REGISTRATION NO. 333-54668

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

POST-EFFECTIVE AMENDMENT NO. 1 ON FORM S-8 TO FORM S-4 REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

TRANSOCEAN SEDCO FOREX INC. (Exact Name of Registrant as Specified in Its Charter)

CAYMAN ISLANDS (State or Other Jurisdiction of Incorporation or Organization) N/A (I.R.S. Employer Identification No.)

4 GREENWAY PLAZA HOUSTON, TEXAS 77046 (Address of Principal Executive Offices and Zip Code)

R&BFALCONCORPORATION2000EMPLOYEELONG-TERMINCENTIVEPLANR&BFALCONCORPORATION1999EMPLOYEELONG-TERMINCENTIVEPLANR&BFALCONCORPORATION1999DIRECTORLONG-TERMINCENTIVEPLAN

R&B FALCON U.S. SAVINGS PLAN

R&B FALCON CORPORATION 1998 ACQUISITION OPTION PLAN CLIFFS DRILLING COMPANY 1988 INCENTIVE EQUITY PLAN CLIFFS DRILLING COMPANY 1998 INCENTIVE EQUITY PLAN R&B FALCON CORPORATION 1998 EMPLOYEE LONG-TERM INCENTIVE PLAN R&B FALCON CORPORATION 1998 DIRECTOR LONG-TERM INCENTIVE PLAN FALCON DRILLING COMPANY, INC. STOCK OPTION PLANS READING & BATES CORPORATION 1997 LONG-TERM INCENTIVE PLAN

READING & BATES CORPORATION 1995 LONG-TERM INCENTIVE PLAN READING & BATES CORPORATION 1995 DIRECTOR STOCK OPTION PLAN READING & BATES CORPORATION 1990 STOCK OPTION PLAN

INDIVIDUAL STOCK OPTION AGREEMENTS

(Full Title of the Plans)

ERIC B. BROWN, ESQ. VICE PRESIDENT, GENERAL COUNSEL AND SECRETARY TRANSOCEAN SEDCO FOREX INC. 4 GREENWAY PLAZA HOUSTON, TEXAS 77046 (713) 232-7500 (Name, Address and Telephone Number, Including Area Code, of Agent for Service)

This Post-Effective Amendment No. 1 on Form S-8 to Form S-4 Registration Statement (333-54668) is being filed pursuant to the provisions of Rule 401(e) under the Securities Act of 1933, as amended, and the procedures described herein and covers 8,659,804 Ordinary Shares of the Registrant, par value \$.01 per share, (379,387 shares under the R&B Falcon Corporation 2000 Employee Long-Term Incentive Plan, 2,729,056 shares under the R&B Falcon Corporation 1999 Employee Long-Term Incentive Plan, 119,917 shares under the R&B Falcon Corporation 1999 Director Long-Term Incentive Plan, 567,587 shares under the R&B Falcon U.S. Savings Plan, 429,000 shares under the R&B Falcon Corporation 1998 Acquisition Option Plan, 102,525 shares under the Cliffs Drilling Company 1988 Incentive Equity Plan, 151,300 shares under the Cliffs Drilling Company 1998 Incentive Equity Plan, 974,805 shares under the R&B Falcon Corporation 1998 Employee Long-Term Incentive Plan, 111,883 shares under the R&B Falcon Corporation 1998 Director Long-Term Incentive Plan, 286,355 shares under the stock option plans of Falcon Drilling Company, Inc., 1,446,010 shares under the Reading & Bates Corporation 1997 Long-Term Incentive Plan, 882,062 shares under the Reading & Bates Corporation 1995 Long-Term Incentive Plan, 75,300 shares under the Reading & Bates Corporation 1995 Director Stock Option Plan, 255,255 shares under the Reading & Bates Corporation 1992 Long-Term Incentive Plan, 85,195 shares under the Reading & Bates Corporation 1990 Stock Option Plan and 64,167 shares pursuant to individual stock option agreements). The registration fee in respect of such Ordinary Shares was paid at the time of the original filing of the Registration Statement on Form S-4 relating to such Ordinary Shares. See "INTRODUCTORY STATEMENT."

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Transocean Sedco Forex Inc. (the "Registrant" or the "Company") is filing this Post-Effective Amendment No. 1 on Form S-8 to Registration Statement on Form S-4 (Registration No. 333-54668 (the "Registration Statement")) relating to its Ordinary Shares, par value \$.01 per share (the "Ordinary Shares"), which may be offered and sold pursuant to the R&B Falcon Corporation 2000 Employee Long-Term Incentive Plan, R&B Falcon Corporation 1999 Employee Long-Term Incentive Plan, R&B Falcon Corporation 1999 Director Long-Term Incentive Plan, R&B Falcon U.S. Savings Plan, R&B Falcon Corporation 1998 Acquisition Option Plan, Cliffs Drilling Company 1988 Incentive Equity Plan, Cliffs Drilling Company 1998 Incentive Equity Plan, R&B Falcon Corporation 1998 Employee Long-Term Incentive Plan, R&B Falcon Corporation 1998 Director Long-Term Incentive Plan, Falcon Drilling Company, Inc. 1997 Stock Option Plan, Falcon Drilling Company, Inc. 1995 Stock Option Plan, Falcon Drilling Company, Inc. 1994 Stock Option Plan, Falcon Drilling Company, Inc. 1992 Stock Option Plan, Reading & Bates Corporation 1997 Long-Term Incentive Plan, Reading & Bates Corporation 1995 Long-Term Incentive Plan, Reading & Bates Corporation 1995 Director Stock Option Plan, Reading & Bates Corporation 1992 Long-Term Incentive Plan, Reading & Bates Corporation 1990 Stock Option Plan and to individual stock option agreements (collectively, the "Plans").

On January 31, 2001, pursuant to an Agreement and Plan of Merger (the "Merger Agreement") dated as of August 19, 2000 by and among the Registrant, Transocean Holdings Inc., a Delaware corporation and direct, wholly owned subsidiary of the Registrant ("Sub"), TSF Delaware Inc., a Delaware corporation and direct, wholly-owned subsidiary of Sub ("Merger Sub"), and R&B Falcon Corporation, a Delaware corporation ("R&B Falcon"), among other things (a) Merger Sub was merged into R&B Falcon (the "Merger"), as a result of which R&B Falcon became a wholly owned subsidiary of Sub, (b) each outstanding share of Common Stock, par value \$0.01 per share, of R&B Falcon ("R&B Falcon Common Stock") was converted into the right to receive 0.5 Ordinary Shares, (c) the Registrant assumed R&B Falcon's obligations under the Plans, and Ordinary Shares became purchasable or otherwise issuable thereunder in lieu of R&B Falcon Common Stock and (d) warrants to purchase Ordinary Shares (the "Warrants") were deemed issued pursuant to the Registrant's assumption of warrants to purchase shares of R&B Falcon Common Stock. The Registration Statement covered (i) Ordinary Shares issuable in connection with the Merger, (ii) Ordinary Shares issuable pursuant to the Plans, (iii) Ordinary Shares issuable upon exercise of the Warrants and (iv) Warrants issuable in connection with the Merger.

This Post-Effective Amendment No. 1 on Form S-8 relates only to the Ordinary Shares issuable pursuant to the Plans and does not relate to (i) Ordinary Shares issuable in connection with the Merger, (ii) Ordinary Shares issuable upon exercise of the Warrants and (iii) Warrants issuable in connection with the Merger. Accordingly, the Registration Statement continues to cover the securities described in the foregoing clauses (i), (ii) and (iii).

There are also registered hereunder such additional indeterminate shares of the Registrant's Ordinary Shares as may be required as a result of stock splits, stock dividends, or similar transactions.

PART I INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

Note: The document(s) containing the employee benefit plan information required by Item 1 of Form S-8 and the statement of availability of registrant information and any other information required by Item 2 of Form S-8 will be sent or given to participants as specified by Rule 428 under the Securities Act of 1933, as amended (the "Securities Act"). In accordance with Rule 428 and the requirements of Part I of Form S-8, such documents are not being filed with the Securities and Exchange Commission (the "Commission") either as part of this Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424 under the Securities Act. The registrant shall maintain a file of such documents in accordance with the provisions of Rule 428. Upon request, the registrant shall furnish to the Commission or its staff a copy or copies of all of the documents included in such file.

ITEM 3. INCORPORATION OF DOCUMENTS BY REFERENCE.

This Registration Statement incorporates herein by reference the following documents which have been filed with the Commission by R&B Falcon (SEC File No. 1-13729) pursuant to the Securities Exchange Act of 1934, as amended (the "Exchange Act"):

- R&B Falcon's Annual Report on Form 10-K for the fiscal year ended December 31, 1999;
- R&B Falcon's Quarterly Reports on Form 10-Q for the quarters ended March 31, 2000, June 30, 2000 and September 30, 2000; and
- 3. R&B Falcon's Current Reports on Form 8-K filed on August 22, 2000, October 26, 2000, October 27, 2000 and December 5, 2000.

This Registration Statement incorporates herein by reference the following documents which have been filed with the Commission by the Company (SEC File No. 333-75899) pursuant to the Securities Act and the Exchange Act:

- The description of the Ordinary Shares under the caption "Description of Share Capital of Transocean Sedco Forex--Transocean Sedco Forex Ordinary Shares" appearing on pages 101 through 104 of the Joint Proxy Statement/Prospectus of the Company and R&B Falcon dated October 30, 2000, which description is included as part of the Registration Statement on Form S-4 (333-467374) of the Company;
- The Company's Annual Report on Form 10-K for the fiscal year ended December 31, 1999;
- 3. The Company's Quarterly Reports on Form 10-Q for the quarters ended March 31, 2000, June 30, 2000 and September 30, 2000;
- 4. The Company's Current Reports on Form 8-K filed on January 12, 2000, March 10, 2000, April 4, 2000, May 24, 2000, August 21, 2000, September 22, 2000, October 26, 2000 and December 4, 2000; and
- 5. The information under the caption "Unaudited Pro Forma Financial Information," "Notes to Unaudited Pro Forma Condensed Combined Financial Statements" and "Supplemental Financial Information" appearing on pages 92 through 100 of the Joint Proxy Statement/Prospectus of the Company and R&B Falcon dated October 30, 2000, which is included as part of the Registration Statement on Form S-4 (333-46374) of the Company.

Each document filed with the Commission by the Company pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act subsequent to the date of this Registration Statement and prior to the filing of a post-effective amendment to this Registration Statement which indicates that all securities offered hereby have been sold, or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this Registration Statement and to be a part hereof from the date of filing such documents.

Any statement contained in this Registration Statement, in an amendment hereto or in a document incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any subsequently filed amendment to this Registration Statement or in any document that also is incorporated by reference herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement. 5

ITEM 4. DESCRIPTION OF SECURITIES.

Not Applicable.

ITEM 5. INTERESTS OF NAMED EXPERTS AND COUNSEL.

Not Applicable.

ITEM 6. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

Section 34.1 of Transocean Sedco Forex's articles of association provides that:

No directors of Transocean Sedco Forex will be personally liable to Transocean Sedco Forex or, if any, its members for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to Transocean Sedco Forex or, if any, to its members, (ii) for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law or (iii) for any transaction from which the director derived an improper personal benefit.

Transocean Sedco Forex will indemnify, to the fullest extent permitted by the laws of the Cayman Islands as from time to time in effect, if any, any person who was or is a party or is threatened to be made a party to, or otherwise requires representation by counsel in connection with, any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (whether or not an action by or in the right of Transocean Sedco Forex) by reason of the fact that he is or was a director or officer of Transocean Sedco Forex, or, while serving as a director or officer of Transocean Sedco Forex, is or was serving at the request of Transocean Sedco Forex, as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action alleged to have been taken or omitted in such capacity. The right to indemnification conferred by Section 34.1 also includes the right of such persons to be paid in advance by Transocean Sedco Forex for their expenses to the fullest extent permitted by the laws of the Cayman Islands as from time to time in effect.

Unless otherwise determined by the Transocean Sedco Forex board of directors, Transocean Sedco Forex will indemnify to the fullest extent permitted by the laws of the Cayman Islands as from time to time in effect, if any, any person who was or is a party or is threatened to be made a party to, or otherwise requires representation by counsel in connection with, any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (whether or not an action by or in the right of Transocean Sedco Forex), by reason of the fact that he is or was an employee (other than an officer) or agent of Transocean Sedco Forex, or is or was serving at the request of Transocean Sedco Forex as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action alleged to have been taken or omitted in such capacity.

The rights and authority conferred by Section 34.1 are not exclusive of any other right that any person has or hereafter acquires under any law, provision of Transocean Sedco Forex's articles of association or memorandum of association, agreement, vote of members of Transocean Sedco Forex or of the board of directors of Transocean Sedco Forex or otherwise.

Transocean Sedco Forex also has directors and officers liability insurance that would indemnify its directors and officers against damages arising out of certain kinds of claims that might be made against them based on their negligent acts or omissions while acting in their capacity as such.

The Merger Agreement provides that, following the Merger, Transocean Sedco Forex will indemnify, defend and hold harmless, to the fullest extent permitted under applicable law, (1) each person who is, or has been at any time prior to the effective time of the merger, an officer or director of R&B Falcon or any of its subsidiaries or divisions and (2) each person who served as a director, officer, trustee or fiduciary of another corporation, partnership, joint venture, trust, pension or other employee benefit plan or enterprise at the request of R&B Falcon against all losses, claims, damages, liabilities, costs or expenses, including attorneys' fees, judgments, fines, penalties and amounts paid in settlement in connection with any claim, action, suit, proceeding or investigation that arises out of or pertains to actual or alleged acts or omissions by them in the capacities set forth in (1) and (2) above. Transocean Sedco Forex's duty to indemnify, defend and hold harmless applies whether or not such actions are commenced, asserted or claimed prior to the effective time of the Merger. In the event of such claim, action, suit, proceeding or investigation, Transocean Sedco Forex is required to pay the fees and expenses of counsel selected by the party to be indemnified, to the fullest extent permitted by applicable law in advance of the final disposition of any such action and cooperate in the defense of any such matter.

The Merger Agreement provides that the rights to indemnification will survive the Merger and continue in full force and effect. The Merger Agreement also provides that for a period of six years after the effective time of the Merger, Transocean Sedco Forex will maintain officers' and directors' liability insurance covering those individuals described in (1) and (2) of the preceding paragraph who were covered prior to the effective time of the Merger by officers' and directors' liability insurance policies maintained by R&B Falcon on terms substantially no less advantageous to those individuals than the existing R&B Falcon insurance, provided that Transocean Sedco Forex will not be required to pay annual premiums in excess of \$482,100, in which case Transocean Sedco Forex will purchase as much coverage as is reasonably practicable for that amount.

ITEM 7. EXEMPTION FROM REGISTRATION CLAIMED.

Not Applicable.

ITEM 8. EXHIBITS.

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The following documents are filed as a part of this Registration Statement or incorporated by reference herein:

Exhibit No.	 Description
4.1*	 Memorandum of Association of the Company, as amended (Filed as Annex E to the Joint Proxy Statement/Prospectus contained in the Registration Statement on Form S-4 of the Company (SEC Registration No. 333-46374) filed on October 30, 2000).
4.2*	 Articles of Association of the Company, as amended (Filed as Annex F to the Joint Proxy Statement/Prospectus contained in the Registration Statement on Form S-4 of the Company (SEC Registration No. 333-46374) filed on October 30, 2000).
4.3*	 Agreement and Plan of Merger dated as of August 19, 2000 among the Company, Transocean Holdings Inc., TSF Delaware Inc. and R&B Falcon Corporation (Filed as Annex A to the Joint Proxy Statement/Prospectus contained in the Registration Statement on Form S-4 of the Company (SEC Registration No. 333-46374) filed on October 30, 2000).
4.4*	 R&B Falcon Corporation 2000 Employee Long-Term Incentive Plar (Filed as Exhibit 99.A to R&B Falcon's Definitive Proxy Statement filed April 24, 2000).
4.5*	 R&B Falcon Corporation 1999 Employee Long-Term Incentive Plar (Filed as Exhibit 99.A to R&B Falcon's Proxy Statement dated April 13, 1999).
4.6*	 R&B Falcon Corporation 1999 Director Long-Term Incentive Plar (Filed as Exhibit 99.B to R&B Falcon's Proxy Statement dated April 13, 1999).

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- 4.7* -- R&B Falcon U.S. Savings Plan (Filed as Exhibit 4.4 to the Form S-8 Registration Statement of R&B Falcon (SEC Registration No. 333-88839) filed on October 12, 1999).
- 4.8* -- R&B Falcon Corporation 1998 Acquisition Option Plan (Filed as Exhibit 4.8 to the S-8 Registration Statement of Transocean Sedco Forex Inc. (SEC Registration No. 333-46374) filed on January 31, 2001).
- 4.9* -- Cliffs Drilling Company 1988 Incentive Equity Plan (Filed as Exhibit 4.2 to the Registration Statement on Form S-8 of R&B Falcon (SEC Registration No. 333-68101) filed on November 30, 1998).
- 4.10* -- Amendment No. 1 dated May 17, 1990 to the Cliffs Drilling Company 1988 Incentive Equity Plan (Filed as Exhibit 10.7.1 to the Cliffs Drilling Company Annual Report on Form 10-K for 1993).
- 4.11* -- Amendment No. 2 dated May 20, 1993 to the Cliffs Drilling Company 1988 Incentive Equity Plan (Filed as Exhibit 10.7.2 to the Cliffs Drilling Company Annual Report on Form 10-K for 1993).
- 4.12* -- Amendment No. 3 dated May 22, 1996 to the Cliffs Drilling Company 1988 Incentive Equity Plan (Filed as Exhibit 10.7.3 to the Cliffs Drilling Company Annual Report on Form 10-K for 1996).
- 4.13* -- Cliffs Drilling Company 1998 Incentive Equity Plan (Filed as Exhibit 4.3 to the Form S-8 Registration Statement of R&B Falcon (SEC Registration No. 333-68101) filed on November 30, 1998).
- 4.14* -- R&B Falcon Corporation 1998 Employee Long-Term Incentive Plan (Filed as Exhibit 99.A to R&B Falcon Corporation's Proxy Statement dated April 23, 1998).
- 4.15* -- R&B Falcon Corporation 1998 Director Long-Term Incentive Plan (Filed as Exhibit 99.B to R&B Falcon Corporation's Proxy Statement dated April 23, 1998).
- 4.16* -- Falcon Drilling Company, Inc. 1997 Stock Option Plan (Filed as Exhibit 99.1 to the Registration Statement on Form S-8 of Falcon Drilling Company, Inc. filed on July 23, 1997).
- 4.17* -- Falcon Drilling Company, Inc. 1995 Stock Option Plan (Filed as an exhibit to Falcon Drilling Company's Annual Report on Form 10-K for the year ended December 31, 1994).
- 4.18* -- Falcon Drilling Company, Inc. 1994 Stock Option Plan (Filed as an exhibit to Falcon Drilling Company, Inc.'s Annual Report on Form 10-K for the year ended December 31, 1994).
- 4.19* -- Falcon Drilling Company, Inc. 1992 Stock Option Plan (Filed as an exhibit to Falcon Drilling Company, Inc.'s Registration Statement on Form S-4 (SEC Registration No. 33-78369) filed on April 29, 1994).
- 4.20* -- Reading & Bates Corporation 1997 Long-Term Incentive Plan (Filed as Exhibit 99.A to Reading & Bates Corporation's Proxy Statement dated March 18, 1997).
- 4.21* -- Reading & Bates Corporation 1995 Long-Term Incentive Plan (Filed as Exhibit 99.A to Reading & Bates Corporation's Proxy Statement dated March 29, 1995).
- 4.22* -- Reading & Bates Corporation 1995 Director Stock Option Plan (Filed as Exhibit 99.B to R&B Falcon Corporation's Proxy Statement dated March 29, 1995).
- 4.23* -- Reading & Bates Corporation 1992 Long-Term Incentive Plan (Filed as Exhibit B to Reading & Bates Corporation's Proxy Statement dated April 27, 1992).
- 4.24* -- Reading & Bates Corporation 1990 Stock Option Plan (Filed as Appendix A to Reading & Bates Corporation's Proxy Statement dated April 26, 1993).

- 4.25* -- Stock Option Agreement between R&B Falcon Corporation and Terry Black Bonno, dated as of February 16, 1999 (Filed as Exhibit 4.25 to the Post-Effective Amendment No. 1 on Form S-8 to Form S-4 of Transocean Sedco Forex Inc. (SEC Registration No. 333-46374) filed on January 31, 2001).
- 4.26* -- Stock Option Agreement between R&B Falcon Corporation and Richard D. Bullock, dated as of February 16, 1999 (Filed as Exhibit 4.26 to the Post-Effective Amendment No. 1 on Form S-8 to Form S-4 of Transocean Sedco Forex Inc. (SEC Registration No. 333-46374) filed on January 31, 2001).
- 4.27* -- Stock Option Agreement between R&B Falcon Corporation and J. Galan Williams, dated as of February 16, 1999 (Filed as Exhibit 4.27 to the Post-Effective Amendment No. 1 on Form S-8 to Form S-4 of Transocean Sedco Forex Inc. (SEC Registration No. 333-46374) filed on January 31, 2001).
- 4.28* -- Stock Option Agreement between R&B Falcon Corporation and Robert T. Wood, dated as of February 16, 1999 (Filed as Exhibit 4.28 to the Post-Effective Amendment No. 1 on Form S-8 to Form S-4 of Transocean Sedco Forex Inc. (SEC Registration No. 333-46374) filed on January 31, 2001).
- 5.1 -- Opinion of Walkers, Cayman Islands.
- 15.1 -- Letter Regarding Unaudited Interim Financial Information.
- 23.1 -- Consent of Ernst & Young LLP.
- 23.2 -- Consent of PricewaterhouseCoopers LLP.
- 23.3 -- Consent of Arthur Andersen LLP.
- 23.4 -- Consent of Walkers, Cayman Islands (included in Exhibit 5.1).
- +24.1 -- Powers of Attorney.

* Incorporated herein by reference as indicated.

Previously filed as part of the Registrant's Registration
Statement on Form S-4 filed with the Commission on October 30, 2000.

ITEM 9. UNDERTAKINGS.

(1) The undersigned Registrant hereby undertakes:

(a) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) To include any prospectus required by Section10(a) (3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement.



(b) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(d) That, for purposes of determining any liability under the Securities Act of 1933, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(e) That prior to any public reoffering of the securities registered hereunder through use of a prospectus which is a part of this Registration Statement, by any person or party who is deemed to be an underwriter within the meaning of Rule 145(c), the issuer undertakes that such reoffering prospectus will contain the information called for by the applicable registration form with respect to reofferings by persons who may be deemed underwriters, in addition to the information called for by the other items of the applicable form.

(f) That every prospectus (i) that is filed pursuant to paragraph (e) immediately preceding, or (ii) that purports to meet the requirements of Section 10(a) (3) of the Securities Act of 1933 and is used in connection with an offering of securities subject to Rule 415, will be filed as part of an amendment to the Registration Statement and will not be used until such amendment is effective, and that, for purposes of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(g) To respond to requests for information that is incorporated by reference into the prospectus pursuant to Items 4, 10 (b), 11, or 13 of Form S-4, within one business day of receipt of such request, and to send the incorporated documents by first class mail or other equally prompt means. This includes information contained in documents filed subsequent to the effective date of the registration statement through the date of responding to the request.

(h) To supply by means of a post-effective amendment all information concerning a transaction, and the company being acquired involved therein, that was not the subject of and included in the Registration Statement when it became effective.

(2) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Houston, State of Texas, on January 31, 2001.

TRANSOCEAN SEDCO FOREX INC.

By /s/ ROBERT L. LONG

Robert L. Long Executive Vice President and Chief Financial Officer

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities indicated and on January 31, 2001.

SIGNATURE

*

/s/ J. MICHAEL TALBERT

/s/ ROBERT L. LONG

/s/ RICARDO ROSA

Ricardo Rosa

Victor E. Grijalva

J. Michael Talbert

Robert L. Long

Chairman of the Board of Directors President, Chief Executive Officer and Director (Principal Executive Officer)

TITLE

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Executive Vice President and Chief Financial Officer (Principal Financial Officer)

Vice President and Controller (Principal Accounting Officer)

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Charles A. Donabedian * Richard D. Kinder

Ronald L. Kuehn, Jr.

Arthur Lindenauer

Paul B. Loyd, Jr.

-----Roberto Monti

Martin B. McNamara *

Director

Director

Director

Director

Director

Director

Director

* _____

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Director

Alain Roger

	*	
	Kristian Siem	
	*	
	Ian C. Strachan	
*Ву	/s/ WILLIAM E. TURCOTTE	
	William E. Turcotte (Attorney-in-Fact)	

Director

Director

Exhibit No. 	 Description
4.1*	 Memorandum of Association of the Company, as amended (Filed as Annex E to the Joint Proxy Statement/Prospectus contained in the Registration Statement on Form S-4 of the Company (SEC Registration No. 333-46374) filed on October 30, 2000).
4.2*	 Articles of Association of the Company, as amended (Filed as Annex F to the Joint Proxy Statement/Prospectus contained in the Registration Statement on Form S-4 of the Company (SEC Registration No. 333-46374) filed on October 30, 2000).
4.3*	 Agreement and Plan of Merger dated as of August 19, 2000 among the Company, Transocean Holdings Inc., TSF Delaware Inc. and R&B Falcon Corporation (Filed as Annex A to the Joint Proxy Statement/Prospectus contained in the Registration Statement on Form S-4 of the Company (SEC Registration No. 333-46374) filed on October 30, 2000).
4.4*	 R&B Falcon Corporation 2000 Employee Long-Term Incentive Plan (Filed as Exhibit 99.A to R&B Falcon's Definitive Proxy Statement filed April 24, 2000).
4.5*	 R&B Falcon Corporation 1999 Employee Long-Term Incentive Plan (Filed as Exhibit 99.A to R&B Falcon's Proxy Statement dated April 13, 1999).
4.6*	 R&B Falcon Corporation 1999 Director Long-Term Incentive Plan (Filed as Exhibit 99.B to R&B Falcon's Proxy Statement dated April 13, 1999).
4.7*	 R&B Falcon U.S. Savings Plan (Filed as Exhibit 4.4 to the Form S-8 Registration Statement of R&B Falcon (SEC Registration No. 333-88839) filed on October 12, 1999).
4.8*	 R&B Falcon Corporation 1998 Acquisition Option Plan (Filed as Exhibit 4.8 to the Post-Effective Amendment No. 1 on Form S-8 to Form S-4 S-8 Registration Statement of Transocean of Sedco Forex Inc. (SEC Registration No. 333-46374) filed on January 31, 2001).
4.9*	 Cliffs Drilling Company 1988 Incentive Equity Plan (Filed as Exhibit 4.2 to the Registration Statement on Form S-8 of R&B Falcon (SEC Registration No. 333-68101) filed on November 30, 1998).
4.10*	 Amendment No. 1 dated May 17, 1990 to the Cliffs Drilling Company 1988 Incentive Equity Plan (Filed as Exhibit 10.7.1 to the Cliffs Drilling Company Annual Report on Form 10-K for 1993).
4.11*	 Amendment No. 2 dated May 20, 1993 to the Cliffs Drilling Company 1988 Incentive Equity Plan (Filed as Exhibit 10.7.2 to the Cliffs Drilling Company Annual Report on Form 10-K for 1993).
4.12*	 Amendment No. 3 dated May 22, 1996 to the Cliffs Drilling Company 1988 Incentive Equity Plan (Filed as Exhibit 10.7.3 to the Cliffs Drilling Company Annual Report on Form 10-K for 1996).
4.13*	 Cliffs Drilling Company 1998 Incentive Equity Plan (Filed as Exhibit 4.3 to the Form S-8 Registration Statement of R&B Falcon (SEC Registration No. 333-68101) filed on November 30, 1998).
4.14*	 R&B Falcon Corporation 1998 Employee Long-Term Incentive Plan (Filed as Exhibit 99.A to R&B Falcon Corporation's Proxy Statement dated April 23, 1998).
4.15*	 R&B Falcon Corporation 1998 Director Long-Term Incentive Plan (Filed as Exhibit 99.B to R&B Falcon Corporation's Proxy Statement dated April 23, 1998).

- 4.16* -- Falcon Drilling Company, Inc. 1997 Stock Option Plan (Filed as Exhibit 99.1 to the Registration Statement on Form S-8 of Falcon Drilling Company, Inc. filed on July 23, 1997).
- 4.17* -- Falcon Drilling Company, Inc. 1995 Stock Option Plan (Filed as an exhibit to Falcon Drilling Company's Annual Report on Form 10-K for the year ended December 31, 1994).
- 4.18* -- Falcon Drilling Company, Inc. 1994 Stock Option Plan (Filed as an exhibit to Falcon Drilling Company, Inc.'s Annual Report on Form 10-K for the year ended December 31, 1994).
- 4.19* -- Falcon Drilling Company, Inc. 1992 Stock Option Plan (Filed as an exhibit to Falcon Drilling Company, Inc.'s Registration Statement on Form S-4 (SEC Registration No. 33-78369) filed on April 29, 1994).
- 4.20* -- Reading & Bates Corporation 1997 Long-Term Incentive Plan (Filed as Exhibit 99.A to Reading & Bates Corporation's Proxy Statement dated March 18, 1997).
- 4.21* -- Reading & Bates Corporation 1995 Long-Term Incentive Plan (Filed as Exhibit 99.A to Reading & Bates Corporation's Proxy Statement dated March 29, 1995).
- 4.22* -- Reading & Bates Corporation 1995 Director Stock Option Plan (Filed as Exhibit 99.B to R&B Falcon Corporation's Proxy Statement dated March 29, 1995).
- 4.23* -- Reading & Bates Corporation 1992 Long-Term Incentive Plan (Filed as Exhibit B to Reading & Bates Corporation's Proxy Statement dated April 27, 1992).
- 4.24* -- Reading & Bates Corporation 1990 Stock Option Plan (Filed as Appendix A to Reading & Bates Corporation's Proxy Statement dated April 26, 1993).
- 4.25* -- Stock Option Agreement between R&B Falcon Corporation and Terry Black Bonno, dated as of February 16, 1999 (Filed as Exhibit 4.25 to the Post-Effective Amendment No. 1 on Form S-8 to Form S-4 of Transocean Sedco Forex Inc. (SEC Registration No. 333-46374) filed on January 31, 2001).
- 4.26* -- Stock Option Agreement between R&B Falcon Corporation and Richard D. Bullock, dated as of February 16, 1999 (Filed as Exhibit 4.26 to the Post-Effective Amendment No. 1 on Form S-8 to Form S-4 of Transocean Sedco Forex Inc. (SEC Registration No. 333-46374) filed on January 31, 2001).
- 4.27* -- Stock Option Agreement between R&B Falcon Corporation and J. Galan Williams, dated as of February 16, 1999 (Filed as Exhibit 4.27 to the Post-Effective Amendment No. 1 on Form S-8 to Form S-4 of Transocean Sedco Forex Inc. (SEC Registration No. 333-46374) filed on January 31, 2001).
- 4.28* -- Stock Option Agreement between R&B Falcon Corporation and Robert T. Wood, dated as of February 16, 1999 (Filed as Exhibit 4.28 to the Post-Effective Amendment No. 1 on Form S-8 to Form S-4 of Transocean Sedco Forex Inc. (SEC Registration No. 333-46374) filed on January 31, 2001).
- 5.1 -- Opinion of Walkers, Cayman Islands.
- 15.1 -- Letter Regarding Interim Financial Information.
- 23.1 -- Consent of Ernst & Young LLP.
- 23.2 -- Consent of PricewaterhouseCoopers LLP.
- 23.3 -- Consent of Arthur Andersen LLP.
- 23.4 -- Consent of Walkers, Cayman Islands (included in Exhibit 5.1).
- +24.1 -- Powers of Attorney.
- * Incorporated herein by reference as indicated.

Previously filed as part of the Registrant's Registration Statement on Form S-4 filed with the Commission on October 30, 2000.

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WALKERS ATTORNEYS-AT-LAW

P.O. Box 265GT, Walker House, Mary Street, George Town Grand Cayman, Cayman Islands Tel: (345) 949-0100 Fax: (345) 949-7886 Email: walker@candw.ky

TRANSOCEAN SEDCO FOREX INC. 4 GREENWAY PLAZA HOUSTON, TX 77046

January 31, 2001

Gentlemen,

VALIDITY OF ISSUE OF ORDINARY SHARES ISSUABLE UPON THE EXERCISE OF OPTIONS ASSUMED BY TRANSOCEAN SEDCO FOREX INC., A CAYMAN ISLANDS EXEMPTED COMPANY.

We have acted as special Cayman Islands counsel to Transocean Sedco Forex Inc. a Cayman Islands exempted company (TRANSOCEAN) in connection with the merger with R&B Falcon Corporation a Delaware corporation (R&B FALCON) pursuant to which R&B Falcon merged with an indirect wholly owned subsidiary of Transocean on January 31, 2001 (the MERGER).

The Merger was effected pursuant to the terms and provisions of that certain Agreement and Plan of Merger dated as of August 19, 2000 among Transocean, Transocean Holdings Inc., TSF Delaware Inc. and R&B Falcon (the MERGER AGREEMENT) which is described in the proxy statement/prospectus (the PROXY STATEMENT/PROSPECTUS) and filed as part of that certain Registration Statement on Form S-4 filed by Transocean with the United States Securities and Exchange Commission (the SEC) on September 22, 2000 (the REGISTRATION STATEMENT).

Pursuant to the Merger Agreement and as described in the Proxy Statement/Prospectus, R&B Falcon common shares were converted into the right to receive ordinary shares of a par or nominal value of US\$.01 per share of Transocean upon completion of the Merger and each R&B Falcon option to purchase R&B Falcon common shares under R&B Falcon's stock option plans (the PLANS) was assumed by Transocean and became an option to purchase ordinary shares of Transocean (the OPTION SHARES).

For the purposes of giving this opinion, we have examined the documents listed in Schedule 1.

In giving this opinion we have relied upon the assumptions set out in Schedule 2 hereto, which we have not independently verified.

We are Attorneys-at-Law in the Cayman Islands and express no opinion as to any laws other than the laws of the Cayman Islands in force and as interpreted at the date hereof.

Based upon the foregoing examinations, the assumptions set out in Schedule 2 and upon such searches as we have conducted and having regard to legal considerations which we deem relevant, we are of the opinion that

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under the laws of the Cayman Islands:

- 1. Transocean is a company duly incorporated and validly existing and, based solely on the certificate of good standing issued by the Cayman Islands Registrar of Companies and referred to in Schedule 1, Transocean is in good standing under the laws of the Cayman Islands.
- 2. The Option Shares subject to original issuance by Transocean have been duly authorised and when and to the extent issued and sold from time to time in accordance with the terms of the Plans and upon payment thereof as provided in the Plans, such Option Shares will be validly issued, fully paid and non-assessable.

This opinion is limited to the matters referred to herein and shall not be construed as extending to any other matter or document not referred to herein. This opinion is given solely for your benefit, the benefit of your legal advisers acting in that capacity in relation to this transaction and the shareholders of Transocean and may not be relied upon by any other person without our prior written consent. This opinion is governed by and shall be construed in accordance with the laws of the Cayman Islands.

Yours faithfully,

/s/ WALKERS

WALKERS

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LIST OF DOCUMENTS EXAMINED

- The Memorandum and Articles of Association of Transocean and certificate of good standing dated 29 January 2001 issued by the Cayman Islands Registrar of Companies.
- 2. The Resolutions adopted by the Board of Directors of Transocean pursuant to their meeting of August 18, 2000.
- 3. The Resolutions adopted by the shareholders of Transocean at an extraordinary general meeting of Transocean on 12 December 2000.
- 4. The proxy statement/prospectus contained in the Registration Statement filed with the United States Securities and Exchange Commission on September 22, 2000.
- 5. Such other documents as we have considered necessary for the purposes of rendering this opinion.

The documents at paragraphs 2 and 3 above are referred to in this opinion as the "RESOLUTIONS".

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SCHEDULE 2

ASSUMPTIONS

The opinions hereinbefore given are based upon the following assumptions insofar as each such assumption may relate to the opinions given:

- 1. All original documents are authentic, that all signatures and seals are genuine, that all documents purporting to be sealed have been so sealed and that all copies conform to their originals.
- The Minute Book of Transocean supplied to us on the date of this opinion by Transocean's registered office contains a complete record of the business transacted by it.
- 3. The corporate records of Transocean supplied to us on the date of this opinion by Transocean's registered office constitute its complete corporate records and that all matters required by law to be recorded therein are so recorded.
- 4. From the date of the Resolutions, no corporate or other action has been taken by Transocean to amend, alter or repeal the Resolutions and no corporate or other action has been taken by Transocean in connection with the Merger except as contemplated by the Registration Statement.
- 5. There are no provisions of the laws of any jurisdiction outside the Cayman Islands which would be contravened by Transocean's assumption of the Plans and that, in so far as any obligation expressed to be incurred under the Plans is to be performed in or is otherwise subject to the laws of any jurisdiction outside the Cayman Islands, its performance will not be illegal by virtue of the laws of that jurisdiction.
- 6. The choice of the laws selected to govern the Plans has been made in good faith and will be regarded as a valid and binding selection which will be upheld in the courts of that jurisdiction and all other relevant jurisdictions (other than the Cayman Islands).
- 7. All authorisations, approvals, consents, licences and exemptions required by and all filings and other requirements of each of the parties to the Plans outside the Cayman Islands to ensure the legality, validity and enforceability of the Plans have been or will be duly obtained, made or fulfilled and are and will remain in full force and effect and that any conditions to which they are subject have been satisfied.
- 8. On the date of any disposition or settlement of property effected by the Plans is made in good faith and for valuable consideration and at the time of each disposition of property by Transocean pursuant to the Plans Transocean will be able to pay its debts as they become due from its own moneys.

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LETTER REGARDING UNAUDITED INTERIM FINANCIAL INFORMATION

Transocean Sedco Forex Inc.:

We are aware that Transocean Sedco Forex Inc. has incorporated by reference in its Post-Effective Amendment No. 1 on Form S-8 to its registration statement on Form S-4 filed pursuant to Rule 462B, R&B Falcon Corporation's Form 10-Q's for the quarters ended September 30, 2000, June 30, 2000 and March 31, 2000, which include our reports dated October 25, 2000, July 31, 2000 and May 2, 2000, respectively, covering the unaudited interim financial information contained therein. Pursuant to Regulation C of the Securities Act of 1933, those reports are not considered a part of the registration statement prepared or certified by our Firm or reports prepared or certified by our Firm within the meaning of Sections 7 and 11 of the Act.

/s/ Arthur Andersen LLP Houston, Texas January 30, 2001

CONSENT OF INDEPENDENT AUDITORS

We consent to the incorporation by reference in the Post-Effective Amendment No. 1 to the Registration Statement (Form S-4) for the registration of 140,000 ordinary shares of Transocean Sedco Forex Inc. pursuant to Rule 462(b), of our report dated January 31, 2000, with respect to the consolidated balance sheet as of December 31, 1999, and the related combined statements of operations, equity and cash flows and schedule for the year then ended of Transocean Sedco Forex Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 1999, filed with the Securities and Exchange Commission.

> /s/ Ernst & Young Ernst & Young LLP

Houston, Texas January 30, 2001

CONSENT OF INDEPENDENT ACCOUNTANTS

We hereby consent to the incorporation by reference in this Post-Effective Amendment No. 1 on Form S-8 to the Registration Statement on Form S-4 of Transocean Sedco Forex Inc. of our report dated August 6, 1999 relating to the financial statements and financial statement schedule of Transocean Sedco Forex Inc. (previously Sedco Forex Holdings Limited), which appears in Transocean Sedco Forex Inc.'s Annual Report on Form 10-K for the year ended December 31, 1999.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers

New York, New York January 30, 2001

CONSENT OF INDEPENDENT PUBLIC ACCOUNTANTS

As independent public accountants, we hereby consent to the incorporation by reference in this Post-Effective Amendment No. 1 on Form S-8 to its registration statement on Form S-4 filed pursuant to Rule 462B of Transocean Sedco Forex Inc. of our report dated February 22, 2000 included in R&B Falcon Corporation's Form 10-K for the year ended December 31, 1999 and to all references to our Firm included in this registration statement.

/s/ Arthur Andersen LLP Houston, Texas January 30, 2001