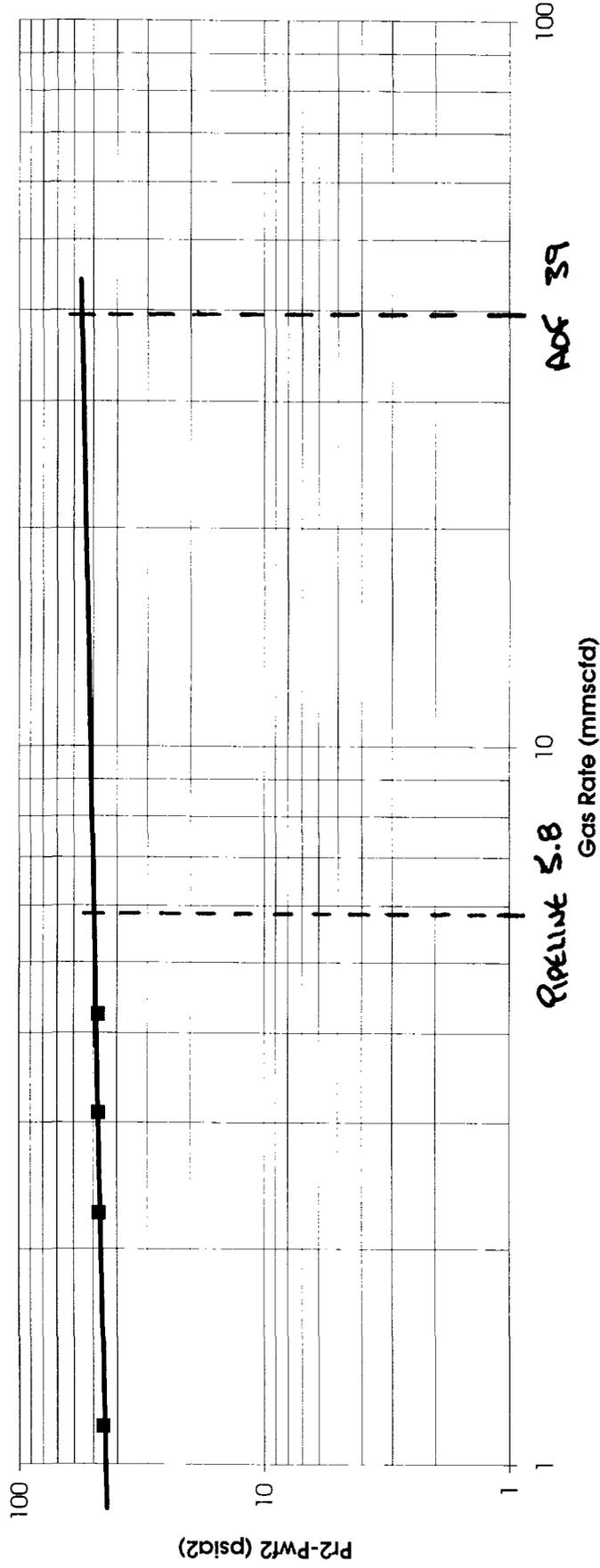
BEFORE THE  
OIL CONSERVATION DIVISION  
Santa Fe, New Mexico

Case No. 11269 Exhibit No. 6

Submitted by: Amerada Hess Corporation

Hearing Date: April 20, 1995

North Bell Lake Federal #2 Deliverability



BEFORE THE  
OIL CONSERVATION DIVISION  
Santa Fe, New Mexico

Case No. 11269 Exhibit No. 7

Submitted by: Amerada Hess Corporation

Hearing Date: April 20, 1995

Ellenburger Analogy Wells  
Ultimate Gas Recovery

Field	API No.	Ult Gas (MMCF)	Cum Gas (MMCF)	Ult Cond (MBO)	Cum Cond (MBO)
CHEYENNE	42495305250000	1089	1089	0	0
CHEYENNE	42495305370000	13526	8887	50	33
CRITTENDON	42495108110000	23823	23823	0	0
EVETTS	42495300250000	1963	1963	0	0
EVETTS	42495300320000	47287	47287	0	0
EVETTS	42495301320000	1671	1671	0	0
EVETTS	42495301440001	7795	7795	0	0
EVETTS	42495301860000	22877	22877	0	0
LANGLEY	30025256990000	2256	2256	100	100
LANGLEY	30025259610000	7954	7861	209	207
LANGLEY	30025260400000	1977	1977	62	62
LANGLEY	30025261750000	13046	12206	402	376

---

**Statistical Analysis**

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Mean	12105.33333
Standard Error	3952.839615
Median	7874.5
Standard Deviation	13693.03809
Sample Variance	187499292.2
Range	46198
Minimum	1089
Maximum	47287
Sum	145264
Count	12

**BEFORE THE  
OIL CONSERVATION DIVISION**  
Santa Fe, New Mexico

Case No. 11269 Exhibit No. 8

Submitted by: Amerada Hess Corporation

Hearing Date: April 20, 1995

Exhibit No. \_\_\_\_\_  
Case No. \_\_\_\_\_  
April 20, 1995

North Bell Lake Federal #2  
Material Balance/Volumetric Analogy  
North Bell Lake Ellenburger

**Assumptions:**

Porosity = 0.035 (fraction)  
Net Pay = 65 feet (estimate)  
Sw = 0.21 (fraction)  
Gg = 0.5758 (analysis 3/10/95)

Pr = 7,379 psia (static survey 3/22/95)  
T = 240 degrees Fahrenheit  
Bg(initial) = .003228 cu. ft./SCF  
Bg(final) = .013878 cu. ft./SCF

**Consider Material Balance in Gas Reservoirs (Applied Petroleum Reservoir Engineering, Craft and Hawkins, pp. 43.):**

$$G_p B_g = G (B_g - B_{gi}) \qquad G_p = G(1 - (B_{gi} / B_g)) \qquad G = G_p / (1 - (B_{gi} / B_g))$$

If  $G_p$  = Average Recovery of Ellenburger Wells = 12,105 MMSCF; then,

$$G = \text{Gas-in-Place} = 12,105 \text{ MMSCF} / (1 - (.003228 / .013878)) = 15,774 \text{ MMSCF}$$

**Consider a volumetric solution for areal extent (Applied Petroleum Reservoir Engineering, Craft and Hawkins, pp. 26.):**

$$G = 43,560 (A) (h) (\text{porosity}) (1 - S_w) / B_g$$

$$A = \text{Area} = (15,774,000,000 \text{ SCF}) (.003228) / (43,560) (65) (.035) (1 - 0.21) = 650 \text{ acres}$$

**Comments:**

Based on reasonable assumptions for the Ellenburger formation, it is theoretically possible that the North Bell Lake Federal #2 could drain an area of at least 640 acres.

BEFORE THE  
OIL CONSERVATION DIVISION  
Santa Fe, New Mexico

Case No. 11269 Exhibit No. 9

Submitted by: Amerada Hess Corporation

Hearing Date: April 20, 1995

*18 months*