TABLE 1.—*Privately held oil shale reserves*

[A—Colorado, 25 gallons per ton or better, rim deposits, owned in fee simple; B—Colorado, 25 gallons per ton or better, deep deposits, owned in fee simple; C—Colorado, 25 gallons per ton or better, rim or deep, unpatented claims; D—Utah, 15 gallons per ton or better, fee land; E—Utah, 15 gallons per ton or better, State leases]

Company	Shale oil reserves (billions of barrels)					
	A	B	C	D	E	Total
Integrated oil companies:						
Standard Oil Co. (Ohio)	[1] 2.6			[1] 0.8		3.4
Sinclair Oil Corp	1.2	3.7				4.9
Mobil Oil Corp	3.6					3.6
Standard Oil Co. (Indiana)	.2				3.2	3.4
Atlantic Richfield Co				.2	2.3	2.5
Union Oil Co	5.0		5.0			10.0
Cities Service Co	1.5					1.5
Shell Oil Co		2.8	[1] 2.9		8.2	13.9
Standard Oil Co. (California)	7.8					7.8
Continental Oil Co	.3					.3
Marathon Oil Co		2.0				2.0
Gulf Oil Corp	.1					.1
Texaco, Inc	1.6			1.2		2.8
Tenneco Oil Co	.1					.1
Getty Oil Co	4.2					4.2
Humble Oil & Refining Co	.8	6.2	2.1			9.1
Independents and others:						
Amerada Petroleum Corp			.6			.6
Cleveland Cliffs Iron Co	[1] 2.			[1] .6		2.6
Equity Oil Co	2.	3.6	.6			6.2
Husky Oil Co					2.4	2.4
Louisiana Land & Exploration Co			.6			.6
Skyline Oil Co				.4		.4
Superior Oil Co	.5	1.8				2.3
Shamrock Oil & Gas Corp					.5	.5
The Oil Shale Corp	[1] 2.	1.5	[1] 4.6	[1] .6		8.7
Union Pacific Railroad Co	(2)	(2)	(2)	(2)	(2)	(2)
Utah Shale Land Co				[3] 1.1		1.1
Western Oil Shale Co					11.8	11.8
Others	.4		?		11.2	+11.6

1 Most or all under purchase options or contracts from owners.
2 Very large, low-grade Wyoming reserves.
3 Shale grade is better than 20 gallons per ton.

To limit development now to those with adequate land positions excludes some of the most capable research-minded companies and almost all of the independents. It has been argued that anyone seriously interested in oil shale can purchase reserves. Even if possible, the price would be high adding an unnecessary element of cost to an already marginal economic situation.

We believe it timely to remedy the artificial shortage of oil shale lands and eliminate the opportunity for "windfall" profits created by this shortage while at the same time making it possible for the public to participate from the beginning in revenues from shale oil production. By this is meant competitively established bonuses, rentals and royalties.

SHOULD LEASES BE COMPETITIVE OR NEGOTIATED

In our 1963 report to the State of Colorado, we expressed the following viewpoint on the method of awarding leases:

". . . There is ample precedent for competitive bidding, and it obviously yields a direct financial return to the government."

"Competitive bidding also has questionable effects, however. Will it insure earliest possible development of the resource? Will it exclude the smaller company? Would the money spent for leases be of greater benefit if used to develop the property?"

"There should be a serious effort to devise a satisfactory, non-competitive leasing procedure that places an obligation for early development on the lessee. Only in the event of failure to work out such a procedure should competitive bidding be considered."