

# Mobil Exploration & Producing U.S. Inc.

P.O. BOX 633  
MIDLAND, TEXAS 79702-0633

October 6, 1994

MIDLAND SOUTH ASSET TEAM  
ENVIRONMENTAL, REGULATORY &  
LOSS PREVENTION

FACSIMILE (915) 688-1514

State of New Mexico  
Commission of Public Lands  
P.O. Box 1148  
Santa Fe, NM 87504-1148  
ATTN: Pete Martinez

*DC*  
*CASE FILE - 11103*

**REF: Down-Hole Commingling Exception  
North Vacuum Abo Unit #104/  
Bridges State #104  
North Vacuum Abo &  
Wolfcamp/Upper Penn  
Lea County, New Mexico**

Dear Pete:

Mobil Exploration & Producing U.S. Inc. as agent for Mobil Producing TX & NM Inc., hereby requests your approval for downhole commingling on the subject wells. The following information is furnished:

<u>Lease Name/Well Number</u>	<u>Zone Commingled</u>
North Vacuum Abo Unit #104 Bridges State #104	North Vacuum Abo Vacuum Wolfcamp/Upper Penn**

\*\* Approved on May 8, 1989 for Downhole Commingling under order DHC 725

In support of this application, please find attached:

1. Location plat
2. Data sheet for both zones (Exhibit A)
3. Computation of relative values for hydrocarbons (Exhibit B) with additional economics shown
4. Present and proposed wellbore sketches

As per our conversation this date, we have already gone to hearing and will be awaiting Oil and Gas Divisions approval as well.



**Environmental  
Awareness**

**Downhole Commingling Exception**  
**North Vacuum Abo Unit #104/Bridges State #104**  
**North Vacuum Abo/Vacuum Wolfcamp/Upper Penn**  
**Page 2**

Enclosed herewith is a check in the amount of \$30.00 for the filing fee.

If any other information is needed, please call me at 915-688-2584. Thank you for your assistance.

Sincerely,



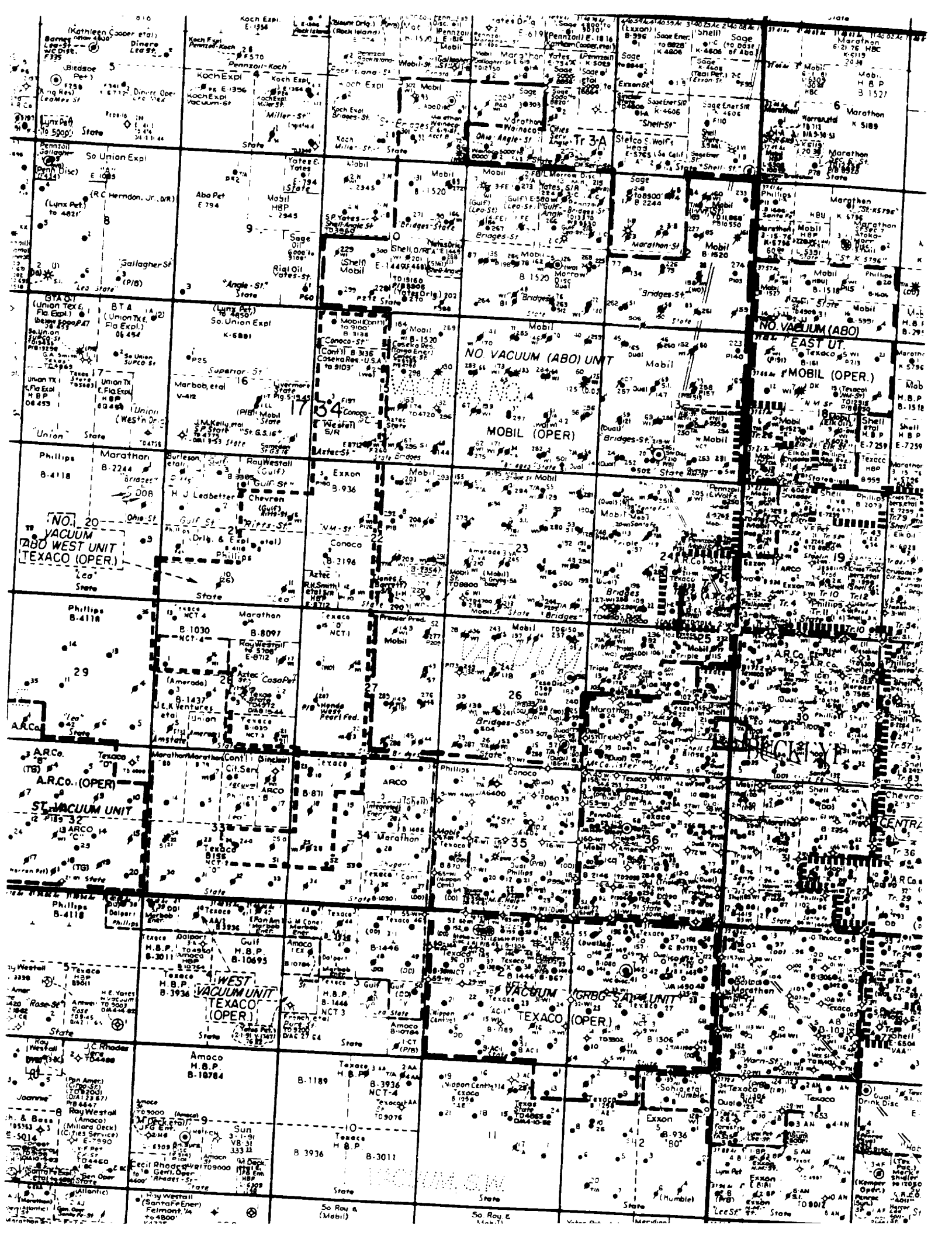
Kaye Pollock-Lyon  
Environmental & Regulatory Technician

Mobil Exploration & Producing US Inc.  
as agent for  
Mobil Producing TX & NM Inc.

KP:s

Attachments

cc: OCD-Santa Fe, David Catanach  
OCD-Hobbs District Office



**DATA SHEET**

**EXHIBIT A**

Application for exception to Rule 303 (a) New Mexico Oil Conservation Commission's Rules & Regulations allowing downhole commingling of dually completed oil wells by administrative procedure (Order No. R-3845)

1. Lease Name North Vacuum Abo Unit/Bridges State
2. Well Number 104/104
3. Well Location Unit B, 520 FNL & 2120 FEL  
Sec. 25, Township 17S, Range 34E  
Lea County, New Mexico
4. Upper Zone North Vacuum Abo
5. Completion Interval: 8444 to 9300
6. Lower Zone Wolfcamp/Upper Penn
7. Completion Interval: 9552 to 10116
8. Current Productivity Test Summary:

	Upper Zone <u>Abo</u>	Lower Zone <u>W/C//Penn</u>
Production Method	Pump	Pump
BOPD	60	37
MCFPD	30	50
BWPD	68	73
GOR	500	1351
GOR Limit	2000/1	2000/1

9. Fluid characteristics of Each Zone: Both zones produce intermediate crude and we expect no problems in producing the commingled waters

**DATA SHEET**

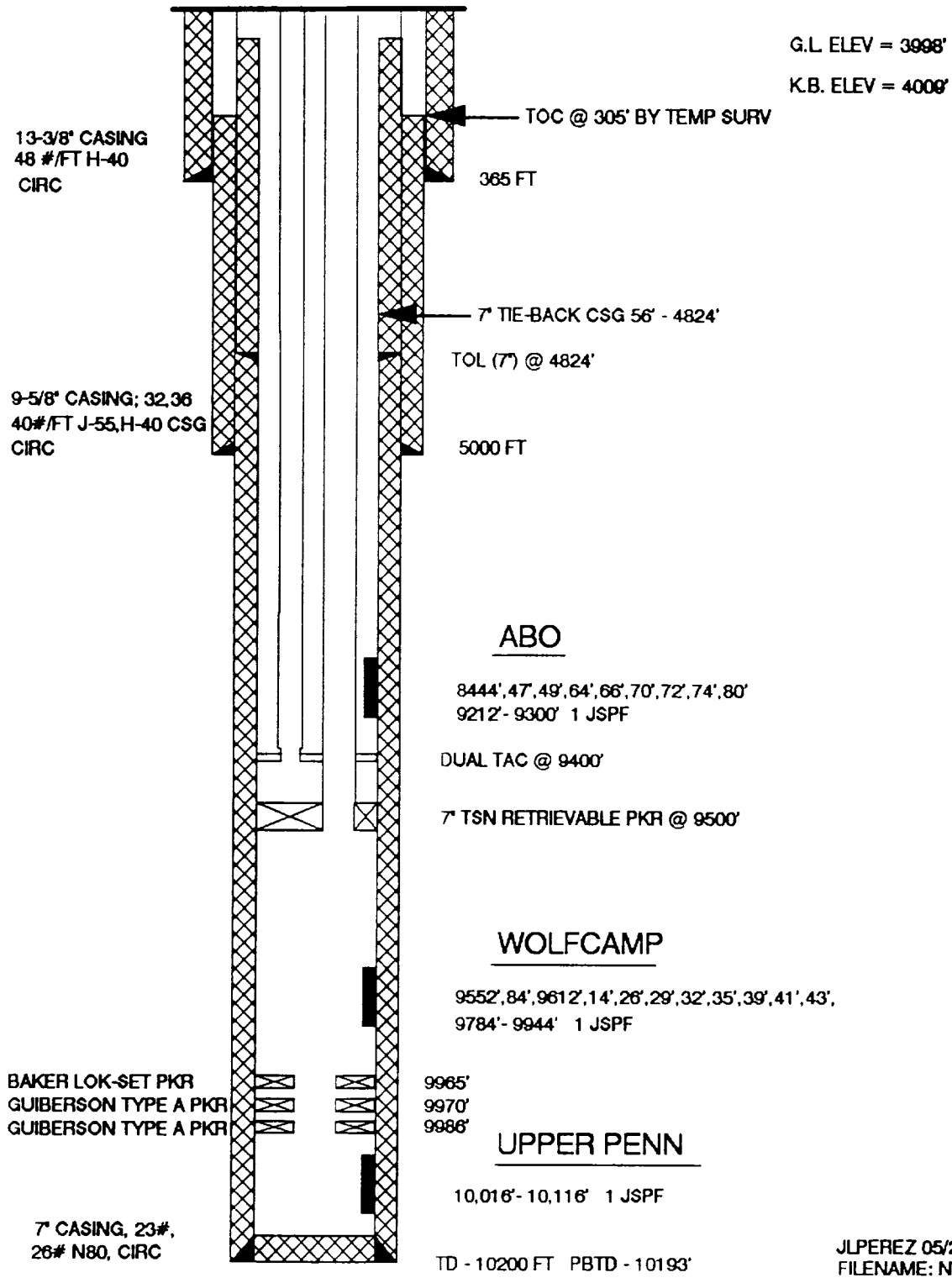
**EXHIBIT B**

**COMPUTATION OF RELATIVE VALUES  
OF THE HYDROCARBON PRODUCTION  
BEFORE & AFTER DOWNHOLE COMMINGLING  
(STATEWIDE RULE 303-C-2-H)**

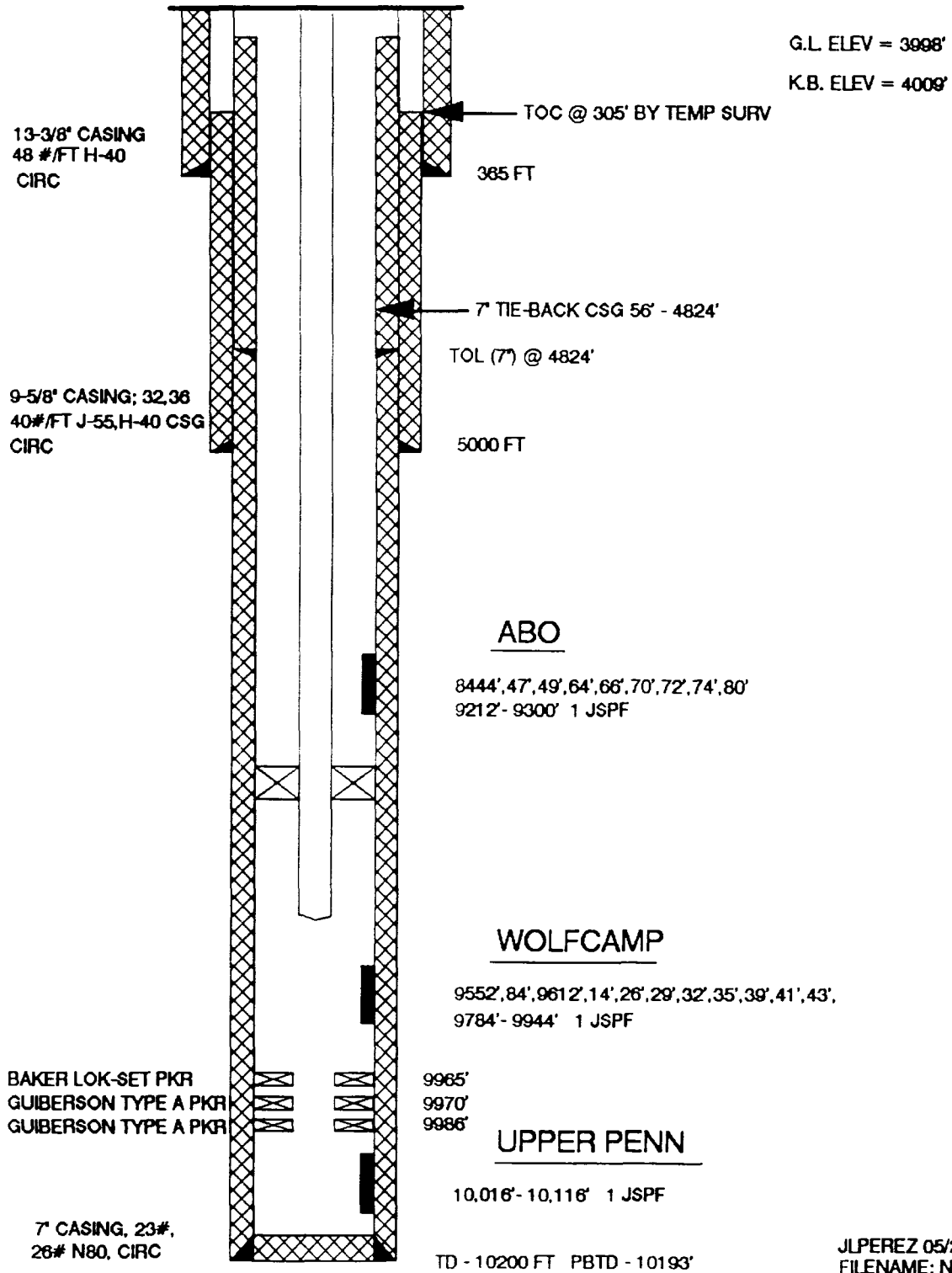
Lease & Well Number	North Vacuum Abo Unit 104/Bridges State 104		
	<u>UPPER POOL</u> <u>ABO</u>	<u>LOWER POOL</u> <u>W/C//PENN</u>	<u>COMMINGLED</u>
Pool Name	North Vacuum	Bridges State	
Gravity, API 37.07	35.2	40.1	
Selling Price/BO	16.75	16.75	16.75
Daily Production/BO	60	37	97
Daily Income	\$1,005.00	\$619.74	\$1,624.75
<b>TOTAL DAILY INCOME (POOLS SEPARATED)</b>	\$1,624.75		

Net difference from downhole commingling based upon current well tests = \$-0- /day gain

BRIDGES STATE/NORTH VACUUM ABO UNIT #104  
 VACUUM (ABO, WOLFCAMP, PENN) FIELDS  
 LEA COUNTY, NEW MEXICO  
 CURRENT COMPLETION



BRIDGES STATE/NORTH VACUUM ABO UNIT #104  
 VACUUM (ABO, WOLFCAMP, PENN) FIELDS  
 LEA COUNTY, NEW MEXICO  
 PROPOSED COMPLETION



DOCKET: EXAMINER HEARING - THURSDAY - SEPTEMBER 29, 1994  
8:15 A.M. - MORGAN HALL, STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO

Dockets Nos. 29-94 and 30-94 are tentatively set for October 13, 1994 and October 27, 1994. Applications for hearing must be filed at least 23 days in advance of hearing date. The following cases will be heard by an Examiner:

**CASE 11103:** Application of Mobil Exploration & Producing U.S. Inc. for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval to downhole commingle oil production from the North Vacuum-Abo, Vacuum-Wolfcamp, and Vacuum-Upper Pennsylvanian Pools within the wellbore of its existing North Vacuum Abo Unit/Bridges State Well No. 104 (API No. 30-025-21362), located 520 feet from the North line and 2120 feet from the West line (Unit B) of Section 25, Township 17 South, Range 34 East, which is located approximately one-half mile northwest of Buckeye, New Mexico.

**CASE 10976:** (Continued from September 1, 1994, Examiner Hearing.)

Application of Harvey E. Yates Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface to the base of the Morrow formation underlying the E/2 of Section 32, Township 17 South, Range 31 East, forming a standard 320-acre gas spacing and proration unit for any and all formations and/or pools developed on 320-acre spacing within said vertical extent. Said unit is to be dedicated to a well to be drilled at a standard gas well location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as the operator of the well and a charge for risk involved in drilling and completing said well. Said unit is located approximately 1.5 miles southwest of the junction of U.S. Highway 82 and State Road 529.

**CASE 11104:** Application of Mack Energy Corporation for assignment of a special depth bracket oil allowable for the East Gem-Yates Pool, or in the alternative, for a temporary testing oil allowable for a certain well in said pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks to assess a higher depth bracket oil allowable, pursuant to Division General Rules 505(D) and (F), for the East Gem-Yates Pool that presently comprises the S/2 of Section 26, Township 19 South, Range 33 East, than its current 160 barrel per day limit. IN THE ALTERNATIVE, applicant seeks an exception to General Rule 504(A) for a temporary oil testing allowable for its Bate Federal Well No. 1, located in Unit "N" of said Section 26. Said well is located approximately 17.5 miles south southeast of Maljamar, New Mexico.

**CASE 11039:** (Continued from August 4, 1994, Examiner Hearing.)

Application of Meridian Oil Inc. for downhole commingling and an unorthodox coal gas well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval to downhole commingle Aztec-Pictured Cliffs Pool and Basin-Fruitland Coal Gas Pool production within the wellbore of its existing Fifield Well No. 2, located 1650 feet from the South line and 1090 feet from the East line (Unit I) Section 5, Township 29 North, Range 11 West. Said well is considered to be an "off-pattern" unorthodox coal gas well location and is to be dedicated to a 305.92-acre gas spacing unit for the Basin-Fruitland Coal Gas Pool comprising Lots 1 and 2, the S/2 NE/4 and SE/4 (E/2 equivalent) of said Section 5. Said well is located approximately 3.5 miles north northwest of Bloomfield, New Mexico.

**CASE 11105:** Application of Union Oil Company of California d/b/a UNOCAL for an infill gas well and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authorization, pursuant to the provisions of Division Memoranda dated July 27, 1988 and August 3, 1990, to continuously and concurrently produce gas from the Red Hills Wolfcamp Gas Pool from both its Red Hills Unit Well No. 2, located at a previously approved unorthodox gas well location (Division Order No. R-3073) 990 feet from the North line and 1650 feet from the East line (Unit B) of Section 5, Township 26 South, Range 33 East, and its Red Hills Unit Well No. 3, located at a standard gas well location 1980 feet from the South line and 2180 feet from the West line (Unit K) of said Section 5 and for the simultaneous dedication of said wells to a standard 640-acre gas spacing and proration unit comprising all of said Section 5. Said unit is located approximately 28 miles west of the El Paso Natural Gas Company Jal Plant No. 1.

**CASE 11106:** Application of Richardson Operating Company for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval to downhole commingle Basin-Fruitland Coal (Gas) Pool production with Pictured Cliffs gas production from either the Undesignated West Kutz-Pictured Cliffs Pool or the Undesignated Fulcher Kutz-Pictured Cliffs Pool within the wellbore of its proposed Ropco Federal "12" Well No. 2 to be drilled at a standard gas well location for all three pools in the SE/4 NE/4 (Unit H) of Section 12, Township 29 North, Range 13 West, which is located approximately four miles east of the Four Corners Regional Airport in Farmington, New Mexico.



**CASE 11107:** **Application of Maralo, Inc. for compulsory pooling, Eddy County, New Mexico.** Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface to the base of the Bone Spring formation, underlying the NE/4 NW/4 (Unit C) of Section 30, Township 23 South, Range 30 East, forming a standard 40-acre oil spacing and proration unit. Said unit is to be dedicated to a well to be drilled at a standard oil well location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as the operator of the well and a charge for risk involved in drilling and completing said well. Said unit is located approximately 10 miles east by south of Loving, New Mexico.

**CASE 11108:** **Application of Arco Permian, A Unit of Atlantic Richfield, to rescind Division Order No. R-4808-A and for the adoption of special rules and regulations for the Riverwolf Unit (the former Citgo Empire-Abo Unit) including special allowable provisions, Eddy County, New Mexico.** Applicant, in the above-styled cause, seeks rescission of Division Order No. R-4808-A, which order provided for development of the Riverwolf Unit, formerly the Citgo Empire-Abo Unit, under statewide rules and seeks adoption of special allowable limits which will permit production rates at levels constituent with withdrawals from the offsetting Empire-Abo Unit. This unit is located approximately 8 miles east of Artesia, New Mexico.

**CASE 11109:** **Application of Arco Permian, A Unit of Atlantic Richfield, for amendment of the special rules and regulations for the Empire-Abo Pressure Maintenance Project to permit partial gas sales, Eddy County, New Mexico.** Applicant, in the above-styled cause, seeks the amendment of the special rules and regulations for the Empire-Abo Pressure Maintenance Project Area, as promulgated by Division Order Nos. R-4549 through R-4549-G, to permit partial gas sales of project gas and to amend the reporting requirements for project operations to accommodate these sales. This unit is located 6 to 12 miles east of Artesia, New Mexico.

**CASE 11093:** **(Continued from September 15, 1994, Examiner Hearing.)**

**Application of Amoco Production Company for downhole commingling, San Juan County, New Mexico.** Applicant, in the above-styled cause, seeks approval to downhole commingle Basin-Dakota Pool gas production with Armenta-Gallup Pool oil production within the wellbore of its Sullivan Gas Com "C" Well No. 1, located 940 feet from the South line and 1450 feet from the West line (Unit N) of Section 28, Township 29 North, Range 10 West, which is located approximately 5.5 miles south by east of Bloomfield, New Mexico.

**CASE 11094:** **(Continued from September 15, 1994, Examiner Hearing.)**

**Application of Amoco Production Company for downhole commingling, San Juan County, New Mexico.** Applicant, in the above-styled cause, seeks approval to downhole commingle Basin-Dakota Pool gas production with Blanco-Mesaverde Pool gas production within the wellbore of its Gooch Well No. 2-E, located 1100 feet from the North line and 1800 feet from the West line (Unit C) of Section 29, Township 28 North, Range 8 West, which is located approximately 9 miles southeast by east of Blanco, New Mexico.

**CASE 11095:** **(Continued from September 15, 1994, Examiner Hearing.)**

**Application of Amoco Production Company for downhole commingling, San Juan County, New Mexico.** Applicant, in the above-styled cause, seeks approval to downhole commingle Basin-Dakota Pool gas production with Blanco-Mesaverde Pool gas production within the wellbore of its Bolack Well No. 2-E, located 1520 feet from the South line and 1650 feet from the East line (Unit J) of Section 19, Township 28 North, Range 8 West, which is located approximately 8 miles southeast by east of Blanco, New Mexico.

**CASE 11096:** **(Continued from September 15, 1994, Examiner Hearing.)**

**Application of Amoco Production Company for downhole commingling, San Juan County, New Mexico.** Applicant, in the above-styled cause, seeks approval to downhole commingle Basin-Dakota Pool gas production with Flora Vista-Gallup Pool gas production within the wellbore of its L. C. Kelly Well No. 3-E, located 1710 feet from the North line and 880 feet from the East line (Lot 12/Unit H) of Section 4, Township 30 North, Range 12 West, which is located approximately 3.5 miles north northwest of Flora Vista, New Mexico.

**CASE 11099:** (Continued from September 15, 1994, Examiner Hearing.)

**Application of TARA-JON Corporation for compulsory pooling, Lea County, New Mexico.** Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface to the base of the Drinkard formation underlying the NE/4 NW/4 (Unit C) of Section 27, Township 16 South, Range 38 East, forming a standard 40-acre oil spacing and proration unit for any and all formations and/or pools developed on 40-acre spacing within said vertical extent, which presently includes but is not necessarily limited to the Undesignated Garrett-San Andres Pool, Undesignated Garrett-Drinkard Pool, and Undesignated East Garrett-Drinkard Pool. Said pooled unit is to be dedicated to either the plugged and abandoned The Texas Company Gotlieb Ertal Well No. 1 (T.D. - 13,310 feet), located at a standard oil well location 660 feet from the North line and 1982 feet from the West line, more or less, of said Section 27 or, if said Gotlieb Ertal Well No. 1 is found not to be mechanically sound, to a new well to be drilled at a standard oil well location thereon. Also to be considered will be the cost of re-entering and recompleting the old plugged and abandoned well and/or the costs of drilling and completing a new well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision, designation of applicant as the operator of the unit and a charge for risk involved in re-entering the old plugged and abandoned well and/or the drilling of a new well. Said unit is located approximately 12 miles north of Hobbs, New Mexico.