



# **Unocal 2004 & Beyond Building on Success**

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Chairman, CEO & President  
Unocal Corporation**

**Howard Weil  
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**UNOCAL** 

- This presentation may include discussion about future goals and projections of future earnings, cash flow, capital spending, crude oil and natural gas production, reserves, recoverable quantities, ultimate recovery, and gross resource potential of oil and gas prospects. These goals and projections are “Forward Looking Statements,” and are based on Unocal’s internal plans and forecasts. The actual results in the future will be influenced by the inherent risks of our businesses and the economic situations in the various countries where we operate, or attempt new business opportunities. The actual results will be determined by a number of factors, including: oil and natural gas commodity prices, the company’s drilling success rate, the company’s success in capturing new business opportunities and the timing of new project developments, the decline rates of present fields and future resource discoveries, and the costs incurred for future exploration, development, and production operations. For a more complete discussion of these and other risk factors, refer to Unocal Corporation’s 2003 Form 10-K, pages 56-65.
- The U.S. Securities and Exchange Commission permits oil and gas companies, in their filings with the SEC, to disclose only proved reserves that a company has demonstrated by actual production or conclusive formation tests to be economically and legally producible under existing economic and operating conditions. Unocal uses certain terms in this presentation, such as “resource potential” and “discovery volumes,” that the SEC’s guidelines strictly prohibit us from including in filings with the SEC. U.S. investors are urged to consider closely the disclosure in Unocal’s 2003 Form 10-K. Copies of the company’s SEC filings are available from the company by calling 800-252-2233. The reports are also available on the Unocal web site, [www.unocal.com](http://www.unocal.com).

## ***Unocal: Assets of a Major***

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- Strong Asia gas production with a large and growing development inventory
- Significant deepwater Gulf of Mexico discoveries and prospects
- Major new production in 2005 (Azerbaijan, Bangladesh, Deepwater Gulf of Mexico, Thailand oil project)
- A restructured, focused and sustainable North American business

# *F&D Results Continue to Improve*

## 2003 F&D Costs \*

\$ per BOE



\*(Unproved property, development and exploration costs/revisions, improved recovery and discoveries & extensions)

# **Unocal**

## **New Production 2005 – 2006**

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**Thailand** – oil expansion and 3<sup>rd</sup> gas pipeline

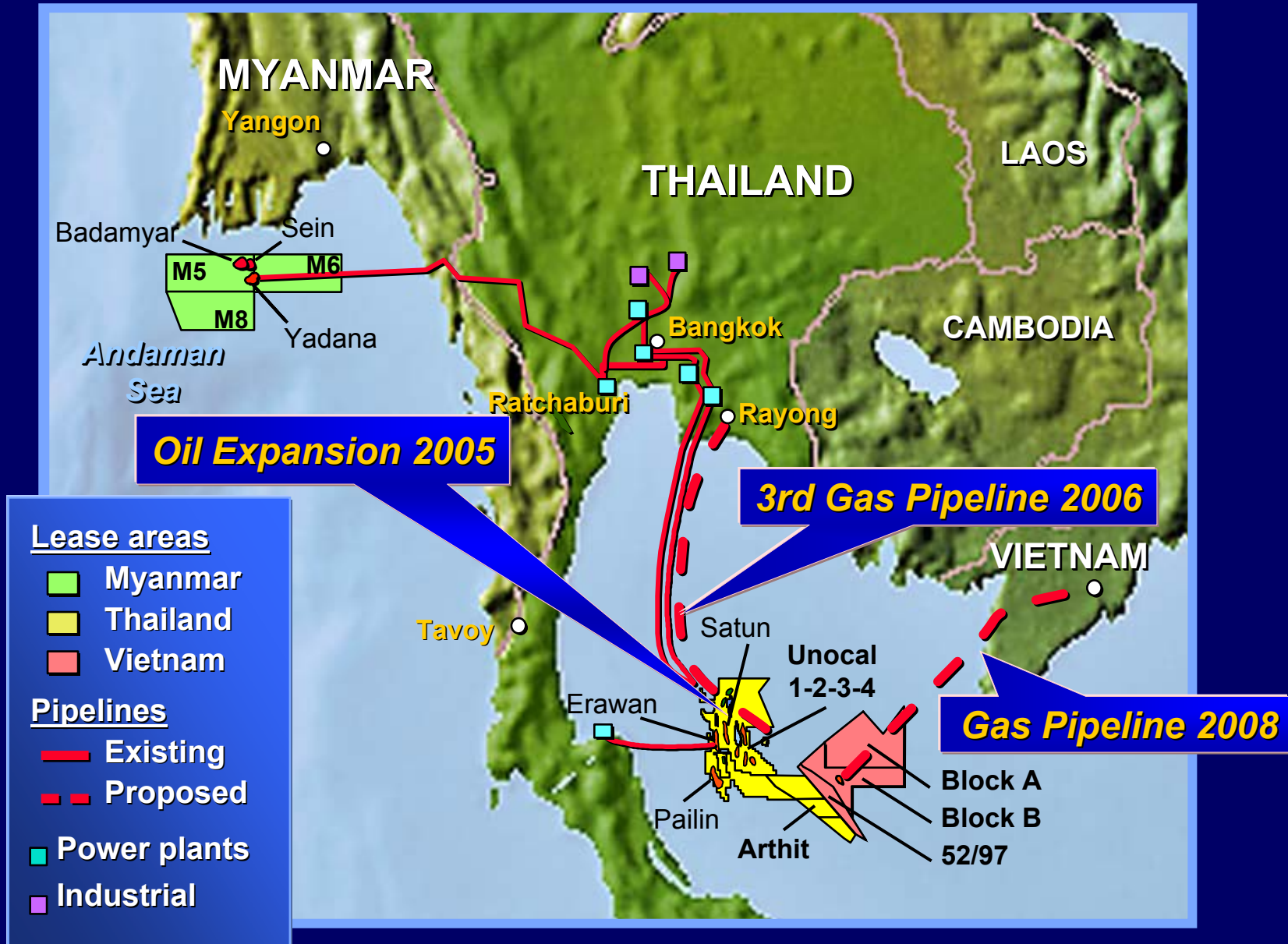
**Azerbaijan** – AIOC Phases 1 & 2 (oil)

**Bangladesh** – Moulavi Bazar (gas)

**Deepwater Indonesia** – West Seno Phase 2 (oil),  
new gas developments

**Deepwater Gulf of Mexico** – Mad Dog, K2 (oil)

# Thailand – Myanmar – Vietnam Energy Demand Driving New Infrastructure



# Unocal Thailand – Future Growth

## There's Still a Long Way to Go . . .

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<u>Life to Date</u>		<u>Remaining Inventory</u>
171	<b>Projects</b>	~ 500
1,920	<b>Wells</b>	~ 5,700
95	<b>Wellhead platforms</b>	~ 350
7.1	<b>Capital</b> ( <i>\$B gross</i> )	~ 9.0
6.7 <i>(Produced)</i>	<b>Resource</b> ( <i>risked TCFE gross</i> )	~ 13.2

# **Unocal Gulf of Thailand Contract Volumes Expected to Increase**

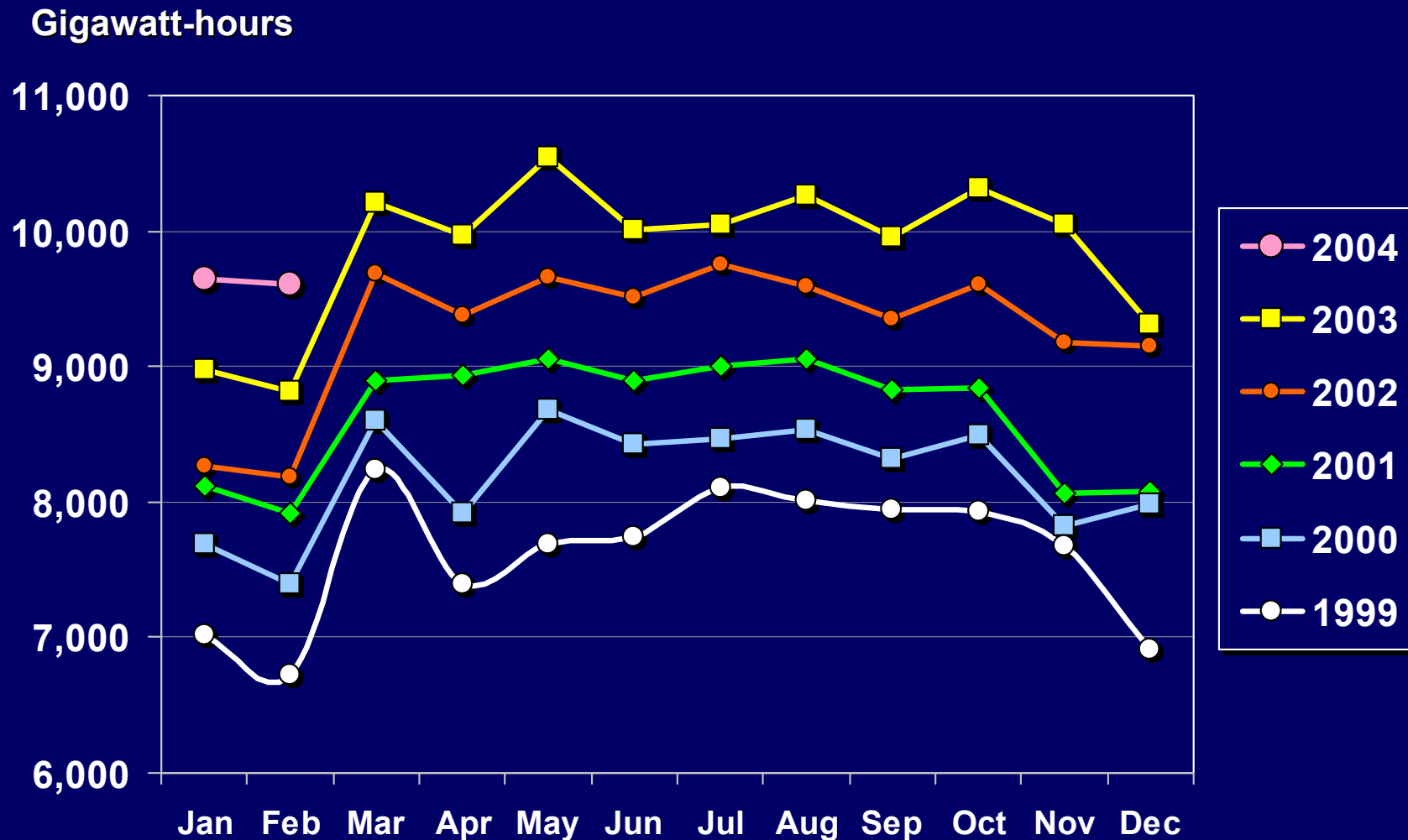
<u>Date</u>	<u>MMCFD</u>	
	<u>Gross</u>	<u>Net</u>
2003	1,090	590
July 2006*	1,220	670
Beyond 2006*	1,610	920

*\* per Heads of Agreement*

**2003 Actual Unocal  
GOT net production  
627 MMCFD**



# Strong Growth in Thai Power Consumption 1999 - 2004



Source: Electricity Generating Authority of Thailand

# AIOC Development Project



## AIOC Contract Area

- 3.9 to 6.9 billion barrels of oil recoverable by 2024
- Now producing ~130,000 BOPD
- Unocal has 10.28% interest
- Phase 1 adds 375,000 BOPD at peak – **under construction**
- Phase 2 adds 400,000 BOPD at peak – **under construction**

## Main Export Pipeline (B-T-C)

- First pipe laid July 2003; project on schedule
- Financing complete
- First production 2005

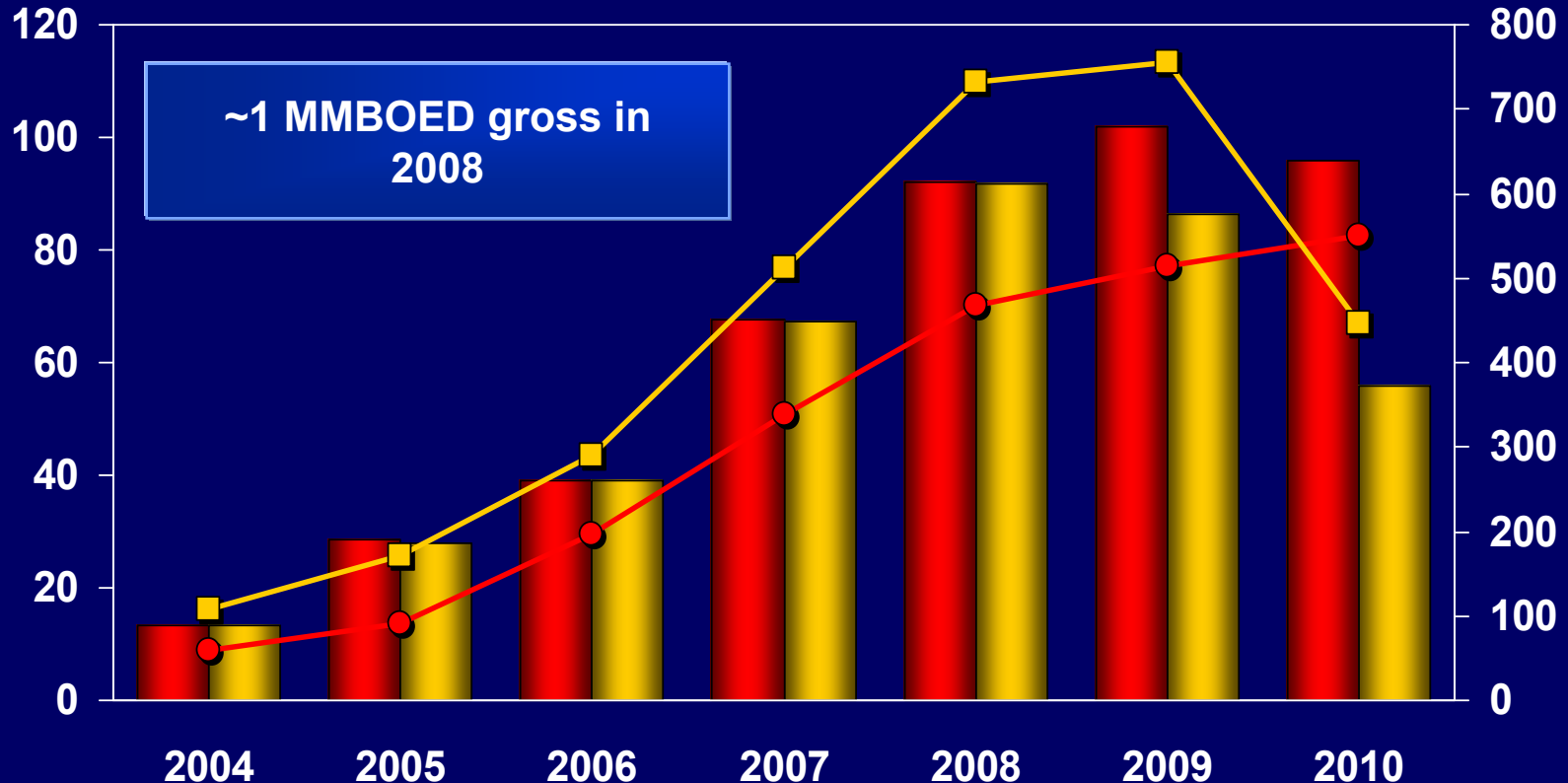


# AIOC Production and Operating Cash Flow

## Unocal Net Under Production Sharing Agreement

Production, MBOED

After-tax cash flow, \$ MM



\* After-tax cash flow from operations

# AIOC Participants

<u>Nation</u>	<u>Company</u>	<u>% Interest</u>
	BP	34.1367
	<b>Unocal</b>	<b>10.2814</b>
	Inpex	10.0000
	Socar	10.0000
	Statoil	8.5633
	ExxonMobil	8.0006
	TPAO	6.7500
	Devon	5.6262
	Itochu	3.9205
	A-Hess	2.7213

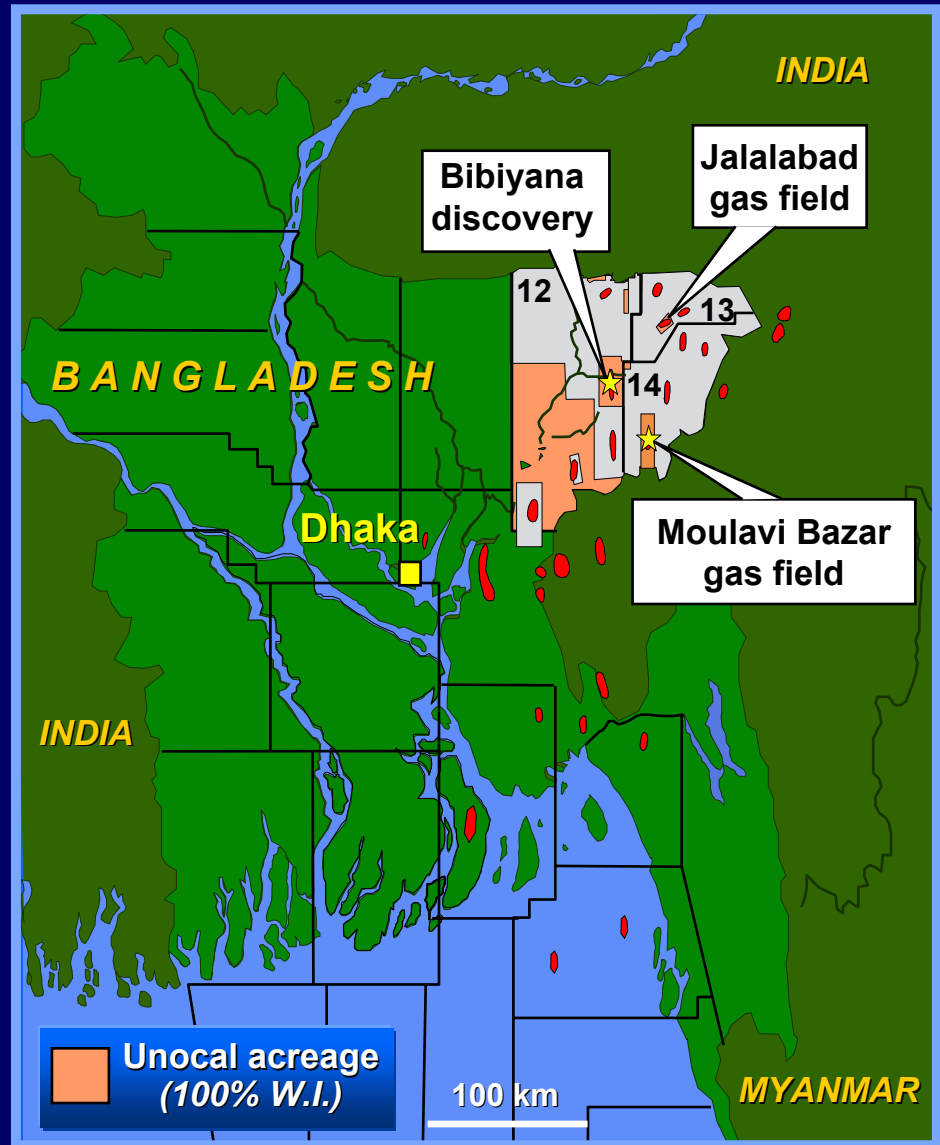
- BP is project operator
- Unocal has 2nd largest position
- No single controlling interest
- Excellent partner alignment
- Multinational participation enhances long-term stability



# Bangladesh

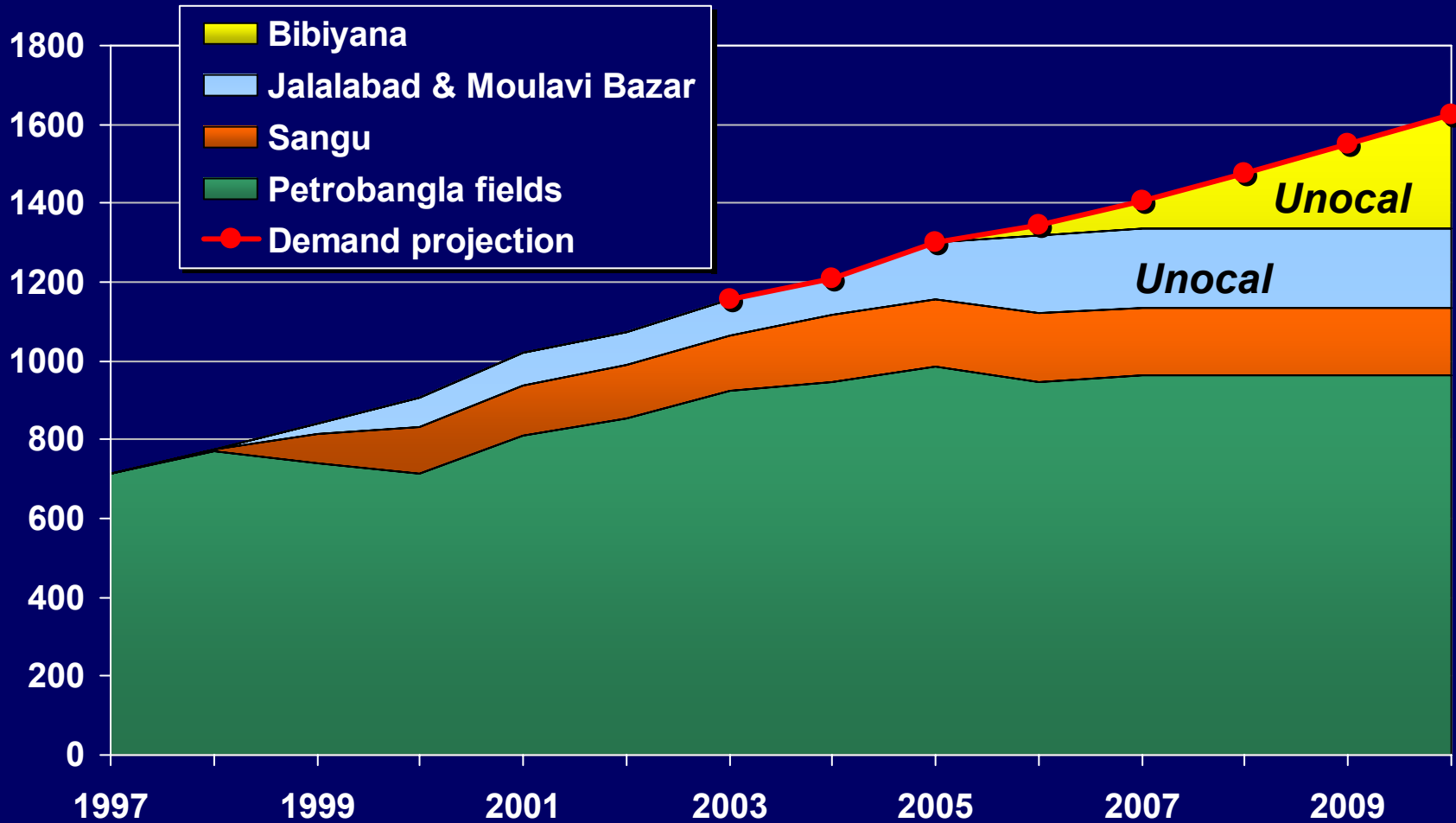
## World Class Gas Resources

- Producing ~130 MMCFD (gross) from Jalalabad; recent peak as high as 200 MMCFD (March 2004)
- Moulavi Bazar field development 70 -100 MMCFD (gross) domestic production in 2005
- Bibiyana field negotiations underway
- Giant discoveries ready to serve additional domestic and export markets



# Bangladesh Gas Market Supply / Demand

MMCFD



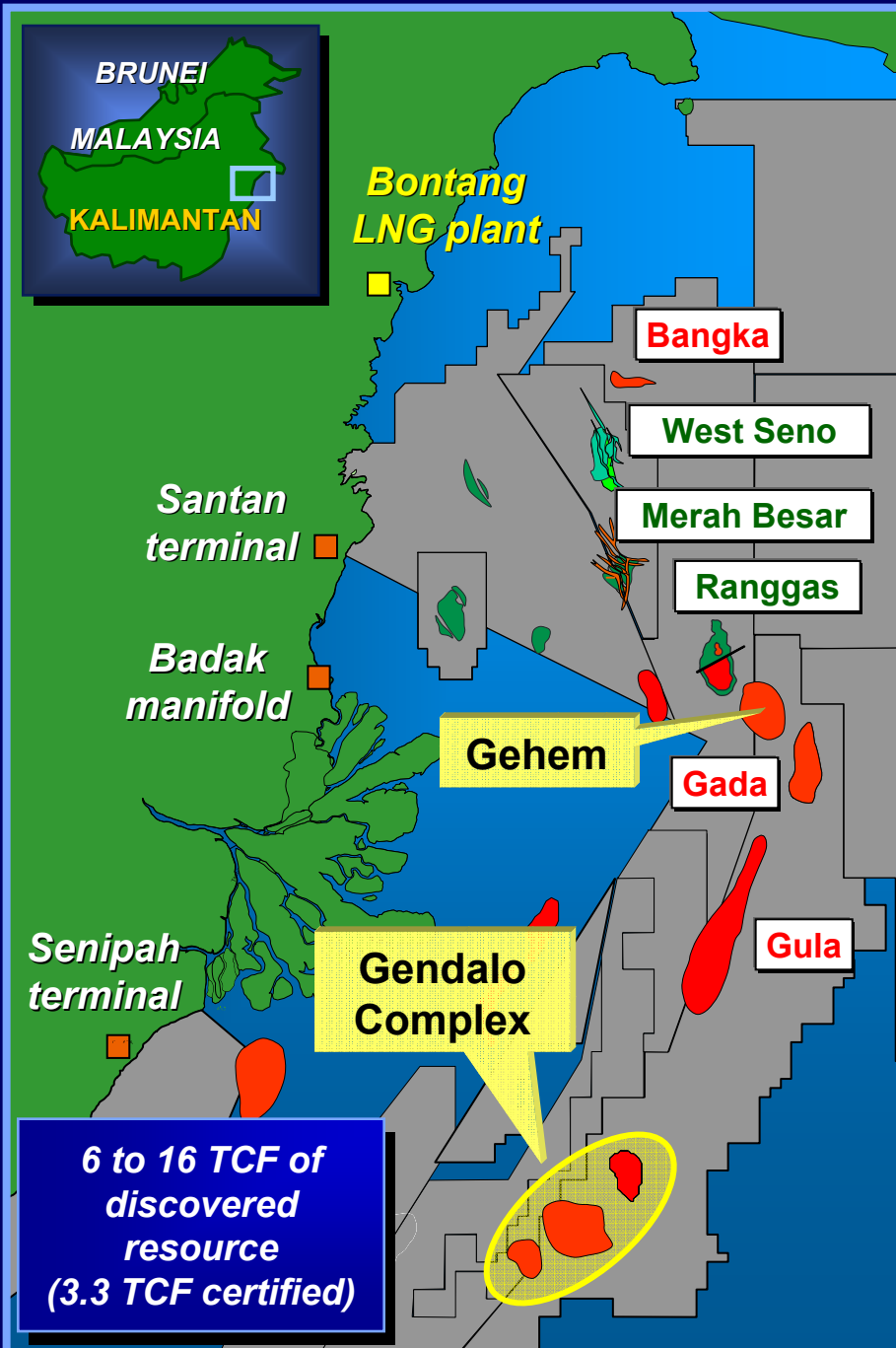
# **Bangladesh**

## ***Moulavi Bazar Development***

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- In October 2003, Unocal signed an agreement with Petrobangla to develop the Moulavi Bazar gas field, located on Block 14
- Unocal will drill two development wells, build a gas processing plant and a 15-mile-long pipeline to connect field with existing natural gas pipeline grid
- Unocal expects to produce 70 to 100 MMCFD from field for domestic markets, beginning 1H 2005
- Estimated gross resource potential is > 440 BCF
- Unocal has a 100% working interest in project
- Total development costs estimated at \$45 MM

# Indonesia Early Gas Development Gehem / Gendalo

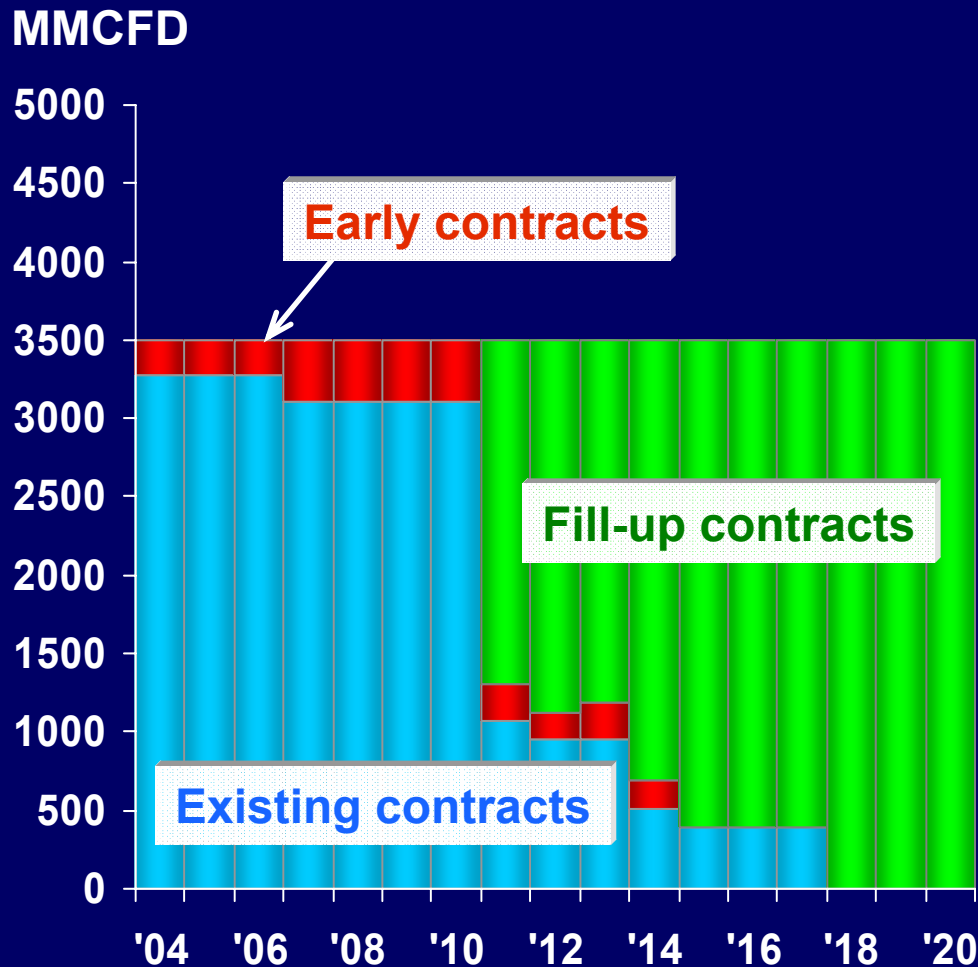


- Production to fill Bontang LNG plant capacity
- Two defined fields (3-5 TCF; 10 wells drilled to date)
- Engineering and economic scoping completed by 3Q 2004
- First gas sales targeted for 2H 2006; 100-300 MMCFD



# Indonesia – Bontang LNG Plant Gas Contracts & Market Potential

## Plant Inlet Capacity



### Existing contracts

- Market share set through 2010
- Opportunity to fill shortfalls

### Early contracts

- Up to 500 MMCFD spare capacity available

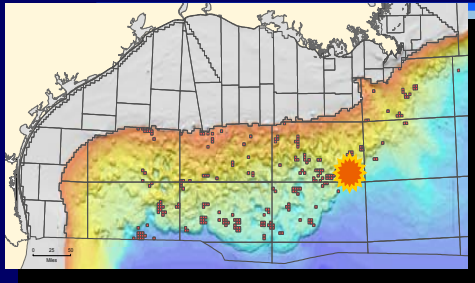
### Fill-up contracts

- Replace existing contracts beyond 2010

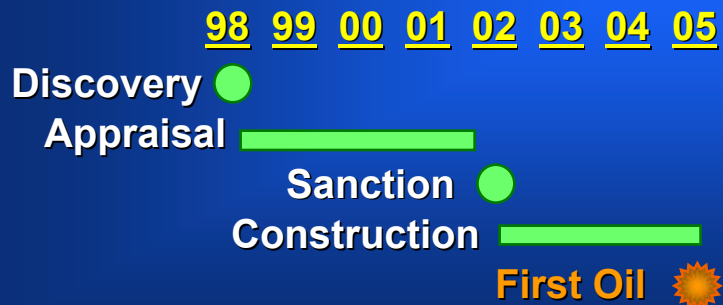
# Deepwater GOM – Mad Dog Development



Mad Dog hull arrived  
in GOM 1/18/2004

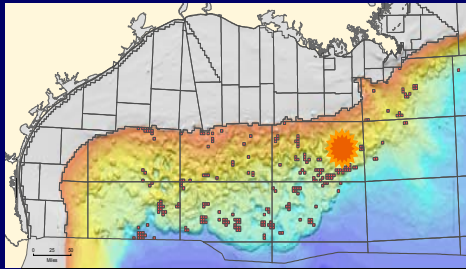


## Project Schedule

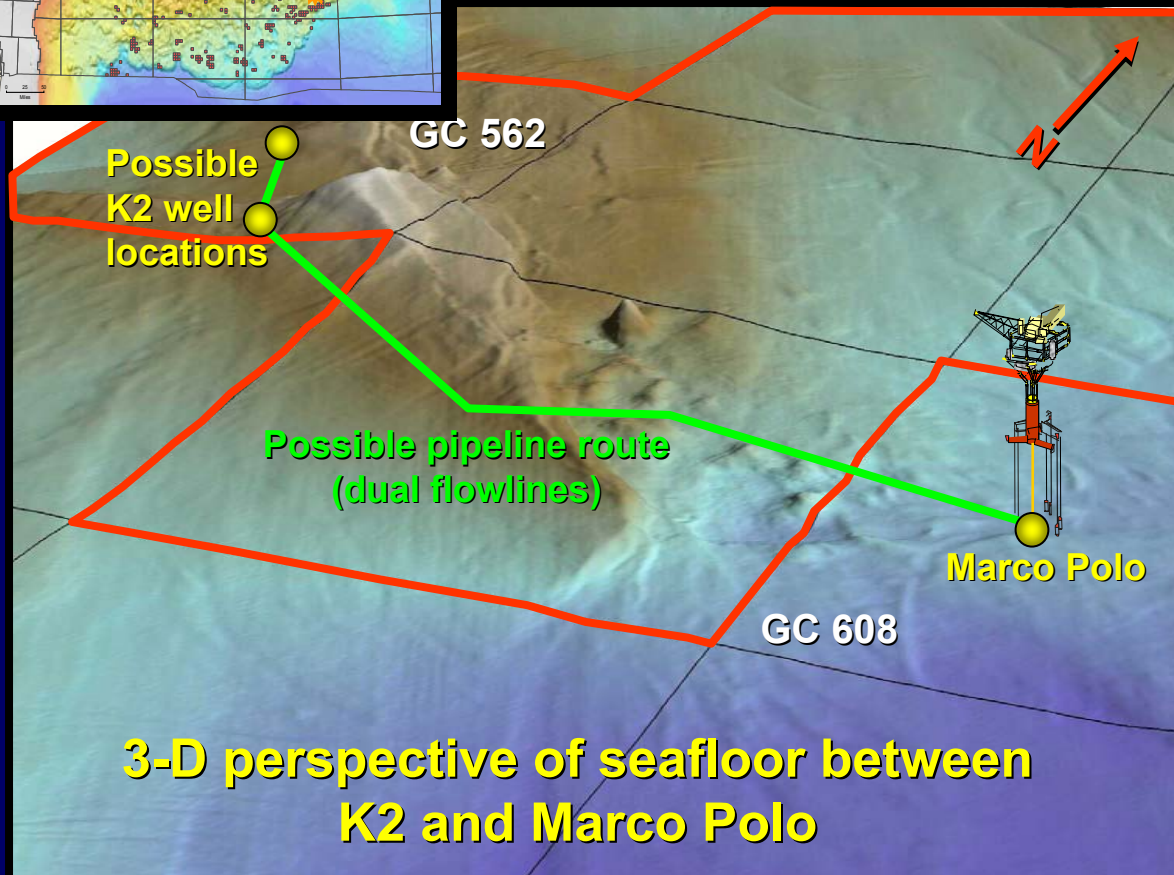


- Spar development (BP operated), 80,000 BOPD / 50 MMCFD
- 200 - 450 MMBOE risked full field recovery potential
- On track to deliver first oil early 2005
- Unocal WI 15.6% (13.3% net)

# Deepwater GOM – K2 Development



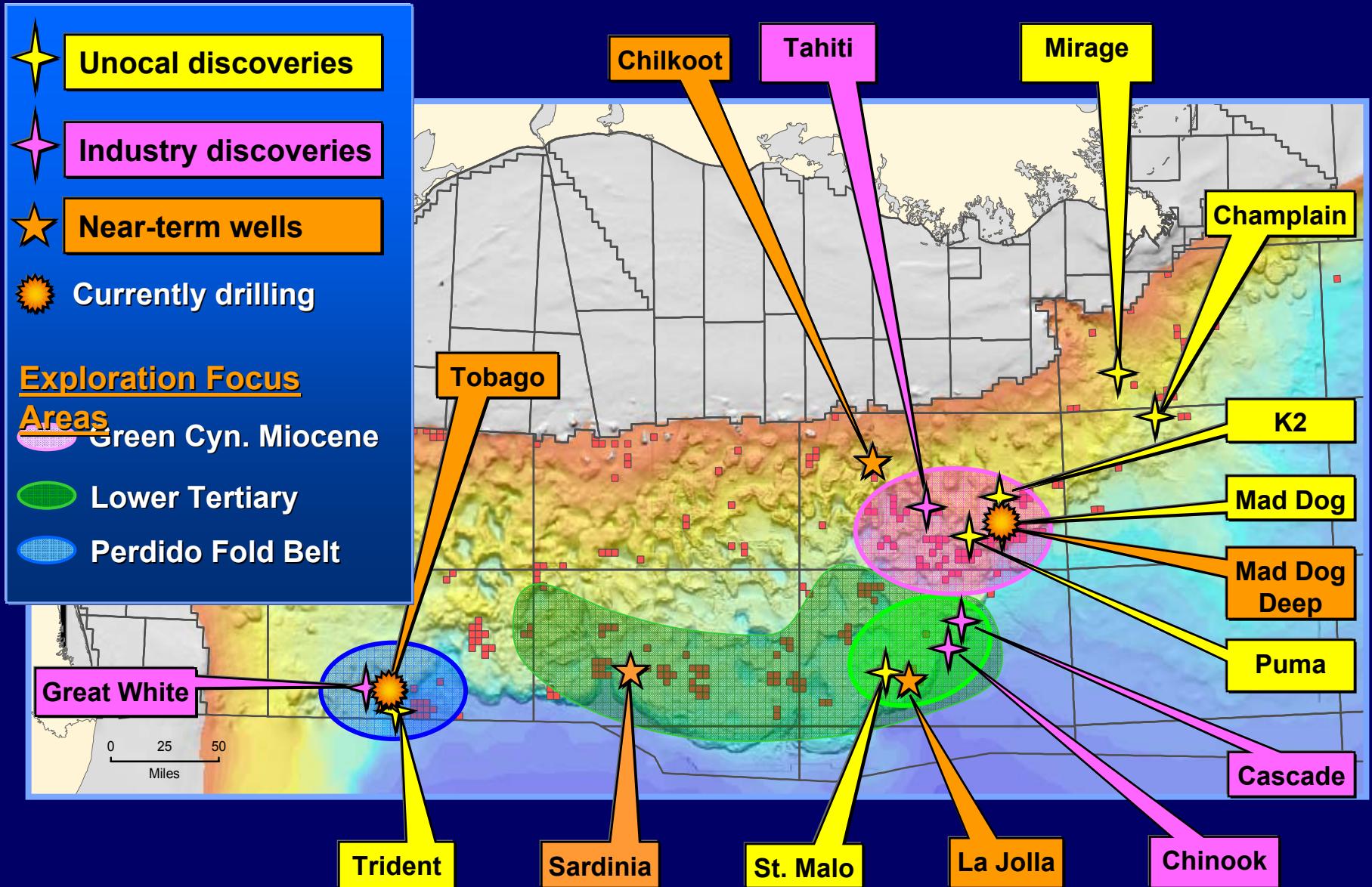
 Unocal blocks



**3-D perspective of seafloor between  
K2 and Marco Polo**

- Discovery well (10/99) in ~ 4,000' water depth
- 55-125 MMBOE gross unrisked resource potential
- Project sanction 1Q 04 with first oil 2Q 05
- Subsea tieback to Anadarko's Marco Polo TLP (installed 1/04)
- Peak production 50-65 BOE/D gross
- Unocal WI 12.5% (10.9% net)

# Deepwater Gulf of Mexico Discoveries and Drilling Inventory



# *Unocal Deepwater GOM Exploration*

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## ➤ *Unocal's exploration is focused around 3 basin "sweet spots"*

- Greater Green Canyon (Miocene)
- Alaminos Canyon (Perdido Fold Belt)
- Emerging Lower Tertiary play in Walker Ridge, Green Canyon and Keathley Canyon (St. Malo discovery)

## ➤ *Excellent line of sight for next 18 months of program (operated & OBO)*

- Completed and pending deals with majors

## ➤ *Robust and expanding inventory of prospects*

- Currently drilling: **Tobago** (Alaminos); **Mad Dog Deep** (OBO, G.C. Lower Tertiary)
- Possible spuds within next 18 months: **St. Malo appraisal** (Walker Ridge); **Sardinia** (K.C. Lower Tertiary); **La Jolla** (Walker Ridge); **N. Brontosaurus** (Alaminos); **Chilkoot** (OBO, G.C. Miocene); **Zion** (G.C. Miocene); **Hadrian** (K.C. Lower Tertiary); **Corona del Mar** (G.C. Miocene); **Sequoia / Deep Mirage** (M.C. Miocene)

# Pure Resources Overview

## San Juan Basin

11 MBOED

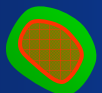
- High quality, long-lived reserve base
- Geographically focused operations
- Significant project inventory
- Good full-cycle economics

## Permian Basin

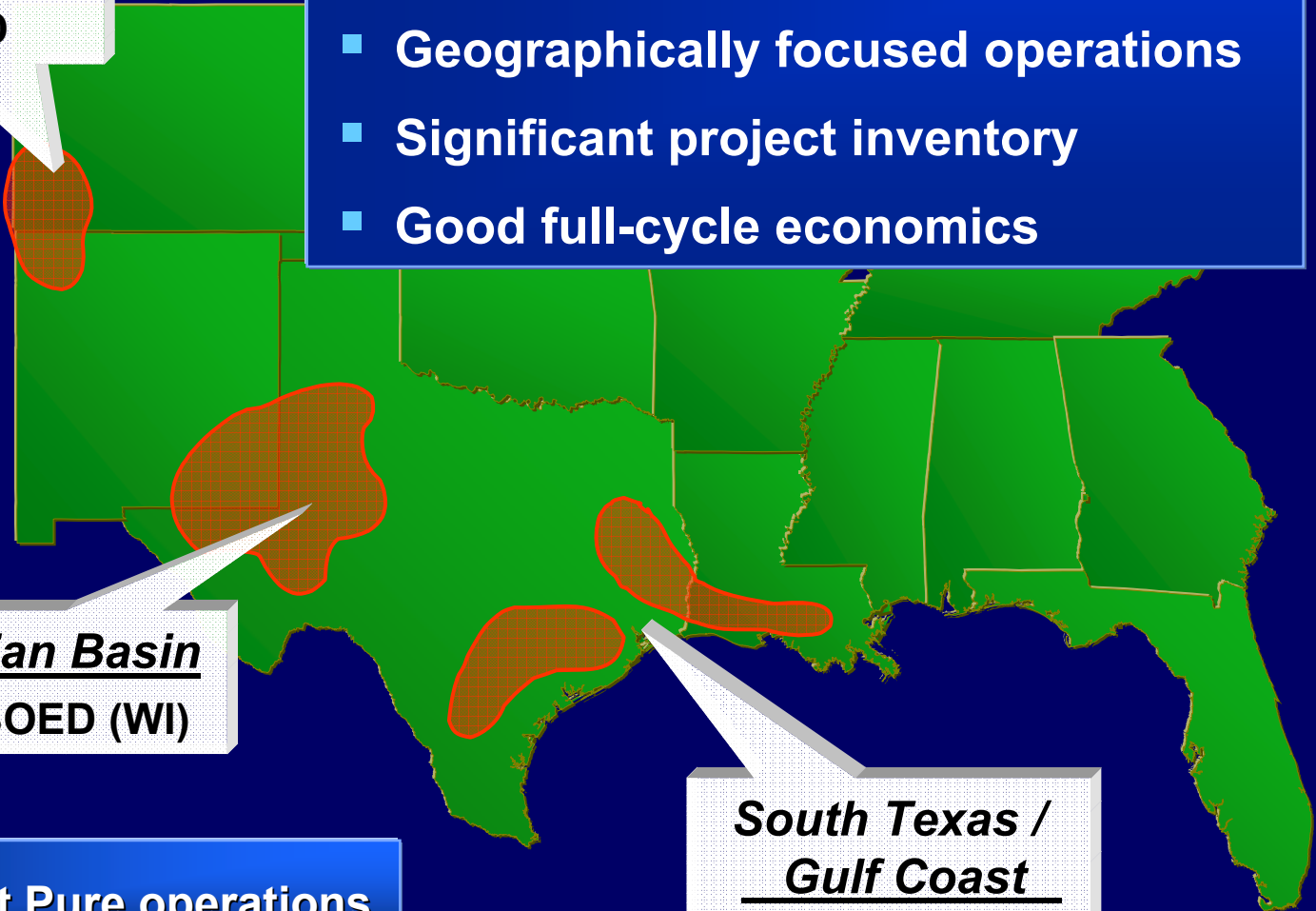
37 MBOED (WI)

## South Texas / Gulf Coast

8 MBOED



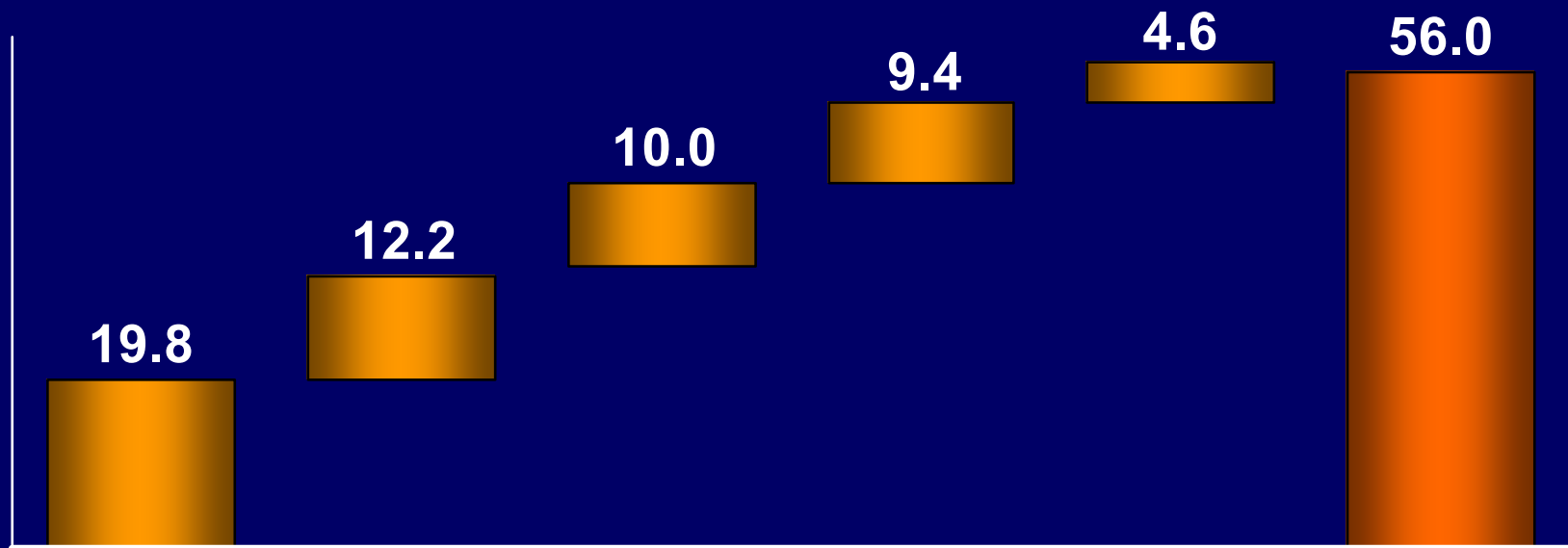
Current Pure operations



# Pure's Current Portfolio

## Production by Location and Type

MBOE/D



**Legacy  
Oil**

Low-decline,  
mature oil  
properties

**Permian  
Gas**

Stable NM /  
Shallow West  
TX production

**Deep  
Permian  
Gas**

Primarily  
horizontal  
Devonian,  
high initial  
decline,  
long-lived

**San Juan  
Gas**

Long-lived,  
low decline,  
low-cost  
wells

**Gulf Coast  
Gas**

High decline,  
but profitable.  
Low focus

**Total  
Production**

# ***Unocal's Deep Shelf Program Where Are We?***

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## **➤ 2003 program summary**

- 11 wells drilled (10 exploration, 1 development)*
- Early success (two small discoveries online), but disappointing 4Q well results*
- Trap failure and high well costs were key issues*
- Total 2003 capex: ~ \$78 MM*

## **➤ 2004 program expectations**

- 1<sup>st</sup> half: Back to basics as we re-evaluate program*
- 2<sup>nd</sup> half: Expect additional drilling of high-quality tests*
- Total 2004 capex approximately half of 2003 level*



# **Unocal**

## **Growing Development Inventory**

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### **Deepwater Gulf of Mexico –**

*St. Malo, Puma, Trident, Champlain*

### **Deepwater Indonesia –**

*Ranggas, Merah Besar, Gendalo / Gehem, Sadewa*

### **Asian gas –**

*New gas sales agreements in progress - Thailand,  
Bangladesh, China, Vietnam*

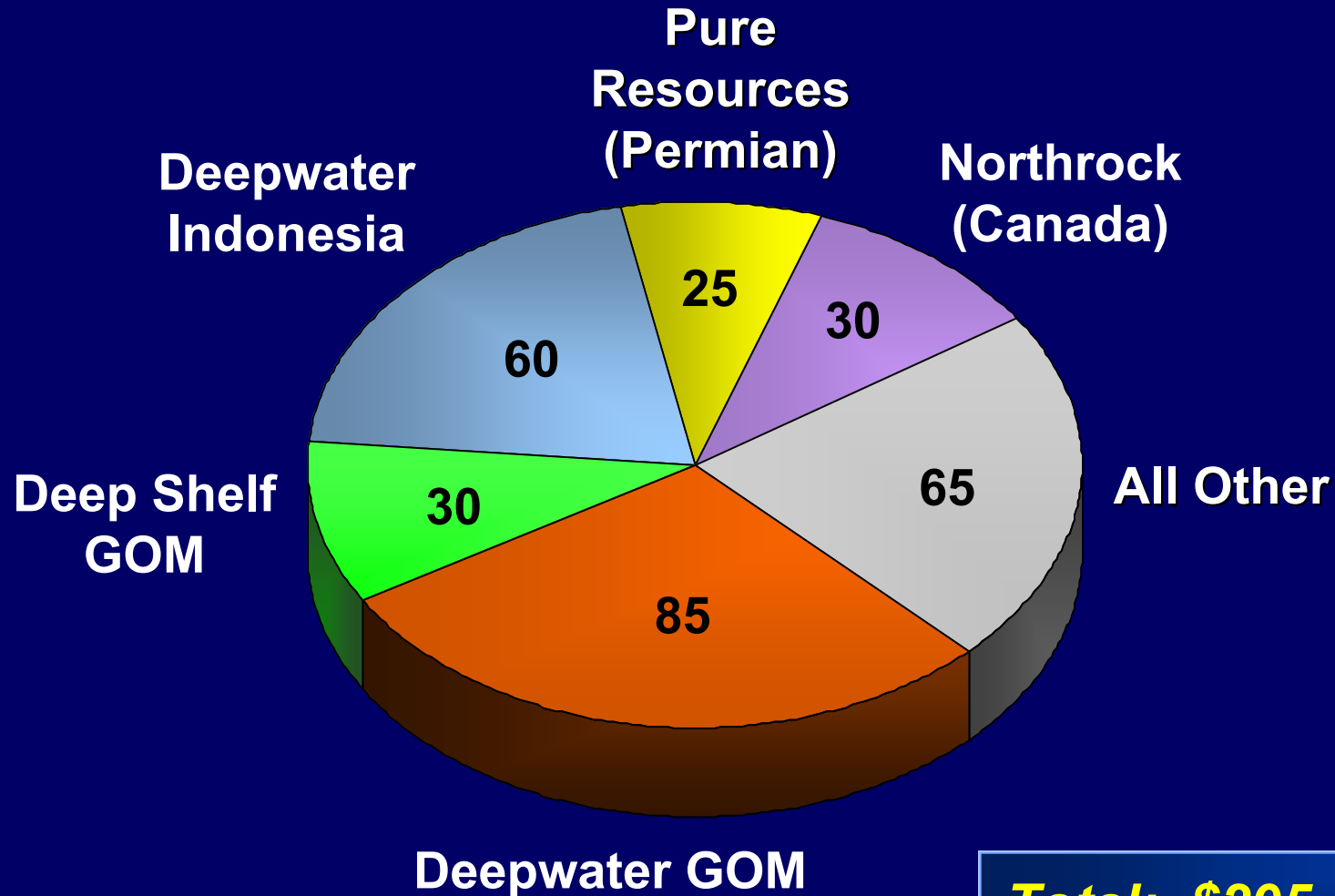
### **Onshore North America –**

*Pure Resources (Permian); Northrock (Canada),  
Kenai gas (Alaska)*

# ***Focused Exploration***

## ***2004 Drilling Capital Spending (\$MM)***

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***Total: \$295 MM***

# **Unocal**

## **What To Watch For In 2004**

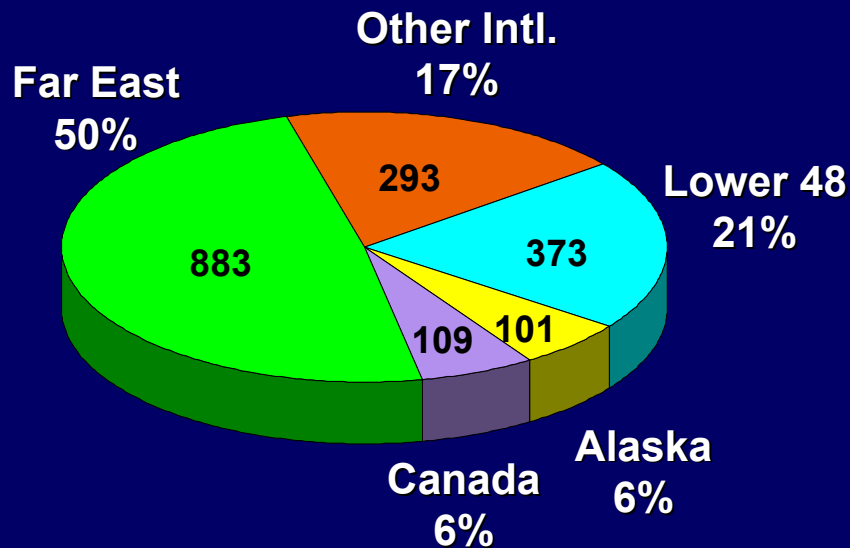
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- Major new developments near completion, resulting in 8-10% production growth in 2005
  - *AIOC, Mad Dog, Bangladesh, Thai oil*
- Continued deepwater exploration success and appraisal of 2003 deepwater discoveries
  - *St. Malo, Puma, Gehem*
  - *Commercial progress in Perdido (Trident)*
- Launching Indonesia deepwater gas developments for Bontang LNG
- Improved Gulf of Mexico Shelf F&D costs and profitability

# APPENDIX

# Unocal Resource Base

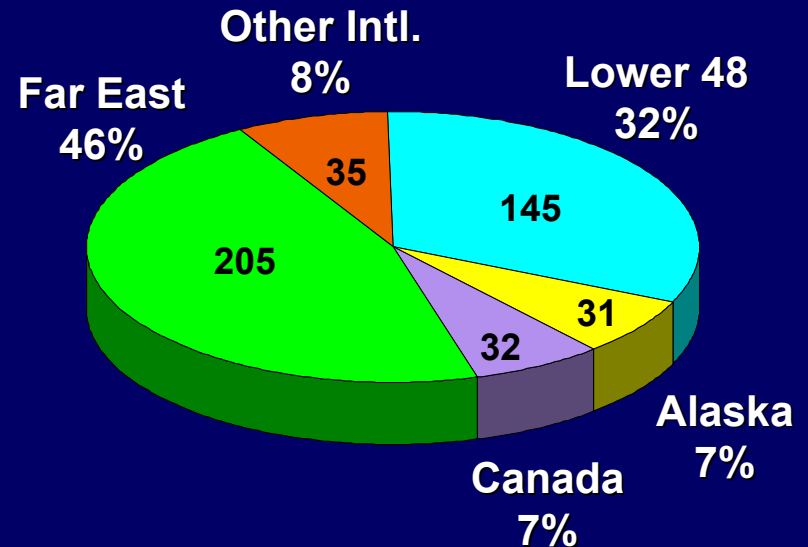
## Reserves (MMBOE) 12/31/2003



**Total: 1,759 million barrels  
of oil equivalent**

**62% gas – 38% oil**

## Production (MBOE/D) 2003 Average



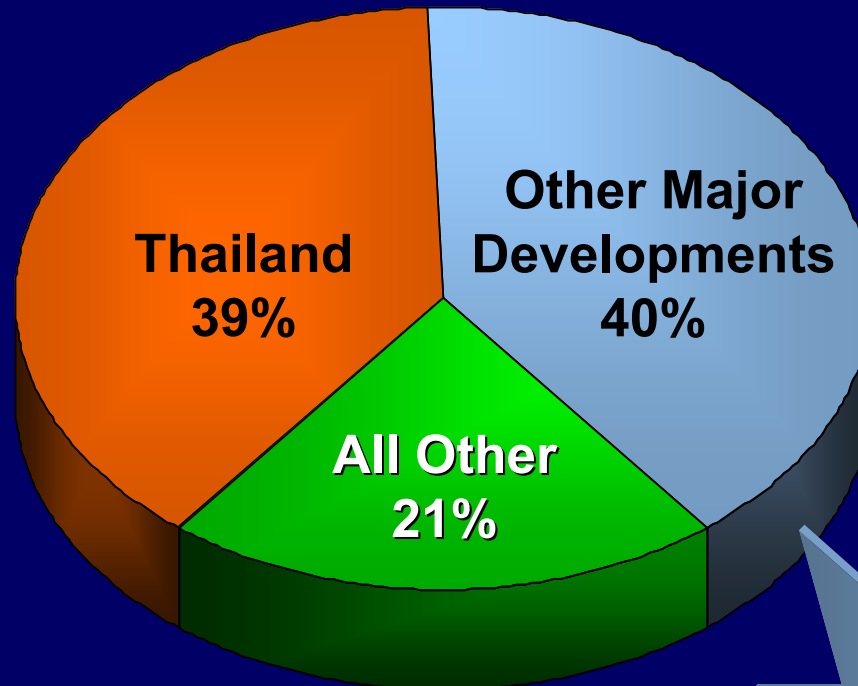
**Total: 448,200 barrels  
of oil equivalent per day**

**64% gas – 36% oil**

# ***Unocal 2003 Year-End Proved Undeveloped Reserves***

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**PUD = 874 MMBOE**  
**Total = 1,759 MMBOE**



*West Seno (Phase 1 & 2),  
AIOC, Merah Besar,  
Mad Dog, K2, Ranggas*

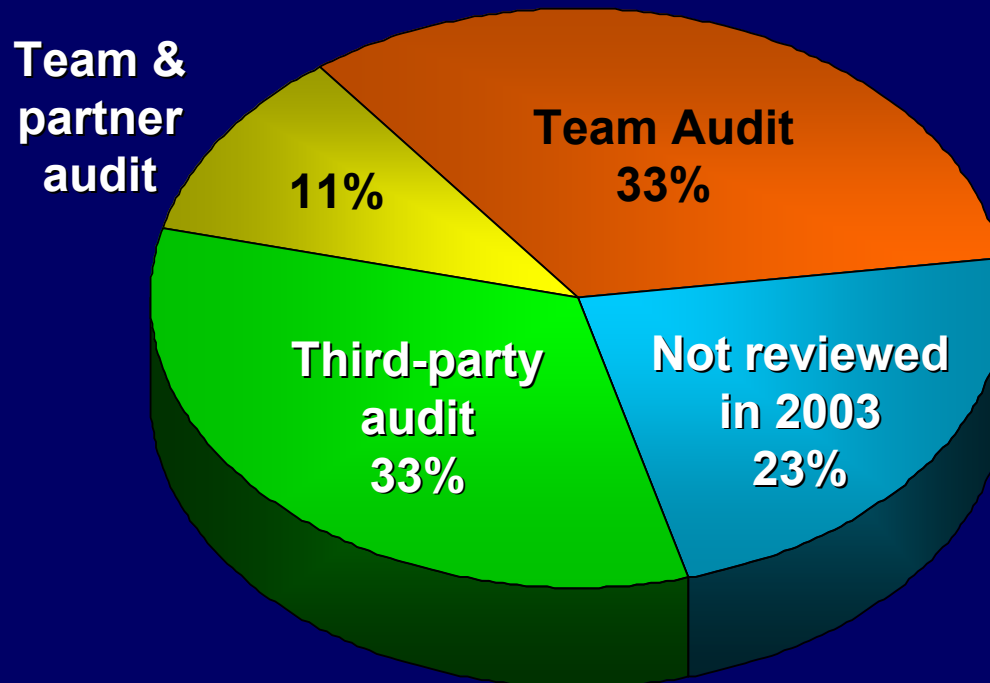
# **“Quality Assurance” Reserve Process**

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- Reserves calculated by engineering and geology professionals
- Calculations reviewed by business unit’s qualified experts
- Business Unit vice president and experts ensure that annual reserve estimates are in accordance with SEC standards
- In aggregate, 50% of asset base and 90% of changes are reviewed by corporate review team
  - *Leader reports directly to CFO*
  - *No team member has direct or indirect management ties to business unit under review*
  - *No team member has a reserve goal*
  - *One member from independent 3rd party (Ryder Scott)*
- Material changes reviewed by Management Committee
- Letter of Confidence issued by outside audit firm

# 2003 Proved Hydrocarbon Reserves Audit Coverage

Total = 1,759 Million BOE

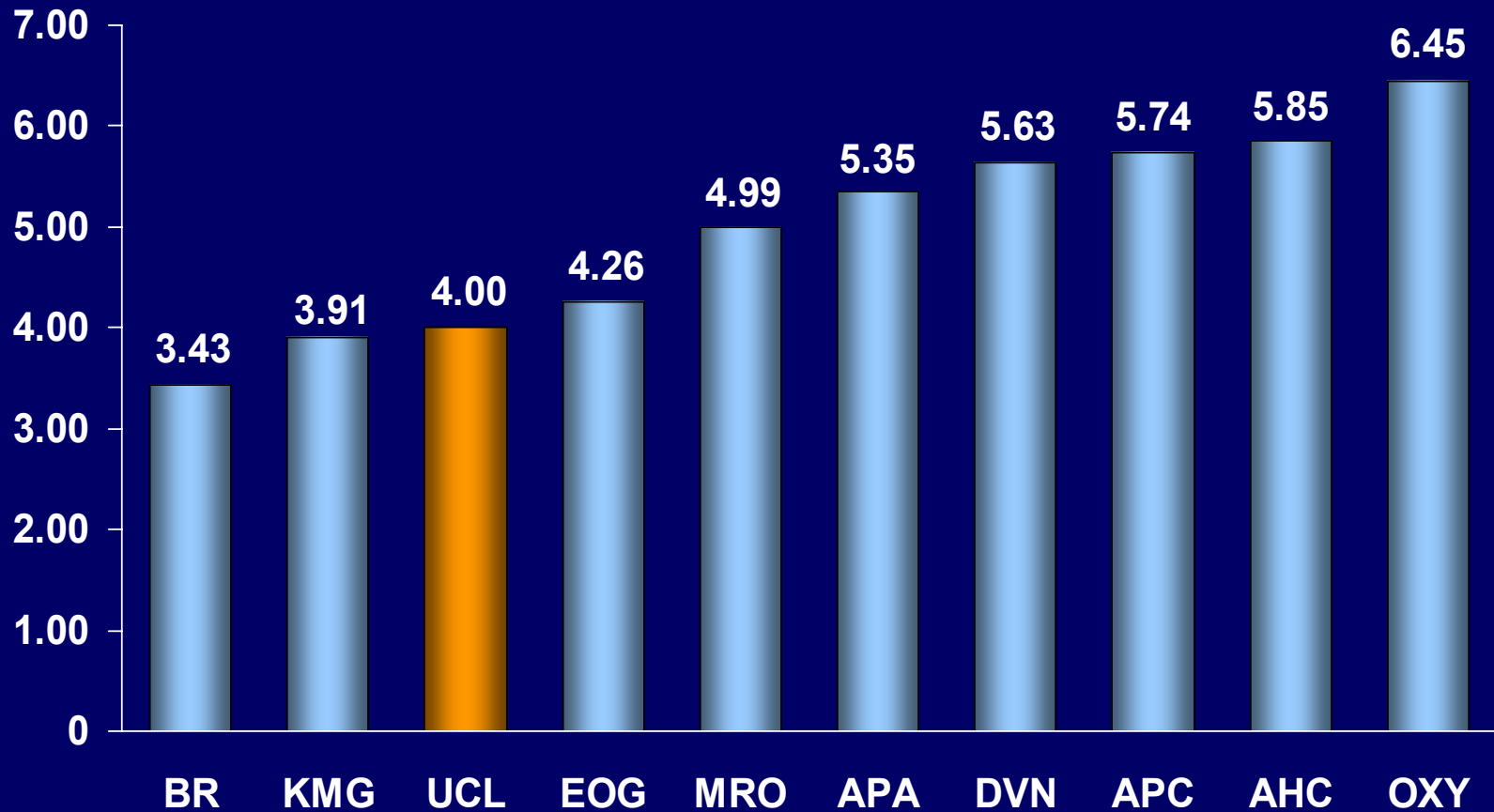


*100 % of major changes audited every year  
95 % of all changes audited in 2003*

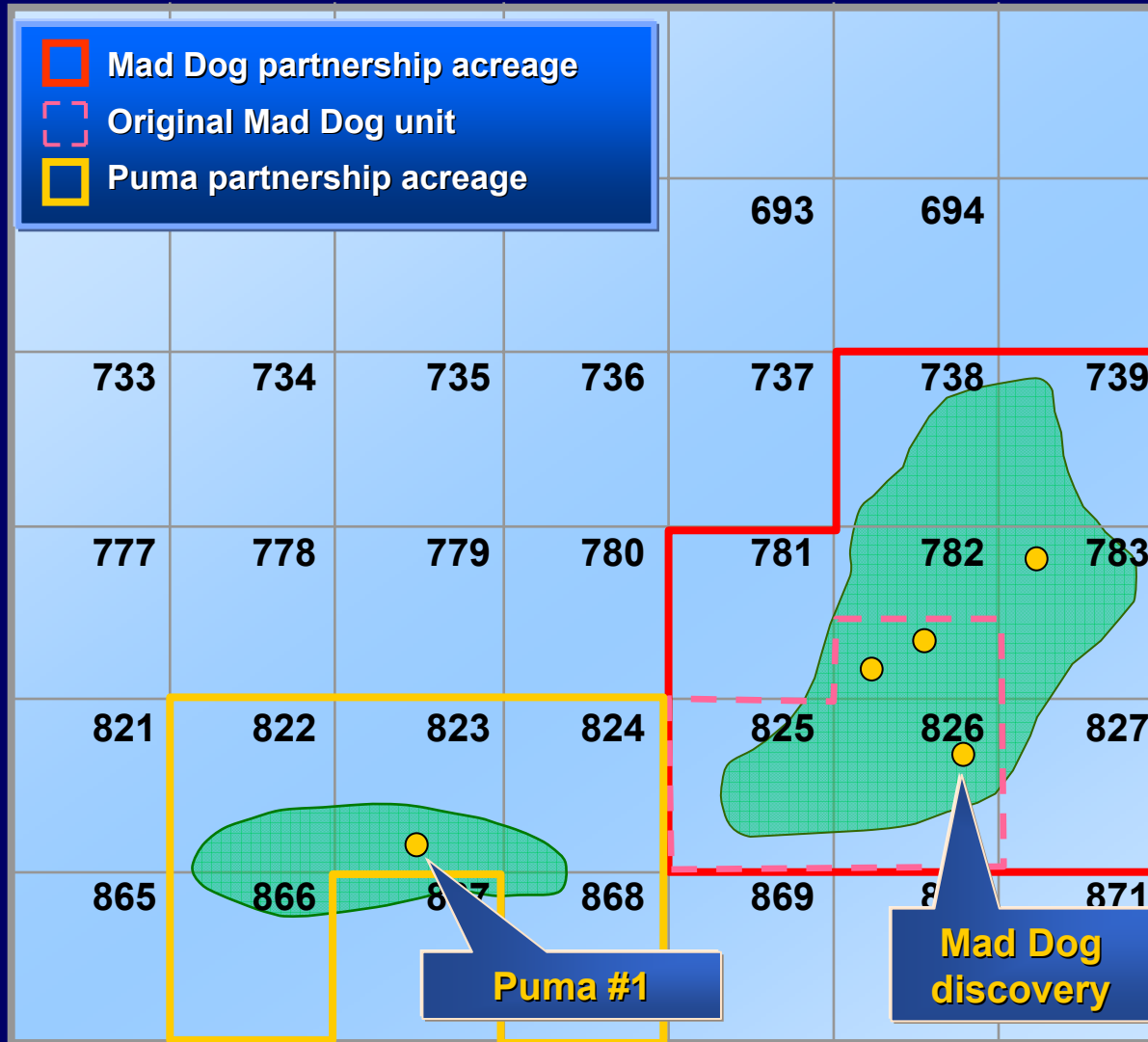


# 2003 Production Expense

\$ per BOE

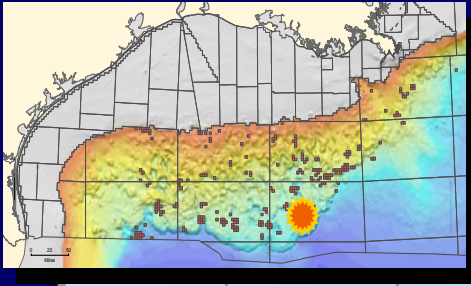


# Mad Dog Development

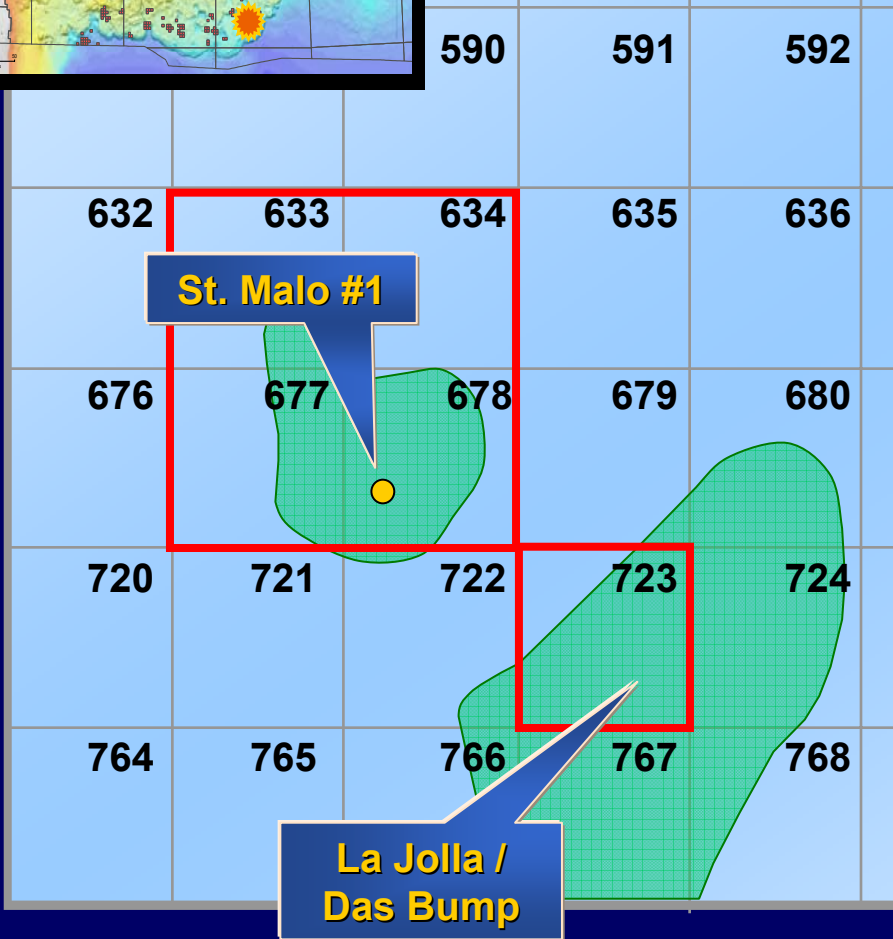


- Discovery well (12/98) in ~4,500' water depth
- Three successful appraisal wells
- Spar development (BP operated), 80,000 BOPD / 50 MMCFD
- 200 - 450 MMBOE risked full field recovery potential
- On track to deliver first oil late 2004 / early 2005
- Development drilling underway with very good results
- Unocal WI 15.6% (13.3% net)

# St. Malo Discovery

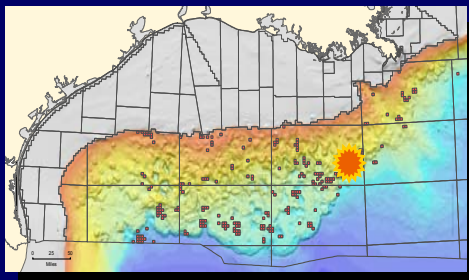


 Unocal blocks

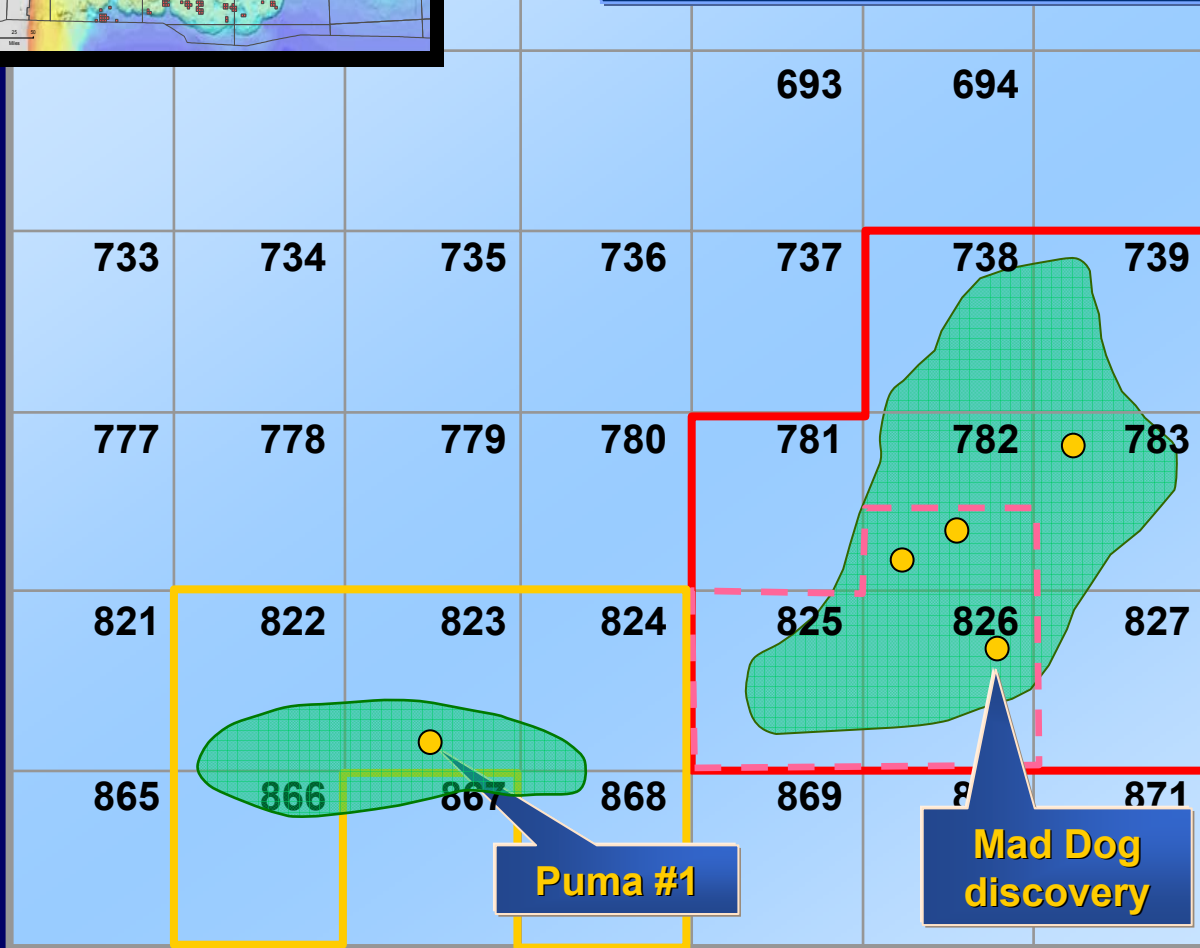


- Lower tertiary play (29,066') with discovery well (10/2003) in 6,900' water depth
- >450 ft. (net) pay in 1,400 ft. oil column
- Further appraisal planned in 2004
- Unocal WI 28.75% (25.2% net)
- Partners (gross WI) include:
  - Petrobras (25%)
  - Devon (22.5%)
  - ChevronTexaco (12.5%)
  - EnCana (6.25%)
  - ExxonMobil (3.75%)
  - ENI (1.25%)

# Puma Discovery



- Mad Dog partnership acreage
- Original Mad Dog unit (GC 826)
- Puma partnership acreage



- Discovery well with 2 sidetracks drilled 12/03 in ~4,130' water depth (BP-operated)
- 500 ft. (net) Lower/Middle Miocene pay at 19,034'
- 8-10 miles from Mad Dog
- Further appraisal likely in 2H 2004
- Unocal WI 15% (13.1% net)

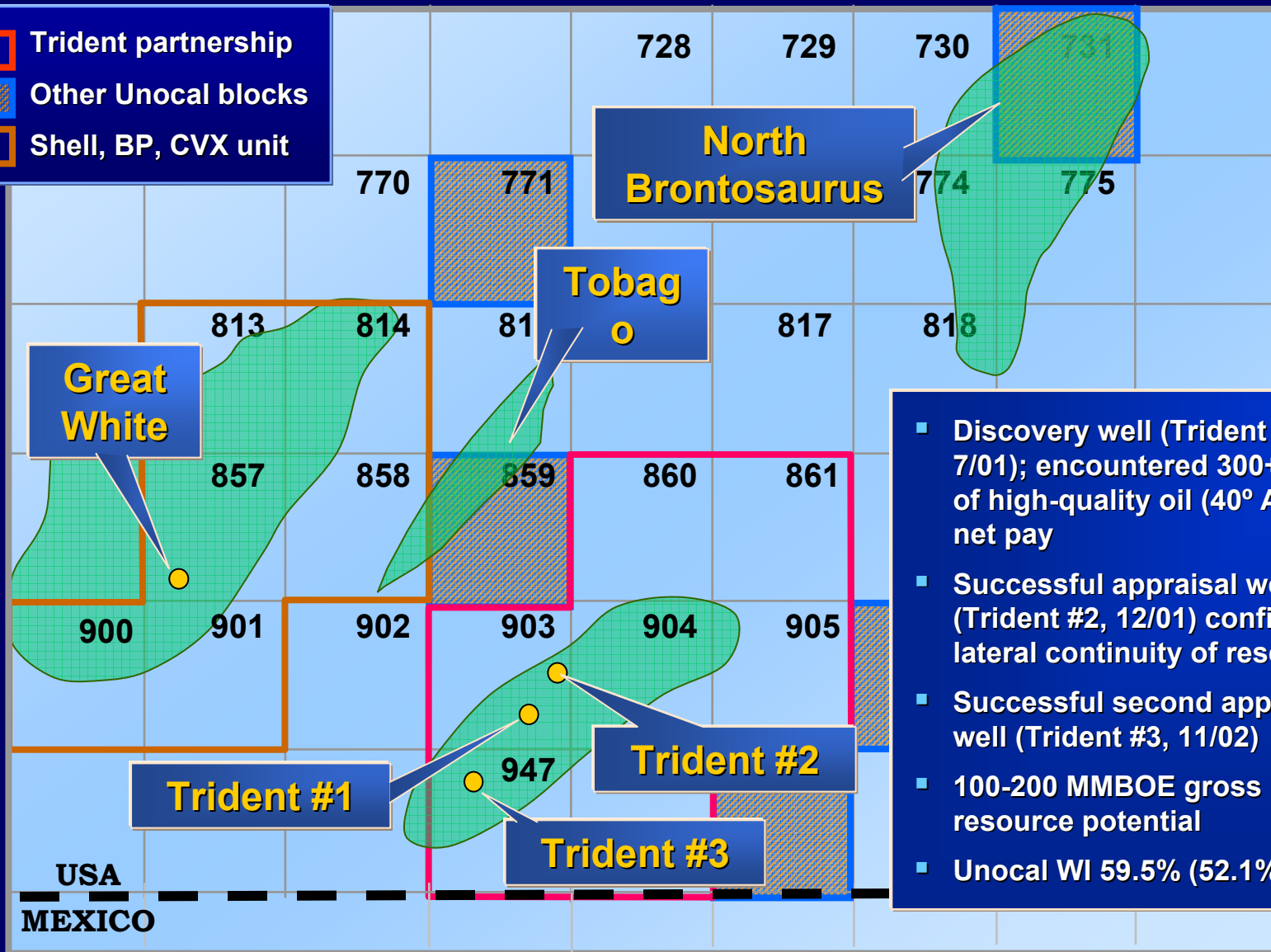
**Puma #1**

**Mad Dog discovery**

# Trident Discovery



- Trident partnership
- Other Unocal blocks
- Shell, BP, CVX unit

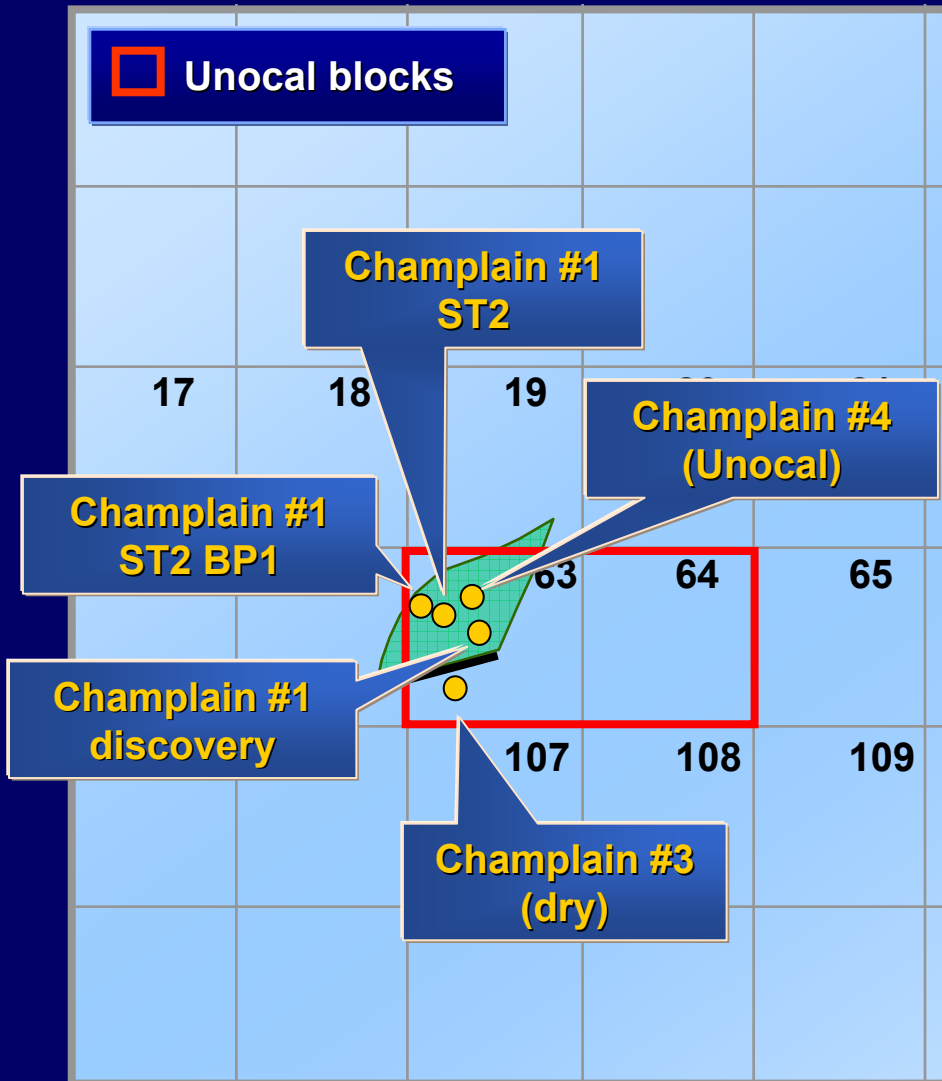


- Discovery well (Trident #1, 7/01); encountered 300+ feet of high-quality oil (40° API) net pay
- Successful appraisal well (Trident #2, 12/01) confirmed lateral continuity of reservoir
- Successful second appraisal well (Trident #3, 11/02)
- 100-200 MMBOE gross resource potential
- Unocal WI 59.5% (52.1% net)

# Champlain Development



Unocal blocks



- Discovery well (12/99) in ~4,400' water depth
- Two successful sidetracks drilled, one dry prior to 2003
- Unocal drilled successful #4 with over 200 ft. net pay
- Full-field recovery potential uncertain, but estimating 30-100 MMBOE gross unrisks resource potential
- Operator ChevronTexaco leading effort to examine development options including:
  - Fit-for-purpose FPU
  - Area-wide FPU
  - Subsea tieback to Mars/Ursa
- Unocal WI 30% (26.25% net)

# China

## Xihu Trough Natural Gas

- Unocal signed 5 contracts
  - 2 development
  - 3 exploration
- Xihu area is 5.4 MM acres
  - ~ 300 ft. water depth
  - ~ 12 gas discoveries
- 4 new exploration wells in 2004
- Attractive East China market
- Unocal will hold a 20% working interest in the project
- ***Production is targeted to begin in mid-2005; expected to reach 200-250 MMCFD within 2 years***

