



MARTIN YATES, III  
1912 - 1985  
FRANK W. YATES  
1936 - 1986



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TREASURER

December 5, 1994

Exxon Company, USA  
P. O. Box 1600  
Midland, Texas 79702-1600

ATTN: Ronald E. Mayhew

RE: Avalon Delaware Unit

Dear Sir:

Yates Petroleum proposes two additional participation formulas (Yates Proposal B and Yates Proposal C) for the Avalon Delaware Unit:

I. Yates Proposal B

1. The Phase I formula will be

70% Remaining Primary  
20% Tract Waterflood Reserves  
10% Tract CO<sub>2</sub> Reserves

2. The Phase II formula will be

20% Remaining primary  
40% Tract Waterflood Reserves  
40% Tract CO<sub>2</sub> Reserves

3. Phase I will end and Phase II will begin on 1-1-98 or when oil production from the Unit area (after 1-1-93) reaches 1190 KBO, whichever occurs earlier in time.

4. Capital Expenses during Phase I will be charged according to the Phase I formula and Capital Expenses during Phase II will be charged according to the Phase II formula. These will be a reequalization of monies when the phase change occurs so that all Capital Expenses will ultimately be paid according to the Phase II formula.

Ron Mayhew  
December 5, 1994

-2-

5. The initial overhead rate will be \$550 per producing well per month. The overhead rate will increase by 27 percent when CO<sub>2</sub> injection begins and shall continue at the elevated rate as long as CO<sub>2</sub> is injected into any Unit wells. When CO<sub>2</sub> injection ceases, the overhead rate will decrease by 22 percent.

## II. Yates Proposal C

1. The Phase I formula will be
  - 60% Remaining Primary
  - 30% Tract Waterflood Reserves
  - 10% Tract CO<sub>2</sub> Reserves
2. Phase II formula as above
3. Phase change as above
4. Capital Expenses will be charged according to the Phase II formula at all times after unitization with the exception described in the next few sentences. "Special Phase II Owners" are those owners with non-zero Tract CO<sub>2</sub> Reserves, but with zero Remaining Primary and zero Tract Waterflood Reserves. Capital Expenses to these "Special Phase II Owners" will be charged according to the Phase I formula during Phase I, and there will be a reequalization of monies when the phase change occurs. The result will be "unbilled" Capital Expenses of about \$180,000 during Phase I. These "unbilled" Capital Expenses will be charged 8/9 to Exxon and 1/9 to Yates Petroleum. The effect is an interest-free loan from Exxon and Yates to the "Special Phase II Owners."
5. Overhead as above

On the subject of APO interests, Yates agrees that the Stonewall YE #1, WM #1, WM #2, EP #6 and EP #7 should all enter the Unit on an APO basis. The wellbore and equipment at Stonewall YE #1 is owned on a different basis (shown in Attachment 1). To repeat, Yates agrees that the participation formula should be based on APO interests for all wells; and Yates asks that the inventory adjustment for Stonewall YE #1 use the actual equipment owners as shown in Attachment 1.

Ron Mayhew  
December 5, 1994  
-3-

The rest of this note explains that the Yates proposals do not meet the Exxon present-value target, but do meet the present-value target defined by Exxon's share of the primary oil reserves plus Exxon's share of the secondary oil reserves. As you have heard before, I believe the Exxon present-value target has been set unreasonably high by Exxon. You will see that the Yates proposals calculate to be fair on a present-value basis.

On November 21, 1994, you told Bob Fant and me that the Exxon proposal of April (adjusted to a WF start date of 7-1-95) has a present value of \$3.98 million at a discount rate of 20 percent per year. We at Yates adjusted and normalized our economic calculations to give a present value at a discount rate of 20% per year equal to the same \$3.98 million with the same production flow streams and ownership assumed by Exxon. The present values calculated by Yates at 10% and 15% discount rates are shown in Line 1 of Attachment 2. I believe that Line 1 represents a reasonable description of the present-value target selected by Exxon.

Next Yates calculated present values for a) primary production with Exxon WI = 0.851 and b) secondary production with Exxon WI = 0.708 and a waterflood start date of 1-1-96. The Capital and Operating Expenses were the same as were used in "duplicating" the Exxon present-value of \$3.98 million. These two results are shown in Lines 2 and 3 of Attachment 2 with the two cases summed in Line 4. My contention is that Line 4 represents a fair present-value target for Exxon in these discussions and Yates should try to meet the collective target in Line 4. Obviously, this target is lower than the target selected by Exxon, the target displayed in Line 1.

Line 5 of Attachment 2 shows the present value of Exxon interest under Yates Proposal A that you received in September of 1994. My comparison of Line 4 and Line 5 says that our original proposal was "fair" as defined by Yates.

Line 6 shows the present value of the Exxon interest under Yates Proposal B outlined at the start of this note. Again, the present values in Lines 4 and 6 are very similar. From another point of view, Yates has taken away the benefit to Exxon of capital costs being billed at Phase II during Phase I. In our "pseudo Exxon framework", we calculate that this change decreases Exxon's present value at 15 percent discount by \$147K.

Ron Mayhew  
December 5, 1994  
-4-

Yates has given Exxon a later date for the automatic phase change which is worth \$50K. Yates has also given Exxon a higher interest in Phase I which is worth \$63K. The result is that Proposal B gives Exxon a present value about \$30K less than provided by Proposal A.

Line 7 of Attachment 2 shows the present value calculated by Yates for the Exxon interest under Proposal C. Compared to Proposal A, Exxon loses about \$30K to cover interest on the loan to the "Special Phase II Owners" and Exxon gains about \$50K by moving back the date of the automatic phase change. The result is that Proposal C gives Exxon a present value about \$20K more than provided by Proposal A.

In conclusion, all three Yates proposals give present values clustered very near what Exxon would get from its absolute share of the Remaining Primary and from its absolute share of the Tract Waterflood Reserves. I have tried to make it clear to Exxon why Yates thinks its proposals are fair and how much room Yates has to balance the various components. We are in trouble if the Exxon target remains far from the Yates target, but we can reach agreement if we can see both targets from the same firing position.

Sincerely,



David F. Boneau  
Reservoir Engineering Supervisor

DFB/cvg

Attachments

xc: Mike Slater  
Janet Richardson  
Bob Fant

Attachment 1

Stonewall YE #1 SWD System

<u>Working Interest Owners</u>	<u>WI</u>
Abo Petroleum Corporation	0.04305167
Claremont Corporation	0.00990534
Coquina Oil Corporation	0.21972916
Flag-Redfern Oil Company	0.00954979
Edward R. Heidson, Jr.	0.15848528
MWJ	0.01981069
Mobil Producing TX NM	0.11326129
MYCO Industrices, Inc.	0.12915504
Rosalind Redfern	0.00927066
Yates Drilling Company	0.12915504
Yates Petroleum Corporation	0.12915502
YPC, Account 4	<u>0.02947102</u>
	1.00000000

Attachment 2

Avalon Delaware - Comparison of Present Values for Exxon/Yates Proposals

Present Value in Million of Dollars

Line	Case	Exxon PV at 10%	Exxon PV at 15%	Exxon PV at 20%	Exxon WI Phase I	Exxon WI Phase II	Date of Phase Change	Phase Modeled in Economics	Capital WI in Phase I
1	Exxon 4/94	9.33	6.09	3.98*	0.789	NA	Vote to change WI for CO <sub>2</sub>	Primary & Secondary	Phase I
2	Exxon Primary	2.64	2.27	2.00	0.851	---		Primary only	
3	Exxon Secondary	6.65	3.57	1.88	---	0.708	Start WF 1-1-96	Secondary only	
4	Exxon Primary & Secondary	9.29	5.85	3.88	0.851	0.708	Start WF 1-1-96	Primary & Secondary	
5	Yates Proposal A (9/94)	9.33	5.85	3.85	0.791	0.725	4-1-97	Primary & Secondary	Phase II
6	Yates Proposal B (12/94)	9.35	5.82	3.80	0.805	0.725	1-1-98	Primary & Secondary	Phase I
7	Yates Proposal C (12/94)	9.38	5.87	3.87	0.791	0.725	1-1-98	Primary & Secondary	Phase II**

\* Calculated by Exxon and matched by Yates economics. All other PV numbers came from Yates economic calculations.

\*\* Exception for "Special Phase II Owners" as explained in cover letter.