DEC 2 3 1993

UNITED STATES DISTRICT COURT FOR THE DISTRICT OF COLUMBIA



Defendants.

COMPLAINT

The United States of America, acting under the direction of the Attorney General of the United States, brings this civil action to obtain equitable and other relief as is appropriate against the defendants named herein and complains and alleges as follows:

1. The United States brings this antitrust case to block the proposed combination of the two largest manufacturers of drilling fluids in the United States and two of the five largest diamond drill bit manufacturers in the United States. Dresser Industries, Inc. ("Dresser") and Baroid Corporation ("Baroid") are major competitors in the sale of both products, which are used in drilling for crude oil and natural gas.

2. If Dresser and Baroid merge, the combined firm will account for over 50 percent of drilling fluid sales in the United States and will become one of only two companies capable of providing drilling fluids for complex drilling operations. Dresser-Baroid would also control almost one-fourth of the sales of diamond drill bits in the United States. Unless prevented, this combination is likely to substantially lessen competition and increase the cost of oil and gas exploration and development throughout the United States.

I.

JURISDICTION AND VENUE

3. This action is instituted under Section 15 of the Clayton Act, as amended, 15 U.S.C. § 25, to prevent and to restrain the violation by the defendants, as hereinafter alleged, of Section 7 of the Clayton Act, as amended, 15 U.S.C. § 18.

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4. For the purpose of this action, Baroid Corporation, Baroid Drilling Fluids, Inc., DB Stratabit (U.S.A.) Inc., and Dresser Industries Inc. are found within the District of Columbia.

II.

DEFENDANTS

5. Dresser is a corporation organized and existing under the laws of the state of Delaware, with its principal offices in Dallas, Texas. Dresser owns 64 percent of M-I Drilling Fluids Co., a Houston-based partnership with Halliburton Company. Dresser and M-I Drilling Fluids Co. are engaged in interstate commerce and in activities substantially affecting interstate commerce.

6. Baroid is a corporation organized and existing under the laws of the state of Delaware, with its principal offices in Houston, Texas. Baroid is engaged in interstate commerce and in activities substantially affecting interstate commerce.

7. DB Stratabit (USA) Inc. ("DBS"), a wholly owned subsidiary of Baroid, manufactures and sells diamond drill bits. DBS is a corporation organized and existing under the laws of the state of Delaware, with its principal offices in Houston, Texas. DBS is engaged in interstate commerce and in activities substantially affecting interstate commerce.

8. Baroid Drilling Fluids, Inc. ("Baroid Drilling"), a

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wholly owned subsidiary of Baroid, manufactures and sells drilling fluids. Baroid Drilling is a corporation organized and existing under the laws of the state of Delaware, with its principal offices in Houston, Texas. Baroid Drilling is engaged in interstate commerce and in activities substantially affecting interstate commerce.

III.

TRADE AND COMMERCE

9. Virtually all oil and gas in the United States is discovered and produced by drilling wells, onshore and offshore, that range from several hundred feet to several miles in depth. Generally these wells are drilled by a drilling contractor under contract to an oil or gas company that has the right to drill and produce energy resources that may exist at a particular site. The drilling contractor drills a hole to the depth and specifications set by the oil or gas company. The daily cost of drilling a well ranges from under \$10,000 onshore to more than \$60,000 in some offshore or remote locations.

10. Wells are drilled using a drill pipe (or "drill string"), which is a heavy-walled pipe assembled end-to-end from thirty- to forty-foot sections. The drill string is suspended from the mast of a drilling rig and lowered gradually as the earth is penetrated. As the drill string is rotated, the earth is cut by a drill bit, which is attached to the end

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of the drill string or to a motor that is attached to the end of the drill string. As the depth of the well increases, additional sections of drill pipe are added to the drill string. Drilling fluid is pumped under pressure through the drill string to the drill bit at the end of the string. Drilling fluid, a mixture of natural and synthetic chemical compounds, cools and lubricates the drill bit, cleans the hole bottom, carries cuttings to the surface, seals porous well formations, controls downhole pressures, and improves the performance and durability of the drill string and the tools in the hole.

Drilling Fluids

11. The combination of chemical compounds that make up the drilling fluid vary from project to project and in the same project, depending on a number of factors, including the downhole pressure and temperature, the direction of the drilling, and the stability and type of formation through which the drill bit is cutting. The most common ingredients of drilling fluids are barite and bentonite, which are chemical compounds extracted from mines. As the complexity of a drilling project increases, such as for a well deeper than 10,000 feet, drilled at an angle or horizontally, or drilled offshore, the importance of the drilling fluid can result in a costly and dangerous hole blow-out or an immobilized drill

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string. The percentage of total drilling costs accounted for by drilling fluids can be as high as 10 percent.

12. In 1992 total sales of drilling fluids in the United Sates were approximately \$350 to 400 million, of which M-I Drilling Fluids Co. had about \$110 million, and Baroid had about \$100 million.

13. There is no substitute for drilling fluids to which a significant number of customers would turn in response to a small but significant and nontransitory price increase.

14. The manufacture and sale of drilling fluids constitutes a relevant product market. The relevant geographic market for this relevant product market is the United States.

15. Three companies dominate the drilling fluids business. Two of those three companies are M-I Drilling Fluids Co., which Dresser controls through its 64 percent ownership, and Baroid, which manufactures and sells drilling fluids through its Baroid Drilling subsidiary. The third company is Baker Hughes Inc. These three companies account for at least two-thirds of all drilling fluid sales in the United States.

16. Based on 1992 sales data, M-I Drilling Fluids Co. and Baroid have, respectively, 29 percent and 22 percent of the United States drilling fluid market. The United States drilling fluid market is concentrated and would become substantially more concentrated as a result of the merger of Baroid into Dresser. The combined Dresser-Baroid would control

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more than 50 percent of all drilling fluid sales in the United States, resulting in a significant increase in concentration. Using a measure of market concentration called the "HHI" (defined and explained in Appendix A) the transaction will increase the HHI in the United States drilling fluid market by more than 1200 points to a post-acquisition level of more than 2800 points.

17. The merger of Dresser and Baroid will diminish competition in the drilling fluid market by enabling the remaining competitors more likely, more successfully, and more completely to engage in coordinated interaction that harms customers. The increase in concentration will result in higher prices for drilling fluids, which will increase the costs of oil and gas exploration and development in the United States.

18. Successful new entry into the manufacture and sale of drilling fluids is difficult and time-consuming. Neither new entry nor the expansion of fringe firms would be sufficient to counteract or deter a small but significant and non-transitory price increase. To gain a significant market share a firm must not only have a sufficient, independent source of barite and betonite and a significant research and development capability, but, because the cost to the customer of product failure is so high, must also have a reputation for providing a reliable product with dependable service under a variety of drilling conditions. Establishment of such a reputation takes years and

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requires a significant investment of resources.

Diamond Drill Bits

19. The type of drill bits used in a particular drilling operation depend upon the depth of the well, the direction of the drilling, the type of formation through which the drill bit must cut, and the type of drilling fluid used. There are two types of drill bits: tricone drill bits, consisting of three steel cones that rotate as the bit turns; and diamond drill bits, that have no moving parts but contain cutting elements made of natural or synthetic diamond embedded in the bottom and sides of the bit. More than 20 percent of worldwide well footage is drilled with diamond drill bits.

20. Oil and gas companies and drilling contractors seek to achieve the lowest "cost-per-foot" when drilling a well. The performance achieved by a particular bit, <u>i.e.</u>, the time it takes to drill a particular interval of a well and how long the bit can last without failing, are critical factors in determining the cost-per-foot. Since the operating costs of drilling a well are high, and because replacing the bit can take several hours to a half day, drill bit purchasers seek to reduce the frequency with which bits need to be replaced. The performance and reliability of drill bits is therefore crucial to drilling operators because, while the price of drill bits is a small percentage of total drilling costs, the cost of a bit failure can be very high. Valuable drilling time is lost

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because the entire drill string must be pulled out of the hole, disassembled, a new bit attached, and the drill string reassembled and run back into the hole. Drill bit purchasers thus select a drill bit based on a proven performance record of durability and reliability, as well as efficiency in drilling in a particular geological formation.

21. Diamond drill bits typically cost between three and eight times as much as tricone drill bits, but last longer and usually drill faster. Because of their longer life and faster drilling speed, diamond drill bits are more efficient and preferred by most customers in a considerable number of drilling operations.

22. There is no reasonable substitute for diamond drill bits to which a significant number of customers would turn in response to a small but significant and nontransitory price increase.

23. The manufacture and sale of diamond drill bits constitutes a relevant product market. The relevant geographic market for this relevant product market is the United States.

24. In 1992 total sales of diamond drill bits in the United States were approximately \$36 million, of which Dresser accounted for approximately \$4.7 million and Baroid for approximately \$3.6 million.

25. Dresser and Baroid are direct competitors in the manufacture and sale of diamond drill bits. Five companies

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account for approximately 90 percent of all diamond drill bit sales in the United States: Dresser, Baroid, Baker Hughes, Inc., Camco International, Inc., and Smith International, Inc. Dresser, which sells diamond drill bits through its Security Division, is the third largest seller of diamond drill bits in the United States, and Baroid, which sells diamond drill bits through its DBS subsidiary, is the fifth largest. The five major companies, through their operations in the United States and elsewhere in the world, have established reputations for providing innovative and dependable diamond drill bits for all types of drilling operations, backed by extensive product research and development and engineering support. For a significant number of drilling projects, only these five companies have the product quality, performance record, and engineering support needed to be considered by customers as a supplier of diamond drill bits.

26. Based on 1992 sales data, Dresser and Baroid have, respectively, about 13 percent and 10 percent of the United States diamond drill bit market. The United States diamond drill bit market is concentrated and would become significantly more concentrated as a result of the merger of Dresser and Baroid. The Dresser-Baroid combination would create a firm with almost 25 percent of the United States diamond drill bit market and would increase the HHI in the United States more than 250 points to a post-acquisition level of more than 2300

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points. As a result of the acquisition, four firms would account for approximately 90 percent of sales.

27. The merger of Dresser and Baroid will diminish competition in the United States diamond drill bit market by enabling the remaining competitors more likely, more successfully, and more completely to engage in coordinated interaction that harms customers. This increase in concentration will result in higher prices for diamond drill bits, which will increase the cost of oil and gas exploration and development in the United States.

28. Successful new entry into the United States diamond drill bit market is difficult and time-consuming. Neither new entry nor the expansion of fringe firms would be sufficient to counteract or deter a small but significant and non-transitory price increase. To gain a significant market share a company must establish a performance record that proves to customers the efficiency, durability, and reliability of its diamond drill bits under actual drilling conditions in a wide variety of geographic and geological conditions. This requires a new firm not only to produce quality diamond drill bits, but to achieve a strong reputation for engineering, research, development, testing, and modifying bits for new applications. Establishment of such a reputation takes years and requires of significant investiment of resources.

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VIOLATION ALLEGED

29. Pursuant to an agreement dated September 7, 1993, Dresser and Baroid propose to merge, with Baroid becoming a wholly owned subsidiary of Dresser. The merger would include a combination of the two companies' drilling fluid and diamond drill bit businesses.

30. The effect of the proposed merger may be substantially to lessen competition in interstate trade and commerce in violation of Section 7 of the Clayton Act, in the following ways, among others:

(a) actual and potential competition between Dresser and Baroid in the manufacture and sale of drilling fluids in the United States will be eliminated;

(b) competition generally in the manufacture and sale of drilling fluids in the United States may be substantially lessened;

(c) actual and potential competition between Dresser and Baroid in the manufacture and sale of diamond drill bits in the United States will be eliminated; and

(d) competition generally in the manufacture and sale of diamond drill bits in the United States may be substantially lessened.

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REQUEST FOR RELIEF

v.

WHEREFORE, Plaintiff prays:

1) That the proposed merger of Dresser and Baroid be adjudged a violation of Section 7 of the Clayton Act;

2) That defendants be permanently enjoined from carrying out any agreement, understanding, or plan, the effect of which would be to combine the drilling fluid or diamond drill bit businesses of Dresser and Baroid;

3) That the plaintiff have such other and further relief as the Court may deem just and proper; and

4) That the plaintiff recover the costs of this action.

Dated: December 23, 1993

Anne K. Bingaman / / Assistant Attorney General

Constance K. Robinson Deputy Director of Operations

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Transportation, Energy & Agriculture Section

U.S. Department of Justice Antitrust Division Respectfully submitted,

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APPENDIX A DEFINITION OF HHI

"HHI" means the Herfindahl-Hirschman Index, a commonly accepted measure of market concentration. It is calculated by squaring the market share of each firm competing in the market and then summing the resulting numbers. For example, for a market consisting of four firms with shares of thirty, thirty, twenty, and twenty percent, the HHI is $2600 (30^2 + 30^2 + 20^2 + 20^2 + 20^2 = 2600)$. The HHI takes into account the relative size and distribution of the firms in a market and approaches zero when a market consists of a large number of firms of relatively equal size. The HHI increases both as the number of firms in the market decreases and as the disparity in size between those firms increases.

Markets in which the HHI is between 1000 and 1800 are considered to be moderately concentrated and those in which the HHI is in excess of 1800 points are considered to be concentrated. Transactions that increase the HHI by more than 100 points in moderately concentrated and concentrated markets presumptively raise antitrust concerns under the Department of Justice and Federal Trade Commission 1992 Horizontal Merger Guidelines.

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