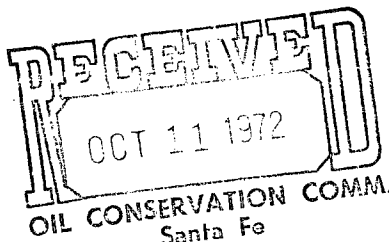




MARATHON OIL COMPANY



DHC-120  
Due Oct 31

PRODUCTION - UNITED STATES AND CANADA

October 6, 1972  
P. O. Box 2409  
Hobbs, New Mexico 88240

New Mexico Oil Conservation Commission  
P. O. Box 2088  
Santa Fe, New Mexico

Re: Wellbore Commingling  
McCallister State Well No. 5  
Vacuum Abo North, and 2000  
Vacuum Wolfcamp Pools  
Lea County, New Mexico

Attention: Mr. A. L. Porter, Jr.

Gentlemen:

Marathon Oil Company respectfully requests administrative approval to wellbore commingle oil and gas production from the Vacuum Abo, North and Vacuum Wolfcamp Pools which are multiplily completed in Marathon's McCallister State Well No. 5. The well is located in Unit M, Section 25, T-17-S, R-34-E, Lea County, New Mexico. At the present time, the well is a triple completion in the two subject pools along with the Vacuum Devonian Pool. Downhole commingling of the Abo and Wolfcamp zones will qualify for Administrative Approval in accordance with Statewide Rule 303, Paragraph "C"; and in support thereof, the following facts are submitted:

1. The attached plat shows the McCallister State Lease outlined in red and located in Section 25, Township 17 South, Range 34 East, Lea County, New Mexico. Well No. 5 is marked with an arrow on the plat.
2. The well was triple completed in the Vacuum Abo North, Vacuum Wolfcamp, and Vacuum Devonian Oil Pools and approved by Commission Order No. R-2479 on May 8, 1963.
3. Current tests for each zone are as follows:

Vacuum Abo, North: On 8-26-72, the Abo gas lifted at a rate of 28 BOPD, 0.3 BWPD, 81 MCFGPD at 100 psi tubing pressure. (Perforations: 9072' to 9177' selectively)

Mr. A. L. Porter, Jr.  
Santa Fe, New Mexico

October 6, 1972

Vacuum Wolfcamp: On 1-12-72, the Wolfcamp flowed at a rate of 3 BOPD, 0 BWPB, 38 MCFBPD at 75 psi tubing pressure. (Perforations: 9848' to 9951' selectively). The Wolfcamp Zone ceased to flow in January, 1972 and has not been produced since. A swab test conducted on the Wolfcamp Zone on 9-27-72 indicated that the Wolfcamp should be capable of 30 BOPD by artificially lifting.

Vacuum Devonian: The Devonian Zone was shut in during April, 1964 due to high water production and uneconomic oil production. The Devonian Zone will be temporarily abandoned by placing a plug in the permanent packer above the zone.

The above test data is also submitted on the attached NMOCC Forms C-116. The producing rates do not exceed the limit set out in Paragraph "C", (b), i.e., 70 BOPD.

4. Neither zone produces more water than the combined oil limit. (70 BPD)
5. Marathon Oil Company has commingled the fluids at the surface since completion (Administrative Order No. PC-136), and has encountered no incompatibility problems; therefore, no reservoir damage will result from downhole commingling these two zones.
6. Since the crudes have been commingled at the tank battery before sale to the pipe line, there should be no difference between the value of the commingled stream at the surface and that commingled within the well bore.
7. The ownership of the zones to be commingled is common throughout.
8. Production decline curves showing the monthly production of oil and water from each zone is attached.
9. The production from the Vacuum Abo, North is by artificial lift and the production from the Vacuum Wolfcamp is by natural flow. If this application for downhole commingling is approved, the commingled production will be artificially lifted. Twenty-four hour shut-in bottom hole pressures taken on the McCallister State Well No. 5 (9-21-72) are 752 psi at 9124' and 1644 psi at 9899', respectively for the Vacuum Abo, North and the Vacuum Wolfcamp Zones.
10. Downhole commingling will not jeopardize the efficiency of future secondary operations in either zone. These same zones have been downhole commingled in wells offsetting Marathon's McCallister Lease.

Page 3

October 6, 1972

Mr. A. L. Porter, Jr.  
Santa Fe, New Mexico

11. Copies of this application have been furnished to all offset operators.

Yours truly,

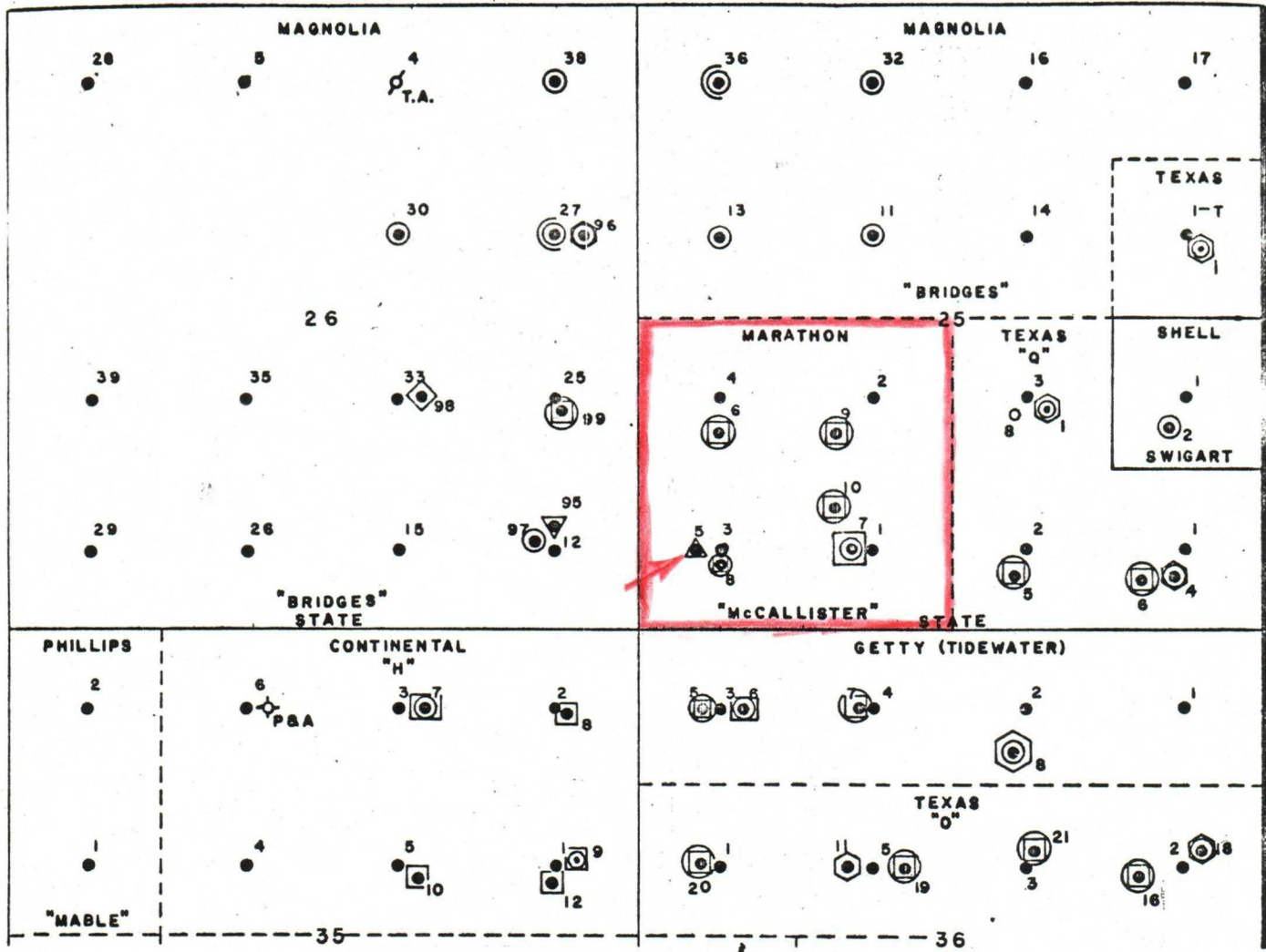
MARATHON OIL COMPANY

A handwritten signature in cursive script that reads "Joe W. Younger".

Joe W. Younger  
Area Engineer

JWY:mcb

R 34 E



MARATHON OIL COMPANY

"Plot of St. McCallister Lease"

Lea County, New Mexico

Scale: 1"=1500'

## NEW MEXICO OIL CONSERVATION COMMISSION

## GAS-OIL RATIO TESTS

C-116

Revised 1-1-65

Operator Marathon Oil Company		Pool See Listing Under Lease		County Lea											
Address Box 2409, Hobbs, New Mexico 88240		TYPE OF TEST - (X)		Completion <input type="checkbox"/> Scheduled <input type="checkbox"/>		Special <input checked="" type="checkbox"/> *									
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	TBG. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO CU.FT./BBL.		
		U	S	T						R	WATER BBLs.	GRAV. OIL		OIL BBLs.	GAS M.C.F.
McCallister State <u>Pools</u>															
Vacuum Abo, North	5	M	25	17S	34E	8-26	GL 30/64	100	30	24	0.3	41	28.2	81.2	2,879
				Produced Gas		258.6 MCFPD	Gas Lift Gas	177.4 MCFPD							
Vacuum Devonian	5	M	25	17S	34E	Shut-in April, 1964 due to high water production and uneconomical oil production. This zone to be temporarily abandoned with use of plug in permanent packer.									
Vacuum Wolfcamp	5	M	25	17S	34E	1-12	F 30/64	75	3	24	Tr.	40	3.3	38.2	11,576
*Test conducted to show wells' ability in conjunction with request for downhole commingling.															

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

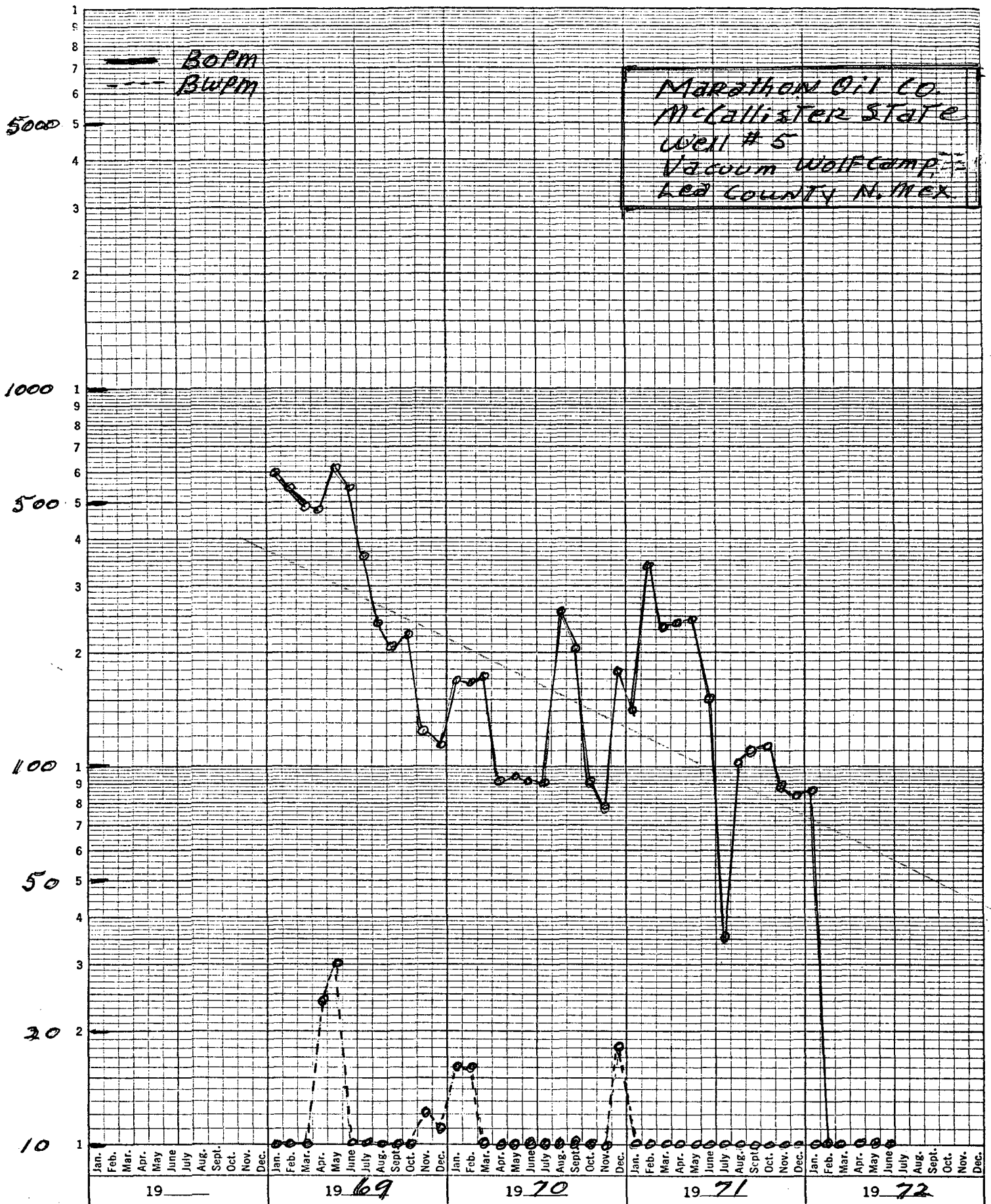
  
(Signature)

Petroleum Engineer

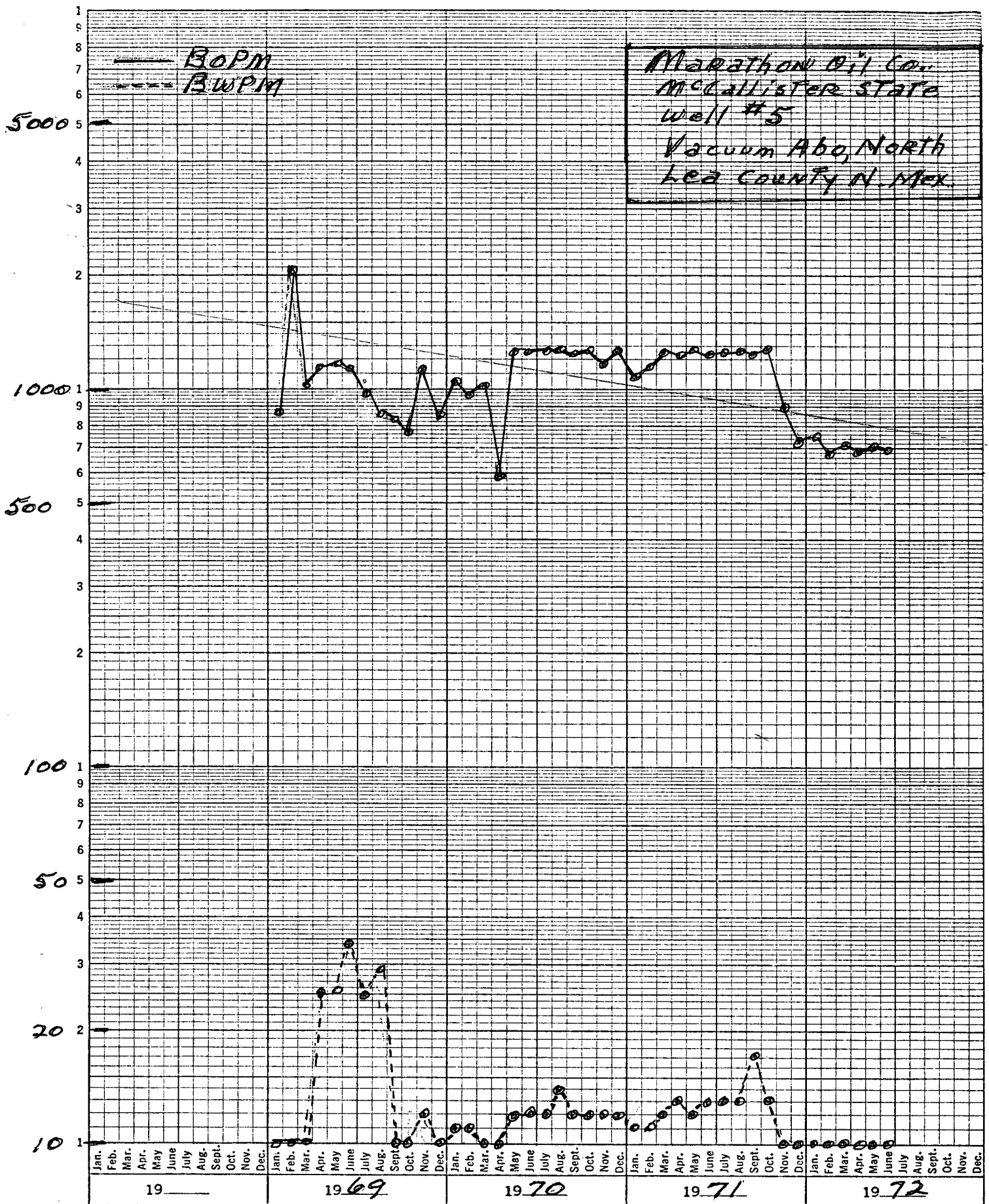
(Title)

10-10-72

(Date)



43



MAILING LIST

New Mexico Oil Conservation Commission (2)  
P. O. Box 2088  
Santa Fe, New Mexico 87501

New Mexico Oil Conservation Commission (1)  
P. O. Box 1980  
Hobbs, New Mexico 88240

Continental Oil Company (1)  
P. O. Box 460  
Hobbs, New Mexico 88240

Getty Oil Company (1)  
P. O. Box 249  
Hobbs, New Mexico 88240

Mobil Oil Company (1)  
P. O. Box 1800  
Hobbs, New Mexico 88240

Marathon Oil Company (1)  
P. O. Box 552  
Midland, Texas 79701

State Land Commissioner (1)  
P. O. Box 791  
Santa Fe, New Mexico 87501