شركة تنمية نفط عمان ش.م.م

Petroleum Development Oman L.L.C.

P.O. Box 81, Postal Code 113 Muscat, Sultanate of Oman
Telex : 5212 Petro ON Facsimile : 677106, 675093
Tel. 67 Cable : Petro Muscat

ص.ب: ٨١، الرمز البريدي ١١٣ مسقط، سلطنة عمان
تلكس: ٥٢١٢ بترو أو إن فاكسيملي: ٦٧٧١٠٦، ٦٧٥٠٩٣
هاتف رقم: ٦٧ برقيا: بترو مسقط

Tables have been modified as a result of number of E-mail correspondence with Remco.

CONFIDENTIAL

16th January, 1999

Mr. R. Aalbers,
SIEP EPB-P

Dear Remco,

Reserves Estimates for Internal and External Reporting

Attached, please find the reserves information as requested. Please note the following points:

a) The Private Shareholders in PDO do not have entitlement to gas other than that resulting from the Upstream Gas Development project in Central Oman as described in the various GISCo agreements and the PDO Operating Agreement for the development of the Central Oman Gas Fields in support of the Oman LNG project.

As per last year, this submission includes the entitlement related to the Upstream Gas Development project inclusive of minority shareholding (Total (10%) and Partex (5%). Due to changes in the project phasing expenditure and oil and gas price premises, the entitlement has increased to 59.7 mrd m3 expectation (from 19 mrd m3 last year) and 59.4 mrd m3 proven (from 11 mrd m3). Expectation condensate entitlement has increased to 209 mln bbls and proven to 205 mln bbls as compared to a expectation/proven entitlement of 202 mln bbls as per 1st January 1998.

EXHIBIT
Platenkamp 1
11/14/06
GAIL F. SCHORR, C.S.R., C.R.R.

شركة تنمية نفط عُمان ش.م.م

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هاتف رقم: ٦٧ برقيا: بترو مسقط

b) Consistent with our previous submission, a strict definition of "first strike" discoveries has been adopted in completing the table " Internal reporting: Expectation Estimate of Exploration Discoveries". The figures reported do not therefore reflect the total Exploration effort and in our view would not yield representative finding costs.

c) As a result of adopting the new guidelines in calculating the Proved Developed Reserves, 19.92 mln m3 (Shell Share) of Proved Developed Reserves have been added. This change has no financial impact on PDO.

I hope the information enclosed fully meets your requirements.

Yours sincerely,

R. Platenkamp
Corporate Affairs Director

cc. C. Watson, SIEP EPM-OM

Expectation

Internal reporting: Expectation Estimate of Reserves Volumes: Oil, NGL, Gas

Input sheet 1998

Country Name : Oman

Estimate for Company: Petroleum Development Oman L.L.C /GISCo

Estimate for year ending: 31 December 1998

Group share of expectation sales volumes excluding royalty in kind.

Group interest in company is 34%

	1998 - Input			
	Oil 10^6 m^3	NGL 10^6 m^3	Gas 10^9 std. m^3 (tel quel)	Gas 10^9 Nm^3 (9500 kcal /Nm^3)
Expectation estimate of reserves at 1.1.1998	250.39	32.12	18.653	17.907
New Fields	3.91			
Extensions	0.46			
Terms & Conditions				
Purchases in place				
Sales in place				
Improved recovery (from SFR)	4.42			
Economic revisions				
Technical revisions	13.11	1.06	41.087	39.444
Production (sales) during 1998	16.50	0.00	0.000	0.000
Expectation estimate of reserves 31.12.1998	255.79	33.18	59.740	57.351
Exp. est. of reserves within licence at 1.1.1998	219.05	32.12	18.653	17.907
Net changes in expectation	5.40	1.06	41.09	39.44
Transfer to post licence	9.48	1.06	0.00	57.35
Exp. est. of reserves within licence at 31.12.1998	214.97	32.12	59.740	0.000
Associated developed reserves (within licence)	102.18			
Check	OK	OK	OK	OK
Commited gas 31.12.1998			59.740	57.351
Committable gas reserves at 31.12.1998			59.740	57.351
Discovered IIP at 31.12.1998 (100% field volumes)	7870.79	281.97	1628.687	1563.540
Cumulative production (sales) at 31.12.1998	878.19	0.62	104.886	100.691

All figures input for Standardized Measure calculation.

Comments:

Expectation comments:
Gas includes both associated and non-associated in the IIP and Cumulative production

Date: 16/01/99

Signed by Corporate Affairs Director R. Platenkamp for PDO

for GISCo
B. Ward

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Secin1

External reporting: Estimate of Proved and Proved Developed Reserves
Volumes: Oil, NGL and Gas

Input sheet 1 1998

Country Name : Oman
Estimate for Company: Petroleum Development Oman L.L.C

Estimate for year ending: 31 December 1998
Volumes are Group entitlement to sales volumes, based on a Group interest of: 34%
A Company share of : 34%

Excluding royalty in kinds as follows:
Oil Royalty in kind % 0%
NGL Royalty in kind % 0%
Gas Royalty in kind % 0%

Minority interest % 0%

	1998 - Input GROUP EQUITY			
	Oil $10^6\ m^3$	NGL $10^6\ m^3$	Gas 10^9 std. m^3 (fuel gas)	Gas $10^9\ Nm^3$ (9500 kcal/Nm^3)
Proved reserves at 1.1.1998	133.22	0.00	0.000	0.000
Revisions and Reclassifications	11.92			
Improved recovery	3.23			
Extensions and Discoveries	2.22			
Purchases in place				
Sales in place				
Production (i.e. net sales) during 1998	16.50			
Proved reserves at 31.12.1998	134.09	0.00	0.000	0.000
Proved developed reserves at 1.1.1998	77.31	0.00	0.000	0.000
Proved developed reserves at 31.12.1998	100.22			
Min. Reserves 1.1.1998	0.00	0.00	0.000	0.000
Min. Reserves 31.12.1998	0.00	0.00	0.000	0.000
Check	OK	OK	OK	OK

These estimates were prepared in accordance with the current Group interpretation of the SEC guidelines

(a) Separate forms by field may be requested if different fields are held in different proportions.

Comments:

Sec sheet 1 comments:
As a result of adapting alternative method of calculating the Proved developed reserves, there is an increase of 19.92 mln m3 (Shell Share) in Proved developed reserves.

Date: 16/01/99

Signed by Corporate Affairs Director R. Platenkamp

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Secln2

Volumes: Oil, NGL and Gas

Input sheet 2 1998

Country Name : Oman

Estimate for Company: Oman U/S gas

Estimate for year ending: 31 December 1998

Volumes are Group entitlement to sales volumes, based on a Group interest of: 100%

A Company share of : 100%

Excluding royalty in kinds as follows:

Oil Royalty in kind % 0%

NGL Royalty in kind % 0%

Gas Royalty in kind % 0%

Minority interest % 15%

	1998 - Input GROUP EQUITY			
	Oil 10^6 m³	NGL 10^6 m³	Gas 10^9 std. m³ (tel quel)	Gas 10^9 Nm³ (9500 kcal/Nm³)
Proved reserves 1.1.1998	0.00	32.12	11.434	10.977
Revisions and Reclassifications		0.22	47.887	45.971
Improved recovery				
Extensions and Discoveries				
Purchases in place				
Sales in place				
Production (i.e. net sales) during 1998				
Proved reserves at 31.12.1998	0.00	32.34	59.321	56.948
Proved developed reserves at 1.1.1998	0.00	0.00	0.000	0.000
Proved developed reserves at 31.12.1998				
Min. Reserves 1.1.1998	0.00	4.82	1.715	1.647
Min. Reserves 31.12.1998	0.00	0.00	0.000	0.000
Check	OK	OK	OK	OK

These estimates were prepared in accordance with the current Group interpretation of the SEC guidelines

(a) Separate forms by field may be requested if different fields are held in different proportions.

Comments:

Sec sheet comments:
Total minority interests included

Date: 16/01/99

Signed by ~~Corporate Affairs Director R. Platenkamp~~ B Ward

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SFR Oil

Internal reporting: Expectation Estimate of Scope for Recovery: Oil

Input sheet Oil 1998

Country Name : Oman

Estimate for Company: Petroleum Development Oman L.L.C

Estimate for year ending: 31 December 1998
Group share of scope for recovery

	Including potential entitlement after licence expiry				Within licence
	SFR Proved	SFR Unproved	SFR Undisc.	SFR Non Comm	SFR Tot Comm.
	10^6m^3	10^6m^3	10^6m^3	10^6m^3	10^6m^3
Expectation estimate of SFR 1.1.1998	122.69	49.08	26.15	47.06	101.32
New Entries	9.26				
Discoveries	3.24		-3.24		
Terms & Conditions					
Purchases in place					
Sales in place					
Transfer to/from reserves	15.56		-0.74		
Economic revisions					
Technical revisions	15.43	19.93	-2.57	11.41	49.06
Deletions	1.98		-3.24	1.98	
Expectation estimate of SFR 31.12.199	164.20	69.01	22.84	56.49	150.38
Check	OK	OK	OK	OK	OK

Comments:

SFR Oil comments:
1) Oil SFR Proven Techniques is Improved Recovery SFR, PE-Appraisal SFR and PE Revisions as used in PDO and includes the Tail End SFR.
2) Oil SFR Unproven Techniques is Enhanced Oil Recovery SFR as used in PDO.
3) Oil SFR Undiscovered is Exploratory Appraisal SFR as used in PDO.
4) Oil SFR Non-commercial is the Marginal SFR (10 < UTC <= 15 US$/bbl) and Uncommercial SFR (15 < UTC <= 25 US$/bbl) as used in PDO.
5) All Commercial SFR (excluding Tail End SFR) is considered to be matured within the Licence.
6) 5.83 mln m3 of NGL Proved IR SFR was included in last year SFR and is taken out for this submission
7) The 3.24 mln m3 Discoveries SFR (proved) was not included in last year SFR Undiscoverd.

Note:
For oil fields associated gas volumes should be included if oil SFR is carried (also for undiscovered SFR)

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Discoveries

Internal reporting: Expectation Estimate of Exploration Discoveries

Input sheet 1998

Country Name : Oman

Estimate for Company : Petroleum Development Oman L.L.C

Estimate for recoverable volumes (excl. flare/own use). Listing does not necessarily imply commerciality, but there should be a reasonable expectation that volumes will be developable at a UTC below the annually advised ceiling for non-commercial SFR.
Estimates should be given for all wells which the OU expects to record as discoveries for the year.

Field Name (Well)	Type (o/g)	Area (on/off)	Oil $10^6 m^3$ Total	Oil $10^6 m^3$ Shell share	NGL $10^6 m^3$ Total	NGL $10^6 m^3$ Shell share	GAS 10^9 std. m^3 (net own) Total	GAS 10^9 std. m^3 (net own) Shell share
Sarmad-1	o	on shore	17.01	5.78			1.670	
Saih Nihayda-3 (Safiq/Ghudun)	o	on shore	0.42	0.14				
Maurid-2; Maurid NE-1	o	on shore	3.60	1.22				
Habiba-1 (Dhruma/U Gharif 1 & 2)	g	on shore					4.013	
Total			21.03	7.14	0.00	0.00	5.683	0.000
Government PSC take								
Total Discovered (excl. G'ment take)				7.14		0.00		0.000

Comments:

Discoveries comments:

Note:
1) For oil discoveries associated gas volumes should be included
2) For gas discoveries associated NGL volumes should be included.

Date: 16/01/99
Signed by Corporate Affairs Director R. Platenkamp

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External Reporting: Statistical Data

Input Sheet

Country Name : **Oman**
Estimate for Company : **Petroleum Development Oman L.L.C**
Group Interest : 0.3
Estimate for year ending : 1998

Acreage (in thousands of square kilometres)		Gross	Net
Developed (i.e. any licence, lease or concession area which contains a production field)		114.00	38.76
Undeveloped (i.e. total minus developed holdings)		0.00	0.00
Number of wells (as carried by Company records)			
New wells drilled during the year	potential accumulations		
	dry	7	2.4
	not dry	21	7.1
	prospective plus productive fields		
	dry	5	1.7
	not dry	251	85.3
New wells drilling at end year	potential accumulations	2	0.7
	prospective plus productive fields	17	5.8
Producing or capable of production during December	oil	2194	746.0
	gas	21	7.1

Location of Activities (at year end)		
Exploration	Set	On Shore
Production	Set	On Shore
Shell Operated	Set	On Shore

These estimates were prepared in accordance with the current Group interpretation of the SEC guidelines.

Comments:

Statistics comments:
75 sidetracks are included in the prospective plus productive wells during 98
4 sidetracks are included in the prospective plus productive wells at end year

Date: 16/01/99

ed by Corporate Affairs Director R. Platenkamp

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External reporting: Standardized Measure

Input sheet 1998

Country Name : Oman

Entity Number

Expectation Profile within licence

		Oil 10^6 m³	NGL 10^6 m³	Gas 10^9 Nm³
Forecast of production of reserves within licence period.	1999	16.70	0.00	0.000
	2000	16.33	0.24	0.000
	2001	16.01	3.96	7.112
Is this profile Proved or Expectation within licence? Click to Toggle	2002	15.99	4.50	11.111
Expectation	2003	15.99	3.99	9.560
	2004	15.99	3.52	10.327
	2005	15.99	4.07	11.575
	2006	15.97	4.24	10.053
	2007	5.12	3.08	0.000
	2008	0.00	0.28	0.000
	2009	0.00	0.28	0.000
	2010	0.00	0.29	0.000
	2011	0.00	0.30	0.000
	2012	0.00	0.30	0.000
	2013	0.00	0.31	0.000
	2014	0.00	0.31	0.000
	2015	0.00	0.32	0.000
	2016	0.00	0.33	0.000
	2017	0.00	0.33	0.000
	2018	0.00	0.34	0.000
Total production 1999 to 2018		134.08	30.99	59.74
Remaining unproduced at 31.12.2018				
Total reserves		134.08	30.99	59.74

	Currency	USD	Units:	mln
Total forecast development expenditure RT98			1999	285.0
			2000	109.0
			2001	0.0
			2002	0.0
			2003	0.0
Total development expenditure 1999 to 2003				394.0
Total development expenditure 2004 to 2018				
Total development expenditure				394.0

Financial data - total upstream (to be completed with Finance Department)	
Tax written-down value of property, plant and equipment at 31.12.1998	271.6
Tax losses carry forward as at 31.12.1998	0.0
Present value of after tax Abandonment cost discounted with factor (j,b) at 31.12.1998	19.0
Statutory tax rate consistent with Sector 01, line item [3643]	0%

Use same Currency and units see above	A: revenues Q4	B: volume Q4	C: unit rev [A/B]	D: unit rev.net of r. [C-H]	unit margin [C-G]
Oil:	290.00	4.20	69.05	52.93	24.38
Gas:			0.00	0.00	0.00

	D: prod cost full year	E: royalties full year	F: volume full year	G: unit prod cost [D / F]	H: unit royalty [E / F]
Oil:	471.00	266.00	16.50	28.55	16.12
Gas:				0.00	0.00

	total	developed	undeveloped
Proved Reserves, Oil	134.09	100.22	33.87
Proved Reserves, NGL	32.34	0.00	32.34
Proved Reserves, Gas	59.321	0.000	59.321
Expectation Reserves within licence, Oil	214.97	102.18	112.79
Expectation Reserves within licence, NGL	32.12	0.00	32.12
Expectation Reserves within licence, Gas	0.000	0.000	0.000

Date: 16/01/99 fo. PDO

Signed by Corporate Affairs Director R. Platenkamp

Signed by Finance Mgr / Controller:

for GISCo B. Ward

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Drev Oil/NGL

Internal reporting: Expectation Estimate of Exploration Discoveries and Revisions 1989 - 1998: Oil/ NGL

Input sheet Oil/NGL 1998

Country Name : Oman

Estimate for Company : Petroleum Development Oman L.L.C

Estimate for year ending: 31 December 1998

Year of discovery	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Total
Discoveries as initially reported	1.39	0.58	6.64	11.34	0.51	5.26	0.04	1.04	3.52	7.14	37.48
Sales in place to 31.12.1997	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
Revisions from discovery to 31.12.1997	4.90	-0.23	18.32	2.56	0.31	0.13	0.00	0.00	0.00		25.99
Check	OK	-0.010	0.010	OK	0.000	-0.010	OK	OK	OK		
Total recources at 31.12.1997	6.29	0.38	24.95	13.90	0.82	5.40	0.04	1.04	3.52		56.32
Sales inplace during 1998	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
Revisions during 1998	-0.04	0.10	-1.44	1.62	0.06	6.63	0.00	0.03	7.36		14.32
Discoveries during 1998										7.14	7.14
Total recources at 31.12.1998 *of which*	6.25	0.46	23.51	15.52	0.88	12.03	0.04	1.07	10.88	7.14	77.78
Company share of expectation produced	0.08	0.13	0.75	1.10	0.06	0.01	0.02	0.10	0.00	0.05	2.30
developed reserves (P2)	0.11	0.02	0.45	0.43	0.03	0.02	0.02	0.03	0.00	0.30	1.41
undeveloped reserves (P3+E3)	4.83	0.17	21.74	10.61	0.45	5.23	0.00	0.73	3.58	3.55	50.69
commercial SFR(P4+E4 and P5+E5)	0.86	0.07	0.14	2.12	0.17	6.60	0.00	0.11	7.06	3.24	20.37
non-commercial SFR (P7+E7)	0.57	0.07	0.43	1.26	0.17	0.17	0.00	0.10	0.24	0.00	3.01
Government PSC take											
Check	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK 0.00	0.00

Discovered volumes reported historically were estimates of recoverable volumes and did not imply commerciality. From 1997 onwards volumes reported as discoveries should as a minimum fall below the annually advised UTC ceiling for non commercial SFR.

After initial discovery, volumes down to end year total resources are Company equity share of 100% expectation volumes (including potential recovery after licence expiry), excluding royalty in kind. In PSC countries, these volumes therefore include government PSC take.

(Oil and NGL volumes in x.xx 10^6 std. m^3 at standard conditions.)

Comments:

DREV comments:

These data are based on strict definition of 'first-strike' discovery and do not therefore reflect the total resource additions resulting from Exploration effort which are detailed in the above table.

Date: 16/01/99

Signed by Corporate Affairs Director R. Platenkamp

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Presentation ExCom 31st January 2000

Preliminary Summary of End 1999 Proved Reserves

The objective of this note and presentation is to inform ExCom of the end 1999 Group Resources, especially proved and proved developed reserves, prior to the finalisation and External Audit clearance of these numbers by the 4th February 2000, ahead of the Q4 press release. The numbers are still being finalised, but adjustments are expected to be minor.

Summary

- The 1999 proved reserves replacement ratio is 46% for oil/NGL (141% in 1998) and 23% for gas (255% in 1999). Total oil/NGL/Gas replacement ratio for 1999 is 37% (182% in 1998).
- Three year average proved reserves replacement ratio for 1999 is 106% for oil (146% in 1998) and 161% for gas (249% for gas), total replacement on boe basis is 126% (184% in 1998) (ref attachment 1). It should be noted that the implementation of the new Petroleum Resource Guidelines during 1998 accounted for roughly 50% of the 1998 proved reserves increase.
- Including the AOSP "mining reserves" the overall proved replacement ratio increases from 37% to 82% and further inclusion of the Iran "pseudo reserves" increases the replacement ratio to 94%.
- Regional proved reserves replacement indicates a trend of limited reserves replacement in the mature areas of EPN and EPA from production and divestment and reserves additions in the other two areas EPG and EPM.

There are a number of issues regarding proved reserves booking for 1999 which require endorsement by ExCom. The issues and recommendations are presented in this Note under "Issues".

Changes during 1999

Summary of Proved Reserves

The ESOSC proved reserves as of 1.1.2000 (assuming recommendations presented are endorsed) stand at 1523 mln m^3 oil/NGL (9581 mln bbl) and 1647 mrd sm^3 gas (10,037 mln boe), showing a decrease of 71 mln m^3 (449 mln bbl) and 64 mrd sm^3 (388 mln boe) for oil/NGL and gas respectively after taking account of 1999 production being 132 mln m^3 (831 mln bbl) oil/NGL and 82.6 mrd sm^3 (503 mln boe). Total proved reserves replacement ratio is 37% with a replacement ratio of 46% for oil and 23% for gas.

	Unit	Proved Reserves 1.1.1999	Proved Reserves 1.1.2000	Change	Proved Reserves Repl. Ratio
Oil/NGL	mln m3	1594.8	1523.4	-71.4	46%
Gas	mrd sm3	1711.1	1647.4	-63.7	23%
Total	~~m~~bln boe	20.5	19.5	-1.0	37%

One new venture has booked first time proved reserves in 1999, Kazakhstan (*Saigak* +2 mln m3 oil) and one venture no longer books proved reserves Chad (-0.4 mln m3) as the Group has pulled out of the Doba-project end 1999.

Summary of Reserves by Region

The changes in proved reserves split by Region shows that only EPG has a significant replacement ratio for 1999 both oil/NGL and gas. As a result of production and divestments in the mature areas in EPN and EPA replacement ratio is very low with increases just offsetting the divested reserves. EPM replacement ratio is also low. (Gas replacement ratio's in EPM and EPG are 'distorted' due too low production).

	OIL/NGL [mln m3]					Gas [mrd sm3]					
	Proved 1.1999	Proved 1.2000	Prod 1999	Delta	Repl. Ratio	Proved 1.1999	Proved 1.2000	Prod 1999	Delta	Repl. Ratio	R.R. boe
EPN	578	480	70	-97	-39%	915	896	61	-19	69%	11%
EPM	316	308	27	-8	71%	109	94	3	-15	-391%	24%
EPA	157	159	14	2	115%	577	544	17	-33	-93%	4%
EPG	544	576	22	31	244%	110	113	1	3	321%	248%
Total	1595	1523	132	-71	46%	1711	1647	83	-64	23%	37%

Breakdown of Changes by Category

The decrease in both oil/NGL and gas reserves is the result of Production and Divestments (Sales in Place) from Portfolio Management recommendations, the reductions are only partly offset by increases from Discoveries & Extensions, Improved Recovery, Revisions & Reclassifications and Acquisitions (Purchases in Place).

	Oil/NGL [mln m3]	Gas [mrd sm3]
Proved Reserves 1.1.1999	**1594.8**	**1711.1**
Revisions & Reclassifications	39.2	15.2
Improved Recovery	18.7	2.2
Extensions & Discoveries	53.7	38.6
Purchases in Place	11.9	.2
Sales In Place	-62.8	-37.3
Production 1999	-132.1	-82.6
Proved Reserves 31.12.1999	**1523.4**	**1647.4**

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Major Changes by Category and Country

Breakdown of the major changes is as follows :

	Oil/NGL [mln m3]
Sales in Place (Divestments)	-63
USA (Enterprise&Apache)	-47
Philippines (Texaco)	-4
Canada (Plains)	-10
Purchases in Place (Acquisition)	11
Nigeria SPDC (EA/EJA)	11
Extensions & Discoveries	54
Nigeria SNEPCO (Ehra)	24
USA (Hickory, Spirit, Auger e.a.)	10
Norway (Ormen Lange)	1
Denmark (Halfdan)	6
Nigeria SPDC	5
Others (New Zealand, Oman e.a.)	8
Improved Recovery	19
Oman PDO	9
Others (Sakhalin, Altura, Brunei)	10
Revisions & Reclassifications	39
Nigeria SPDC (Shallow Offshore)	+18
Oman PDO	+12
Gabon	+5
Canada	+6
Others NET	-2

	Gas [mrd sm3]
Sales in Place (Divestments)	-37
USA (Enterprise&Apache)	-15
Philippines (Texaco)	-19
Canada (Plains)	-3
Purchases in Place (Acquisition)	0
Extensions & Discoveries	39
Nigeria SNEPCO (Ehra)	0
USA (Hickory, Spirit, Auger e.a.)	9
Norway (Ormen Lange)	12
Denmark (Halfdan)	2
Nigeria SPDC	7
Others (Egypt, Malaysia, Brunei, e.a.)	9
Improved Recovery	2
Malaysia (Lower Pressure)	2
Others	0
Revisions & Reclassifications	15
Canada (Royalties in Cash +14)	19
USA (Own Use)	-7
Norway (Troll gas contract e.a.)	13
Oman Gisco (Entitlement)	-12
Others NET	2

Impact AOSP and Iran

The proved oil/NGL and gas reserves exclude the Canadian OilSands *AOSP* – 95 mln m3 proved (600 mln bbl) as these under SEC rules are classified as "minning reserves" (volumes are incl. minority interest). Also exclude are the Iranian "Pseudo Reserves" *Soroosh/Nowrooz* – 24 mln m3 (150 mln bbl Shell share) as proved reserves booking is currently still very sensitive in Iran. Note the 100% project reserves volumes in Iran are 950 mln bbl (151 mln m3).

Although the externally reported proved oil/NGL and gas reserves will not include AOSP "Mining Reserves" nor the Iran "Pseudo Reserves" the overall hydrocarbon resource replacement performance is better represented if these volumes are included resulting in a replacement ratio of 94%.

	Initial Submission excl adj.	**Repl. Ratio Proved Reserves**	Repl Ratio Excl. A&D	Repl. Ratio Incl. AOSP	Repl. Ratio Incl. AOSP & Iran
Oil/NGL	71%	**46%**	84%	118%	136%
Gas	31%	**23%**	68%	23%	23%
Total	56%	**37%**	78%	82%	94%

The initially submitted reserves prior to the proposed adjustment gave a replacement ratio of 56%; after adjustments but excluding Acquisitions and Divestments the replacement ratio is 78%.

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Proved Developed Reserves

The proved developed reserves as of 1.1.2000 stand at 795 mln m^3 oil/NGL and 775 mrd sm^3 gas, showing an increase of 15 mln m^3 and 2 mrd sm^3 for oil/NGL and gas after taking account of 1999 production. Proved developed replacement ratios are 111% for oil/ngl and 103% for Gas (108% total boe).

The proved developed reserves replacement ratio for 1999 indicated that production as well as divested developed reserves were replaced. Large contributions were made by from transfer of undeveloped reserves to developed reserves in Canada (Sable project start-up), Oman Gisco (production start-up), Malaysia (Compression Installation F23), USA and UK.

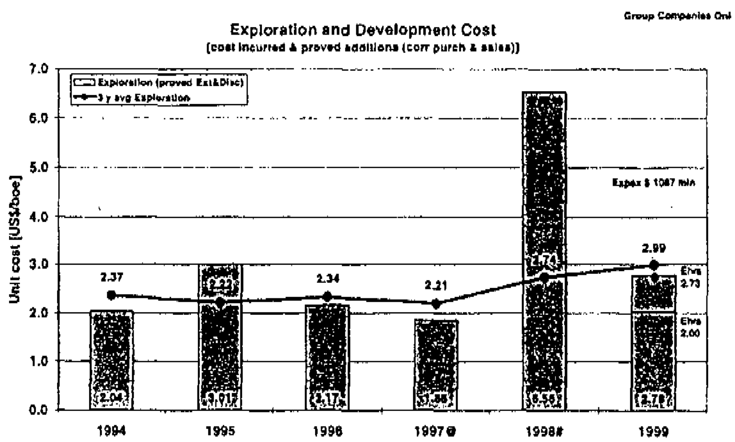
Issues

The following issues need endorsement from the ExCom before finalising the 1999 proved reserves:

Nigeria ~~SPDC~~ SNEPCO – Ehra Discovery

In their initial submission SNEPCO have booked the 1999 Ehra discovery (made by Exxon) as commercial SFR and not as reserves. Up to the November 1999 monthly reporting (MISCOM) by SNEPCO indicated booking of Ehra volumes as proved reserves for 1.1.2000. Ehra volumes, however, were excluded from the 1.1.2000 proved reserves as Exxon indicated mid December 1999 that they would not include the volumes in their proved reserves and did not present SNEPCO with a preliminary development plan. Subsequent challenge has indicated that volumes are sufficiently large and sufficient technical work has been done in Houston to support proved reserves booking for 1.1.2000. It is therefor recommended to advise SNEPCO to book Ehra proved reserves for 1.1.2000 of 24.0 mln m3 oil Shell PSC entitlement.

Booking of the Ehra discovery is also important in view of the external Unit Finding Cost (UFC) which is based on proved reserves additions and exploration expenditure disclosed. Preliminary figures indicate an 1999 exploration expenditure of 1087 mln US$ for Group companies. Based on the Group company proved additions form "discoveries & extensions" the UFC'99 would be 2.78 $/b excluding and 2.0 $/b including the Ehra discovery.



Nigeria SPDC

Nigeria SPDC has submitted an increase in proved reserves of 80 mln m3 proved reserves – this is believed to be too optimistic in view of the current licence expiry of 30th June 2019 for the Onshore (MOU) and Shallow Offshore Licences by 30th November 2008.

Under the alternative funding arrangement for EA/EJA Shell share of reserves increase for these fields from 30% to 77.14% and the licence has been extended to 350 million barrels cumulative production. Net result of these changes is an increase in proved reserves in the Shallow Offshore of 30 mln m3 (189 mln bbl). It is recommended to book these incremental volumes.

The Onshore Licence expires mid –2019 and it is recommended to freeze the onshore proved reserves at the 1.1.1999 level to prevent potential large proved reserves reduction in future, if the planned growth does not or only partly materialises. This means not book the 50 mln m3 oil proved reserves addition for

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1.1.2000 as submitted by SPDC. As a consequence proved onshore oil reserves in SPDC will decline with cumulative production in future years until such time that significant growth in oil production volumes has been established or a licence extension has been secured.

Abu Dhabi

Abu Dhabi proved oil reserves have historically been booked on an expected growth scenario which still has not materialised under OPEC constraints. As a result of the Abu Dhabi licence expiry early 2014 reserves have to be de-booked with deferral of the expected production increase. It is recommended to differentiate between an expected (50/50) forecast and a proved (90/10) forecast when estimating proved reserves. An initial gap of two years delay in growth for 1.1.2000 requires a de-booking of 6.5 mln m3.

Canada

The Group Resource Guidelines prescribe in line with SEC rules that 'Royalties in Kind' should be excluded from the reserves but that 'Royalties in Cash' should be included in the reserves. Historically Canada proved reserves have been included net of all royalties, directly from the Shell Canada Annual Report data. Early 1999 it became clear that only oil royalties in Canada are due in Kind and that Gas royalties are due in Cash. For 1.1.2000 reserves gas royalties have been included in the SC reserves – addition of 13.8 ~~mln~~ mrd sm3. With the divestment of the Plains properties all oil fields have been divested and Royalties in Kind are no longer applicable.

Australia

Australia SDA have indicated that WAPET have re-evaluated the Gorgon reserves which has lead to a 20% increase in recoverable volumes. In view of the limited market availability and already large uncommitted proved gas reserves carried by SDA based on future market expectations it has been proposed and agreed with SDA and EPA not to include the additional 20 mrd sm3 for 1.1.2000. Booking of the additional volume in future is subject to further market development and capture.

Proved Gas volumes in Australia have been a point of challenge by the external Auditors (KPMG/PWC) for the last two years already and incremental booking at present would be hard to support.

USA

Shell Oil up to 1998 reported its financial performance externally separately from the Group, which included proved reserves based on Shell Oil's internal reserves Guidelines. The Shell Oil definition of proved reserves includes 'own use' gas in the proved gas reserves.

Following the Globalisation in 1999 and de-registration of Shell Oil from the SEC Shell Oil no longer individually publishes its results and reserves. The Group's definition of proved reserves explicitly excludes 'own use' gas form the reserves. To align reporting across the Group it is proposed that Shell Oil reserves for 1.1.2000 are reported excluding 'own use' gas in line with the Group Guidelines. This results in a reduction of 6.5 mrd sm3 versus the number submitted by Shell Oil (-1.9% for Shell Oil, -75% for Area and -7% for Altura).

The issue has been discussed with the Group Reserves Auditor and Group External Auditors who confirm that both interpretations are defendable under SEC rules but also acknowledge that reporting consistency across the Group is a strong consideration.

Excluding own Use gas from the USA reserves also aligns with the new gas definition proposed for 2000 "Gas Production Available for Sales (from own Reserves)" which also excludes own use and flared gas volumes.

It should be noted Shell Oil prefer not to adjust reserves and have submitted 1.1.2000 proved gas reserves including 'own use' gas.

The total of the above recommendations in terms of changes to the originally submitted proved reserves by the Group Ventures is as follows:

OIL	Proved Reserves
♦ Inclusion of Nigeria-SNEPCO 1999 Ehra discovery ('Exxon' block)	+ 24.0 mln m^3
♦ Increase Nigeria-SPDC Shallow Offshore Reserves (EA/EAJ) resulting from alternative funding agreement (77% share) and Licence extension post Nov-2008 (max of 350 MMb)	+ 30.0 mln m^3
♦ Limit Nigeria-SPDC Onshore (MOU) to currently booked proved reserves minus 1999 production reflecting doubling of production to 1,400 b/d by 2010 only with licence expiry in Jun-2019; Reduction form SPDC submission of	- 50.0 mln m^3
♦ Reduce Abu Dhabi proved reserves based on two year delay production increase and licence expiry in Jan-2014	- 6.5 mln m^3
Total:	- 2.5 mln m^3

GAS	
♦ Exclude USA 'own use' gas in line with Group Reserves Guidelines	-6.5 mrd sm^3
♦ Australia SDA, increase in Gorgon volumes are not included as proved reserves due to gas market limitations (19.7 mrd sm^3 increase from 86.1 to 105.8 mrd sm^3)	0.0 mrd sm^3
♦ Include Canada gas royalty in cash in line with Group Reserves Guidelines	+ 13.8 mrd sm^3
Total +	7.3 mrd sm^3

Discoveries 1999

Two NVOs and sixteen OUs have reported a total of 59 successful exploration wells for 1998 versus 60 dry wells (note Shell Oil and Shell Canada statistics are not yet complete). Total Group share on equity basis (i.e. including carried Government take in PSC countries) of the discovered hydrocarbon resource volume is 136 mln m^3 oil/NGL (857 mln bbl) and 67 mrd sm^3 gas (411 mln boe), a combined total of 1,268 mln boe.

There are seven large oil finds one each in Nigeria-SNEPCO (Ehra 746 mln boe), Denmark (Halfdan 491 mln boe) and Oman (Ghafeer 85 mln bbl), plus two each in Australia-Woodside (Vincent 61 mln bbl and Enfield 72 mln bbl) and Angola (Platina 117 mln boe and Plutonia 283 mln boe).

A further seven gas fields were discovered one in Egypt (Obaiyed-South 74 mln boe), two in Malaysia (Kamansu East Upthrown 62, F23-SW 23 mln boe), Australia SDA (Geryon and Orthrus) and Norway (Ormen Lange South 125 mln boe). The large deepwater gas discovery in Nigeria SNEPCO (Doro) under current contractual terms does not give Shell any entitlement.

Total exploration expenditure for 1999 is currently estimated at US$ 1290 mln resulting in an internal unit resource finding cost of 1.02 $/b for the discovered expectation resource volume of 1268 mln boe.

If discovered resources form exploration in 1999 are limited to shell share expectation reserves booked for 1.1.2000 of 60 mln m3 oil/ngl (377 mln bbl) and 19.4 mrd sm3 (118 mln boe) a total of 495 mln boe this results in a unit reserves finding cost of 2.60 $/b.

Attachment 1

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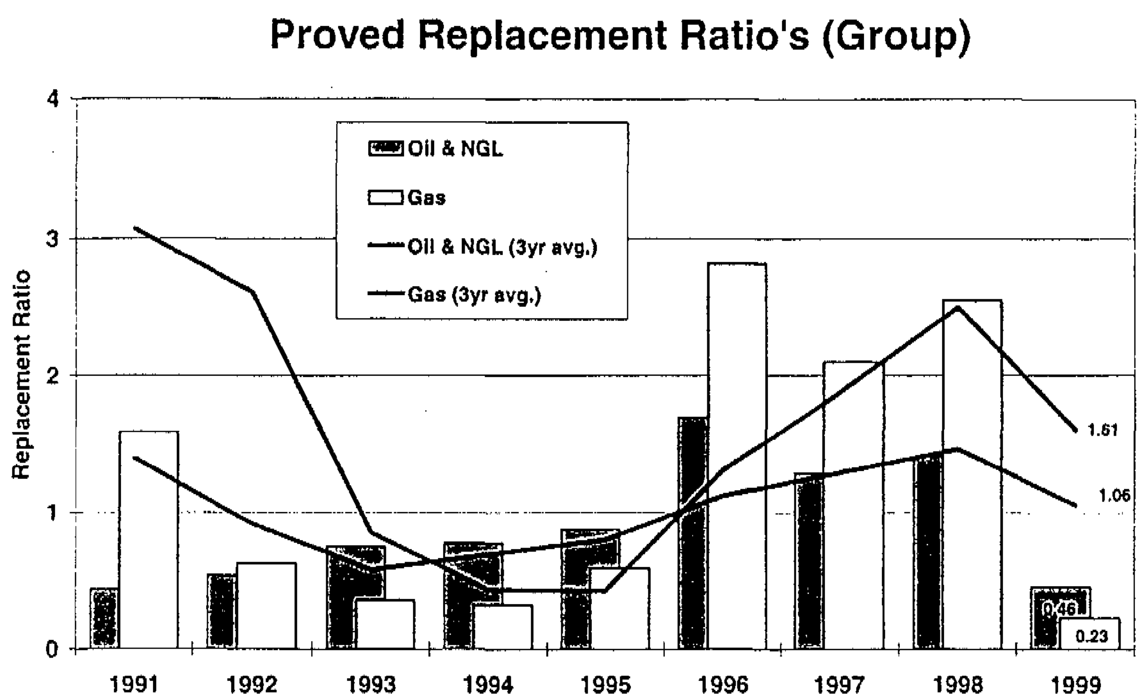
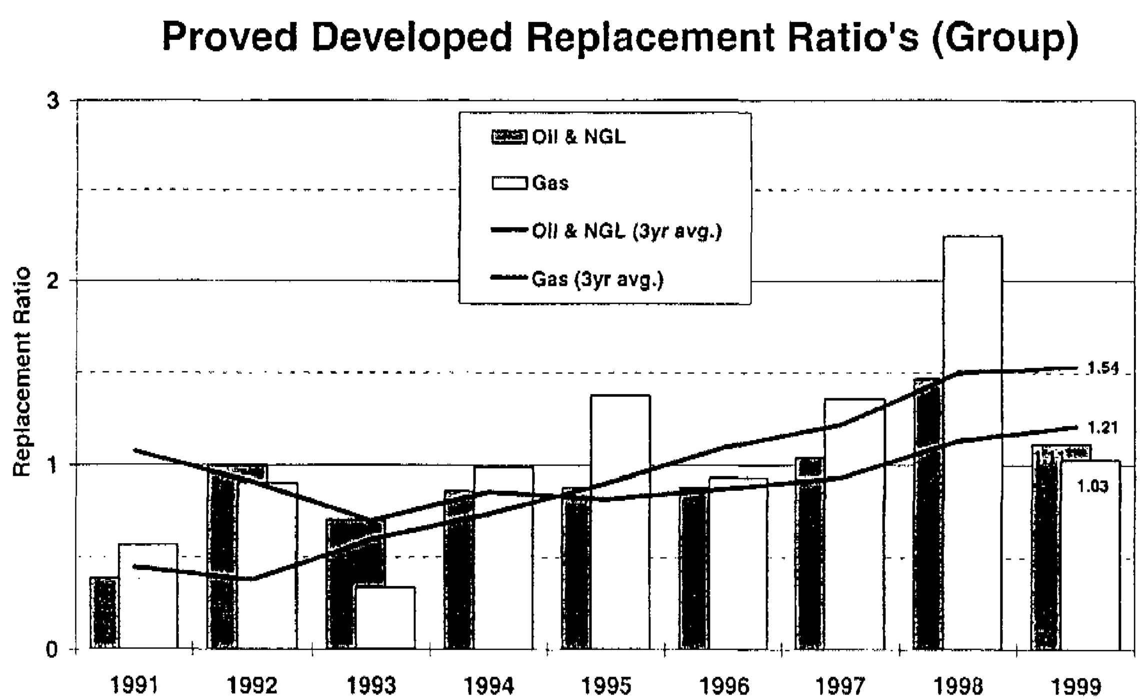
Historic Replacement Ratio's





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Attachment 2

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Proved Reserves Summary

	Crude Oil and NGL in million M3					Gas in milliard SM3					
	Proved Reserves 01/01/99	Proved Reserves 31/12/99	Prod 1999	DELTA	Repl. Ratio	Proved Reserves 01/01/99	Proved Reserves 31/12/99	Prod 1999	DELTA	Repl. Ratio	BOE Repl. Ratio
Netherlands	6.09	5.77	0.76	-0.32	58%	424.61	410.64	15.71	-13.970	11%	13%
UK	156.40	129.92	23.34	-26.48	-13%	116.44	109.45	9.98	-6.988	30%	-1%
Norway	38.75	33.26	4.82	-5.49	-14%	67.01	89.90	2.38	22.884	1062%	334%
Denmark	35.57	39.15	6.86	3.58	152%	32.81	30.44	3.22	-2.374	26%	113%
Germany	4.04	3.37	0.33	-0.67	-103%	62.34	59.42	5.00	-2.919	42%	32%
Austria	0.25	0.23	0.03	-0.02	33%	1.24	1.48	0.17	0.240	243%	210%
Shell Oil (USA)	149.43	92.00	18.20	-57.43	-216%	118.44	94.40	17.75	-24.038	-35%	-128%
Shell Oil (Aera)	83.38	79.26	7.68	-4.12	46%	4.42	1.38	0.12	-3.037	-2474%	9%
Shell Oil (Altura)	42.03	47.87	2.64	5.84	321%	5.88	7.50	0.40	1.625	506%	345%
Shell Oil (MOC)	4.91	1.86	0.55	-3.05	-456%	2.00	1.55	0.55	-0.450	18%	-222%
Shell Oil (TMR)	0.67	0.93	0.18	0.26	244%	1.28	1.69	0.17	0.410	341%	291%
Canada	56.13	47.16	4.16	-8.97	-116%	78.42	88.31	5.81	9.891	270%	106%
EPN	**577.65**	**480.78**	**69.53**	**-96.87**	**-39%**	**914.89**	**896.16**	**61.25**	**-18.726**	**69%**	**11%**
Oman - (PDO)	134.09	139.50	16.37	5.41	133%	0.00	0.00	0.00	0.000		133%
Oman - (Gisco)	32.34	33.18	0.88	0.84	195%	59.32	45.69	1.23	-13.628	-1005%	-496%
Abu Dhabi	108.78	96.81	4.80	-11.97	-149%	0.00	0.00	0.00	0.000		-149%
Egypt	9.15	9.06	0.37	-0.09	76%	29.48	31.27	1.08	1.790	266%	216%
Syria	22.78	19.81	4.11	-2.97	28%	3.46	1.01	0.28	-2.443	-769%	-22%
Russia - (Sakhalin)	8.71	7.69	0.05	-1.02	-1940%	0.00	0.00	0.00	0.000		-1940%
Kazakhstan - (Temir))	0.00	2.00	0.00	2.00		0.00	0.00	0.00	0.000		
Pakistan	0.00	0.00	0.00	0.00		10.17	11.34	0.16	1.167	839%	839%
Bangladesh	0.00	0.00	0.00	0.00		6.74	4.71	0.33	-2.026	-512%	-512%
EPM	**315.85**	**308.05**	**26.58**	**-7.80**	**71%**	**109.17**	**94.03**	**3.08**	**-15.140**	**-391%**	**24%**
Australia - (SDA)	31.03	32.49	1.98	1.46	174%	174.51	176.64	2.27	2.129	194%	184%
Australia - (Woodside)	12.45	11.85	0.79	-0.60	24%	55.05	40.21	1.47	-14.846	-913%	-578%
Brunei	55.23	59.28	5.00	4.05	181%	103.56	102.61	4.70	-0.948	80%	133%
New Zealand	3.59	4.60	0.44	1.01	330%	11.97	12.65	1.26	0.672	153%	200%
New Zealand - (Pecten)	0.77	0.80	0.11	0.03	127%	2.58	2.31	0.27	-0.270	0%	38%
Malaysia	27.12	25.55	3.81	-1.57	59%	183.03	183.82	6.55	0.790	112%	92%
Philippines	7.40	3.82	0.00	-3.58		39.20	19.44	0.00	-19.763		
Thailand	12.73	14.17	1.02	1.44	241%	6.69	6.23	0.39	-0.464	-18%	171%
China	2.79	3.24	0.58	0.45	178%	0.00	0.00	0.00	0.000		178%
China - (Pecten)	3.84	3.29	0.59	-0.55	7%	0.00	0.00	0.00	0.000		7%
EPA	**156.95**	**159.09**	**14.32**	**2.14**	**115%**	**576.60**	**543.90**	**16.90**	**-32.700**	**-93%**	**4%**
Nigeria - (SPDC)	429.82	448.07	12.29	18.25	248%	92.06	95.93	0.84	3.871	564%	268%
Nigeria - (SNEPCO)	50.40	71.41	0.00	21.01		7.31	5.70	0.00	-1.612		
Gabon	20.20	19.91	5.18	-0.29	94%	0.00	0.00	0.00	0.000		94%
Venezuela	25.27	21.43	2.37	-3.84	-62%	0.00	0.00	0.00	0.000		-62%
Argentina	3.88	3.43	0.26	-0.45	-73%	6.22	7.28	0.02	1.066	5176%	308%
DR Congo (Zaire)	4.34	3.22	0.16	-1.12	-600%	0.00	0.00	0.00	0.000		-600%
Chad	0.42	0.00	0.00	-0.42		0.00	0.00	0.00	0.000		
Brazil - (Pecten)	0.93	0.81	0.12	-0.12	0%	4.82	4.38	0.45	-0.440	2%	2%
Cameroon - (Pecten)	9.04	7.75	1.31	-1.29	2%	0.00	0.00	0.00	0.000		2%
EPG	**544.30**	**576.03**	**21.69**	**31.73**	**246%**	**110.41**	**113.30**	**1.31**	**2.885**	**321%**	**250%**
EP World	**1594.75**	**1523.95**	**132.12**	**-70.80**	**46%**	**1711.07**	**1647.39**	**82.54**	**-63.681**	**23%**	**38%**
EP World (bbl/boe)	10029.9	9584.6	830.9	-445.3	46%	10424.5	10036.5	502.9	-388.0	23%	38%
EP Total Oil + Gas (boe)	20454.4	19621.1	1333.8	-833.3	38%						

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EXCOM 1999 Proved Reserves
31st January 2000

Key Proved Reserves Messages

- **'99 Proved Oil/NGL and Gas Replacement Ratio 37%**
  - Low after three years high
  - Challenge to communicate externally
    - upside AOSP and Iran & excluding divestments
- **Unblocking Nigeria is Key**
  - Production Performance and Proved Reserves additions
- **2000 Scorecard**
  - SPDC Impact on proved reserves target equates to a 20% loss (LE 62%)
- **BP'99 2000-2004 Proved Reserves**
  - 25% additions promised by SPDC are unlikely to materialise
- **Need to resolve reporting of Innovative Contracts**
  - Booking Pseudo Reserves "Buy-backs"

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EXCOM 1999 Proved Reserves
31st January 2000

2000 EP Scorecard
(Including D/S Gas)

Business Result	Plan	Below	Mid-Point	Outstanding	Weight %	Actual (or LE)	Normalized Score	Weighted Score
ROACE (%)	15.8%	7.7%	15.8%	23.4%	100%	15.8%	1.00	1.00
Indicative oil price for ROACE		$10/b	$14/b	$18/b			A =	1.00

Business Performance	Plan	Below	Mid-Point	Outstanding	Weight %	Actual (or LE)	Normalized Score	Weighted Score
Core Measures								
Opex & Depreciation ($ mln)	6830	7170	6830	6490	20%	6830	1.00	0.20
Production Oil / NGL (kb/d)	2326	2244	2310	2376	10%	2310	1.00	0.10
Gas Sales (mrd Nm^3/y)	89.3	86.1	89.3	92.3	10%	89.3	1.00	0.10
Proved Reserves Replacement (Excluding divestments)	60%	30%	60%	110%	10%	60%	1.00	0.10
Performance vs. Competitors (Self appraisal)		0.0	1.0	2.0	10%	1.00	1.00	0.10
Additional Measures HSE, HR and SFR (Self-appraisal)		0.0	1.0	2.0	20%	1.00	1.00	0.20
Milestones		0.0	1.0	2.0	20%	1.00	1.00	0.20
Total Performance		0.0	1.0	2.0			B =	1.00

EP Score — Business Performance Factor (BPF) — $0.5*A + 0.5*B =$ 1.00
But if A or B equal zero, Total EP Score will also be zero

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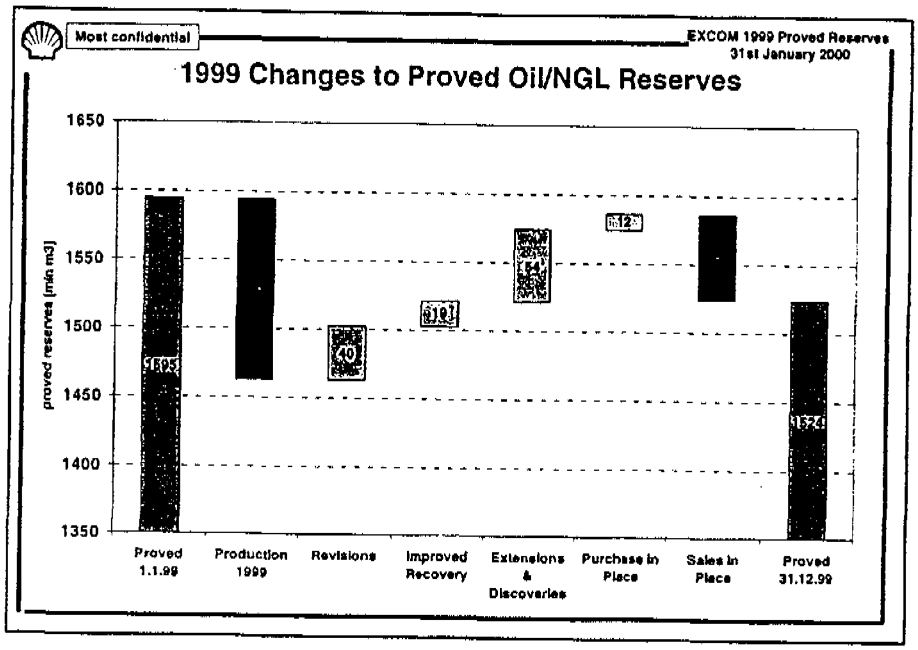

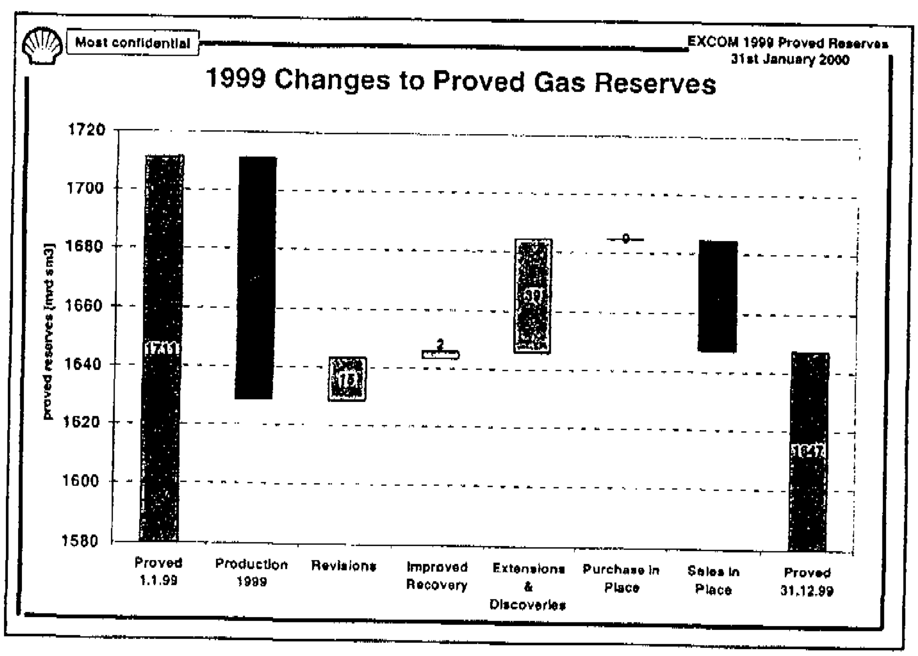

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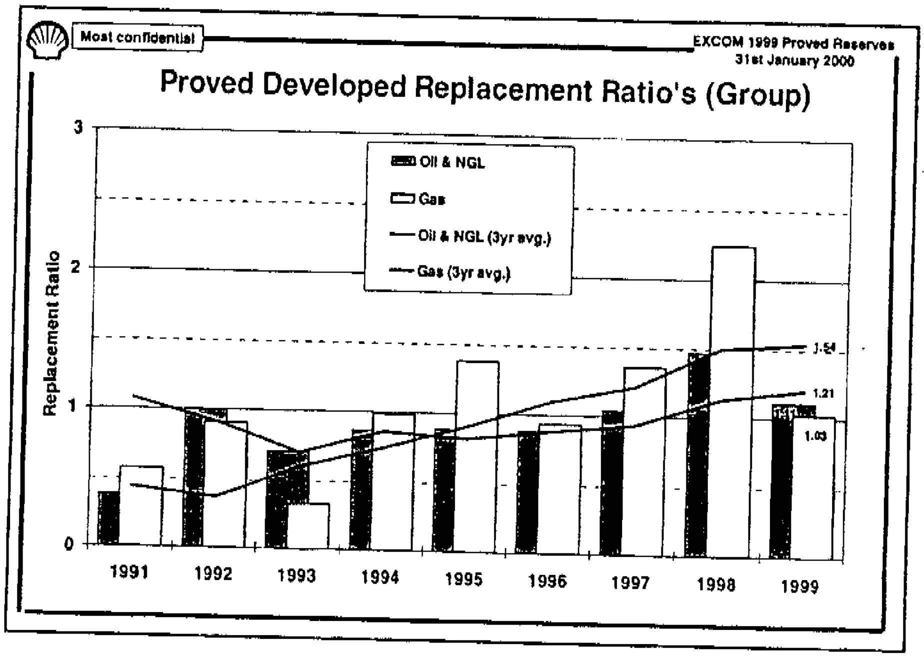

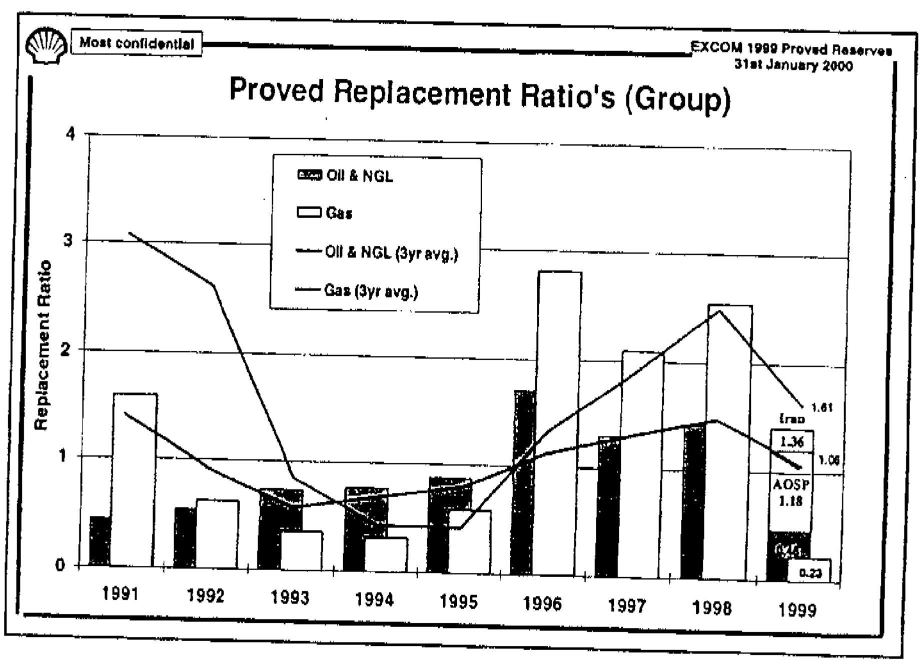

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EXCOM 1999 Proved Reserves
31st January 2000

1999 Proved Reserves Replacement Ratio

	Initial Data	Proposed Data	Excl. A&D	Incl. AOSP	Incl. AOSP & Iran	+AOSP +Iran Ex A&D
Oil/NGL	71%	46%	84%	118%	136%	175%
GAS	31%	23%	68%	23%	23%	68%
Total [boe]	56%	37%	78%	82%	94%	135%

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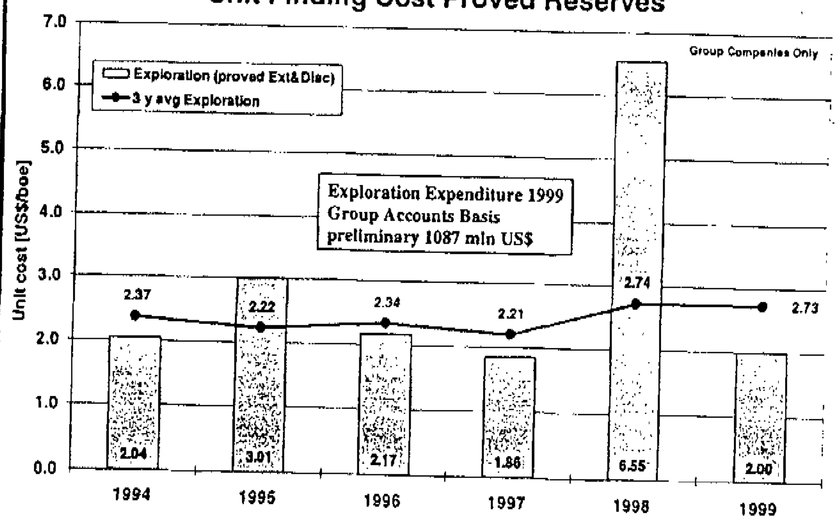
EXCOM 1999 Proved Reserves
31st January 2000

Unit Finding Cost Proved Reserves



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EXCOM 1999 Proved Reserves
31st January 2000

Proved Oil/NGL Reserves Issues

- **Nigeria SPNEPO - Deepwater**
  - Book 1999 Ehra discovery (Exxon block) + 24.0
- **Nigeria SPDC - Shallow Offshore**
  - Book EA/EJA Alternative Funding/FID + 30.0
- **Nigeria SPDC - Onshore**
  - Do not book proposed increase MOU - 50.0
    Limit plateau proved forecast upto 1,400 b/d
    Licence expiry 30 June 2019
- **Abu Dhabi**
  - Reduce proved reserves - 6.5
    Delay growth scenario by 2 years
    Licence expiry Jan 2014

Total - 2.5 mln m3

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EXCOM 1999 Proved Reserves
31st January 2000

Proved Gas Reserves Issues

- **Canada**
  - Include Gas Royalties in Cash + 13.8
    in line with Group Guidelines
- **Australia**
  - Do not book increase Gorgon (20%) + 0.0
    Increase market take-up
- **USA**
  - Exclude own use gas volumes
    in line with Group Guidelines

Shell Oil	- 1.9 %	- 1.8	
Area	- 75 %	- 4.1	
Altura	- 7 %	- 0.6	
			- 6.5
		Total	+ 7.3 mrd sm3

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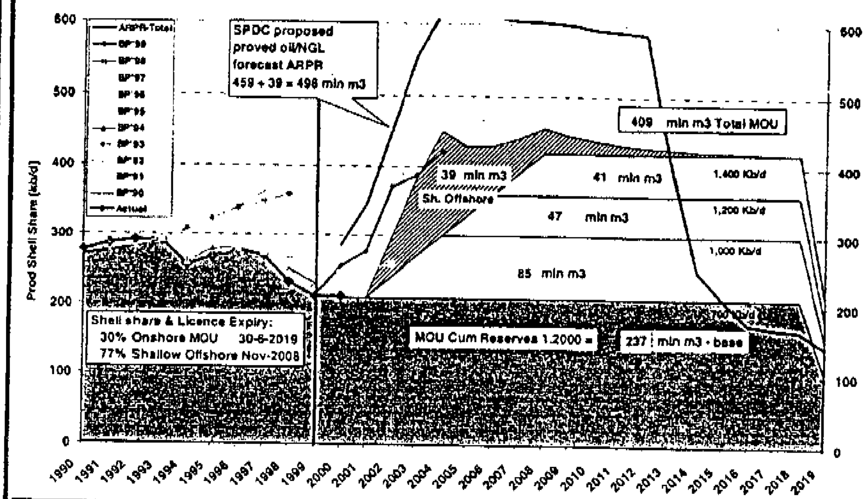
EXCOM 1999 Proved Reserves
31st January 2000

Nigeria SPDC - Proved Forecast



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EXCOM 1999 Proved Reserves
31st January 2000

BP'99 - SPDC Reserves Management

- **SEC Reserves Audit - August 1999**
  - Audit highlighted the issue of proved reserves forecast
  - Proved oil forecast assumes doubling of SPDC production levels
  - If growth does not materialise significant risk of de-booking proved reserves
  - Formal licence extension beyond 2019 would mitigate issue.
- **SPDC BP'99 resource plan repeatedly challenged**
  - Not taken up by SPDC at the time
  - Issue only fully recognized at end 1999

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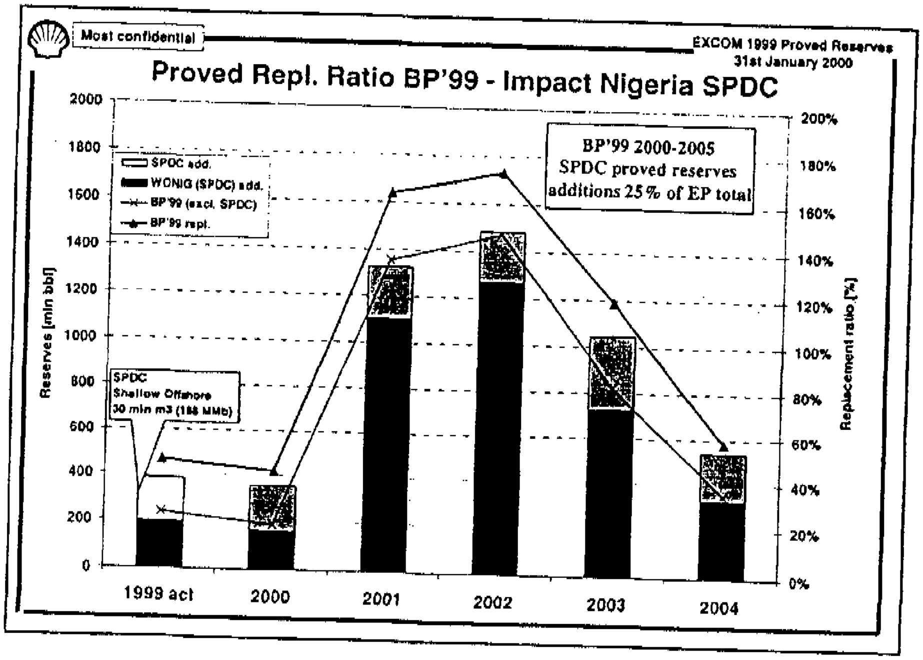

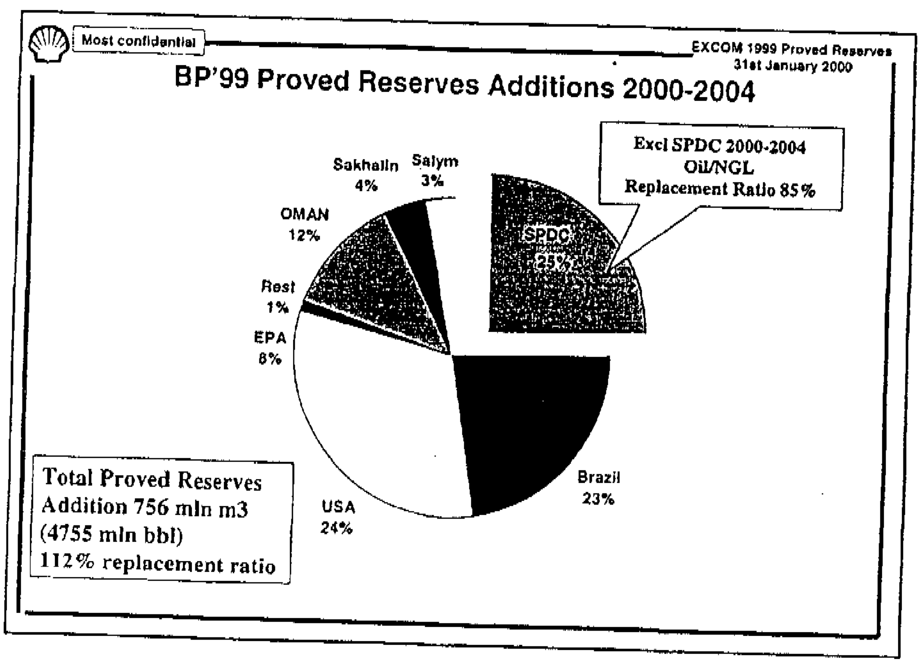

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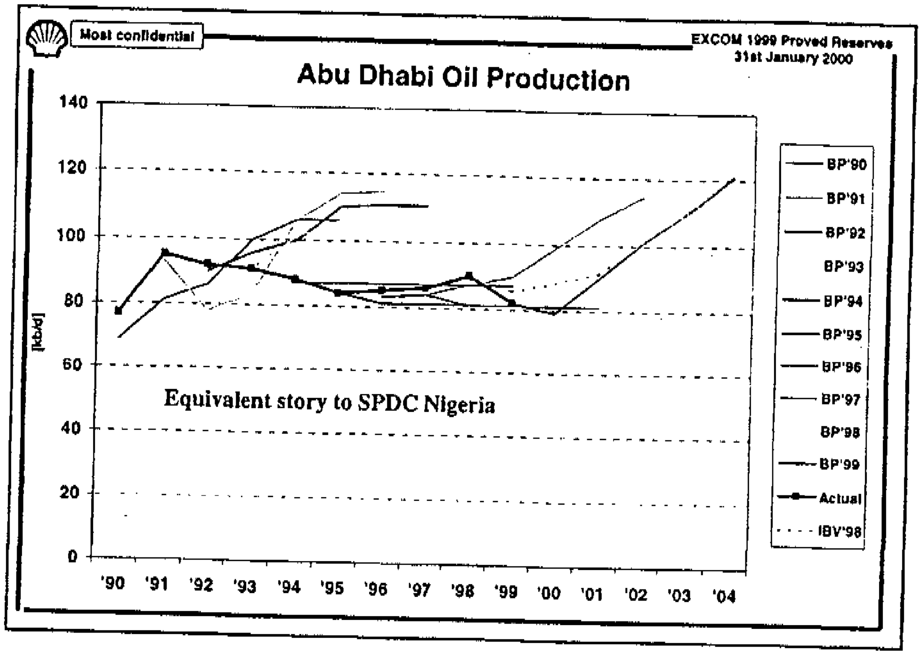

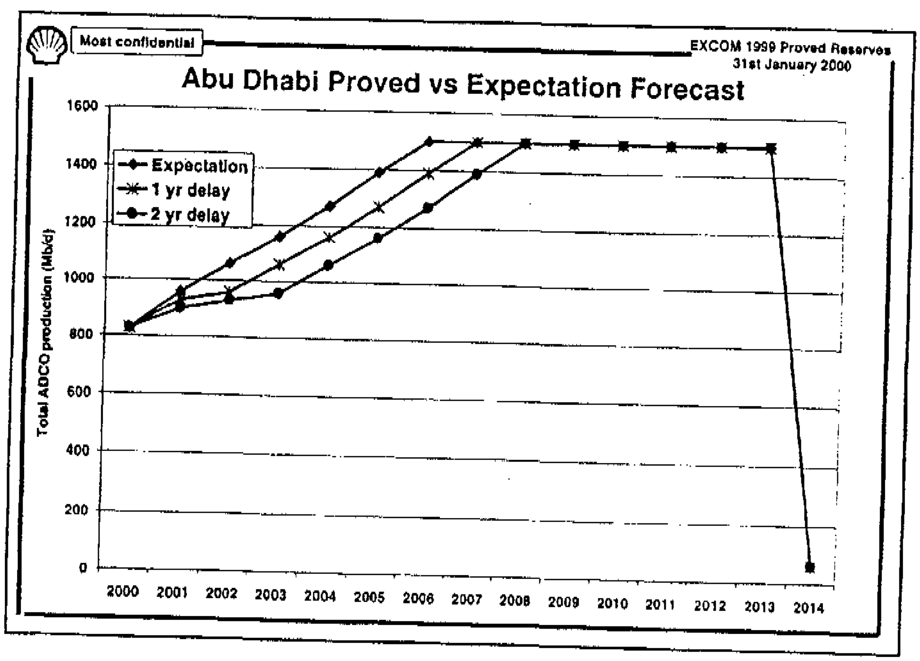

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GRA 000068

V00100443

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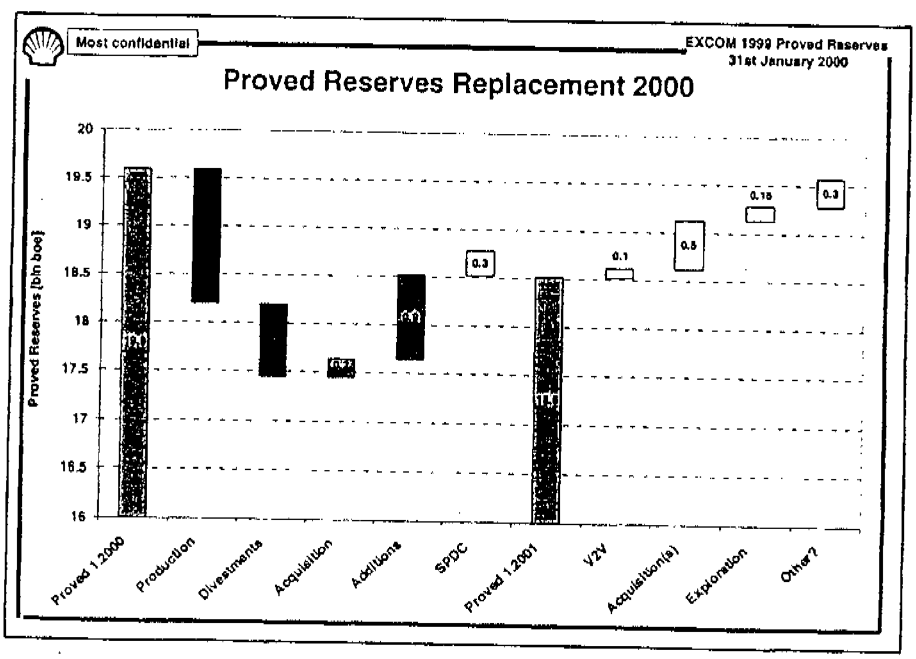
EXCOM 1999 Proved Reserves
31st January 2000

ARPR versus Nov'99 Monthly LE

Country	Note nr.	GAS (mrd sm3) 1999 ARPR actual	NOV'99 LE	BP'99 LE	BP'99 Target	OIL/NGL (mln m3) 1999 ARPR actual	NOV'99 LE	BP'99 LE	BP'99 Target
Netherlands		1.7	0.3	2.4	2.4	0.4	0.0	0.0	0.0
UK		3.0	9.3	3.1	2.6	-3.1	2.4	5.6	4.4
Norway		25.3	20.9	30.0	-3.1	-0.7	1.1	1.4	0.2
Denmark		0.8	0.9	-2.7	0.0	10.4	3.6	4.0	2.7
Germany		2.1	0.6	7.3	3.0	-0.3	0.0	0.0	0.0
Rest of EPE		0.4	0.4	0.1	0.2	0.0	0.0	-0.1	0.0
USA		-6.6	-3.9	-4.0	7.2	-29.3	-28.5	-34.4	1.1
Canada		15.7	-3.1	0.0		-4.8	-11.2	-10.6	
Total EPN		42.8	31.1	26.6	12.3	-27.3	-32.4	-34.1	8.4
Oman (PDO/GISCO)		-12.4			0.0	23.5	21.9	21.1	15.6
Egypt		2.9	2.2	8.0	1.0	0.3	1.8	3.3	1.4
Syria		-2.7	-1.8	-1.7	0.0	1.1	1.8	0.0	1.1
Russia		0.0	0.0	0.0	0.0	-1.0	0.0	0.0	0.0
Pakistan		1.5	1.3	2.7	1.3				
Rest of EPM		-1.7	0.0	3.0	0.0	-5.2	-0.9	2.4	0.0
Total EPM		-12.1	2.4	10.0	2.3	19.8	24.3	28.8	19.1
Australia		-9.0	6.7	11.4	0.0	3.6	0.0	3.4	0.0
Brunei		3.7	0.0	0.7	0.0	0.1	8.1	7.8	0.2
New Zealand		1.9	1.7	-0.8	1.7	1.6	0.0	-0.1	0.0
Philippines		-19.8	-19.9	-21.8	-19.6	-3.0	-3.6	-4.1	-3.7
Malaysia		7.3	7.5	3.8	0.7	2.2	1.7	1.5	1.2
Thailand		-0.1	0.5	0.1	0.1	2.6	1.4	2.1	0.4
China		0.0	0.0	0.0	0.0	1.1	0.7	0.8	0.0
Rest of EPA		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total EPA		-15.8	-3.4	-6.4	-11.1	10.6	8.7	11.2	4.1
Nigeria (SPDC)		-4.7	0.3	0.3	0.0	30.6	56.9	43.0	19.9
Nigeria (SNEPCO)		-1.0	0.0	0.0	0.0	21.0	17.5	11.9	0.0
Gabon						4.9	0.0	0.6	4.0
Venezuela						-1.5	-2.2	-1.8	1.4
Argentina		1.1	1.1	3.6	0.0	-0.2	[illegible]	-2.8	0.0
DR Congo (Zaire)						1.0	[illegible]	-4.1	-4.1
Rest of EPG		0.0	0.0	0.0	0.0	-0.4	0.0	-0.4	0.0
Total EPG		4.2	1.4	4.1	0.0	53.4	73.3	46.6	21.2
TOTAL		16.9	21.8	34.6	3.6	61.3	71.9	60.6	61.6

NOV LE'99 not accurately reflecting final reserves position ARPR'2000



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Key Proved Reserves Messages

- **'99 Proved Oil/NGL and Gas Replacement Ratio 37%**
  - Low after three years high
  - Challenge to communicate externally
    - upside AOSP and Iran & excluding divestments
- **Unblocking Nigeria is Key**
  - Production Performance and Proved Reserves additions
- **2000 Scorecard**
  - SPDC Impact on proved reserves target equates to a 20% loss (LE 62%)
- **BP'99 2000-2004 Proved Reserves**
  - 25% additions promised by SPDC are unlikely to materialise
- **Need to resolve reporting of Innovative Contracts**
  - Booking Pseudo Reserves "Buy-backs"

EXHIBIT
Platenkamp 3
11/14/06
GAIL R. SCHORR, C.S.R., C.R.R.

2000 EP Scorecard

(Including D/S Gas)

Business Result	Plan	Below	Mid-Point	Outstanding	Weight %	Actual (or LE)	Normalized Score	Weighted Score
ROACE (%)	15.6%	7.7%	15.6%	23.4%	100%	15.6%	1.00	1.00
Indicative oil price for ROACE		$10/b	$14/b	$18/b			A =	1.00

Business Performance	Plan	Below	Mid-Point	Outstanding	Weight %	Actual (or LE)	Normalized Score	Weighted Score
Core Measures								
Opex & Depreciation ($ mln)	6830	7170	6830	6490	20%	6830	1.00	0.20
Production Oil / NGL (kb/d)	2325	2246	2310	2376	10%	2310	1.00	0.10
Gas Sales (mrd Nm^3/y)	89.8	86.1	89.3	92.3	10%	89.3	1.00	0.10
Proved Reserves Replacement (Excluding divestments)	80%	50%	80%	110%	10%	80%	1.00	0.10
Performance vs. Competitors (Self appraisal)		0.0	1.0	2.0	10%	1.00	1.00	0.10
Additional Measures HSE, HR and SFR (Self-appraisal)		0.0	1.0	2.0	20%	1.00	1.00	0.20
Milestones		0.0	1.0	2.0	20%	1.00	1.00	0.20
Total Performance		0.0	1.0	2.0			B =	1.00

EP Score	Business Performance Factor (BPF) But, if A or B equal zero, Total EP Score will also be zero	0.5*A + 0.5*B = 1.00

V00022929

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BATES ERROR SHEET

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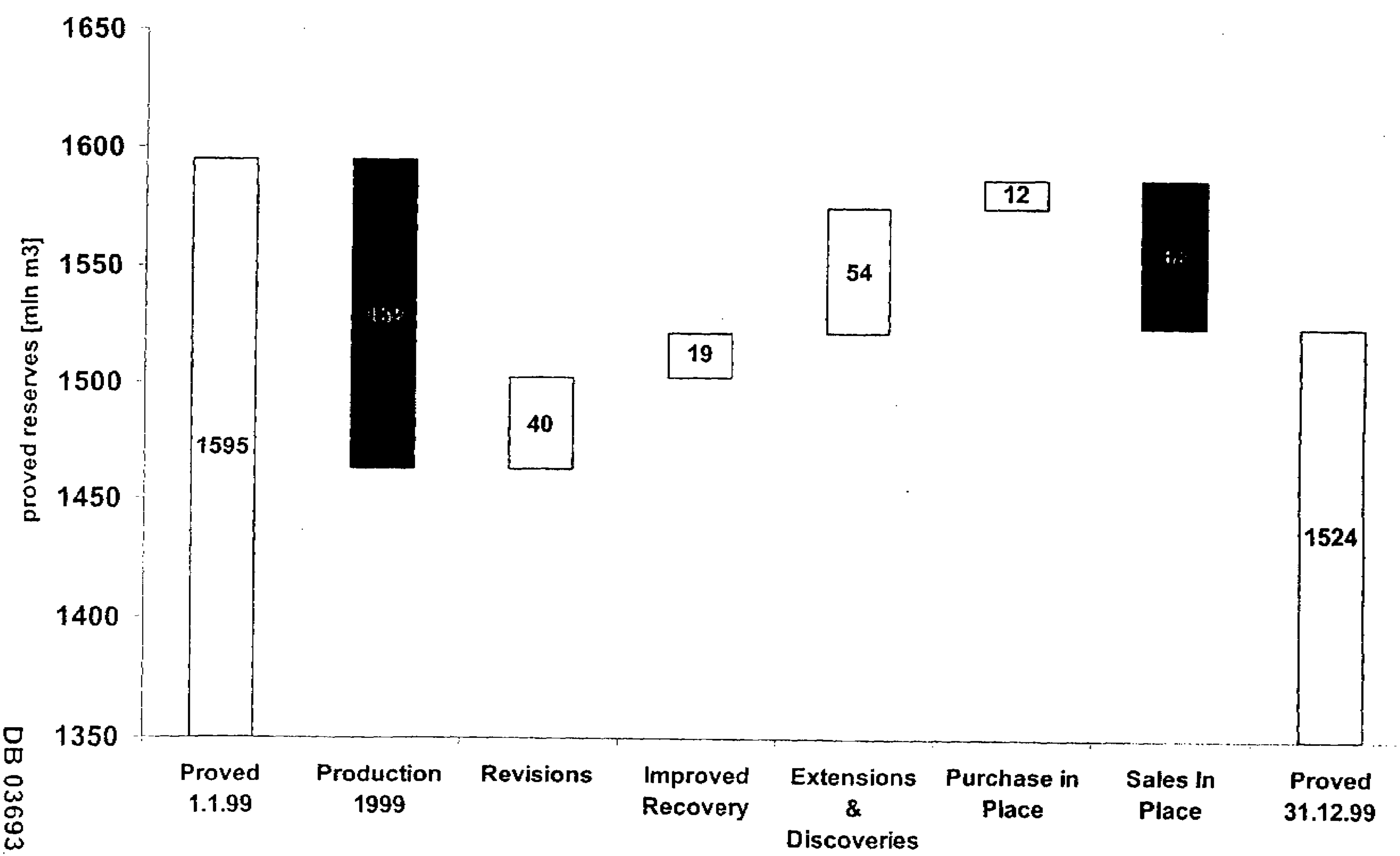
EXCOM 1999 Proved Reserves
31st January 2000

1999 Changes to Proved Oil/NGL Reserves



DB 03693

V00022931

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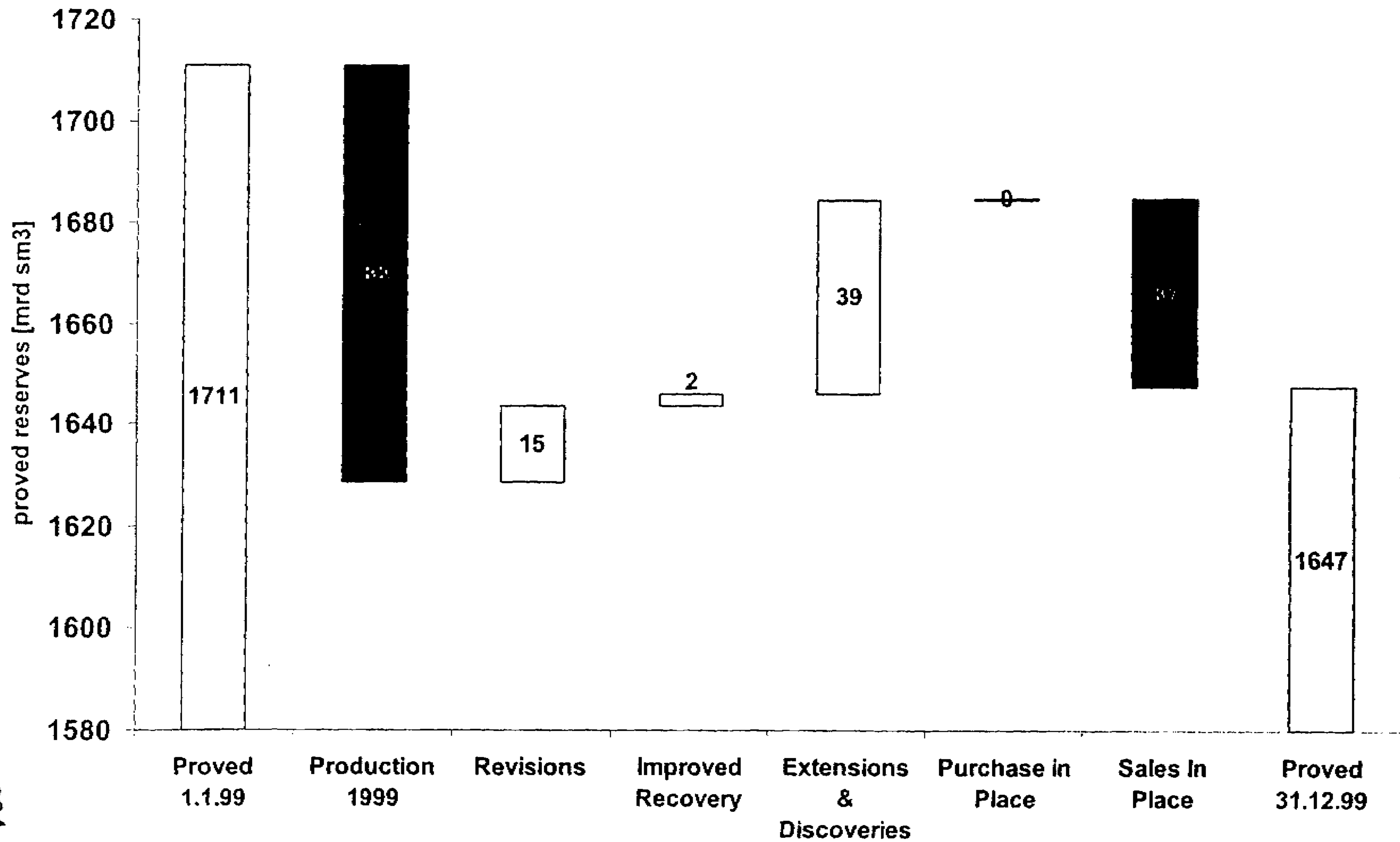
EXCOM 1999 Proved Reserves
31st January 2000

1999 Changes to Proved Gas Reserves



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DB 03694

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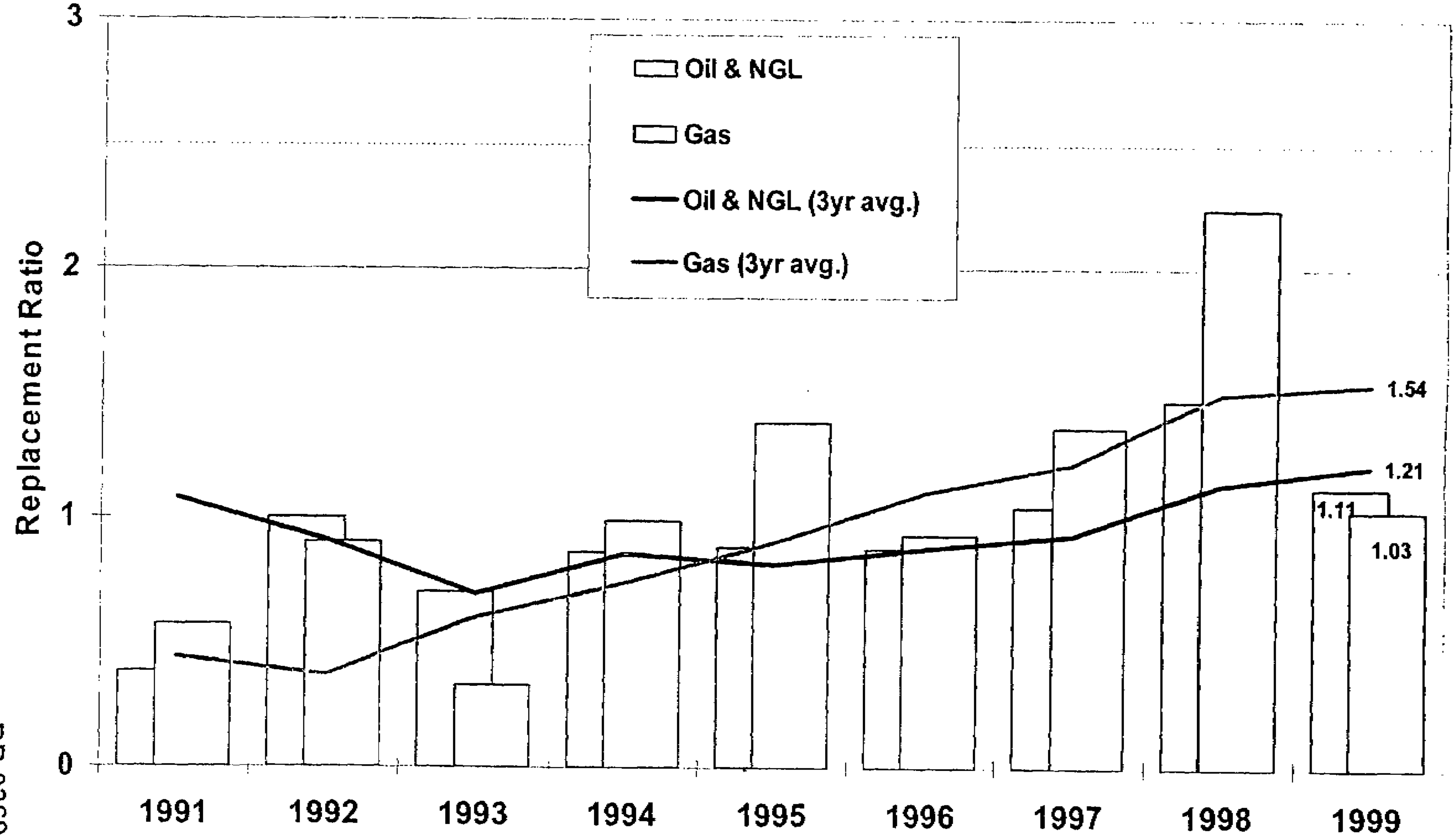
EXCOM 1999 Proved Reserves
31st January 2000

Proved Developed Replacement Ratio's (Group)



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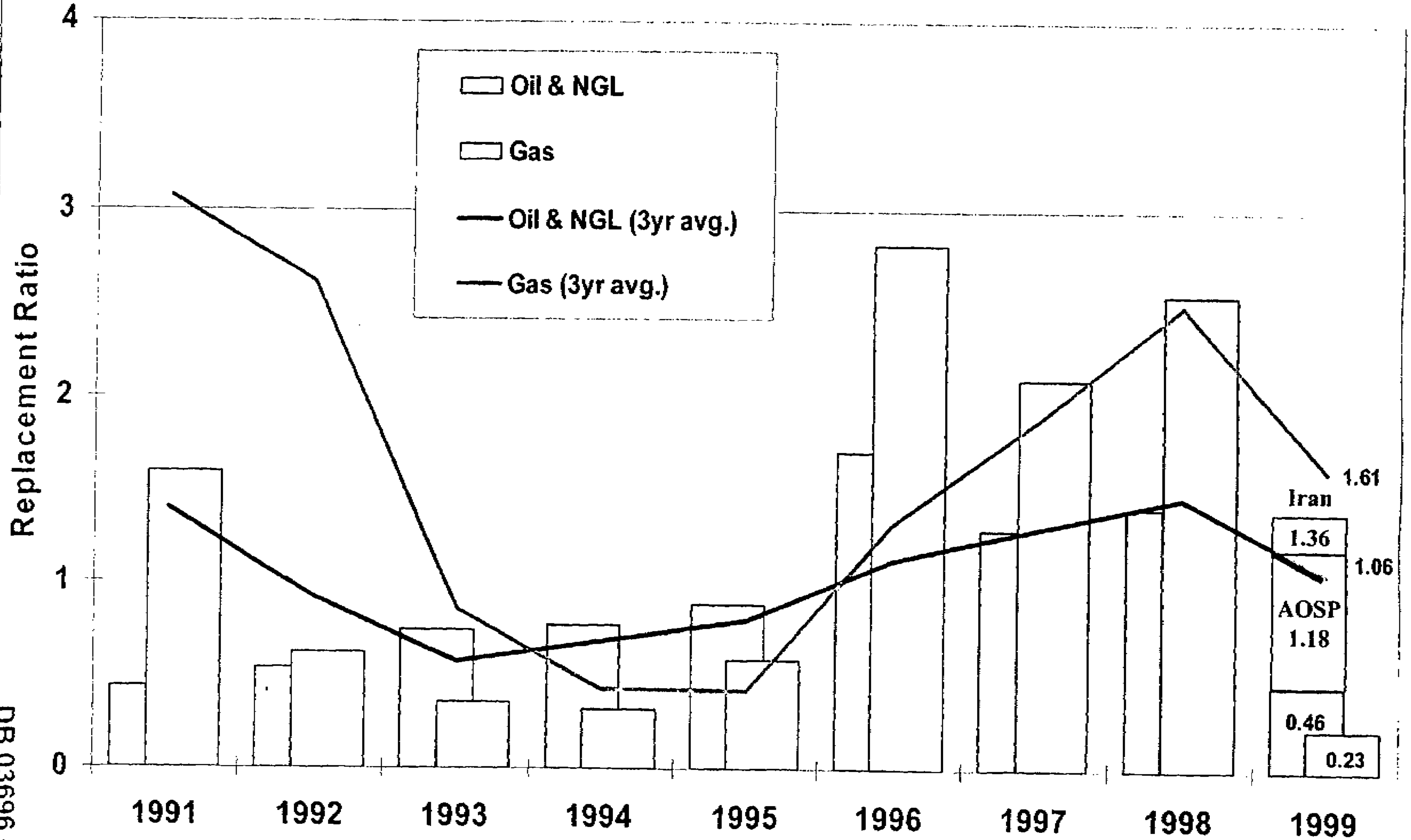
EXCOM 1999 Proved Reserves
31st January 2000

Proved Replacement Ratio's (Group)



DB 03696 V00022934

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EXCOM 1999 Proved Reserves
31st January 2000

1999 Proved Reserves Replacement Ratio

	Initial Data	Proposed Data	Excl. A&D	Incl. AOSP	Incl. AOSP & Iran	+AOSP +Iran Ex A&D
Oil/NGL	71%	46%	84%	118%	136%	175%
GAS	31%	23%	68%	23%	23%	68%
Total [boe]	56%	37%	78%	82%	94%	135%

V00022935

DB 03697

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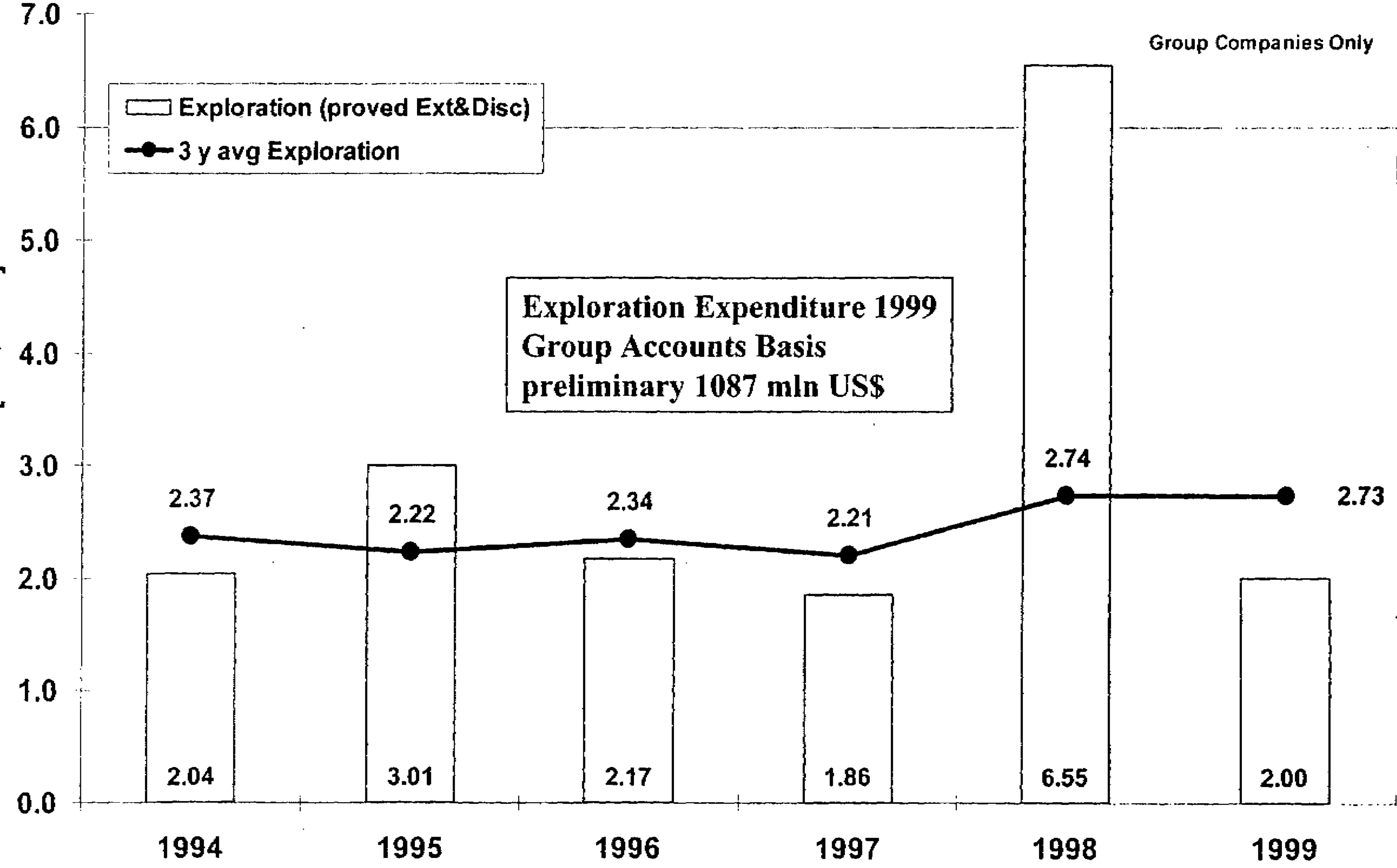
EXCOM 1999 Proved Reserves
31st January 2000

Unit Finding Cost Proved Reserves



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DB 03698

Proved Oil/NGL Reserves Issues

- **Nigeria SPNEPO - Deepwater**
  - Book 1999 Ehra discovery (Exxon block) + 24.0
- **Nigeria SPDC - Shallow Offshore**
  - Book EA/EJA Alternative Funding/FID + 30.0
- **Nigeria SPDC - Onshore**
  - Do not book proposed increase MOU - 50.0

    Limit plateau proved forecast upto 1,400 b/d

    Licence expiry 30 June 2019
- **Abu Dhabi**
  - Reduce proved reserves - 6.5

    Delay growth scenario by 2 years

    Licence expiry Jan 2014

Total - 2.5 mln m3

Proved Gas Reserves Issues

- **Canada**
  - Include Gas Royalties in Cash in line with Group Guidelines — + 13.8
- **Australia**
  - Do not book increase Gorgon (20%) Increase market take-up — + 0.0
- **USA**
  - Exclude own use gas volumes in line with Group Guidelines

Shell Oil	- 1.9 %	- *1.8*	
Area	- 75 %	- *4.1*	
Altura	- 7 %	- *0.6*	
			- 6.5
		Total	+ 7.3 mrd sm3

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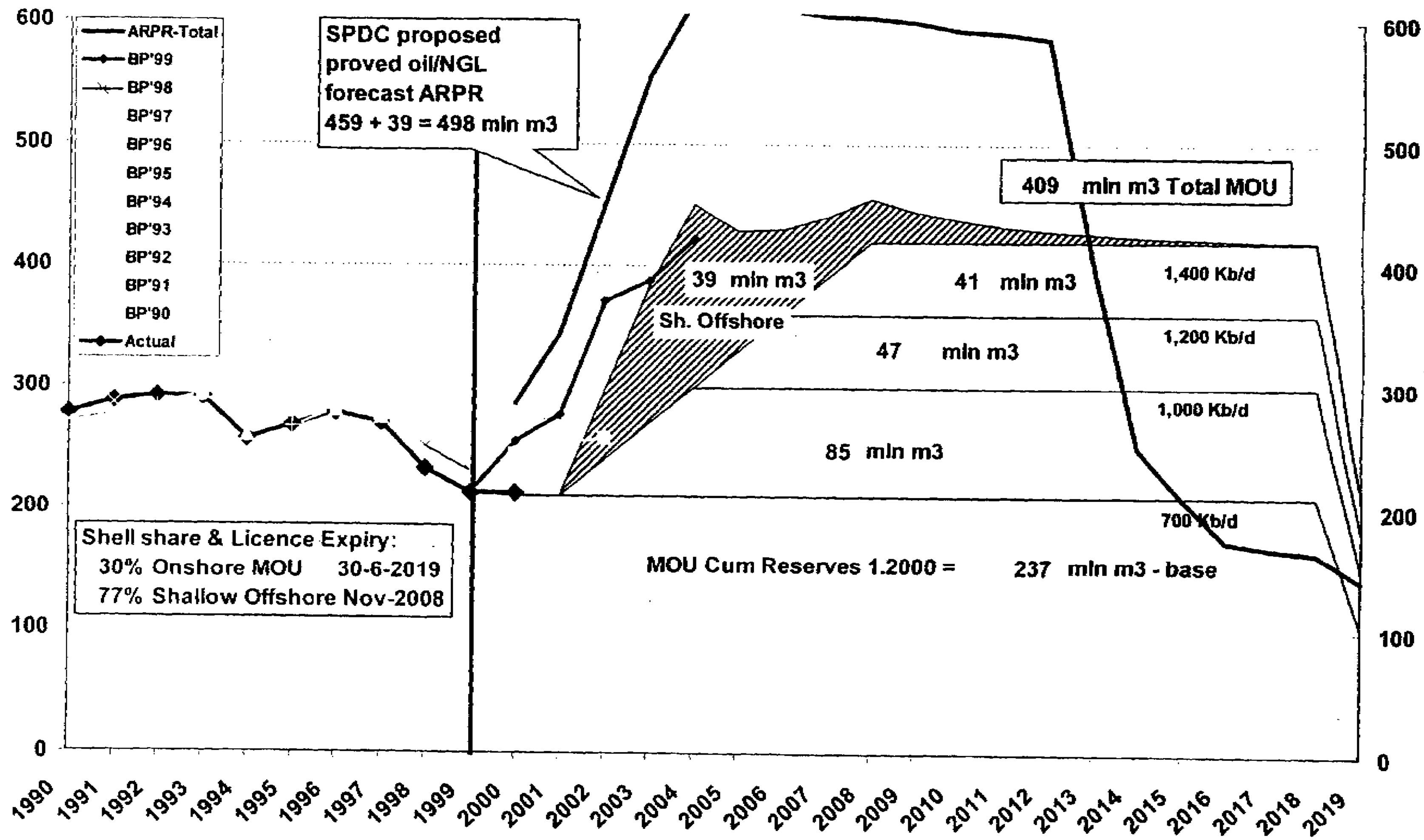
EXCOM 1999 Proved Reserves
31st January 2000

Nigeria SPDC - Proved Forecast



V00022939

DB 03701

BP'99 - SPDC Reserves Management

- **SEC Reserves Audit - August 1999**
  - Audit highlighted the issue of proved reserves forecast
  - Proved oil forecast assumes doubling of SPDC production levels
  - If growth does not materialise significant risk of de-booking proved reserves
  - Formal licence extension beyond 2019 would mitigate issue.
- **SPDC BP'99 resource plan repeatedly challenged**
  - Not taken up by SPDC at the time
  - Issue only fully recognized at end 1999

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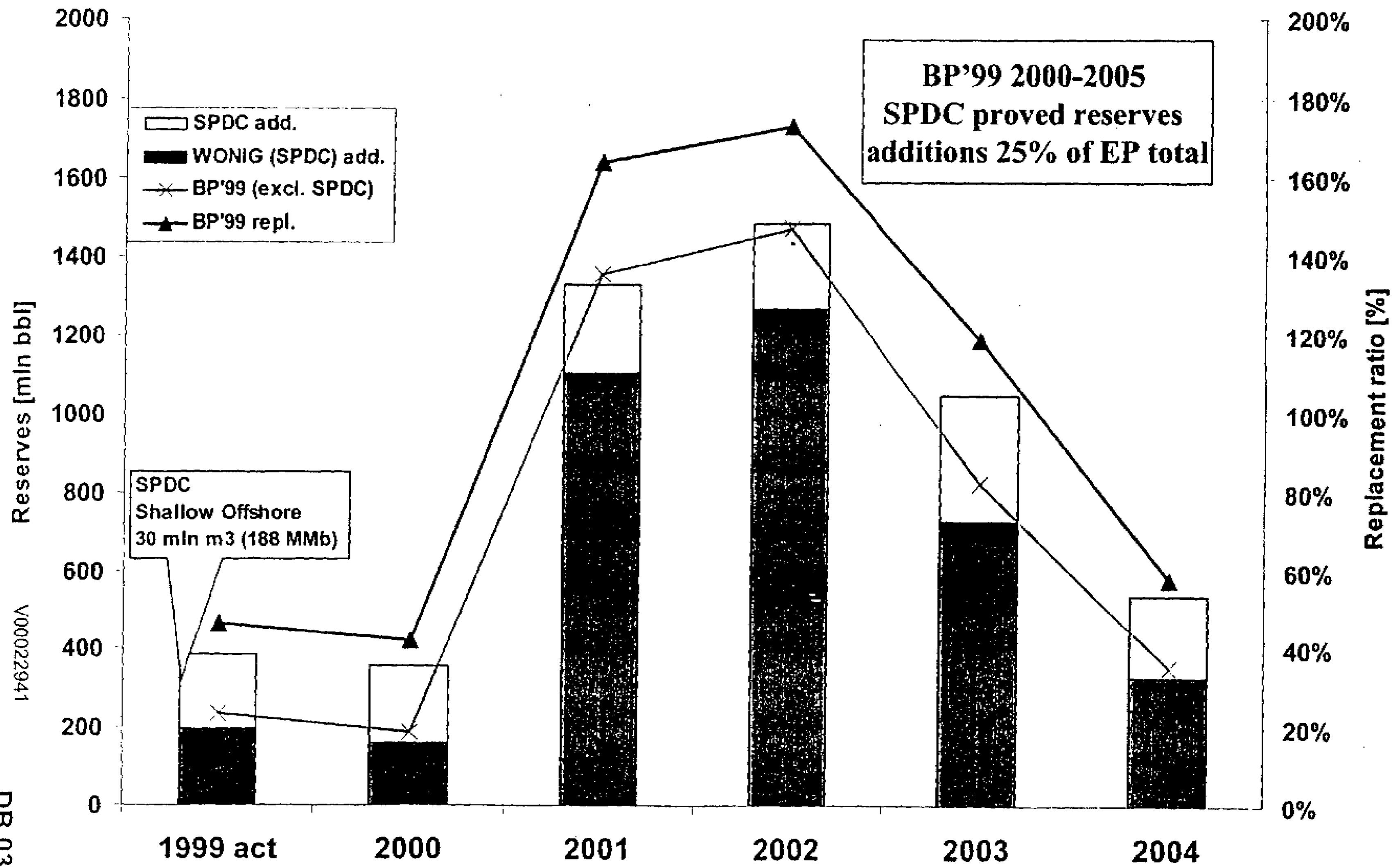
EXCOM 1999 Proved Reserves
31st January 2000

Proved Repl. Ratio BP'99 - Impact Nigeria SPDC



V00022941

DB 03703

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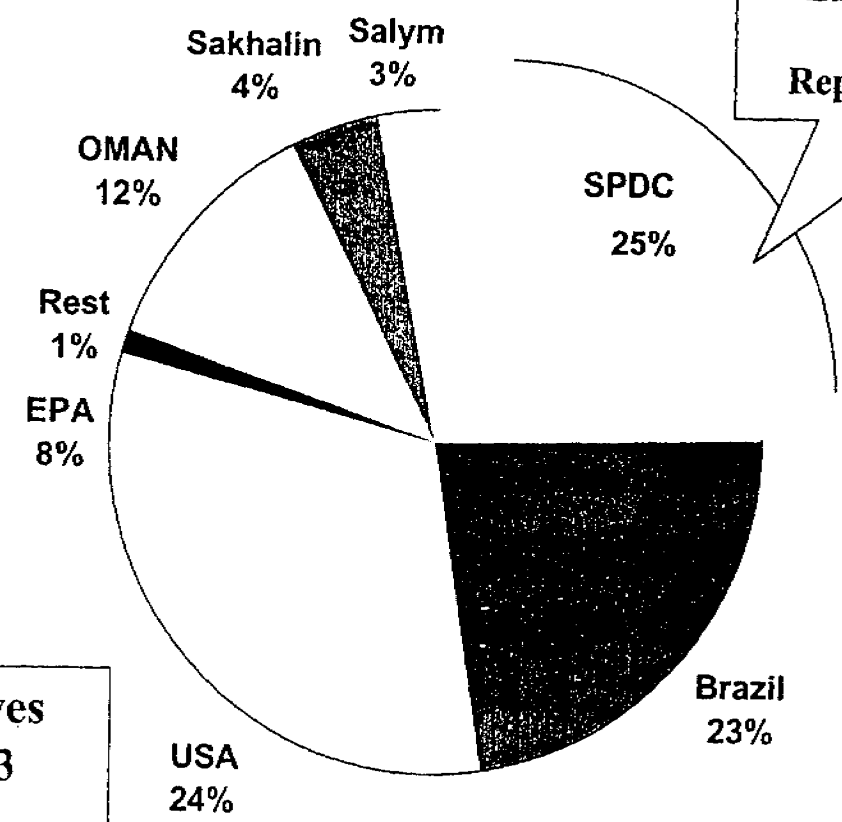
EXCOM 1999 Proved Reserves
31st January 2000

BP'99 Proved Reserves Additions 2000-2004



Excl SPDC 2000-2004
Oil/NGL
Replacement Ratio 85%

Total Proved Reserves
Addition 756 mln m3
(4755 mln bbl)
112% replacement ratio

V00022942

DB 03704

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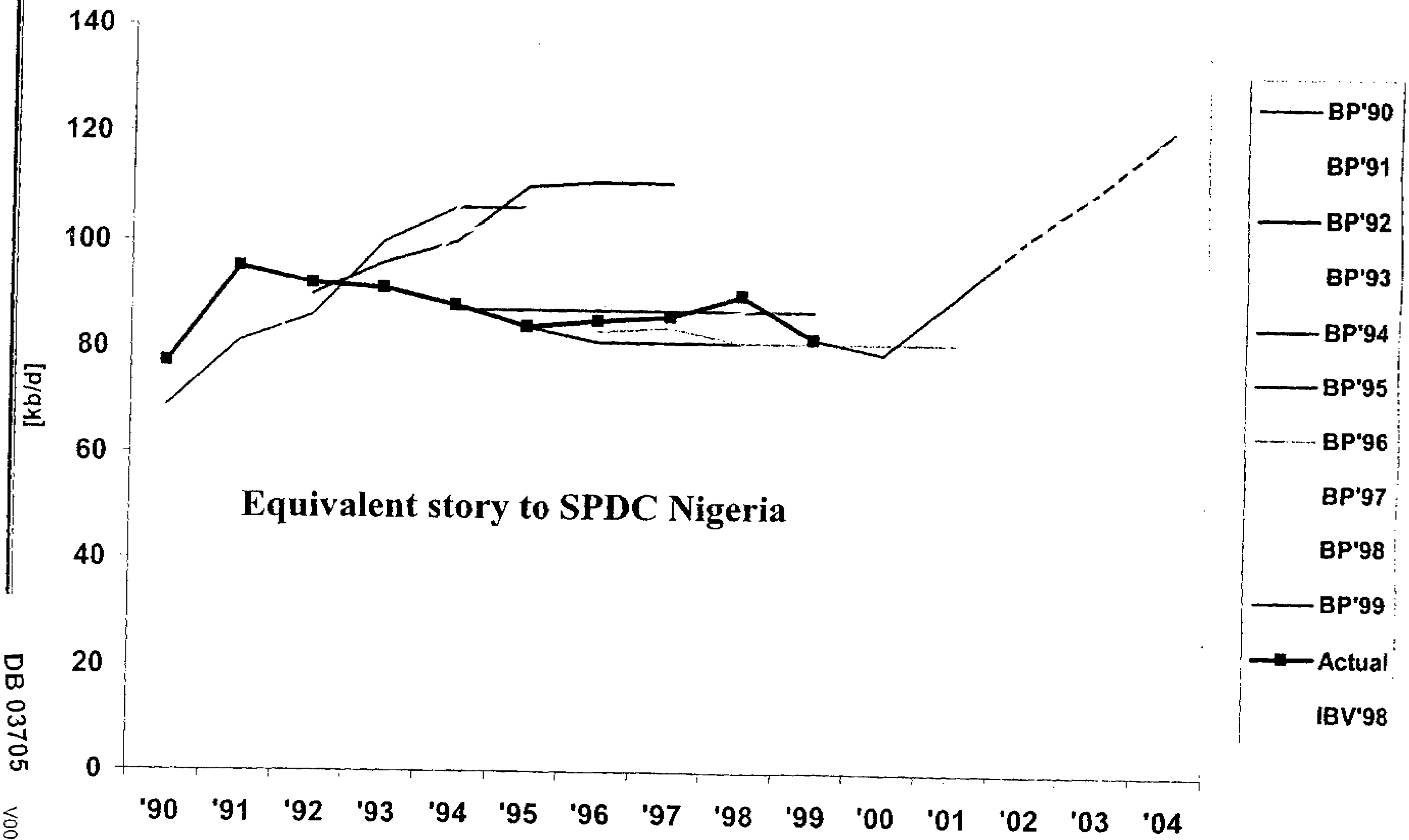
EXCOM 1999 Proved Reserves
31st January 2000

Abu Dhabi Oil Production



DB 03705

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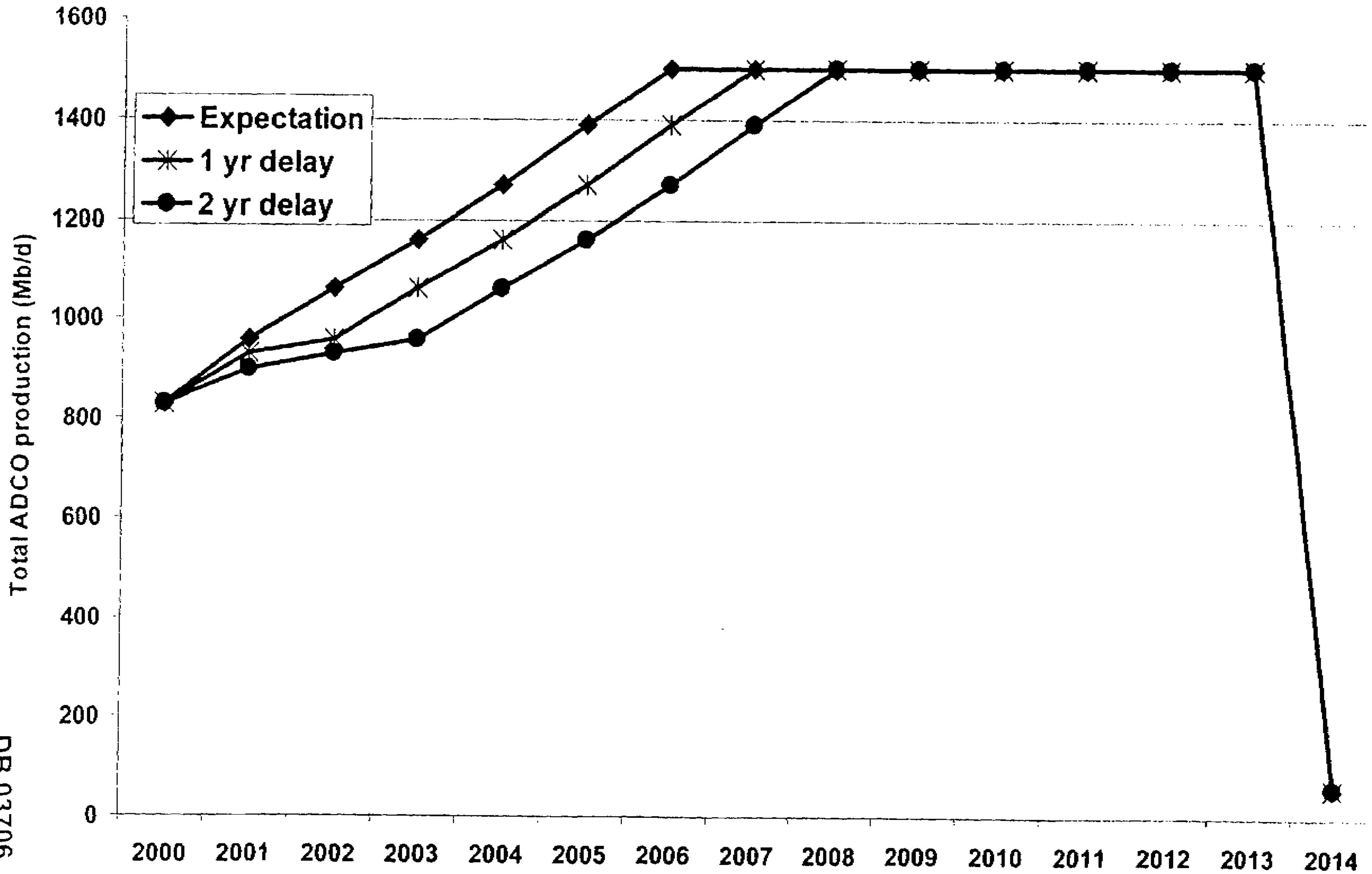
EXCOM 1999 Proved Reserves
31st January 2000

Abu Dhabi Proved vs Expectation Forecast



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V00022944

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EXCOM 1999 Proved Reserves
31st January 2000

ARPR versus Nov'99 Monthly LE

Country	Note nr.	GAS [mrd sm3] 1999 ARPR actual	GAS NOV'99 LE	GAS BP'99 LE	GAS BP'98 Target	OIL/NGL [mln m3] 1999 ARPR actual	OIL/NGL NOV'99 LE	OIL/NGL BP'99 LE	OIL/NGL BP'98 Target
Netherlands		1.7	0.3	2.4	2.4	0.4	0.0	0.0	0.0
UK		3.0	9.3	3.1	2.6	-3.1	2.4	5.6	4.4
Norway		25.3	26.8	26.6	-3.1	-0.7	1.1	1.4	0.2
Denmark		0.8	0.8	-2.7	0.0	10.4	3.8	4.0	2.7
Germany		2.1	0.6	1.3	3.0	-0.3	0.0	0.0	0.0
Rest of EPE		0.4	0.4	0.1	0.2	0.0	0.0	-0.1	0.0
USA		-6.5	-3.9	-4.0	7.2	-29.3	-28.5	-34.4	1.1
Canada		15.7	-3.1	0.0		-4.8	-11.2	-10.6	
Total EPN		**42.5**	**31.1**	**26.8**	**12.3**	**-27.3**	**-32.4**	**-34.1**	**8.4**
Oman (PDO/GISCO)		-12.4			0.0	23.5	21.9	21.1	15.6
Egypt		2.9	2.9	6.0	1.0	0.3	1.8	3.3	1.4
Syria		-2.2	-1.8	-1.7	0.0	1.1	1.5	0.0	1.1
Russia		0.0	0.0	0.0	0.0	-1.0	0.0	0.0	0.0
Pakistan		1.3	1.3	2.7	1.3				
Rest of EPM		-1.7	0.0	3.0	0.0	-5.2	-0.9	2.4	0.0
Total EPM		**-12.1**	**2.4**	**10.0**	**2.3**	**18.8**	**24.3**	**26.8**	**18.1**
Australia		-9.0	6.7	11.4	0.0	3.6	0.9	3.4	0.0
Brunei		3.7	0.0	0.7	0.0	9.1	6.1	7.8	6.2
New Zealand		1.9	1.7	-0.6	1.7	1.6	0.0	-0.1	0.0
Philippines		-19.8	-19.8	-21.8	-19.6	-3.6	-3.6	-4.1	-3.7
Malaysia		7.3	7.5	3.8	6.7	2.2	1.7	1.5	1.2
Thailand		-0.1	0.5	0.1	0.1	2.5	1.4	2.1	0.4
China		0.0	0.0	0.0	0.0	1.1	0.2	0.6	0.0
Rest of EPA		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total EPA		**-15.8**	**-3.4**	**-6.4**	**-11.1**	**16.5**	**6.7**	**11.2**	**4.1**
Nigeria (SPDC)		4.7	0.3	0.3	0.0	30.5	56.8	43.0	19.9
Nigeria (SNEPCO)		-1.6	0.0	0.0	0.0	21.0	17.5	11.9	0.0
Gabon						4.9	0.0	0.6	4.0
Venezuela						-1.5	-2.2	-1.8	1.4
Argentina		1.1	1.1	3.8	0.0	-0.2	1.2	-2.6	0.0
DR Congo (Zaire)						-1.0	0.0	-4.1	-4.1
Rest of EPG		0.0	0.0	0.0	0.0	-0.4	0.0	-0.4	0.0
Total EPG		**4.2**	**1.4**	**4.1**	**0.0**	**53.4**	**73.3**	**46.6**	**21.2**
TOTAL		**18.9**	**31.5**	**34.5**	**3.5**	**61.3**	**71.9**	**50.5**	**51.8**

NOV LE'99 not accurately reflecting final reserves position ARPR'2000

DB 03707
V00022945

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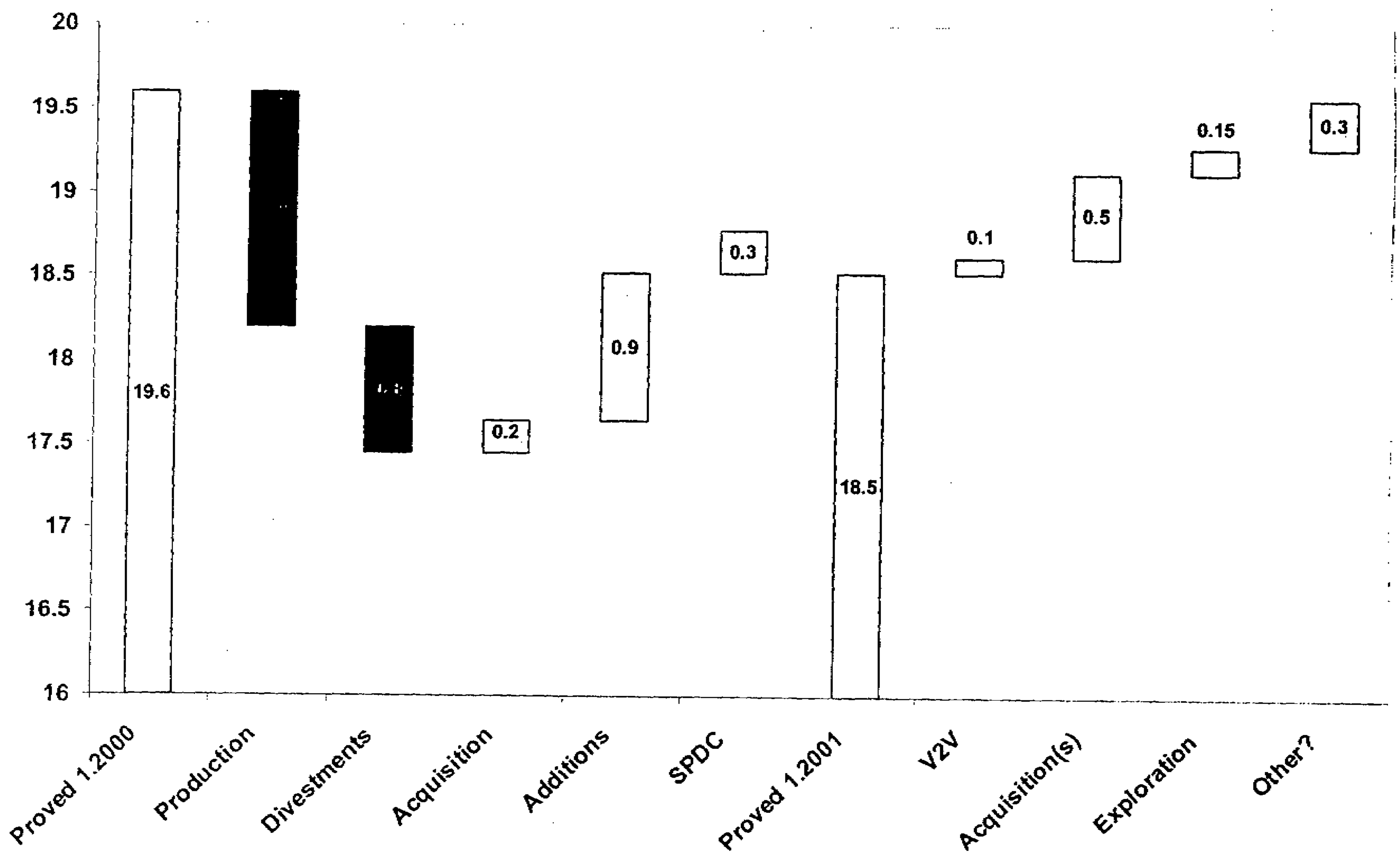
EXCOM 1999 Proved Reserves
31st January 2000

Proved Reserves Replacement 2000



DB 03708
V00022946

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EULDERINK, F.

From:	Aalbers, Remco R.D.
Sent:	21 December 1999 21:00
To:	EULDERINK, F.
Cc:	McKay, Aiden A.; Platenkamp, Roelof R.J.
Subject:	Nigeria Proved Reserves Addition
Importance:	High

NIGERI~1.XLS

Frits,

As per our discussions please refer to the attached chart which hopefully demonstrates the issue (already raised with SPDC during the BP period) versus additional proved reserves bookings as indicated by SPDC in their BP'99 submission.

1) Due ot the licence expiry issue in SPDC MOU (2019) and Shallow Offshore (2008) proved reserves booking is limited by the amount of oil that can be produced between now and licence expiry and is the direct integral of the production volumes in the assumed BP (growth) forecast.

Current SDPC expectation reserves are already significantly larger that expectation oil reserves within Licence

2) Once you fix the expectation forecast for BP'99 volumes produced within licence are fixed and expectation reserves within licence 1.1.xxxx has to decline over time by production (any SFR matured will defer an equal amount post licence as indicated by SPDC commercial SFR within licence 1.1.1999 being zero). SPDC however forecast an increase in expectation reserves within licence from 1999 to 2002 only to decline there after (BLACK line)

If you however, fix exp reserves within licence 1.1.1999 and decline with production (bars) you should forecast Exp wi L as per the adjusted line (GREEN line).

Note: From the data I cannot see if there is any impact from assumed inceased NGL volumes resulting from future gas contracts (if any). SPDC would have to comment if there is such an effect?

3) PROVED reserves (within licence by definition) can never be larger than the total expectation reserves within licence;
SPDC proved reserves forecast (RED line) crosses over with the GREEN line in 2004 indicating proved reserves to be larger than Exp wi L - which is not possible.

4) If one takes into consideration that the expectation forecast is an optimistic growth scenario (see purple produciton line) each year deferment of the 'growth' (note defered growth from previous BP's) will lead to reduction in the expectation reserves wi L bringing the problem rappidly forward from 2004!

5) I would recommend to use a more conservative 'growth' forecast to book proved reserves in SPDC as not to get into a situation where we have to take negative reserves revisions year on year in SPDC, if we not achieve the current expectation growth scenario.

NB - we have a similar situation in Abu Dhabi already were we have a negative proved reserves revision each year as the growth scenario is defered by one additional year due to OPEC constraints.

How and when to adjust - and if proved reserves additions remains a good scorecard measure - needs further discussion, but we cannot keep or expect to keep on booking additional proved reserves in Nigeria year on year.

Met vriendelijke groeten / With kind regards.

Remco D. Aalbers
Group Hydrocarbon Resource Coordinator
& Senior Economist

EPB-P SEPIV BV

EXHIBIT
PlatenKamp 4
11/14/06
GAIL F. SCHOHR, C.S.R., C.R.R.

RJW00830060

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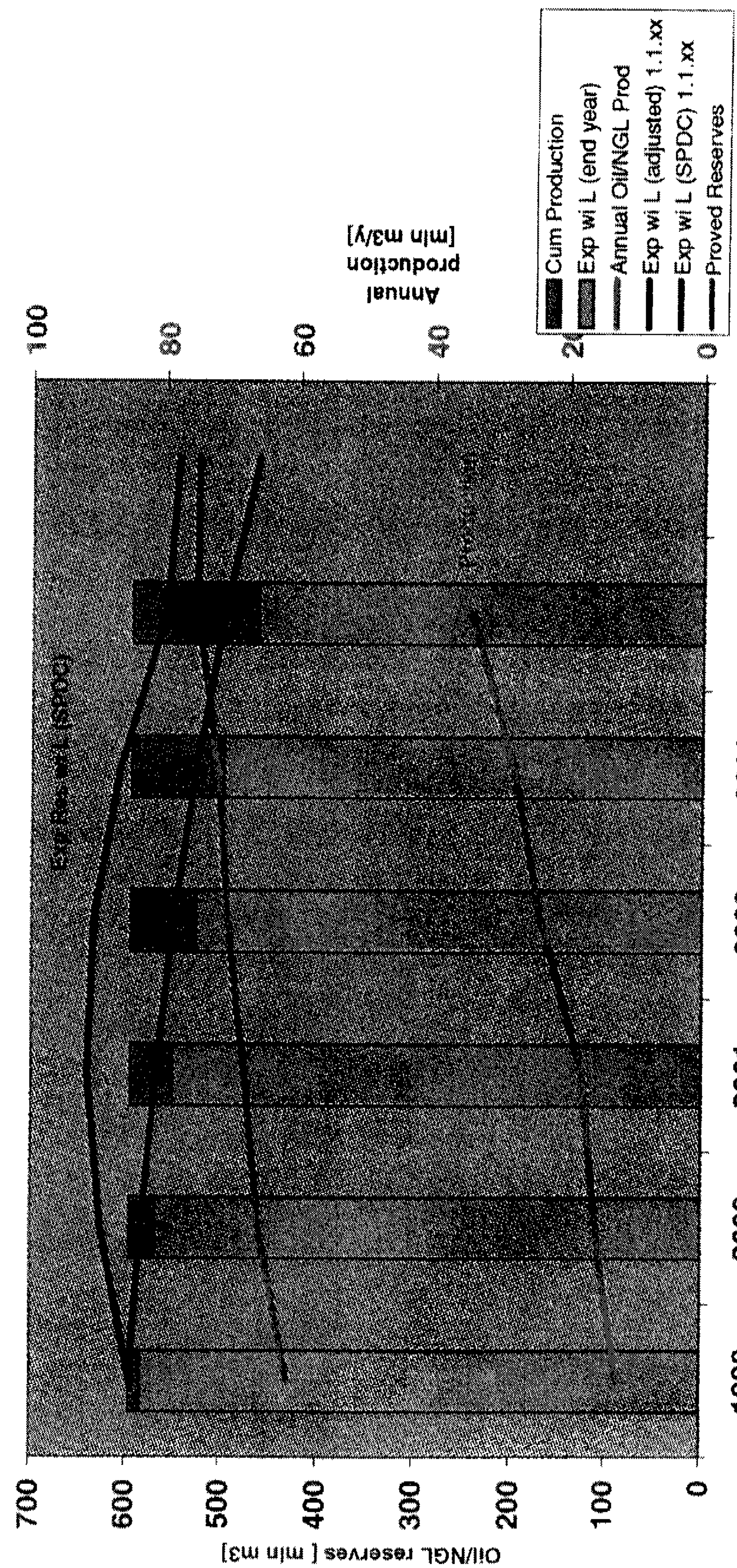
BP'99 Proved Reserves Forecast SPDC



RJW00830061

Nigeria SPDC - Proved Reserves

- Premises
  - Proved reserves limited to volumes producable within existing licence
  - Nigeria SPDC Licence Expiry
    - 30 June 2019 for Onshore MOU
    - Nov'2008 for Shallow Offshore
- What forecast should be used to estimate proved reserves?
  - Scope for future proved reserves additions limited!
  - Delay of production growth will result in significant future proved reserves write-downs!
  - Should we freeze SPDC proved reserves as of 1.99 or 1.2000?
  - What NGL volume will be produced?
  - Impact OPEC Quota aspirations & RAB?

SPDC - PROVED RESERVES

• Proved Reserves 1.1.1999	430 mln m3
Proved MOU Oil	412 mln m3
Proved NGL	9 mln m3
Proved Shallow Offshore (30%)	9 mln m3
• Production 1999	- 11 mln m3
• Proved Reserves end '99	419 mln m3
– Shallow Offshore (77%)	30 mln m3 or offset MOU?
– Other additions	0 mln m3 freeze 1.99 ??
• Proved Reserves 1.1.2000	449 mln m3

To produce MOU proved reserves 1.1.99 Onshore production needs to increase to some1,400 kb/d!