EP RESERVES PRESENTATION TO GAC

GAC March 16, 2004

EP Reserves Review

10 – 13 March 2004

Year-end 2003 Reserves Submissions

Confidential

October 17, 2003

- Updated (2003 version) Shell Guidelines issued to All EP reserves Focal Points, to enable preparation of year-end 2003 submissions by January 15, 2004

- Updated Guidelines approved by the Reserves Committee and EP Exec, but consequences of Shell interpretation of SEC Rules not made explicit

- Instructions include a request to estimate potential impact of a change to the Guidelines on Lowest Known Hydrocarbons (and also to consider impact of the alternative treatment of "Fuel and Flare"), but request data to be submitted as per Guidelines

Year-end 2003 Reserves Submissions

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Early December 2003

- Rockford analysis shows 3.65 bln boe (CMD Dec 12) as exposed volumes
- Further work required to check rest of portfolio
- Focus area was "project maturity" and the corporate capital allocation data base was used to identify proved reserves which do not meet the current criteria
- Specific request sent to Brunei on December 22
- Other OU's handled from SIEP (eg Venezuela)
- Final Rockford volume of 3.9 bln boe by end December
- Limited contact with OU's given Rockford sensitivities

Year-end 2003 Reserves Submissions

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January 11, 2003 (following Rockford announcement)

- Updated instructions issued to all all EP reserves Focal Points.
- Timeline unchanged (Jan 15) to meet Feb 5 results deadline.
- Specific Rockford changes communicated back to OUs
- Change in Group Guidelines with respect to :
  - Lowest Known Hydrocarbons
  - Application of Year-end prices
- Also specific request to test for "economic producibility"
- Plus a general request (included in an 8 page note of instructions) to critically review the proved reserves statement in relation to the SEC Definitions and SEC Interpretations , as provided in the Shell Guidelines (App 1)

Year-end 2003 Reserves Submissions

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Assurance process

- Assurances were specifically requested from OU's and then to Regional CFO's and Technical Directors, with respect to a number of issues:
  - Reserves are measured, reported etc in accordance with Shell Guidelines and the January 11 amendment
  - Reserves monitoring, review, audit trail to be assured
  - Reconciliation with Group Finance reporting systems
  - No other significant issues which would prevent compliance with Shell Guidelines
- No specific requirement for assurance to SEC Rules
- Such assurances were received, with some qualifications
  - Incl. Nigeria, Australia

Year-end 2003 Reserves Submissions

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January 29, 2004

- Reserves Committee reviewed the year-end reserves data (and the assurance process)

February 1, 2004

- Group Reserves Auditor issued note to EP CFO (copy group External Auditors) stating :

  "It is my opinion that the current status of the Group's reserves portfolio can be viewed as compliant with the SEC proved reserves definitions and the SEC's recent additional guidelines."

- The same report identifies a number of areas of divergence between the Shell Guidelines and SEC rules, and recommends to provide clarity on these

Year-end 2003 Reserves Submissions

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Group Reserves Auditors report – comment

- The headline statement can be seen as providing assurance of compliance with SEC Rules
- The areas of Shell interpretation of the SEC Rules (whih are known and understood by SIEP EPT and Reserves Co-ordinator) are apparently assumed by the Reserves Auditor to be non material in terms of compliance with SEC Rules
- Failure either to explain or to enquire on the above issue has led to the difference of understanding between EP finance and technical staff

Year-end 2003 Reserves Submissions

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February 2, 2004

- Reserves data reviewed by External Auditors

February 3, 2004

- Reserves data reviewed by CMD

- CMD discussion included a challenge as to the legitimacy of the proposed Ormen Lange booking (256 mln boe), given the issue around Government approval. This point was addressed

February 5, 2004

- Reserves data included in year-end results disclosures

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LON00800516

Ormen Lange issue

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Technical Review

- MGDMB queried the Ormen Lange booking in connection with general discussions on SEC response, compliance etc
- A review team was sent from SIEP to review the booking on March 5

Review Findings

- The Ormen Lange asset team had conducted extensive analysis of the reserve situation and had followed a rigorous probabilistic approach (audit report available) to define a 90% confidence level of reserves of 256 mln boe – fully in line with Shell Guidelines

- The review team acknowledged the quality of the work, but pointed out that under SEC Rules, the proved volumes could only be calculated using the "one well offset" criteria, which constrained the proved volume to some 90 mln boe

- Technical background

Reserves Due Diligence exercise

Background

- Given the Ormen Lange finding, a more extensive review was commissioned to assess the potential impact of the areas of interpretation of SEC Rules, as contained in the Shell Guidelines,as per year-end 2003 data.

- Review Team :
  - Independent Petroleum Consultants
  - Group External Auditors
  - Group Internal Audit
  - Group Reserves consultants

- Execution : March 10 – 15

- Review covered some 80 fields

March Reserves Due Diligence Review

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Objectives

- Provide sufficient confidence in the proposed 2003 Proved Reserve estimates so that the volumes can be assured, within an acceptable bracket of uncertainty (defined prior to the review as 400 mmboe) , as being fully compliant with SEC Rules and which fairly represent in all material aspects the status of the reserves as "proved" for the year-end 2003.

- The starting point will be the proved reserves data base as submitted by OU's, and assured to be fully compliant with the Shell Guidelines (ie the October 2003 version as updated in January 2004).

- Specific areas of focus in the SEC Rules will be addressed in the review. A preliminary list of areas of focus is shown below.

The short (10 March to 15 March 2004) review will concentrate on those fields that have reserves booked under the Shell Guidelines, for which compliance with the focus areas will be specifically addressed.

Review Team Composition

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Review Team

- **Independent Petroleum Consultants**
  - Ryder Scott: Tom Gardner, George Dames
- **Group External Auditors**
  - PWC: Edo Kienhuis, Michael Hurley
  - KPMG: Han van Delden
- **Group Reserves Consultants:**
  - Rod Siddle, David Kluesner
- **Group Internal Audit**
  - Ken Marnoch
- **Observers:**
  - John Darley, Frank Coopman, John Bell

Scope of the Review

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Key focus areas:

- Lateral extent of proved area (ie, application of "one offset location" rule)
- Economic producibility (eg, need for production flow test)
- Use of reservoir simulation without data to history match when not tied to actual analogue reservoir performance
- Improved recovery process reserves where no pilot or area analogue project exists (especially in frontier areas)
- Project Maturity and other

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Review Process

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Execution

Duration: 10-13 March, Rijswijk

Number of fields reviewed: 81

Duration of review: minimum 30 min. with follow-up as required

Interview mode:

- Representatives on-site (mostly)
- Remote presentation through netmeeting
- Teleconference back-up

Review team rated the five focus areas with a quality indicator:

A: meets SEC requirements

B: partial approval, use of discount factor between 0 and 1

C: reject

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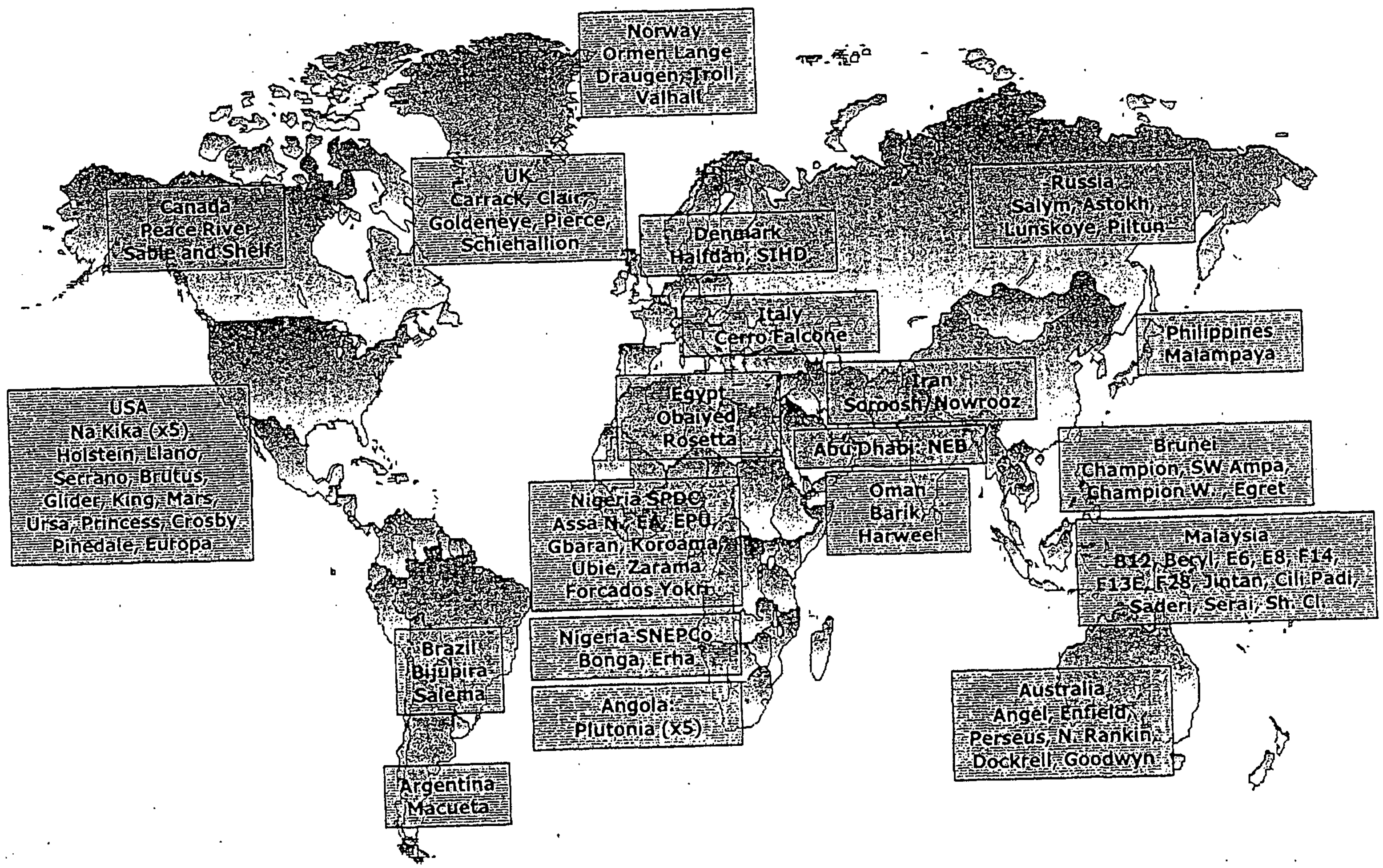
Field Selection



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Due Diligence Review coverage

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	Proved Developed	Proved Undeveloped	Proved Total
Total Proved Reserves Base (1.1.2004)	8.3	7.0	15.3
Due Diligence Exercise Coverage	2.0	4.1	6.1
Coverage	24%	58%	40%

(post Ormen Lange adjustment)

Due Diligence Review: Areas of Potential Exposure

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Gas Commercial Arrangements	Shell GL / SEC divergence	Exposure (MMboe)	Issue
Troll	No	40	Reasonable Certainty – Government intent
Plutonio (5x)	No	23	Gas reinjection and LNG decision
Exposure		63	

Proved Gas Portfolio	Shell GL / SEC divergence	Exposure (MMboe)	Issue
SPDC Proved Gas	No	82	Alternatives?
Malaysian Proved Gas	No	17	Alternatives?
Exposure		99	

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Due Diligence Review: Areas of Potential Exposure

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Waterflood Maturity	Shell GL/SEC divergence	Exposure (MMboe)	Issue
Pierce	Yes	50	Analogue required
Clair	Yes	20	Analogue required
Valhall (?)	Yes	(16)	Analogue required
Draugen(?)	Yes	4	YE pricing not used; potential upside as well
Exposure		90	

Project Maturity	Shell GL/SEC divergence	Exposure (MMboe)	Issue
Enfield, Angel	No	101	No FID, No VAR3, OBO data availability
Exposure		101	

Due Diligence Review: Areas of Potential Exposure

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Proved Area	Shell GL/SEC divergence	Exposure (MMboe)	Issue
Harweel	Yes	3	Well test may indicate smaller productive area
Erha	Yes	4	Remove down-dip flank
Na-Kika	Yes	2	Production data
Plutonio (5x)	Yes	13	Lateral extent
Exposure		22	

Minor Adjustments	Shell GL/SEC divergence	Exposure (MMboe)	Issue
Barik	No	3	
Exposure		3	

Due Diligence Review: Areas of Potential Upside

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Upside	Shell GL / SEC divergence	Exposure (MMboe)	Issue
Brunei	No	60	Conservatism identified by review team
Groningen	No	60	Difference with Exxon booking
Upside		120	

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LON00800528

Due Diligence Review: Areas of Potential Exposure

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Totals	Shell GL / SEC divergence	Exposure (MMboe)	Issue
Gas Commercial Arrangements		63	Reasonable Certainty – Government intent
Proved gas portfolio		99	SPDC, Malaysia
Waterflood		91	Analogues
Maturity		101	Enfield, Angel
Proved Area & Minor		25	Harweel, Erha, Ma-Kika, Barik
Ormen Lange		170	Adjustment outside due diligence review
Exposure		548	

N.B. Numbers subject to change as additional supporting data are provided.

Exposure by region

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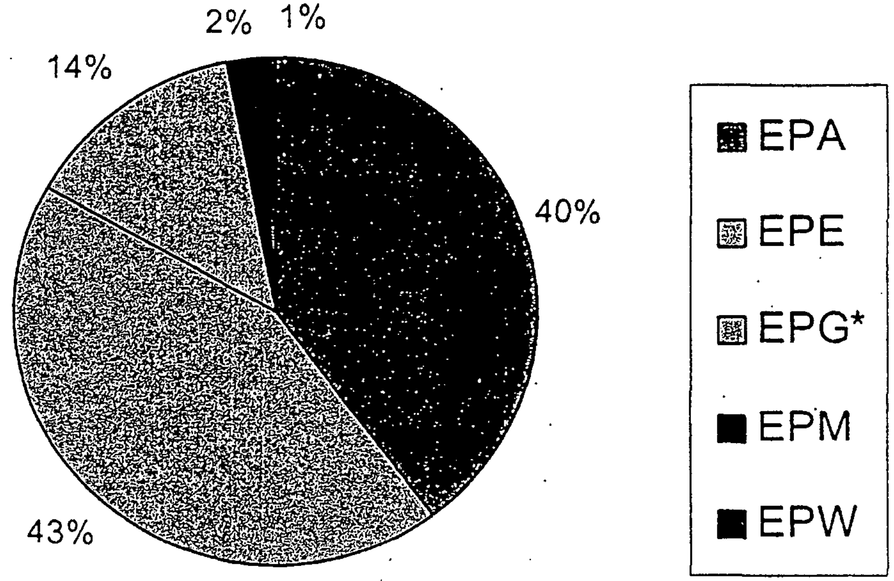
exposure by region - Corrected for SPDC LNG



300 million boe

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Summary Findings

- Total exposure as identified by the review is within the set bracket of uncertainty and ranges from 300-500 mmboe

- 60-80% of the exposure is in the EPA and EPE regions

- The three largest exposure areas are:
  - Maturity
  - Waterflood / IOR
  - Gas contracts

- The review identified insufficient awareness of the Groups technical staff with the SEC guidelines and the purpose thereof
  - Discussions on the sense or otherwise of SEC guidelines

- Non-compliance with Group Reserve Guidelines was observed
  - Enfield, Angel, Koroama, Assa N.

- The exposure level indicates a significant exposure in the EPE and EPA regions and this requires follow-up

- Group reserves estimation requires reengineering
  - A training / education program for all Reservoir Engineers
  - More central reviews of proved reserves, in particular those of NOVs

BACKUP

The selection covers significant parts of the reserves portfolio

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Review Coverage (million boe)

	Proved Developed	Proved Undeveloped	Total
Mature	972	459	1431
Inmature	1033	3684	4717
Total	2004	4143	6148

Mature: Cum. Prod > 40% of Cum. Prod + Proved

Review Coverage (% of total portfolio)

	Proved Developed	Proved Undeveloped	Total
Mature	16%	18%	16%
Inmature	49%	84%	73%
Total	24%	60%	40%

The estimate of total proved reserves volumes as at end 2003 amounts to some 15.3 bln boe, comprising 8.3 bln boe proved developed reserves and 7.0 bln boe proved undeveloped reserves.

EPE and EPA regions have most exposure

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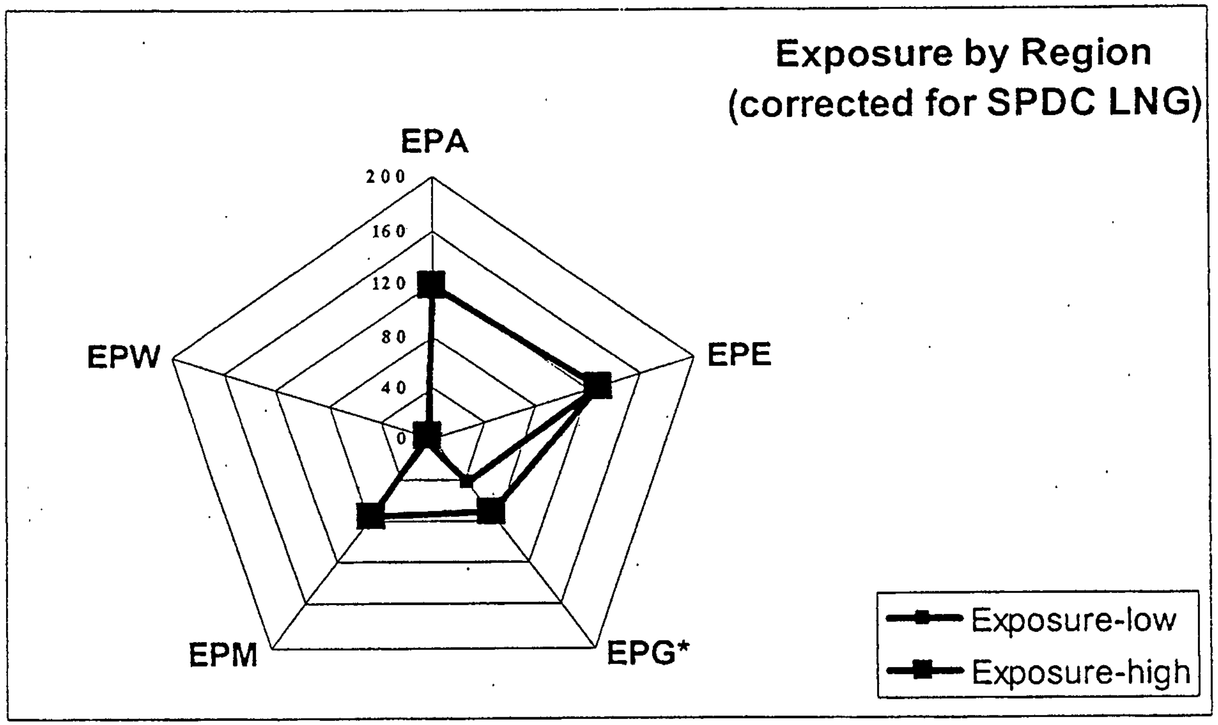

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Results by Field (low exposure case)

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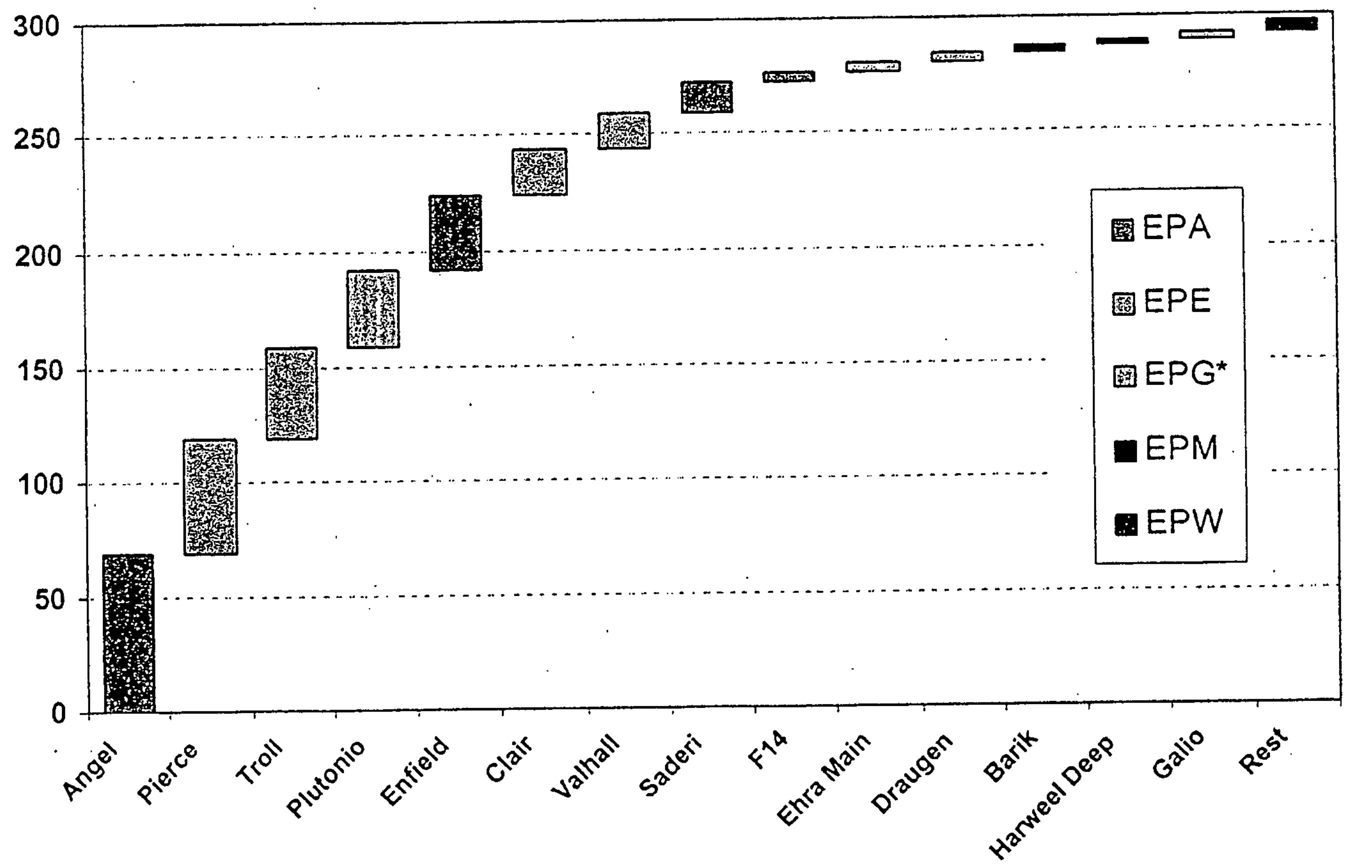

Exposure split by category

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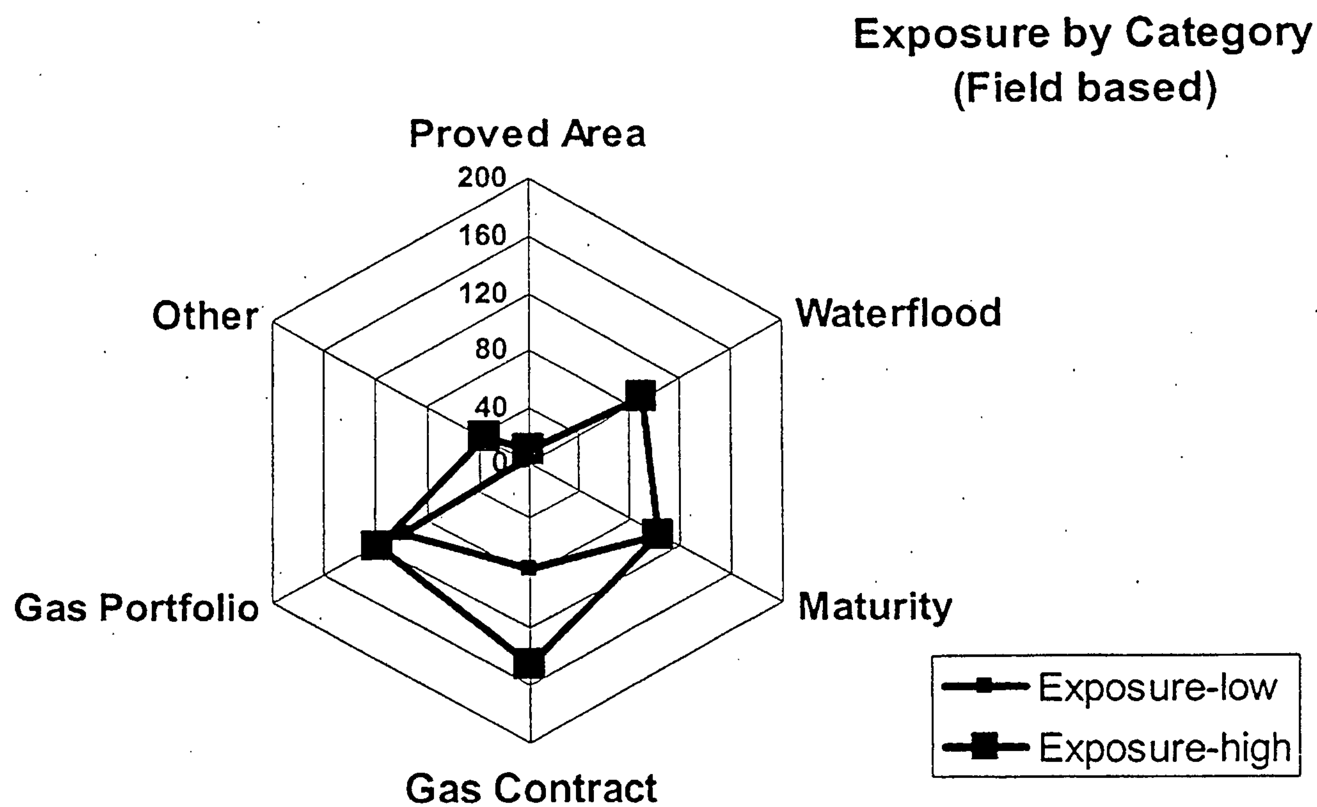
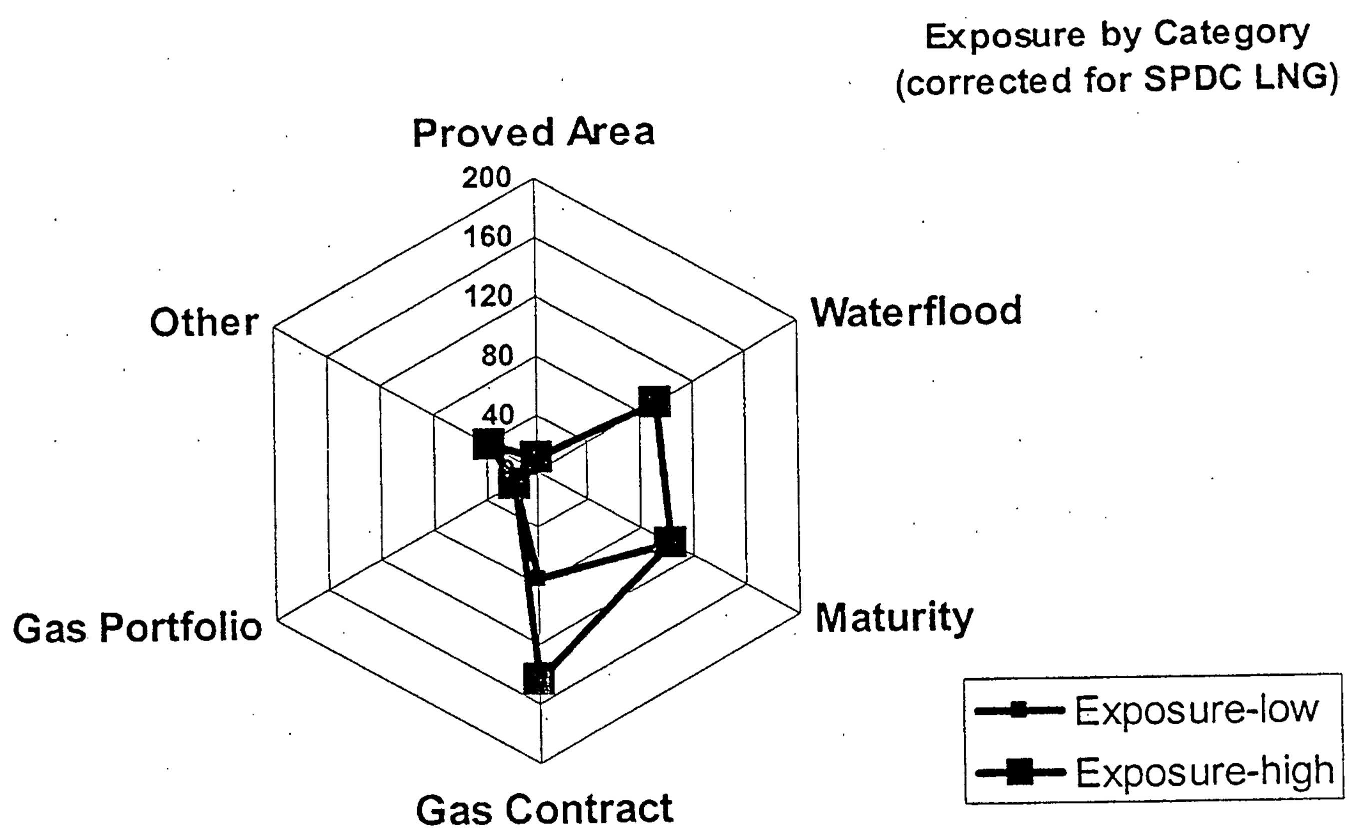


Other: LKH, lack of data

Exposure split by category



Other: LKH, lack of data

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The result shows a total exposure of 300-400 million boe

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- **Review team identified four fields where an exposure range remained**
  - Available data did not allow for single discount factor
- **Field review results were corrected for SPDC LNG supply alternatives**
  - Some of the SPDC fields did not meet SEC standards, but alternatives exist to backup gas sales contract

	Field Review	SPDC LNG Supply	Revised
Low exposure	378	-81	297
Sakhalin	68		68
Barik	2		2
Gbaran	20		
Forcados-Yokri	30		30
High exposure	498	-101	397

Warbonnet Area – example of PvUD/UPvUD locations

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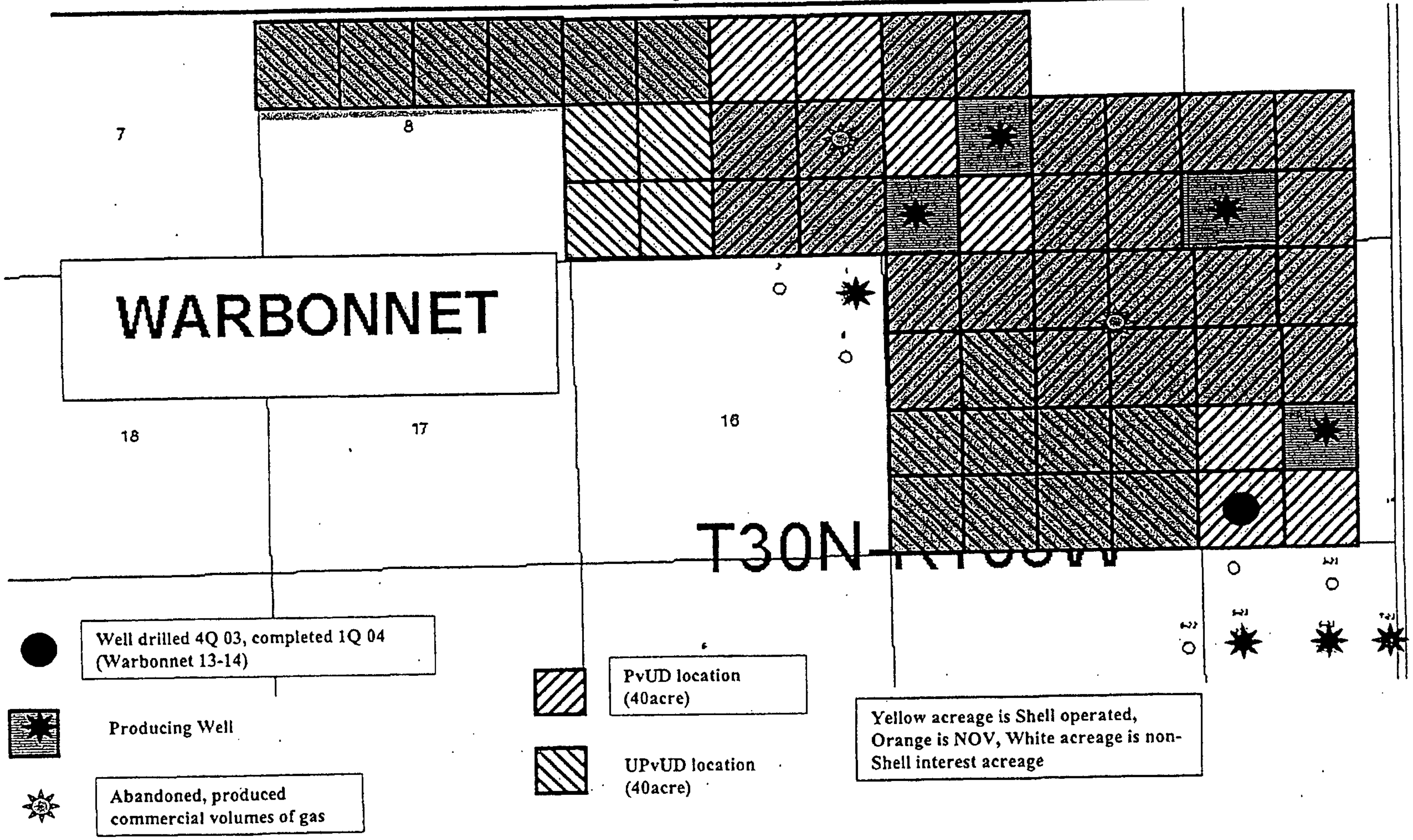

EP Reserves review 10-13 March 2004

Warbonnet Area - example of PvUD/UPvUD locations

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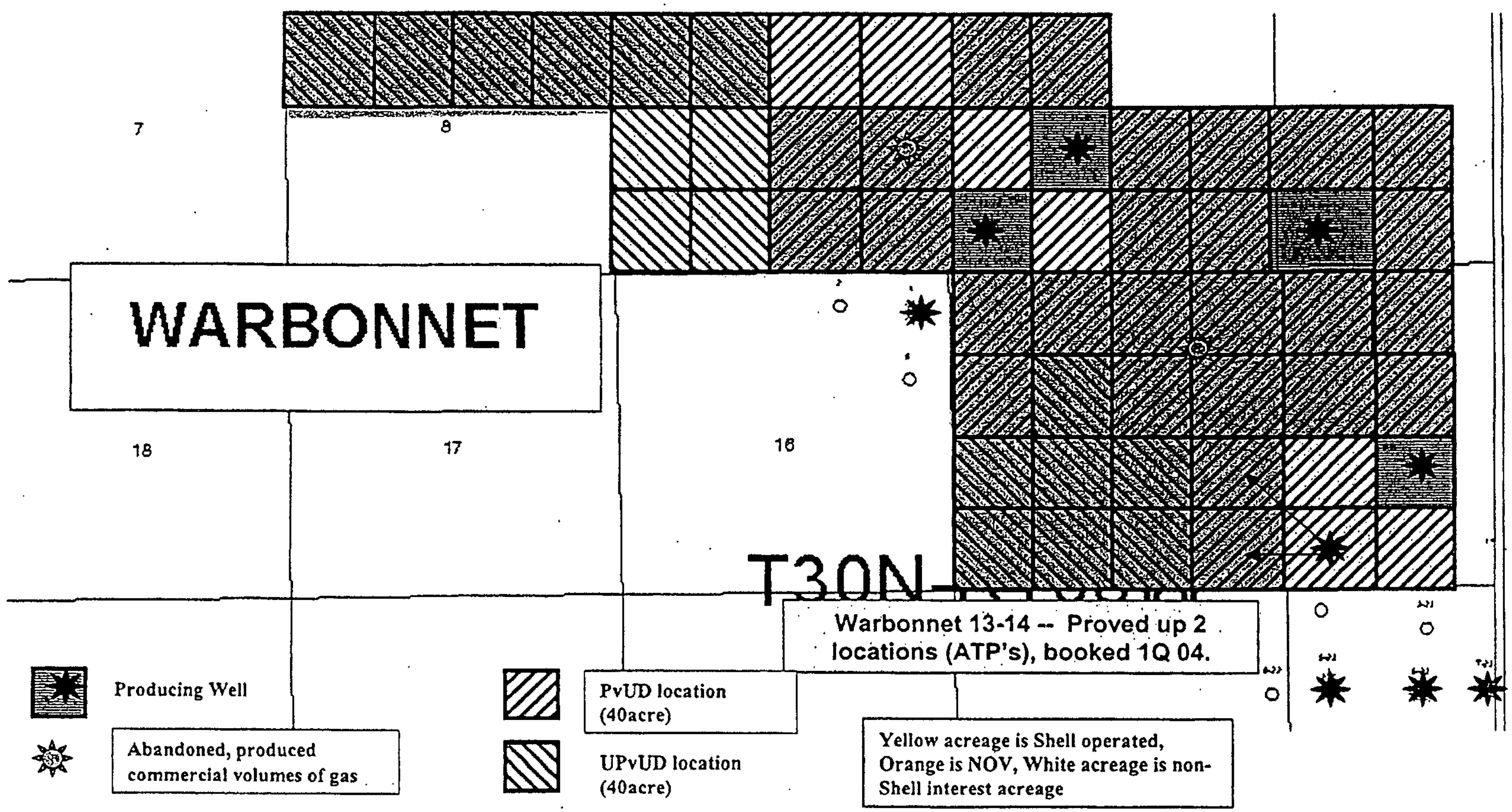

Ormen Lange Direct Hydrocarbon Indicators and Target Well Locations

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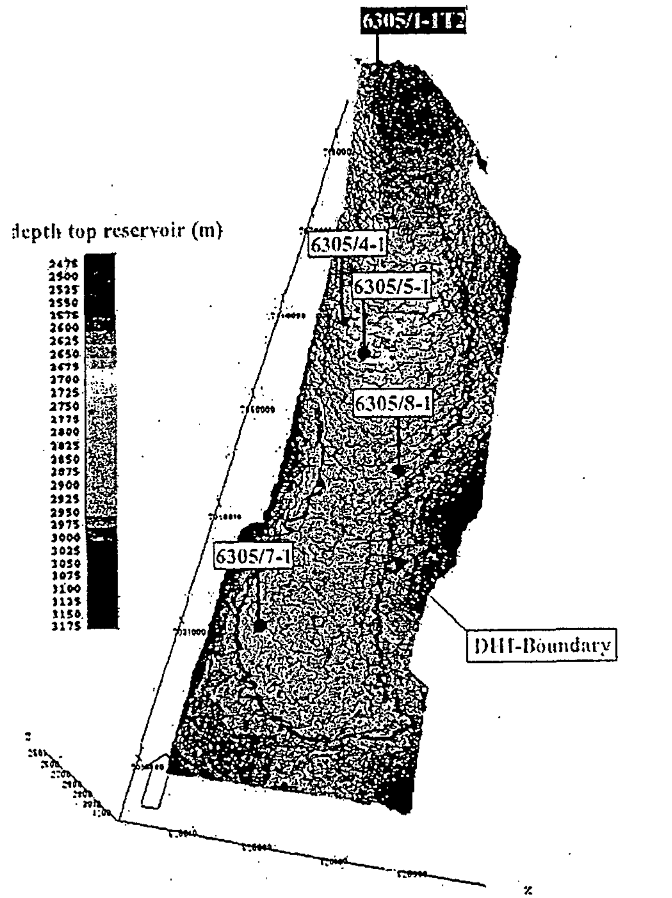

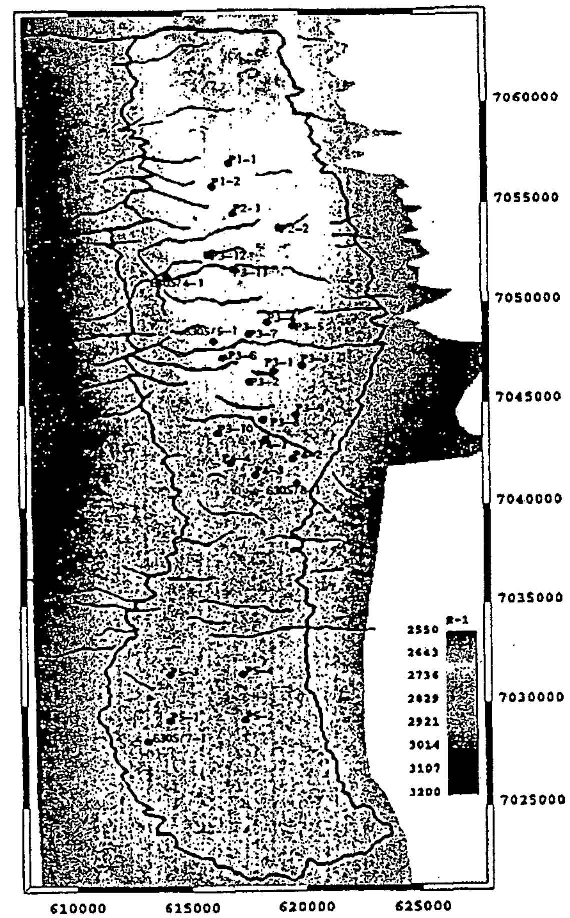

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2003 Organic Proved Reserves Additions

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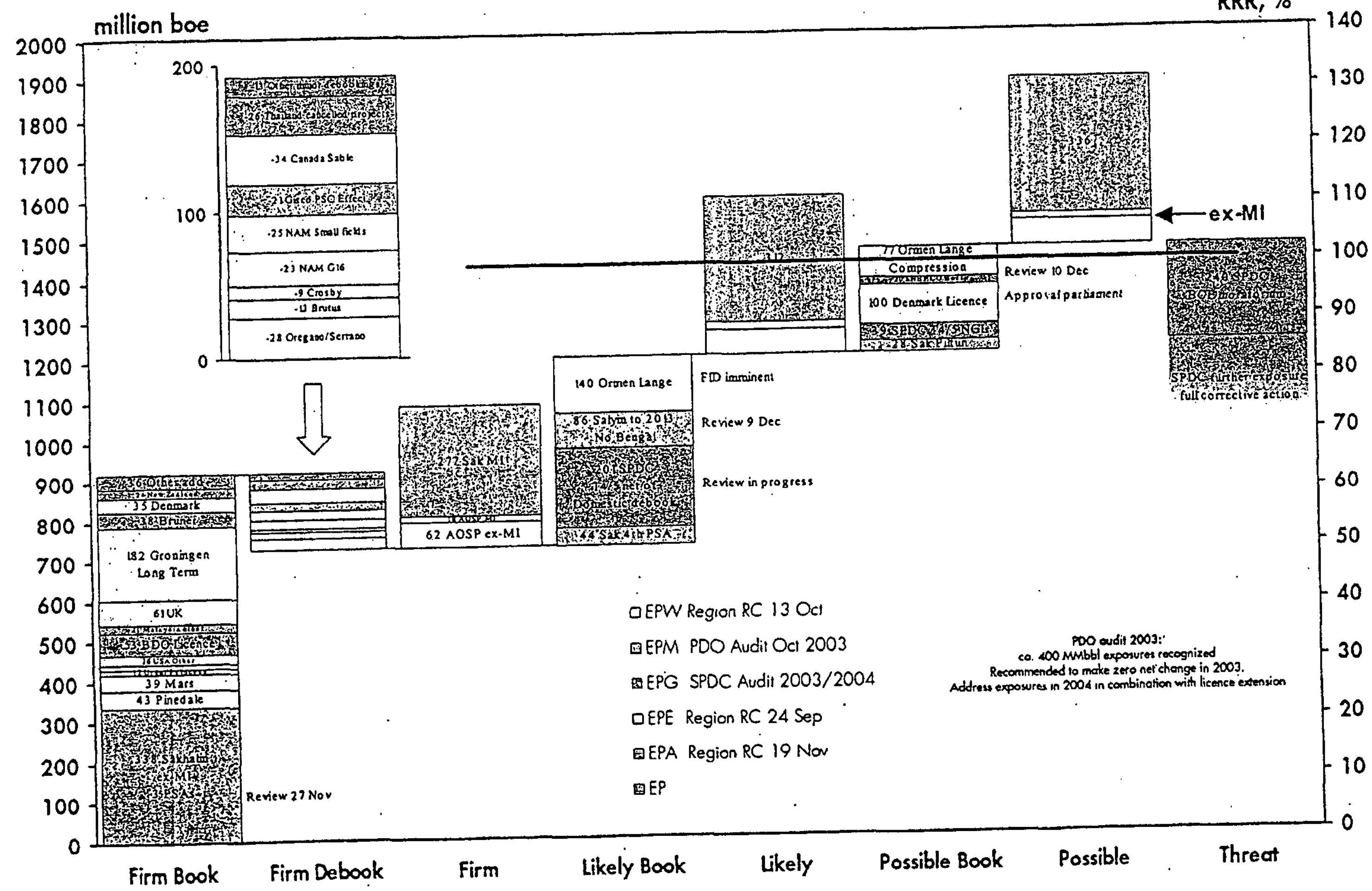

EPS 2003 Proved RRR Review 14 Nov 2003

2003 Reserves 20031114.ppt

LON00800542

2003 Total Proved Reserves Additions

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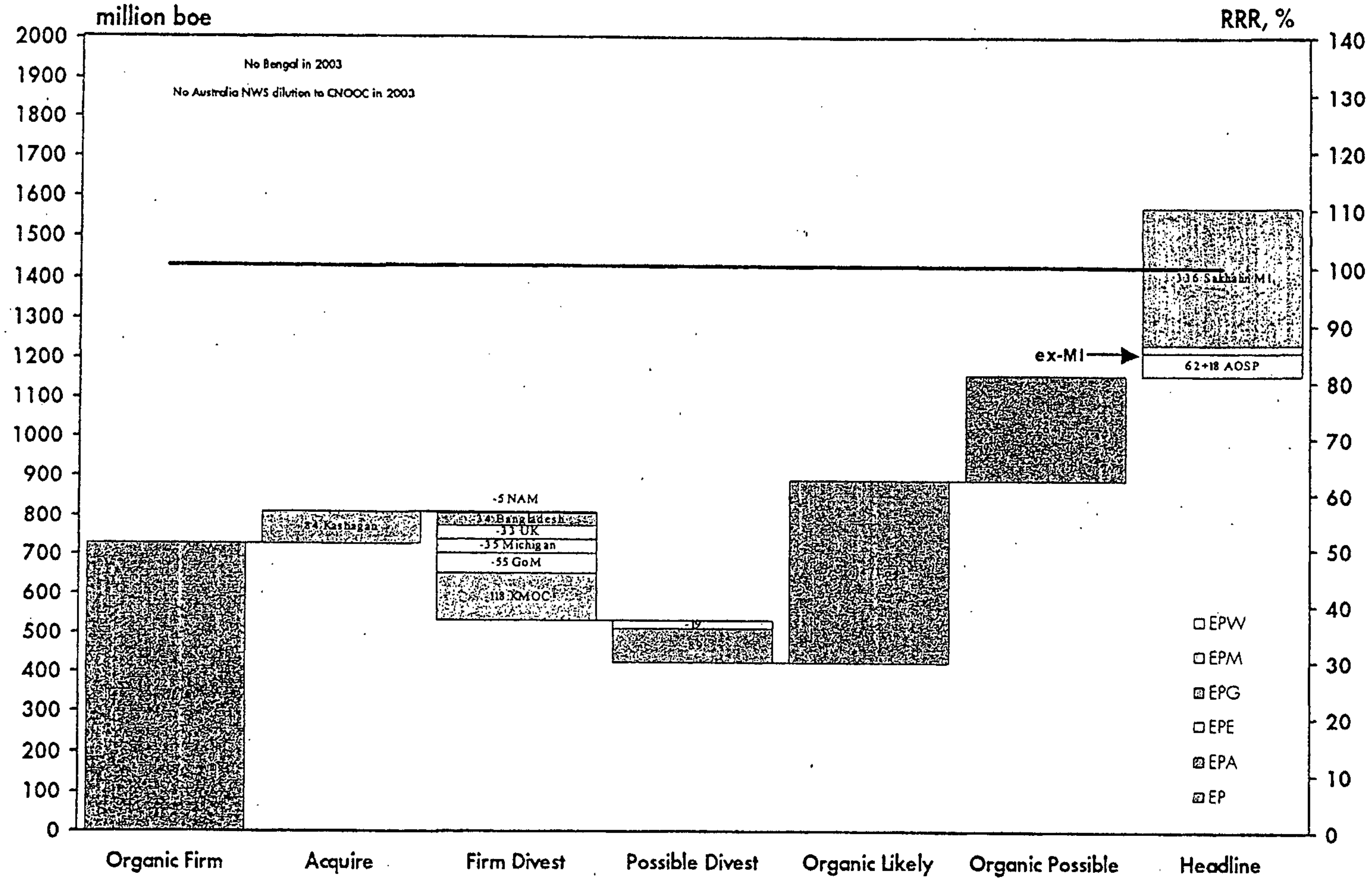

SPDC Oil

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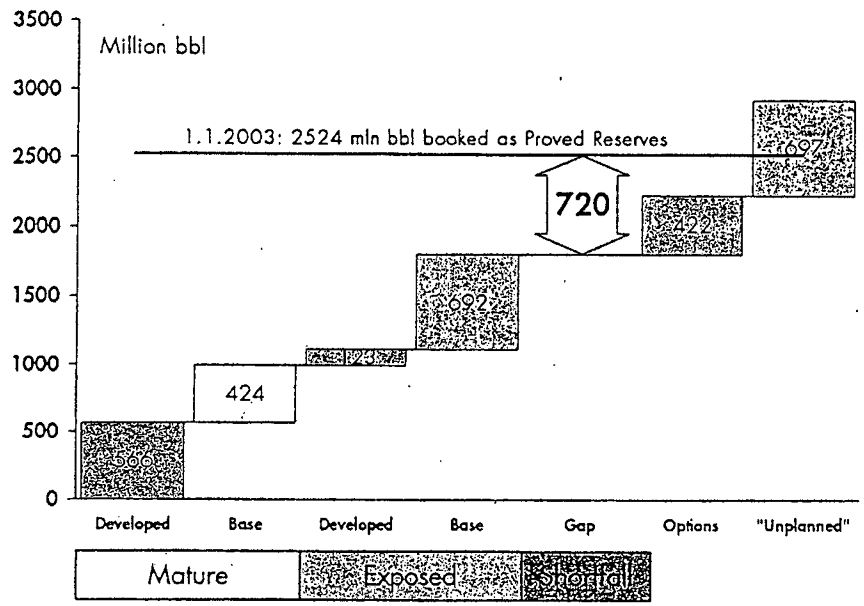

	Developed	Base	Options	Unplanned
Alakiri	2	2	41	0
Belema	37	9	0	10
Biseni	0	16	0	0
Bonny	4	23	0	0
Cawthorne Channel	97	126	0	1
EA	0	157	13	0
Forcados-Yokri	52	125	0	4
Gbaran/Ubie	48	91	27	3
Jones Creek	24	23	10	5
Kalaekule	8	0	29	0
Nun River	22	4	50	0
Oben	4	0	0	39
Obigbo	68	70	39	37
Odidi	39	36	27	34
Oguta	10	14	66	0
Otumara	26	1	49	41
Sapele	12	32	0	25
Soku	117	182	9	125
South Forcados	50	110	0	51
Ughelli	66	81	48	235
Warri	0	0	0	14
Unallocated	0	14	14	54
Total	688	1116	422*	697
			1119*	

* Doesn't (yet) include H-Block and Utapate

Excludes any contribution from the CIW project.

Base + Developed	1804
Currently booked oil	2524
Gap	720

- Gap between Business Plan portfolio and SEC Proved Reserves: 720 million bbl
- Portfolio of ca. 1100 million bbl with which gap *could* be closed over time
    - Mix of small and major projects: 'small' insufficient to bridge gap
    - All long-term, post-plan period, immature
    - Acceleration cannot be accommodated within plan Capex ceiling
- May require carrying known exposure vs. FID criterion for several years

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LON00800544