

**UNITED STATES DISTRICT COURT
DISTRICT OF NEW JERSEY**

**IN RE ROYAL DUTCH/SHELL
TRANSPORT SECURITIES
LITIGATION**

)
) **Civ. No. 04-374 (JAP)**
) **(Consolidated Cases)**
) **Judge Joel A. Pisano**
)
)

DECLARATION OF MATTHIAS F. BICHSEL

I, MATTHIAS F. BICHSEL, declare and affirm as follows:

1. I am employed by Shell International Exploration & Production B.V. (“SIEP, B.V.”) in The Hague, the Netherlands, and have served as its Executive Vice President, Technical, since March 2006. SIEP, B.V., is owned by the Royal Dutch/Shell Group of Companies (the “Group”).
2. I hold a Doctor of Philosophy specializing in Earth Sciences from the University of Basel in Switzerland.
3. I understand that an issue in this case involves the nature and extent of any United States conduct from April 8, 1999 to March 18, 2004 relating to the estimation or reporting of proved reserves that Shell later restated. I am making this declaration in connection with Shell's submissions on this issue. I previously was deposed in this matter on October 31, 2006. I understand that the Court and the parties have access to the transcript of that proceeding.
4. Unless otherwise stated, I make this declaration on personal knowledge and am competent to testify as to the matters set forth herein.

5. I first began employment with the Group in November 1980 as a trainee at the Shell International Petroleum Maatschappij. From August 1999 through December 2001, I was employed as the Director of Shell Deepwater Services (“SDS”) in Houston, Texas. From January 2002 through March 2006, I acted as Exploration Director and was employed as such by SIEP, B.V., in The Hague from March 1, 2002. I also served as a member of the Executive Committee (“ExCom”) of the Group’s Exploration and Production (“E&P”) business or its successor body, now called EP Leadership Team (“EPLT”). From December 2003 onwards, I also served as a member of the E&P Reserves Committee.

Shell Deepwater Services

6. At the time of my employment with SDS, SDS was a part of Shell International Exploration & Production, Inc. (“SIEP, Inc.”), a United States company.¹ SDS had offices in both Houston, Texas and in New Orleans, Louisiana. My position as Director was the most senior position at SDS.

7. SDS was a service organization that provided technical services on demand to various Group operating units that were conducting deepwater operations.² Each operating unit outside the United States would enter into a written

¹ SDS no longer exists as an independent organization. In 2003, the Group’s E&P business was restructured, and SDS was absorbed into a newly created umbrella organization called EP Technology. This restructuring occurred over a year after my employment with SDS ended.

² Deepwater operations consist of operations taking place at water depths of greater than 500 meters. SDS did not provide services to any operating unit with respect to onshore or shallow-water operations.

agreement with SIEP, B.V., which in turn would contract with SIEP, Inc., for the services provided by SDS. This agreement, which was called a Cost, Time and Resources Agreement (“CTR”), detailed the nature and scope of the technical services that the operating unit required. These services included subsurface evaluation, well engineering or drilling, and development engineering, among others.

8. SDS’s technical work for operating units did not determine their proved reserves; it merely helped the operating units to estimate them through provision of technical services. At all times, the operating unit held the final responsibility for estimating, and did estimate, its own oil and gas resources and submitting those estimates to E&P. As requested by the operating unit, SDS provided the technical services detailed in the CTR agreement. These technical services did not include ARPR submissions. The ARPR process was handled entirely by the individual operating unit, which made all decisions regarding review, reporting, and submission of ARPR data.

9. **Brazil**. During my employment at SDS, SDS never provided any technical assistance or advice to Shell Brazil with respect to the categorization of proved reserves. SDS did provide Shell Brazil with technical services that were restricted to exploration in the first round of licensing, including acquiring seismic data and drilling exploration wells. SDS provided input to Shell Brazil regarding volumetric determination of hydrocarbons during the exploration stage, but never regarding determination of proved reserves.

10. **Nigeria**. During my employment at SDS, SDS provided technical services to Shell Nigerian Exploration & Production Company (“SNEPCO”) relating to SNEPCO’s development of the Bonga deepwater field, including exploration, reservoir engineering geological work, drilling, and surface platform work. As discussed below, SDS’s work did not further SNEPCO’s overstatement of reserves. At all times, furthermore, SNEPCO, not SDS, held the final responsibility for estimating its oil and gas resources and submitting those estimates to E&P headquarters in the Netherlands.

11. On October 30, 2006, I stated that SDS’s services to SNEPCO included estimating and mapping volumes of hydrocarbons, including scope for recovery and expectation volumes. What I meant by this statement is that, as requested by SNEPCO, SDS’s technical professionals utilized their expertise to compile data describing the characteristics of hydrocarbon reservoirs, and SDS then delivered that data to SNEPCO to use at its discretion. As noted above, SNEPCO made all decisions regarding review, reporting, and submission of ARPR data.

12. On October 30, 2006, I was shown a document Bates-numbered SMJ00029692-SMJ00059694, consisting of an email string with the subject “FW: Bonga rev 5 Proved Reserves Addition.” The first email in the string was sent from Chris Varley at SDS to Richard Sears at SDS and copied to Barry Knight at SDS, Varley and me. I have no recollection of having received or read this email at the time it was sent, and I have no understanding as to what Varley meant when he wrote this email. This document does not affect my conclusion that SDS’s work for

SNEPCO did not contribute to the first overstatement of reserves. As noted above, SNEPCO made all decisions regarding review, reporting, and submission of ARPR data.

13. **Morocco**. During my employment at SDS, SDS never provided any technical assistance or advice to Shell Morocco with respect to the categorization of proved reserves. To the best of my knowledge, Shell Morocco deepwater never reported, and therefore never recategorized, any proved reserves. SDS did provide Shell Morocco with technical services related to deepwater exploration to determine where to drill exploration wells.

14. **Egypt**. During my employment at SDS, SDS never provided any technical assistance or advice to Shell Egypt with respect to the categorization of proved reserves. SDS did provide technical services relating to exploration, including providing drilling services for deepwater exploration wells.

15. **Malaysia**. During my employment at SDS, SDS never provided any technical assistance or advice to Shell Malaysia with respect to the categorization of proved reserves. SDS did provide technical services to help in evaluating the hydrocarbon content of several deepwater blocks by using seismic data to detect hydrocarbons without having to drill wells.

16. **Brunei**. During my employment at SDS, SDS never provided any technical assistance or advice to Shell Deepwater Borneo with respect to the categorization of proved reserves. SDS did provide technical services relating to evaluating the potential for deepwater hydrocarbons before Shell Deepwater Borneo

took on licenses. As these licenses were never ratified, no drilling for hydrocarbons ever took place, and no hydrocarbons were ever found in these deepwater blocks. To the best of my knowledge, Shell Deepwater Borneo never booked any reserves.

17. During my employment at SDS, I do not recall any technical assistance or advice that SDS provided to Brunei Shell Petroleum (“BSP”) with respect to the categorization of proved reserves that were later restated.

18. **Angola**. During my employment at SDS, SDS provided technical services for Shell Development Angola (“SDAN”) relating to development of several deepwater blocks, including Block 18. SDS’s work did not contribute to the initial overstatement of reserves. At all times, SDAN, not SDS, held the final responsibility for estimating its oil and gas resources and submitting those estimates to E&P.

19. On October 31, 2006, I stated that SDS estimated and mapped volumes of hydrocarbons for SDAN, including scope for recovery and expectation volumes. This statement meant that, as requested by SDAN, SDS’s technical professionals utilized their expertise to compile data describing the characteristics of hydrocarbon reservoirs, and SDS then delivered that data to SDAN to use at its discretion. As noted above, SDAN made all decisions regarding review, reporting, and submission of ARPR data.

20. On October 31, 2006, I also stated that I was involved in dialogue with Heinz Rothermund at EPG regarding providing services that could enable SDAN to book reserves in 2000. What I meant by this statement is that I was involved in

dialogue with Rothermund pertaining to SDS's provision of technical services to SDAN, including research and compilation of technical data on various hydrocarbon reservoirs. As noted above, SDAN made all decisions regarding review, reporting, and submission of ARPR data.

21. On October 31, 2006, I was shown a document Bates-numbered SMJ00017513-SMJ00017519, consisting of an email string with the subject line of "Cluster development Angola." On that date, I stated that my understanding of the first email in that string from Rothermund was that Rothermund was encouraging Gordon Parry at EPG, Rob Inglis at SDAN, and Mahdi Hasan at SDS to come up with a way to book reserves in Angola. My statement meant that I understood Rothermund's email to be encouraging Parry, Inglis, and Hasan to come up with an imaginative approach for developing the fields in Block 18 in Angola and that Rothermund had become disenchanted that a potential technical development idea was being ignored. As noted above, SDAN made all decisions regarding review, reporting, and submission of ARPR data.

22. On October 31, 2006, I was shown a document Bates-numbered SMJ00038662-SMJ00038663, consisting of an email string with the subject "FW: Angola – Reserves LE 3Q00." The last email in the string, sent from Grigoire Simon at SDAN to Robert Inglis at SDAN, was not sent to me. I have no recollection of ever having seen this email before October 31, 2006. I do not know why Simon sent this email or what he meant to say. This document does not affect my conclusion that SDS's work for SDAN did not further SDAN's overstatement of

its proved reserves and that SDAN made all decisions regarding review, reporting, and submission of ARPR data.

23. On October 31, 2006, I was shown a document Bates-numbered WCK00010051-WCK00010052, consisting of an email string with the subject “FW: Angola – Reserves LE 3Q00.” Regarding the October 29th email from Rothermund to me, I stated that I understood the email to mean that SDS had an agreement with SDAN to provide services to determine the ranges for hydrocarbon volumes to enable SDAN to decide whether and to what extent reserves could be booked. My statement meant that SDS’s agreement with SDAN called for SDS to provide only technical services to compile data on SDAN’s hydrocarbon reservoirs. Any and all decisions regarding the categorization or assessment of proved reserves and the ARPR process were made by SDAN.

24. On October 31, 2006, I was shown a document Bates-numbered SMJ00035959-SMJ00035962, consisting of an email string with the subject “RE: West Africa reserves 2000.” The last email in the string, dated November 22, 2000, is from me to Rothermund at EPG, with a copy to Tim Warren at EPT and ExCom, and discusses reserves bookings in Angola.

25. SDS had a CTR agreement with SDAN to provide technical services with regard to ascertaining the best method of developing the hydrocarbons in Block 18. Many different development options with different technological, economic, and business profiles were possible. In this email, I meant to encourage my staff at SDS to do its best to think outside the box and explore the entire universe of

technological development concepts, so SDAN would have many development solutions, rather than only one or two, from which to select.

26. In paragraph three of this email, I stated that we “are exploring every avenue to trying to increase reserves bookings.” My reference to “reserves bookings” here does not refer to proved reserves at all, but instead refers to the totality of hydrocarbon volumes, including scope for recovery and expectation volumes.

27. On October 31, 2006, I stated that, when I wrote the last paragraph of this email and used the phrase “leave no stone unturned,” I meant that I wanted to make sure that SDS’s work favored development scenarios that emphasized a maturation of the project’s reserves rather than scenarios that emphasized capex or production cost savings. My statement meant that developing optimal ways to produce hydrocarbon discoveries is a multidimensional process that requires attention to the reserves maturation profile as well as to the capex and production costs profiles. As noted above, SDAN made all decisions regarding review, reporting, and submission of ARPR data.

28. The first email in this string is from me to Martijn Minderhoud at EPG and Parry at EPG, with a copy to Remco Aalbers at EPB, Keith Lewis at EPG, Fran Lohr at EPB, Susan Lovelock at EPG, Rothermund at EPG, Maarten Wink at EPG, Richard Sears at SDS, and Barry Knight at SDS. In this email, I responded to questions from Minderhoud regarding the technological processes needed to develop and access various hydrocarbon volumes and how those processes related to

the booking of proved reserves. As SDS does not book reserves and does not deal with the categorization of proved reserves, my first response to Minderhoud was to direct him to the reserves auditors for an accurate answer to his questions. In the remainder of my email, I focused on explaining the technical aspects of the issues raised by his questions.

29. On October 31, 2006, I was shown a document Bates-numbered SMJ00038852-SMJ00038854, consisting of an email string with the subject “FW: West Africa reserves 2000.” In the middle of the second page of this document is an email from me to Rothermund at EPG and Parry at EPG. In the third paragraph of this email, I stated that “the information on what we can book as proved reserves with one exploration well was pre-mature when reported in mid-year and, hence, when used for the global reserves monitor, not ‘correct’ information.” In making this statement I was attempting to explain to Rothermund that my reference to reserves bookings in an earlier email did not refer to proved reserves at all, but instead referred to the totality of hydrocarbon volumes for the entire structure, including scope for recovery and expectation volumes, as is common when referring to exploration prospects. See paragraph 25 of this Declaration.

30. I am not aware of any pressure put on any personnel affiliated with SDAN by any personnel affiliated with SDS to book proved reserves for the year 2000.

31. **Norway**. During my employment at SDS, SDS never provided any technical assistance or advice to Norske Shell, the E&P operating unit in Norway,

with respect to the categorization of proved reserves. SDS did provide engineering services relating to methods of drilling subsea wells and laying pipelines in extreme climate conditions and at an extreme water depth.

32. **Gabon**. During my employment at SDS, SDS never provided any technical assistance or advice to Shell Gabon with respect to the categorization of proved reserves. SDS did provide technical services with respect to the evaluation of the hydrocarbon and exploration potential of several deepwater blocks.

33. **Oman**. During my employment with SDS, SDS never provided any technical assistance or any advice to Petroleum Development Oman (“PDO”) with respect to the categorization of proved reserves. SDS did not perform any services for PDO because PDO did not own any deepwater assets.

34. During my employment with SDS, SDS never provided any technical assistance or advice to with respect to Shell Deepwater Oman the categorization of proved reserves.

35. **Philippines**. During my employment at SDS, SDS never provided any technical assistance or advice to Shell Philippines with respect to the categorization of proved reserves.

36. **Trinidad**. During my employment at SDS, SDS never provided any technical assistance or advice to Shell Trinidad with respect to the categorization of proved reserves. It is my understanding, in fact, that Shell Trinidad never reported any proved reserves for its deepwater assets due to the fact that its exploration efforts were unsuccessful.

37. **Congo.** During my employment at SDS, SDS never provided any technical assistance or advice to Shell Congo with respect to the categorization of proved reserves. It is my understanding, in fact, that Shell Congo reported any proved reserves for its deepwater assets due to the fact that its exploration efforts were unsuccessful.

38. I am not aware of any operating unit or country not mentioned for which SDS estimated or reported proved reserves to E&P.

Deepwater Steering Council

39. The Deepwater Steering Council (“DWSC”) was a virtual body, coordinated from E&P headquarters in the Netherlands, that was formed in February 1999.³ It functioned as a discussion group that reviewed the E&P deepwater portfolio and helped to monitor and prioritize the deepwater services being provided to the various operating units. I myself was not a member of the DWSC, though I was invited to attend council meetings.

40. On December 7, 1999 I attended a DWSC meeting. The minutes from that meeting note that “[t]he Council agreed that the DW scorecard will include . . . Additions to Proved Reserves.” [RJW00211777-RJW00211778] I cannot recall how the DWSC used this scorecard. SDS, the organizational unit I was heading,

³ Near the end of 2005, the DWSC ceased to exist and was superseded by the Growth Leadership Forum. This Forum is a subset of the current EP leadership team and is headed by Malcolm Brinded.

had its own scorecard, which did not include Additions to Proved Reserves as a measure.

41. On October 31, 2006, I stated that, "at the Deepwater Steering Council, the issue of meeting scorecard targets, that included production, exploration success and also reserves, is something that we obviously were very keen to do." I meant by this statement that we gave attention to all scorecard measures because, together, they reflected the overall business health of E&P. As noted above, DWSC primarily focused on general monitoring and allocation of deepwater technical resources, not on the estimation or reporting of proved reserves. Any and all decisions regarding review, reporting, and submission of ARPR data belonged to the individual OU, not to DWSC.

I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct to the best of my knowledge.



MATTHIAS F. BICHSEL

Executed:

12 June, 2007