

With best wishes for you in behalf of your efforts to contribute to the war effort, I remain,

Sincerely yours,

VINCENT G. SHINKLE, *Consulting Petroleum Engineer.*

[Memorandum]

MAY 14, 1942.

COMPARATIVE ANALYSIS

Tapco and the 24-inch crude-oil line.—In this critical hour, it is in order to evaluate the relative merits of these two proposed crude-oil pipe lines from the southwestern oil fields to the Atlantic coast.

With respect to crude-oil supply, the situation is clear. Crude oil is brought eastward to the refining centers in the New York, Philadelphia, and Baltimore areas. The crude oil required for these refining areas is as follows:

	<i>Barrels daily</i>
(a) New York.....	283, 700
(b) Philadelphia.....	265, 000
(c) Baltimore.....	43, 000
Total.....	591, 700

A release from the Office of the Petroleum Coordinator for War reports for the week ended April 18, 1942, tank-car movement into the east coast reached a high of 599,500 barrels, both crude and refined products, daily.

In addition to this supply, two small pipe lines are delivering crude oil to the New York and Philadelphia refining areas, and a third, the Tuscarora, is being reversed to bring an additional supply of crude oil east.

Referring again to the tank-car movement, it is evident that, if they carried only crude oil, these 44,000 tank cars in service could supply the total crude-oil requirements for the east-coast refineries.

In addition to the output of refined products by the afore-mentioned refineries, an even greater volume of products is required to supply the east coast, the area of greatest demand. However, there are other logical and more economic measures proposed to contribute to the relief of this situation.

Twenty-four inch pipe line.—We note the revival of interest in the so-called national defense pipe line. This proposal involves the construction of a 24 inch pipe line from east Texas by way of Salem, Ill., to the New York and Philadelphia areas. The length of this line will be 1,400 miles, would require 422,000 tons of steel, exclusive of pumping stations, and would cost an estimated \$95,000,000. It would have a crude-oil capacity of 250,000 barrels a day.

There are but two pipe mills in position to make this 24-inch seamless-steel pipe. If they put all their capacity on the job, the two together could turn out about 6 miles a day. Assuming this improbable situation, it would require about 8 months to produce the pipe for the line.

After the return to normal conditions, it is inevitable that these refining centers will again receive the major portion of their crude supply, more economically, by tankers operating between Gulf coast ports, Venezuela, and Colombia, and the Atlantic coast. Consequently, the impressive amount of capital employed in the big line will be in constant jeopardy.

Decentralization.—Another point is of interest. In the event that the war comes nearer our shores, these two refining centers would be the first targets subject to sabotage and direct attack, in which event, the large pipe line would be of no value. A partial decentralization of supplies in time of war is a prudent measure, in fact, just good common sense.

Tapco.—Compared with this great trunk pipe line, hereinbefore described, is the Tapco crude-oil pipe line proposed by the Trans-American Pipe-line Corporation. This project has been before the Office of the Petroleum Coordinator for War, for over 10 months. This is to be a 12¾-inch line, with an estimated daily capacity of 70,000 barrels. This is equivalent to 12 average tankers operating between the Texas Gulf coast and the Atlantic coast. If it had been authorized last year, it would have, by this time, delivered over 10,000,000 barrels of crude oil to the Atlantic coast.

Intracoastal waterway.—This line is tentatively projected to extend for a distance of 1,050 miles from Wichita County, Tex., to an Atlantic coast ter-