

BARBARA FASKEN  
**FASKEN OIL AND RANCH INTERESTS**  
303 WEST WALL AVENUE, SUITE 1900  
MIDLAND, TEXAS 79701-5116  
(915) 687-1777

November 11, 1993

New Mexico Oil Conservation Division  
P.O. Box 2208  
Santa Fe, New Mexico 87501

DUC-958

Re: Application for Downhole  
Commingling  
Barbara Fasken  
Wingerd #2  
Lea County, New Mexico

Dear Sirs:


Attached is an application with supporting documents necessary for obtaining approval to downhole commingle the Mississippian and Devonian in the subject well.

The Devonian zone had been abandoned in 1983 with a CIBP @ 11,725' and an RBP @ 11,245'. The Mississippian zone had been TA'd since February, 1991. This well was worked over in October, 1993 to equip it for water disposal into the Mississippian zone 11,142'-11,222' and the Devonian zones 11,777'-11,800'. After bridge plugs between the zones were removed, the 3 1/2" injection tubing and packer was run and set at 11,034'. The well has since been flowing 80-100 BOPD with no water at a consistent flowing tubing pressure of 425 psi.

It is requested, therefore, that the well be allowed to produce as is without jeopardizing production by moving the packer below the Mississippian. It is further requested that the production be allocated 100% to the Devonian zone. Detailed explanation is attached.

Thank you for your help in this matter.

Sincerely,

  
Carl Brown  
Petroleum Engineer

CWB/cb  
cc: NMOCD - Hobbs  
Well file

## Commingling Data for Wingerd #2

1. Operator: Barbara Fasken  
303 W. Wall, Suite 1900  
Midland, Texas 79701-5116
2. Lease: Wingerd #2  
Unit H, Sec. 24, T-12-S, R-37-E  
1980' FNL & 660' FEL  
Pools: Gladiola (Mississippian)  
Gladiola (Devonian)
3. Plat attached.
4. Current productivity test:  
  
Mississippian 11,142-11,222'  
Produced 5 BOPD + 0 BWPD on rod pump prior to  
TA'd February, 1991.  
  
Devonian 11,777-11,800'  
Flowed 84 BOPD + 0 BWPD @ 425 psi FTP 6/64"  
choke, 11-10-93.
5. Production decline histories for both zones are attached.  
The Devonian was completed in 1951 and produced until the well was plugged back to the Mississippian in 1983. The Mississippian was TA'd February, 1991. In October, 1993 the well was worked over to equip it for water disposal into the Mississippian and Devonian. A retrievable bridge plug @ 11,245' was milled over and retrieved, and a CIBP @ 11,725' was drilled out. The well built surface pressure to 400 psi while shut-in three days waiting on delivery of 3 1/2" plastic coated tubing. The well was killed with 2% KCL packer fluid, and the 3 1/2" tubing and packer were run and set at 11,034'. The well has since flowed 80-100 BOPD with no water at a consistent 425 psi tubing pressure.
6. Bottom hole pressures:  
  
Mississippian zone @ 11,222' (bottom perf): 3,962 psi calculated from 6329 feet (231 bbls) of 46 degree API oil + 3893 feet of water (sp. gr. 1.05) encountered in hole prior to removing RBP @ 11,245'. This zone is very tight. Prior to being TA'd by the previous operator in February, 1991 a 68 hour SIBHP of 748 psi @ 11,222' was measured with a pressure bomb. The Mississippian zone, therefore, built up to 3962 psi over a 32 month period. During milling over the RBP @ 11,245' with a reverse unit, the well was circulated with produced water with full returns. A produced water column pressure @ 11,222' is 5,101 psi. Therefore, the

Mississippian is very tight and would not take fluids with an overbalance of 1,140 psi.

Devonian zone @ 11,222' datum: 4327 psi calculated from SITP 440 PSI + 11,222' of 46 degree API oil (note: the original BHP @ 11,222' datum was 4,498 psi by DST in 1951). The flowing BHP is estimated at 4312 psi for an overbalance on the Mississippian of 4312-3962 psi = 350 psi.

7. Proposed formula for the allocation of production:

Mississippian: 0%

Devonian: 100%

This is due to the flowing BHP of the Devonian is 350 psi greater than the Mississippian. No loss of Devonian production is anticipated due to the low permeability of the Mississippian zone as demonstrated during the October, 1993 workover described in item 6 above.

8. The fluids from the Devonian and Mississippian create no incompatibility problems when combined. The fluids were commingled at the surface while the Mississippian was producing.
9. The value of the commingled production will not be less than the sum of the values of the individual streams since the oil properties are similar.
10. The ownership of the zones is common as to working interests, royalty interests and overriding royalty interests.
11. The commingling will not jeopardize the efficiency of any future secondary recovery operations in either of the zones. The Devonian is a strong water drive reservoir, and the Mississippian is too tight and limited in area.
12. The offset operators listed below and the Bureau of Land Management have been notified in writing of the proposed commingling:

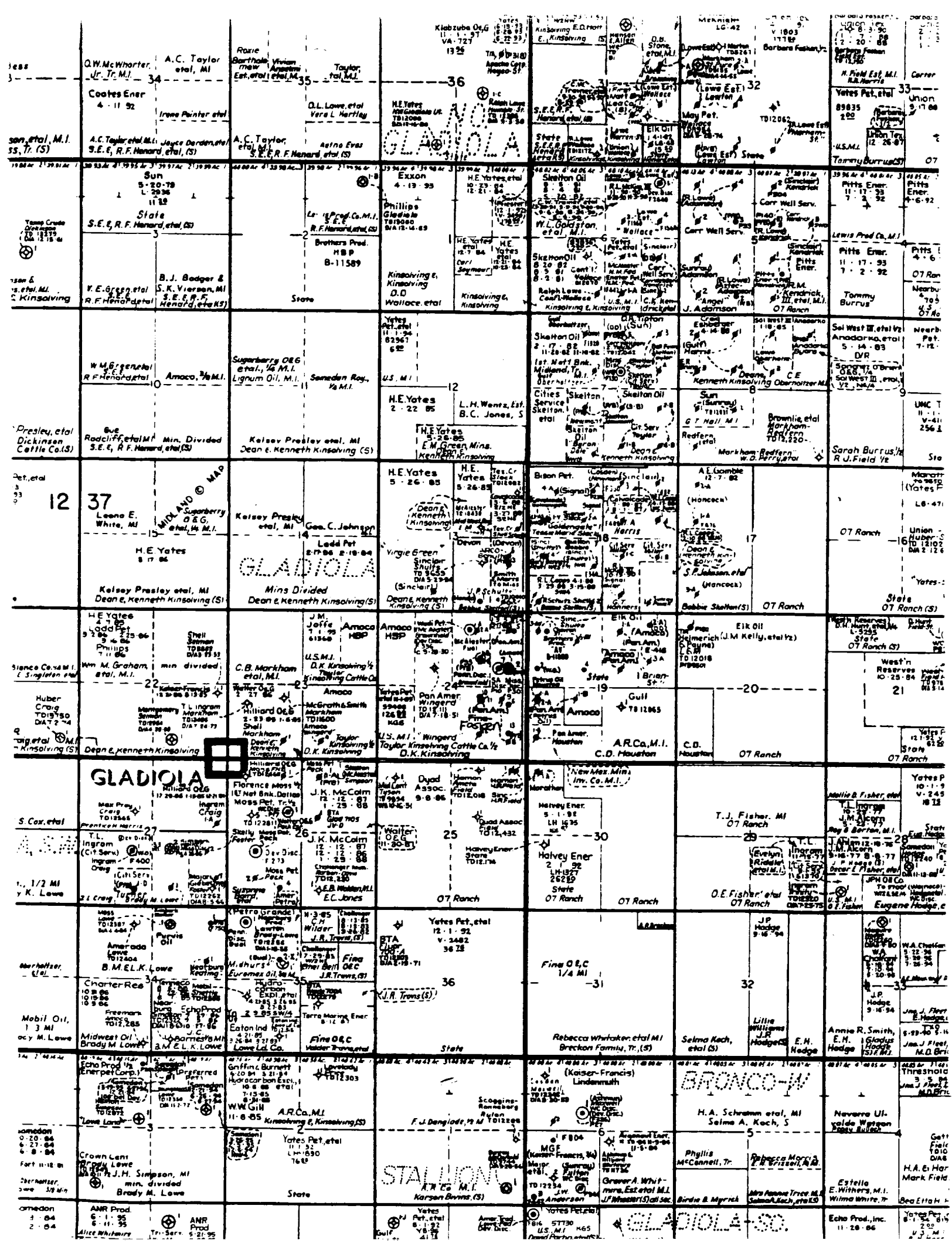
Amoco Production Co.  
501 Westlake Park Blvd.  
Houston, TX 77079

Brothers Production Co., Inc.  
407 N. Big Spring, Suite 103  
Midland, TX 79701

Devon Energy Corporation  
20 North Broadway, Suite 1500  
Oklahoma City, OK 73102

Yates Petroleum Corporation  
105 S. Fourth St.  
Artesia, NM 88210

Wadi Petroleum, Inc.  
1440 S. Walters Road, Suite 400  
Houston, TX 77014

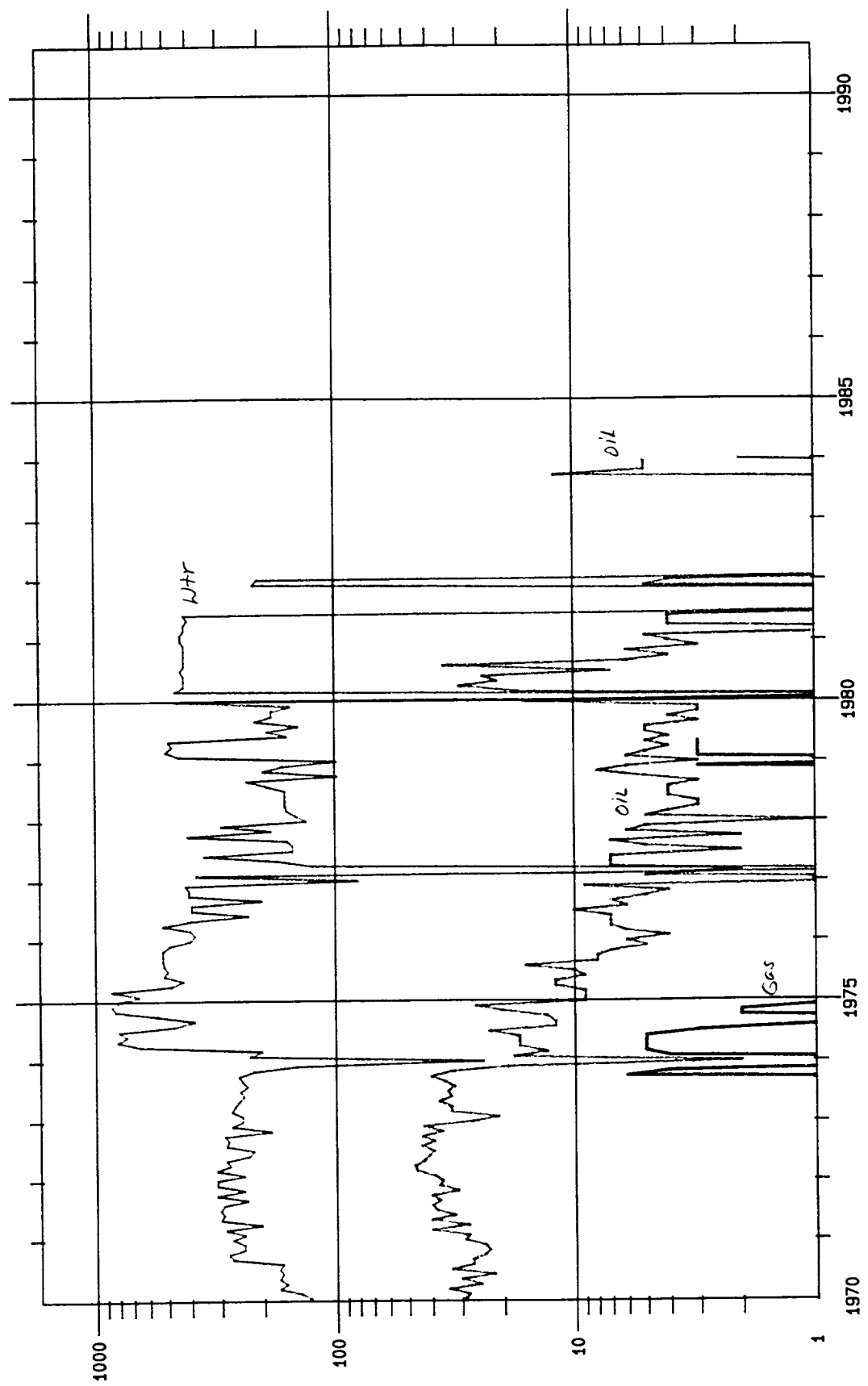


Calculated  
Oil  
Gas  
Water

TEMP

Production Rate vs Time  
Bbl/Day or Mcf/Day vs Months  
WINGERO 21 AMOCO PRODUCTION COMPANY  
For the Period 12/1951 to 01/1984

Production  
Oil  
Gas  
Water

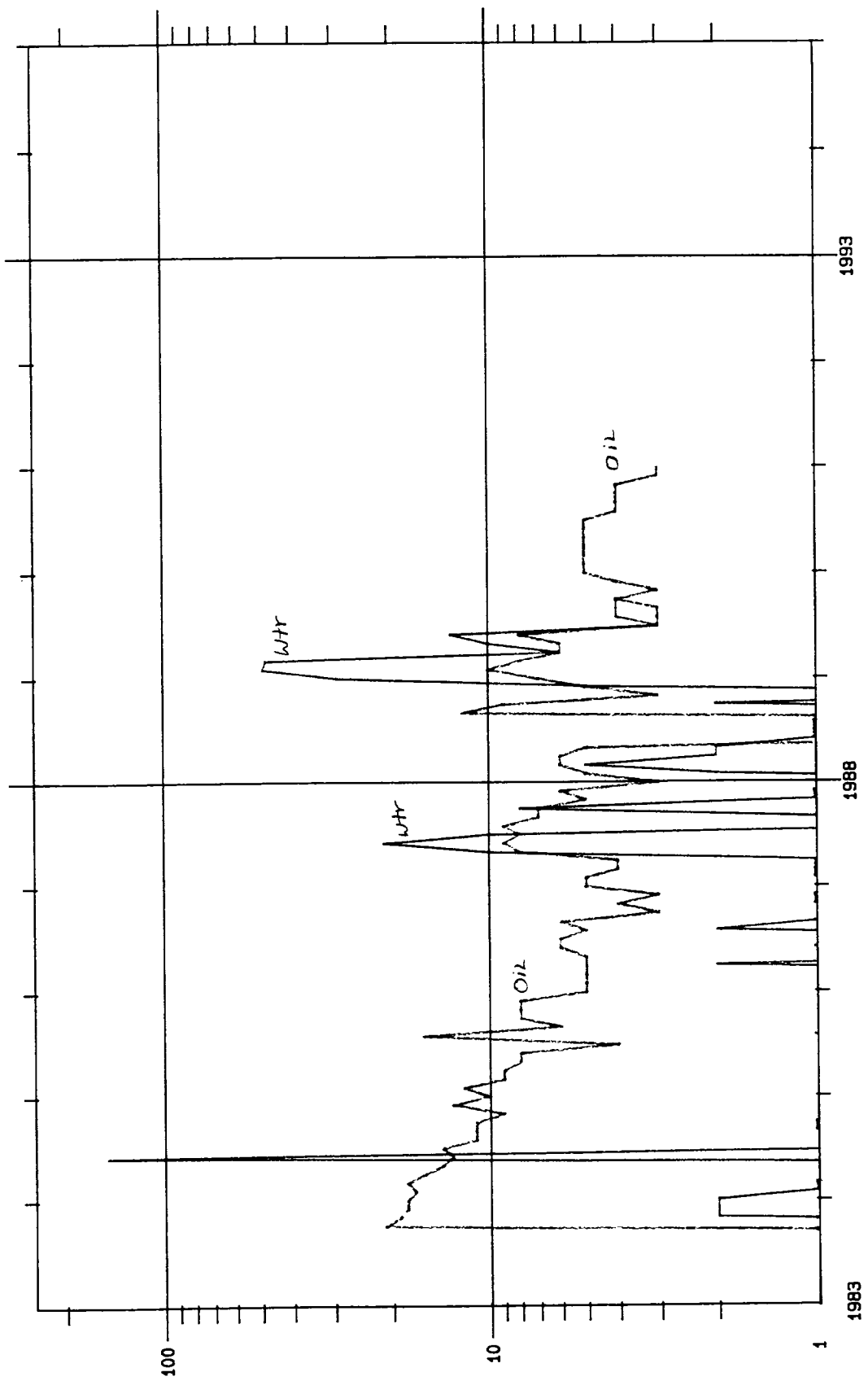


Reported Oil Production = 1330308 Bbls  
Reported Gas Production = 62340 Mcf  
Reported Water Production = 1574928 Bbls

Calculated  
Oil  
Gas  
Water

TEMP  
Production Rate vs Time  
BBL/Day or Mcf/Day vs Months  
WINGEROJ 2 FINA OIL & CHEMICAL COMPANY  
For the Period 10/1983 to 01/1991

Production  
Oil  
Gas  
Water



Reported Oil Production = 20354 Bbls  
Reported Gas Production = 0 Mcf  
Reported Water Production = 12777 Bbls