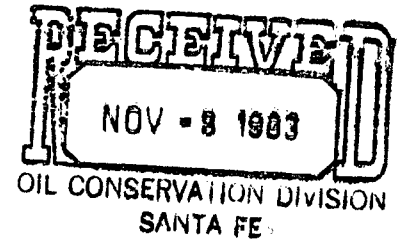


AMERADA HESS CORPORATION

P. O. DRAWER "D"
MONUMENT, NEW MEXICO 88265

October 24, 1983



Joe Ramey
State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

Re: State "Q" #4
Request to Downhole Commingle
the Monument Tubb and Monument
Paddock Oil-Oil Zones

Dear Mr. Ramey:

Amerada Hess Corporation is requesting approval for an exception to Rule 303-A to permit the downhole commingling of the Tubb and Paddock Oil-Oil zones in the wellbore of the State "Q" #4. This well was originally completed in the Tubb Oil zone in 1963 and produced from same until 1973. The Tubb zone was temporarily abandoned at that time due to low production and future hopes of recompletion potential in the Paddock. This well was recompleted to the Paddock and is presently producing from same.

The Tubb zone is perforated from 6470'-6555' and is temporarily abandoned by a CIBP set at 5609'. The Paddock zone is perforated from 5134'-5187'. A recent test on the Paddock (9/28/83) shows it is presently producing 11 BO, 17 BW, and less than 1 MCFPD. The last test on the Tubb zone (7/20/72) before it was abandoned showed it producing 6 BO, 3 BW, and 139 MCFPD. Both fluid fall within the commingling limit of 40 BOPD. Both zones require artificial lift to produce and the proposed commingling will also be artificially lifted.

Pressure data on the Tubb zone is sparse. No static fluid levels or pressure buildup data is available. Using working fluid levels taken during the time the zone was produced, a pumping bottom hole pressure of 77 psi was calculated. The only static bottom hole pressure data available on the Tubb zone is from an offset well, Conoco's Britt B #26 which is presently downhole commingled in the Tubb and Paddock (DHC Order #313). The information filed

for their downhole commingling listed the static bottom hole pressure of the Tubb as 755 psi. The time period of this buildup is unknown.

Using working fluid levels the pumping bottom hole pressure for the Paddock was calculated to be 31 psi. Using a 24 hour static fluid level, a static bottom hole pressure of 363 psi was calculated.

The API gravity of the Tubb oil is 37.6° and the API gravity of the Paddock oil is 36.8°. The price of the commingled product will not be less than the sum of the two individual streams. A computation sheet is attached showing calculations.

No laboratory testing of the commingling of the Tubb and Paddock oils of this wellbore is presently possible, but Conoco's Britt B #26, an offset, is presently downhole commingled without any apparent precipitates forming that might damage either reservoir.

The ownership of the zones to be commingled in the State "Q" #4 is common with AHC having a working interest of 100% with 1/8 royalty and no overriding royalty. At present the well is not involved in an secondary recovery project, but if a future recovery project was to be considered, no problems can be foreseen with this commingling that would jeopardize the efficiency of the operation.

Attached is a plat of the proposed commingled well location and offsets, a C-116 showing Paddock production, and plotted Tubb and Paddock production dating back to 1963. The production curves indicate the following nominal declines.

<u>ZONE</u>	<u>DECLINE RATE</u>
Tubb	26.7 %/yr.
Paddock	22.9 %/yr.

Using these rates, a combined decline rate of 24.2 %/yr. was calculated, an allocation of 35% of the total to the Tubb and 65% to the Paddock.

Offset operators have been notified of the proposed commingling by a copy of this memo. If there are any questions regarding this proposed commingling, please contact me.

Sincerely,

Denise Gregson

Denise Gregson
Petroleum Engineer

XC Division Director (2)
Hobbs District Office
Offset Operators
File

Gravities:

Tubb

37.6 ° API
Specific gravity = .8368
35% of commingled production

Paddock

36.8 ° API
Specific gravity = .8408
65% of commingled production

Commingled Gravity

$$\begin{aligned}\gamma_r &= (.8368)(.35) + (.8408)(.65) \\ \gamma_r &= .8394\end{aligned}$$

$$\text{API} = \frac{141.5}{.8394} - 131.5$$

$$\text{API} = 37.1^\circ$$

Price for 37.1° API is \$29.94/bbl.

Current list price of intermediate-sweet crude as quoted from Amerada Hess Corporation's Tulsa office is as follows:

<u>API GRAVITY</u>	<u>CURRENT PRICE</u>
40 and above	\$30.00
39.0 - 39.9	\$29.98
38.0 - 38.9	\$29.96
37.0 - 37.9	\$29.94
36.0 - 36.9	\$29.92

Individual Streams:

Tubb

$$(6 \text{ BOPD}) (\$29.94/\text{bbl}) = \$179.64$$

Paddock

$$(11 \text{ BOPD}) (\$29.92/\text{bbl}) = \$329.12$$

$$\text{Sum of individual streams} = \$508.76$$

Commingled Product:

$$(17 \text{ BOPD}) (\$29.94/\text{bbl}) = \$508.98$$

The price of the commingled product is greater than the sum of the individual streams.

GAS-OIL RATIO TESTS

Operator		County		Lea											
AMERADA HESS CORPORATION		Monument paddock													
Drawer "D", Monument, New Mexico 88265		TYPE OF TEST - (X)		Completion ☐ Special ☒											
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST				GAS - OIL RATIO CU.FT./BBL	
		U	S	T						R	WATER BBL'S.	GRAV. OIL	OIL BBL'S.		GAS M.C.F.
State "Q"	4	I	16	20	37	9/28/83	P 8x74	30	16	24	17	--	11	1	91

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

During gas-well 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 Division.

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 0.65.

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

Well original and one copy of this report to the district office of the New Mexico Oil Conservation Division 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.

Dennis Dugan
(Signature)
Petroleum Engineer

October 27, 1983
(Date)

(Dues)

P08 4434945

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO		Getty Oil Co.	
STREET AND NO.		P.O. Box 730	
P.O. STATE AND ZIP CODE		Hobbs, New Mexico 88240	
POSTAGE		\$.37	
CONSULT POSTMASTER FOR FEES		CERTIFIED FEE	
OPTIONAL SERVICES		SPECIAL DELIVERY	
RETURN RECEIPT SERVICE		RESTRICTED DELIVERY	
SHOW TO WHOM AND DATE DELIVERED		SHOW TO WHOM AND DATE DELIVERED	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY		SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY	
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY		SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	
TOTAL POSTAGE AND FEES		\$ 1.12	
POSTMARK OR DATE			

PS Form 3800, Apr. 1976

CERTIFIED

P08 4434945

MAIL

P08 4434948

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO		Marathon Oil Co.	
STREET AND NO.		P.O. Box 2409	
P.O. STATE AND ZIP CODE		Hobbs, NM 88240	
POSTAGE		\$.37	
CONSULT POSTMASTER FOR FEES		CERTIFIED FEE	
OPTIONAL SERVICES		SPECIAL DELIVERY	
RETURN RECEIPT SERVICE		RESTRICTED DELIVERY	
SHOW TO WHOM AND DATE DELIVERED		SHOW TO WHOM AND DATE DELIVERED	
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SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY		SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	
TOTAL POSTAGE AND FEES		\$ 1.12	
POSTMARK OR DATE			

PS Form 3800, Apr. 1976

CERTIFIED

P08 4434948

MAIL

P08 4434947

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO		Conoco, Inc.	
STREET AND NO.		726 E. Michigan	
P.O. STATE AND ZIP CODE		Hobbs, NM 88240	
POSTAGE		\$.37	
CONSULT POSTMASTER FOR FEES		CERTIFIED FEE	
OPTIONAL SERVICES		SPECIAL DELIVERY	
RETURN RECEIPT SERVICE		RESTRICTED DELIVERY	
SHOW TO WHOM AND DATE DELIVERED		SHOW TO WHOM AND DATE DELIVERED	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY		SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY	
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY		SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	
TOTAL POSTAGE AND FEES		\$ 1.12	
POSTMARK OR DATE			

PS Form 3800, Apr. 1976

CERTIFIED

P08 4434947

MAIL

P08 4434946

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
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(See Reverse)

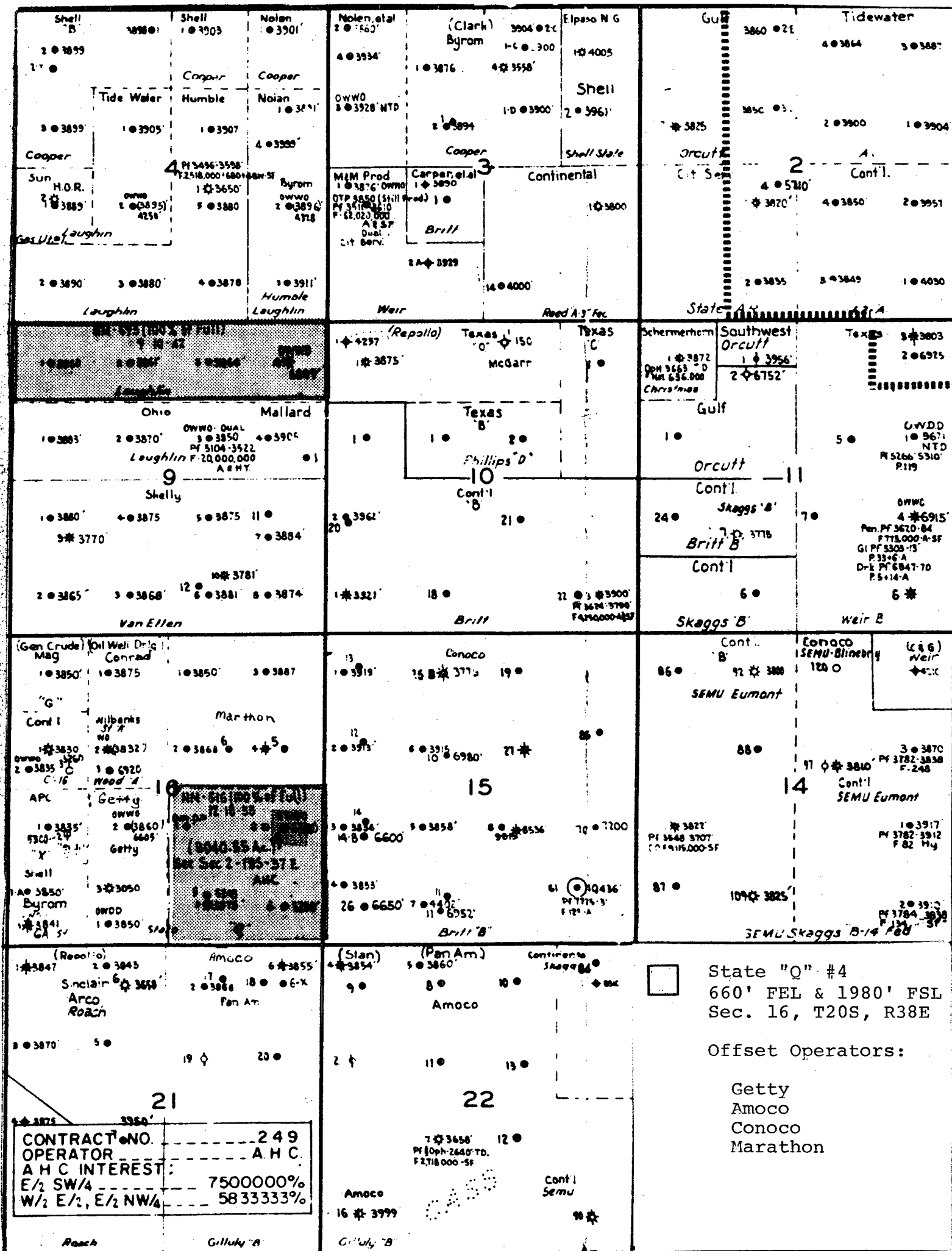
SENT TO		Amoco Production	
STREET AND NO.		205 E. Bender Blvd.	
P.O. STATE AND ZIP CODE		Hobbs, NM 88240	
POSTAGE		\$.37	
CONSULT POSTMASTER FOR FEES		CERTIFIED FEE	
OPTIONAL SERVICES		SPECIAL DELIVERY	
RETURN RECEIPT SERVICE		RESTRICTED DELIVERY	
SHOW TO WHOM AND DATE DELIVERED		SHOW TO WHOM AND DATE DELIVERED	
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TOTAL POSTAGE AND FEES		\$ 1.12	
POSTMARK OR DATE			

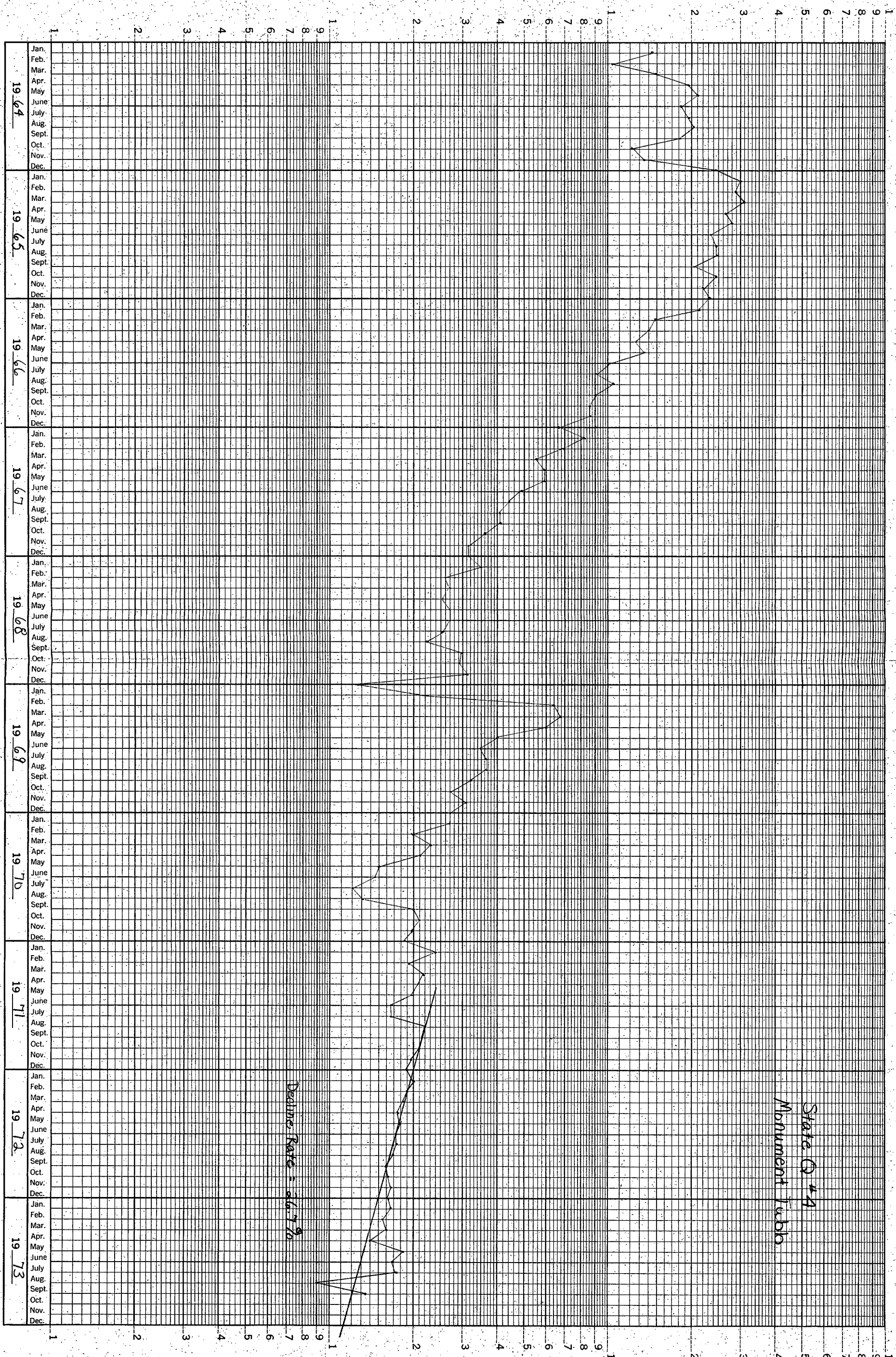
PS Form 3800, Apr. 1976

CERTIFIED

P08 4434946

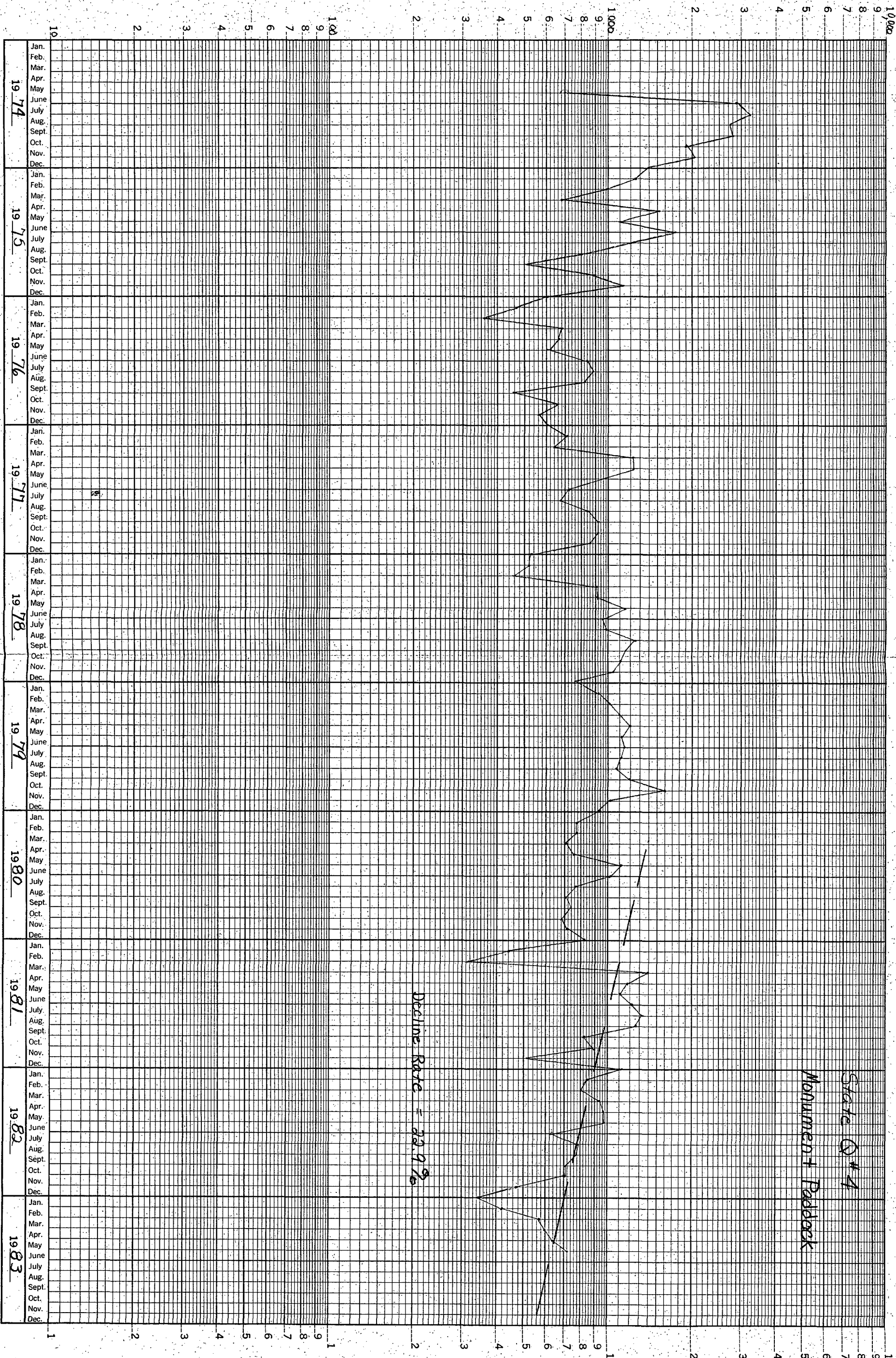
MAIL



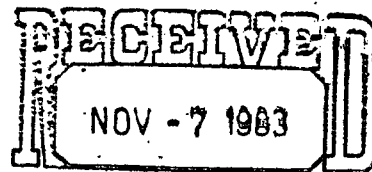


State 0 4
Monumen + Paddeboek

Decline Rate = 22.9%



OIL CONSERVATION DIVISION
DISTRICT 1



OIL CONSERVATION DIVISION
SANTA FE

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

DATE November 2, 1983

RE: Proposed MC
Proposed DHC X
Proposed NSL
Proposed NSP
Proposed SWD
Proposed WFX
Proposed PMX

Gentlemen:

I have examined the application for the:

Amerada Hess Corp.	State Q	No. 4-I	16-20-37
Operator	Lease and Well No.	Unit, S - T - R	

and my recommendations are as follows:

O.K.---J.S.

Yours very truly,

/mc