# Case No IV/M.1140 -HALLIBURTON / DRESSER

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# REGULATION (EEC) No 4064/89 MERGER PROCEDURE

# Article 6(1)(b) NON-OPPOSITION Date: 06/07/1998

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## COMMISSION OF THE EUROPEAN COMMUNITIES



Brussels, 06/07/1998

PUBLIC VERSION

MERGER PROCEDURE ARTICLE 6(1)(b) DECISION

To the notifying parties

Dear Sirs,

## Subject: Case N° IV/M.1140 - HALLIBURTON/DRESSER

Notification of 23.04.98 pursuant to Article 4 of Council Regulation N/ 4064/89

- 1. On 23 April 1998, the Commission received a notification of a proposed concentration pursuant to Article 4 of Council Regulation (EEC) No 4064/89 by which the undertakings Halliburton Company ("Halliburton") and Dresser Industries, Inc. ("Dresser") merge within the meaning of Article 3(1)(a) of the Council Regulation. This notification became complete on 3 June 1998.
- 2. After examination of the notification, the Commission has concluded that the notified operation falls within the scope of Council Regulation No. 4064/89 and does not raise serious doubts as to its compatibility with the common market or with the functioning of the EEA Agreement.

## THE PARTIES TO THE OPERATION

- 3. Halliburton is a diversified Engineering & Construction and Energy Services company. Halliburton's Energy Services are mainly focused on oilfield exploration and production (oil/gas).
- 4. Dresser is a diversified company with operations spread among three industry segments, namely Engineering and Construction Services, Petroleum Products and Services and Energy Equipment.

## THE OPERATION AND THE CONCENTRATION

5. Dresser will be merged into Halliburton and will cease to exist as a legal entity. The proposed operation constitutes a concentration within the meaning of Article 3(1)(a) of the Merger Regulation.

- 6. The operation was also notified to the Antitrust Division of the U.S. Department of Justice ('DoJ'). The DoJ has identified a market, namely, drilling fluids, where the competitive overlap of the parties would lead to high combined market shares. Drilling fluids are special high temperature lubricants used during the various drilling activities and the perforation process. In order to allow the closing of the operation, the DoJ has required Halliburton to divest its 36% participation in M-I Drilling Fluids L.L.C. ('M-I'), that is, a competing drilling fluids company. Halliburton has therefore offered a commitment to the DoJ, whereby it will eliminate the competitive overlap in the market for drilling fluids through the divestiture of its participation in M-I.
- 7. In their notification to the European Commission, the parties attached the undertaking offered to the DoJ, which therefore forms part of the notification. On this factual basis, the competitive overlap in the drilling markets will be removed. As a consequence, the market for drilling fluids does not constitute an affected market within the meaning of the Merger Regulation.

## **COMMUNITY DIMENSION**

8. Halliburton and Dresser have a combined aggregate world-wide turnover in excess of ECU 5,000 million (Halliburton: ECU 7,800 million; Dresser: 6,400 million). Each of them has a Community-wide turnover of more than ECU 250 million (Halliburton: ECU 2,000 million; Dresser: ECU 1,200 million), but they do not achieve more than two-thirds of their aggregate Community-wide turnover within one and the same Member State. The notified operation therefore has a Community dimension.

## **RELEVANT MARKETS**

9. The oilfield services industry comprises a variety of products and/or services destined to oil and gas exploration and production companies around the world. In all affected markets, the customers of the parties are oil and gas companies (hereafter, 'oil companies' or 'well operators'), such as Shell, BP, Mobil, Statoil, Amoco, etc. Roughly, the main phases in the provision of oilfield services include seismic interpretation aiming at identifying the potential underground oil reserves, drilling operations aiming at creating a well through to the oil/gas reservoir, and completion operations, which aim at actually completing the well in view of the production phase.

#### A. Relevant Product markets

- 10. There are two separate affected markets, that is, directional drilling services and completion products and services. Moreover, one third party indicated two specific markets, that is, the storing, blending and shipping of bulk cement to oil rigs and the provision of cementing services on oil rigs.
- 11. Directional drilling services consist of a series of drilling tasks carried out in a specific sequence. Completion products and services are used, once the drilling of the well is finished, in order to stabilise the well bore and to initiate and sustain the production of oil and gas. Cementing services consist of pumping blended cement through the well bore, in order to stabilise the casing.

#### Directional Drilling Services and Completion Products and Services

- 12. Directional drilling services are employed, following the identification of underground geological formations that might yield economically viable reservoirs of oil and gas, in order to direct the well bore to the desired underground reservoir. Traditionally, wells were simply drilled vertically and oil or gas was discovered if the vertical bore happened to intersect an underground reservoir. Today an increasing number of wells are not vertical but highly deviated or horizontal and require the use of directional drilling services in order to direct the well bore to the desired underground reservoir.
- 13. Completion products and services are used once the drilling of the well is finished, in order to stabilise the well and to initiate and sustain the production of oil and gas.
- 14. Each of the these two markets encompasses several components which, although technically distinct and not substitutable, exhibit a high degree of complementarity, to the extent that they are part of a chain flow and, as such, they may be purchased by well operators on a single contract basis. Thus, for instance, directional drilling is a generic definition which includes a variety of tasks, such as down-hole drilling tools, drill motors, stabilisers, or more sophisticated electronic operations such as surface data-logging, measurement-while-drilling, logging-while-drilling and so on.
- 15. In turn, completion products and services encompass several tasks and products, such as perforation, whereby holes are blown through the well casing to allow oil or gas to flow into the well bore; packers, that is, isolating devices used to seal off underground formations and to direct the flow of underground fluids; a number of other down-hole equipment, including pumps, valves and flow controls, as well as above-ground devices, also referred to as 'surface' equipment.
- 16. The market investigation has sought to establish whether certain product or service lines within these two markets could form distinct product markets and therefore be assessed separately. Although customers may be seeking the various components in drilling or completion as an integrated package from one supplier, they would prefer to launch separate tenders for certain specific tasks. Hence, the suppliers bidding for integrated-solutions may not be the same as those bidding for a specific task of a project. Furthermore, several individual product lines may only be required by the well operator in particularly unfriendly oilfield environments, such as the offshore oil rigs at the North Sea.
- 17. In addition, for a certain number of products or services competition is taking place among four major players, commonly referred by industry as the Big Four. Thus, although many suppliers can offer basic directional drilling, the more complex, high cost wells tend to be undertaken by the Big Four. These are Schlumberger, Baker-Hughes, Halliburton and Dresser. A second tier of smaller but more specialised suppliers also serve the various segments of the overall market, or supply specialised equipment and services.
- 18. Although the big four are theoretically able to provide a seamless oilfield service, they usually act as prime contractors, whereby various specific tasks may be subcontracted to the smaller and more specialised suppliers. In practice, larger suppliers form bidding consortia with such smaller and specialised suppliers, or otherwise,

once they have won a tender as prime contractors, they sub-contract the various distinct activities to such smaller suppliers of specific individual service lines.

19. Nevertheless, the question of whether the relevant product markets are as broad as those referred above, that is, directional drilling services and completion products and services, or narrowed down to individual service lines may be left open, as in any possible market definition the operation would not raise dominance concerns.

Supply of cement and cementing services

- 20. Cementing services are provided once the well has been drilled, in order to stabilise the well bore and to enable the passage to the completion and production phase. Cementing services can be part of the initial stage of completion (i.e., primary cementing), but they may also be acquired by well operators on an individual basis (i.e., secondary or maintenance cementing).
- 21. In order to provide cementing services, bulk cement is purchased from cement manufacturers, such as CCB, Rugby, Dyckerhoff or Lafarge. This is done either by the well operators or by the cementing company. The bulk cement is transported by the manufacturer and is usually stored at dry bulk silos at those ports in the North Sea which are supplying the oil rigs, the so-called supply ports (i.e., Aberdeen, Peterhead, Great Yarmouth, etc.). From the supply ports, the bulk cement is transported to the oil rig, where it is stored at silos. The shipping of cement to the rigs is done either by the well operator or by other companies specialising in storing, blending and shipping the bulk cement to the rigs.
- 22. As such, the bulk cement cannot be used for cementing purposes; it has to be blended with additives which will render it appropriate for use in high temperature and pressure underground environments. The blending of the cement may take place either at the silos in the supply ports or on the offshore rig. In general, well operators prefer to blend the bulk cement on the rig, in order to make the appropriate blending according to how quickly the drilling is advancing. In fact, cement that has already been blended at the supply ports, in the absence of real-time information on the temperatures and pressures prevailing, for instance, at 3,000ft under the sea bed may later prove inadequate for a particular well.
- 23. Therefore, two different markets were identified, that is, the market for the storing, blending and shipment of bulk cement from the supply ports to the off-shore rigs, and the market for the provision of cementing services on the rig.

#### Conclusion on product markets

24. On the basis of the above, the Commission has identified the following affected markets, that is, the provision of directional drilling services, the provision of completion products and services, the storing, blending and shipment of cement and the provision of cementing services.

## B. Geographic markets

Directional Drilling Services and Completion Products and Services

- 25. Geographic markets for drilling services and completion products and services have a global dimension. Providers of such services have developed mobility in order to respond to demand, which may arise in various locations around the world, the most important being the North Sea, the Gulf of Mexico, the Persian Gulf, the South American Atlantic rim, the Western African Coast, as well as the various onshore locations. Thus, although service providers and their manufacturing facilities may be located, for instance, in Texas, their manpower and equipment are easily transportable to other remote locations. However, it has appeared that the North Sea is a particularly unfriendly environment for offshore operations and that some of the players would not bid for projects there on a regular basis.
- 26. In any event, even if the analysis of the markets for directional drilling services and completion products and services is conducted on the basis of a narrower geographic market such as the EEA, the operation would not raise any dominance concerns.

#### Supply of cement and cementing services

27. The supply of cement is a local market, owing to the high transport costs involved. In view of the provision of cementing services in the various oilfields, cement is sourced locally. In the present case, the operation will be assessed with respect to the supply of bulk cement and the provision of cementing services in the UK sector of the North Sea.

## **COMPETITIVE ASSESSMENT**

Directional Drilling Services

- 28. There are three major providers of directional drilling services, namely Schlumberger, Baker-Hughes and Dresser, whereas Halliburton is a weaker fourth player. There are also other, smaller companies providing such services on land and in simple marine environments. This transaction combines the third and fourth ranked companies. The combined market share of the merged entity will be of [...]<sup>1</sup>, either on a EEA-wide basis or on a world-wide basis. The major competitors, Schlumberger, Baker-Hughes, have [...]<sup>2</sup> and [...]<sup>3</sup> respectively, on a EEA-wide basis, and [...]<sup>4</sup> and [...]<sup>5</sup> respectively, on a world-wide basis.
- 29. Moreover, if narrower product markets were defined in terms of the individual types of services, the above analysis would not be appreciably affected, as the combined market share in each of the possible narrowest product markets would not raise serious doubts. For instance, in measurement-while-drilling the combined market share in the EEA would be of [...]<sup>6</sup>, whereas Baker-Hughes and Schlumberger would have [...]<sup>7</sup> and [...]<sup>8</sup> respectively; in logging-while-drilling the combined

<sup>&</sup>lt;sup>1</sup> Deleted business secret – between 25%-35%

<sup>&</sup>lt;sup>2</sup> Deleted business secret – between 15%-25%

<sup>&</sup>lt;sup>3</sup> Deleted business secret – between 30%-40%

<sup>&</sup>lt;sup>4</sup> Deleted business secret – between 20%-30%

<sup>&</sup>lt;sup>5</sup> Deleted business secret – between 20%-30%

<sup>&</sup>lt;sup>6</sup> Deleted business secret – between 25%-35%

<sup>7</sup> Deleted business secret – between 35%-45%

<sup>&</sup>lt;sup>8</sup> Deleted business secret – between 25%-35%

market share would be of [...]<sup>9</sup>, whereas Baker-Hughes and Schlumberger would have [...]<sup>10</sup> and [...]<sup>11</sup> respectively; in surface-data-logging, the combined market share would be of [...]<sup>12</sup>, whereas Baker-Hughes would have [...]<sup>13</sup>, the remaining being spread over various other competitors.

30. Therefore, it may be concluded that either in a market for directional drilling services or in narrower markets the concentration does not raise serious doubts.

#### **Completion Products and Services**

- 31. The major suppliers of such services are Schlumberger, Baker-Hughes, Camco and Halliburton. Dresser is a less important competitor in this market. Moreover, the increment its adds to Halliburton's market share is marginal. In fact, the combined market share of the parties would be of [...]<sup>14</sup> at EEA level (or [...]<sup>15</sup> at world-wide level), of which only [...]<sup>16</sup> comes from Dresser. The most important competitor of the parties, Baker-Hughes, has a market share of [...]<sup>17</sup> EEA-wide ([...]<sup>18</sup> world-wide). Moreover, there is a multitude of smaller competing suppliers accounting for some [...]<sup>19</sup> of the EEA market ([...]<sup>20</sup> of world market).
- 32. Again, even if narrower market segments were to be upheld for the present analysis, the operation would not raise serious doubts. For instance, in packers, the combined market share in the EEA would be of [...]<sup>21</sup>, whereas the major competitor, Baker-Hughes, has a market share of [...]<sup>22</sup>; in surface safety valves, the combined market share would be of [...]<sup>23</sup>, whereas Baker-Hughes has a market share of [...]<sup>24</sup>. Therefore, it may be concluded that either in a market for completion products and services or in narrower market segments the concentration does not raise serious doubts.

#### Supply of bulk cement and cementing services

33. There are currently three main competitors active in the provision of cementing services at the North Sea oil rigs. These are Halliburton [...]<sup>25</sup>, Schlumberger [...]<sup>26</sup> and BJ Services [...]<sup>27</sup>.

Deleted business secret – between 35%-45%
Deleted business secret – between 35%-45%

<sup>&</sup>lt;sup>9</sup> Deleted business secret – between 20%-30%

<sup>&</sup>lt;sup>10</sup> Deleted business secret – between 25%-35%

<sup>&</sup>lt;sup>11</sup> Deleted business secret – between 40%-50%

<sup>&</sup>lt;sup>12</sup> Deleted business secret – between 20%-30%

<sup>&</sup>lt;sup>13</sup> Deleted business secret – between 30%-40%

<sup>&</sup>lt;sup>14</sup> Deleted business secret – between 20%-30%

<sup>&</sup>lt;sup>15</sup> Deleted business secret – between 20%-30%

<sup>&</sup>lt;sup>16</sup> Deleted business secret – between 1%-3%

<sup>&</sup>lt;sup>17</sup> Deleted business secret – between 20%-30%

<sup>&</sup>lt;sup>18</sup> Deleted business secret – between 15%-25%

<sup>&</sup>lt;sup>19</sup> Deleted business secret – between 30%-40%

<sup>&</sup>lt;sup>20</sup> Deleted business secret – between 40%-50%

<sup>&</sup>lt;sup>21</sup> Deleted business secret – between 25%-35%

<sup>&</sup>lt;sup>22</sup> Deleted business secret – between 30%-40%

<sup>&</sup>lt;sup>23</sup> Deleted business secret – between 20%-30%

<sup>&</sup>lt;sup>25</sup> Deleted business secret – between 35%-45%

<sup>&</sup>lt;sup>26</sup> Deleted business secret – between 30%-40%

- 34. When cement is not purchased directly by well operators, one company is mainly engaged in storing it and shipping it to the oil rigs of the North Sea, that is, CEBO UK Ltd. CEBO UK is a subsidiary of CEBO International B.V., in which Dresser has a 50% participation. CEBO UK is the only independent supplier of bulk cement to the other two cementing companies, that is, Schlumberger and BJ Services, since Halliburton uses captive supplies of bulk cement in the performance of cementing services.
- 35. Following the completion of the operation, Halliburton will also become the 50% owner of CEBO International B.V., that is, the parent company of the independent supplier of bulk cement, CEBO UK. One third party claimed that the concentration would be likely to affect the down-stream market for cementing services as a result of the vertical integration of the parties in storing and shipping bulk cement to the rigs, and that this would be aggravated by the fact that limited storage space at the supply port of Aberdeen would prevent the other cementing providers from achieving the same vertical integration.
- 36. The market investigation has lead to the conclusion that the concentration is not likely to raise serious doubts in any of these markets. Halliburton has traditionally made captive supplies of bulk cement. To this extent, it hardly competed against other independent suppliers of bulk cement, such as CEBO, or BJ Services which until 1986 has been supplying bulk cement to cementing companies. After 1986, CEBO remained the only independent supplier of cement to the oil rigs of the North Sea. This situation will not change after the merger, to the extent that Halliburton is self sufficient in terms of bulk cement supplies, whereas CEBO will continue to supply cement to the other cementing companies.
- 37. CEBO's supplies represent only part of the overall volume of cement supplied to oil rigs, the other part, that is, approximately  $[...]^{28}$  being purchased and shipped directly by well operators. Any anticompetitive move on behalf of the combined entity and CEBO could be countervailed by the well operators who would only have to order the totality of their bulk cement requirements directly from the manufacturers of cement, thus by-passing CEBO. This would seriously affect CEBO's profitability. It has to be noted that CEBO UK Ltd is a subsidiary of CEBO International B.V., that is, a company primarily active in the market for drilling fluids. The supply of bulk cement is a marginal activity which it decided to carry on through CEBO UK after BJ Services exited the market, in particular because it was already the owner of several dry bulk silos in the main supply ports. The other 50% joint-controlling partner in CEBO B.V., that is, the Dutch company NMB Amstelland, has no interest at all in letting CEBO UK behave in a way that could potentially lead to financial losses, for the reasons described above. The corporate structure in CEBO can therefore prevent such a behaviour which could only profit to the other partner namely Dresser/Halliburton.
- 38. Moreover, the investigation has made clear that well operators, who are the customers of cementing as well as of the various other oilfield services, have significant buyer power. More than that, they appear to have a disciplinary effect on the various competing oilfield service providers working on a particular rig, where

<sup>&</sup>lt;sup>27</sup> Deleted business secret – between 15%-25%

<sup>&</sup>lt;sup>28</sup> Deleted business secret – between 40%-50%

each one is carrying out a specific task of the overall operation. In pragmatic terms, conditions on an offshore rig are very similar to those on a ship, that is, there is a clear and distinct hierarchy among the staff. Aboard its offshore rig, an oil company has the general management of the overall activity, whereas the various services providers follow the technical directions devised by the operating team of the oil company. This is due to the fact that the major concern of oil companies is to minimise the duration of oilfield operations, since each day of operation on a rig may cost the oil company an average [...]<sup>29</sup>. In this context, suppliers of oilfield services have to adjust their costs to the cost structure of their customers, that is the well operators. In the course of the investigation, well operators have stated that the situation in the supply of cement will not have any effect on cementing services, as any attempt by CEBO to increase the prices of bulk cement supplied to other cementing companies than Halliburton, will be made known to the well operators within a very short time and at the latest at the stage of the evaluation of the bids. Such an attempt to 'cheat' would be ultimately perceived by the well operators as an attempt against them, in that it would ultimately result in higher operational costs. Therefore, an anticompetitive behaviour on behalf of the combined entity in a small segment such as the supply of bulk cement would be reprimanded by the well operators and would even have overall negative consequences on the combined entity, in particular to the detriment of other, more lucrative, oilfield activities around the world, such as drilling and completion. The particularly transparent framework within which the service providers and the well operators are working together would therefore act as a deterrent to any anticompetitive behaviour in relation to the supply of cement.

- 39. Concerning the availability of jetty space for tank or silos storage ('tank space') at the various supply ports, the investigation has established that jetty space at the port of Aberdeen is not limited. From a total of 116 tank spaces located at the port, only 75 are currently in use, whereas 41 locations are at the moment idle, namely the Point Law Oil Terminal (space for 30 tanks), the Maitland Quay (4 tanks), the Mearns Quay (3 tanks), the Waterloo Quay (4 tanks) and the Blaikies Quay, where additional space may be made available from the port authority. Therefore, the prospects for new entry or for resuming activities by former suppliers of cement, such as BJ Services or Schlumberger, are not limited by either entry costs or tank space scarcity.
- 40. In terms of potential competition, the market investigation has shown that market entry in the storage and the supply of bulk cement is easy. Indeed, any company with minimal familiarity with cement or oilfield services could readily begin storing and blending cement and additives with a view to ship them to the oil rigs. The equipment required for this purpose consists of four dry bulk silos (that is, two bulk storage tanks and two scale tanks), one compressor and one dust collector, all of which would take more or less 100m<sup>2</sup> of land. New tanks would cost approx. US\$ 250,000, whereas used ones would cost approx. US\$ 100,000. The setting up of the operation would take more or less two weeks. The personnel necessary to handle this type of activity consists of one supervisor and one or two manual workers. Finally, inbound transportation of bulk cement (i.e., from the cement manufacturer to the storage facilities) is generally taken care of by the cement manufacturer or may

<sup>&</sup>lt;sup>29</sup> Deleted business secret – between US\$ 100 000-300 000

be out-sourced, whereas outbound transportation (i.e., from quayside to the rigs) is generally done either with vessels supplied by the well operators or with the so-called supply vessels (that is, vessels that make the liaison between the supply ports and the oil rigs).

41. On the basis of the above, it may be concluded that the operation does not raise serious doubts as to the supply of bulk cement and the provision of cementing services in the oil rigs of the North Sea.

#### CONCLUSION

42. For the above reasons, the Commission decides not to oppose the notified operation with regard to the markets for the provision of directional drilling services, completion products and services and the markets for the storage and shipping of cement and for the provision of cementing services on the oil rigs and to declare it compatible with the common market and with the functioning of the EEA Agreement. Moreover, considering that Halliburton will divest its participation in M-I Drillings, drilling fluids do not constitute an affected market in the present case. This decision is adopted in application of Article 6(1)(b) of Council Regulation No 4064/89.

For the Commission,