

# Prospective Customer Evaluation of Used Facilities

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Conoco Inc**



# Background

- Conoco to abandon 2 fields
- Facilities still have many years of useful life
- Launched marketing campaign for sale of facilities
- Generated a number of prospective customers, one of which was selected to progress
- Customer interested in re-use of the facilities on a recently discovered oil field near-by
- Commenced detailed discussions in September

# Why use D&RA?

- Conoco's timeframe required swift progression
- Initially, customer too focussed on 'nuts & bolts'?
- Significant uncertainty remaining with new field
- Customer had limited experience of offshore oil field developments
- Conoco could help evaluate alternatives - but what about objectivity?
- A joint customer/seller process of D&RA proposed

# Process Overview

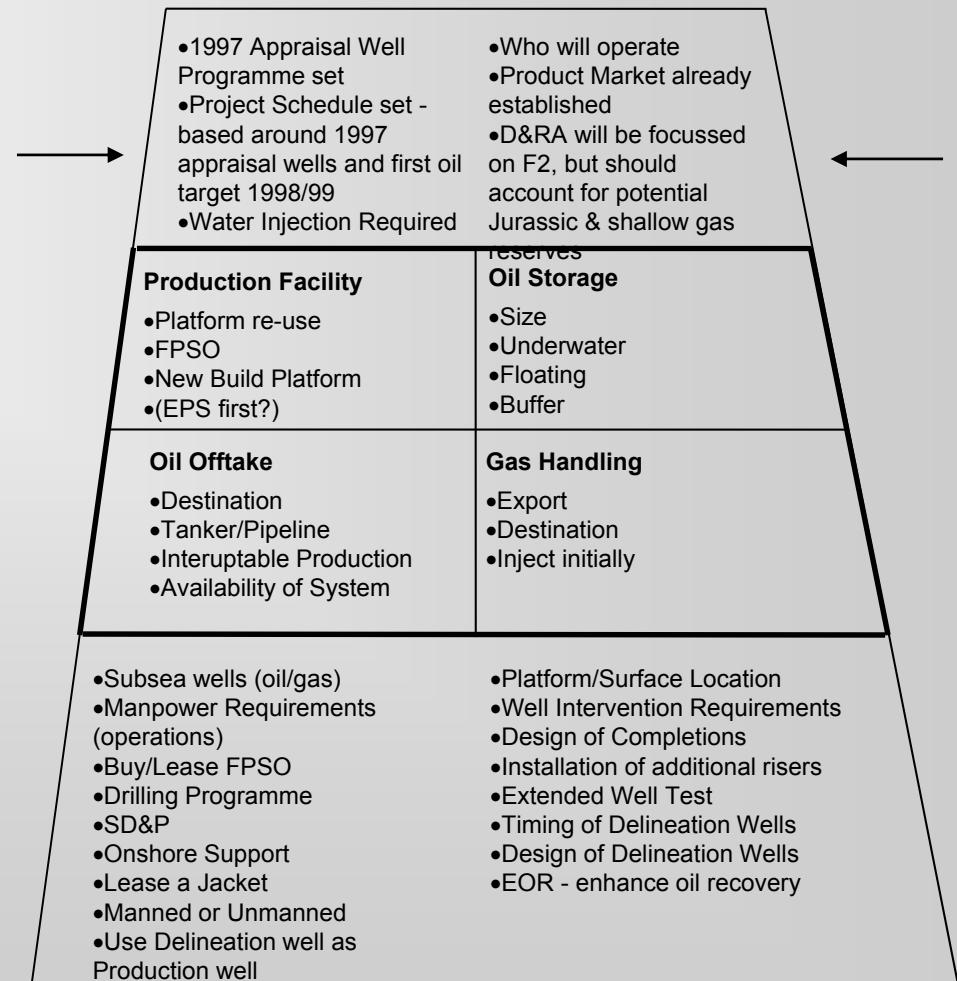
- Began in November concluding by following April
- 4 x 1 day meetings, plus one final presentation to customer Board member
- First meeting included half day D&RA overview
- ‘Project Team’ consisted of Conoco and customer personnel
- ‘Decision Board’ made up of two customer personnel
- Additional 3rd party companies used as required
- The 5-step process honored !

# The Problem Statement

“To objectively evaluate the re-use of Conoco facilities against alternative schemes for the development of the subject customer oil field.”

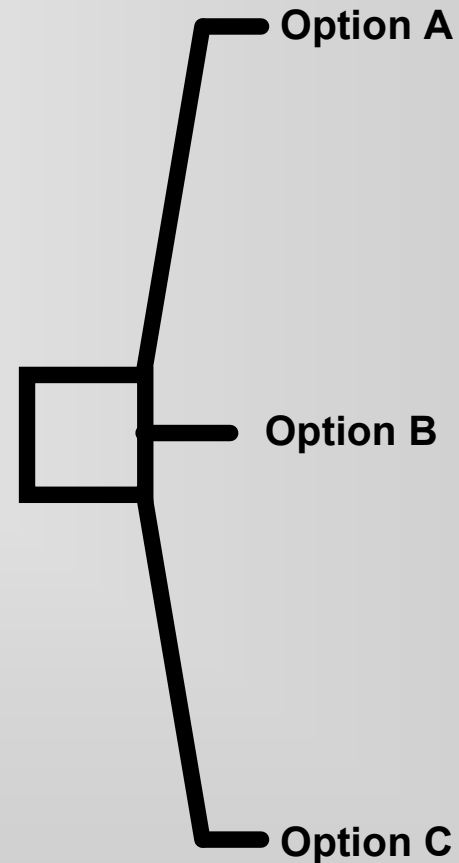
# Key Policy Decisions

- Project Schedule and 1997 Appraisal Well Programme set - first oil target of 1998/99
- D&RA will be focussed on subject field, but should account for further area potential



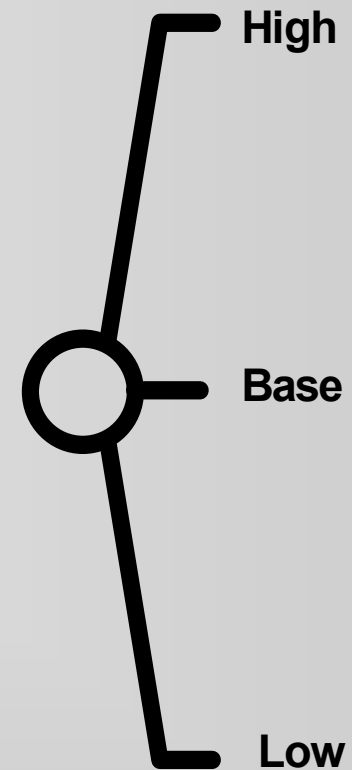
# 'Strategic' Decisions

- Production Facility
- Oil Storage
- Oil Offtake
- Gas Handling & Offtake



# Areas of Key Uncertainty

- Total Costs
- Reserves
- Rates
- Oil Price
- Further Area Potential





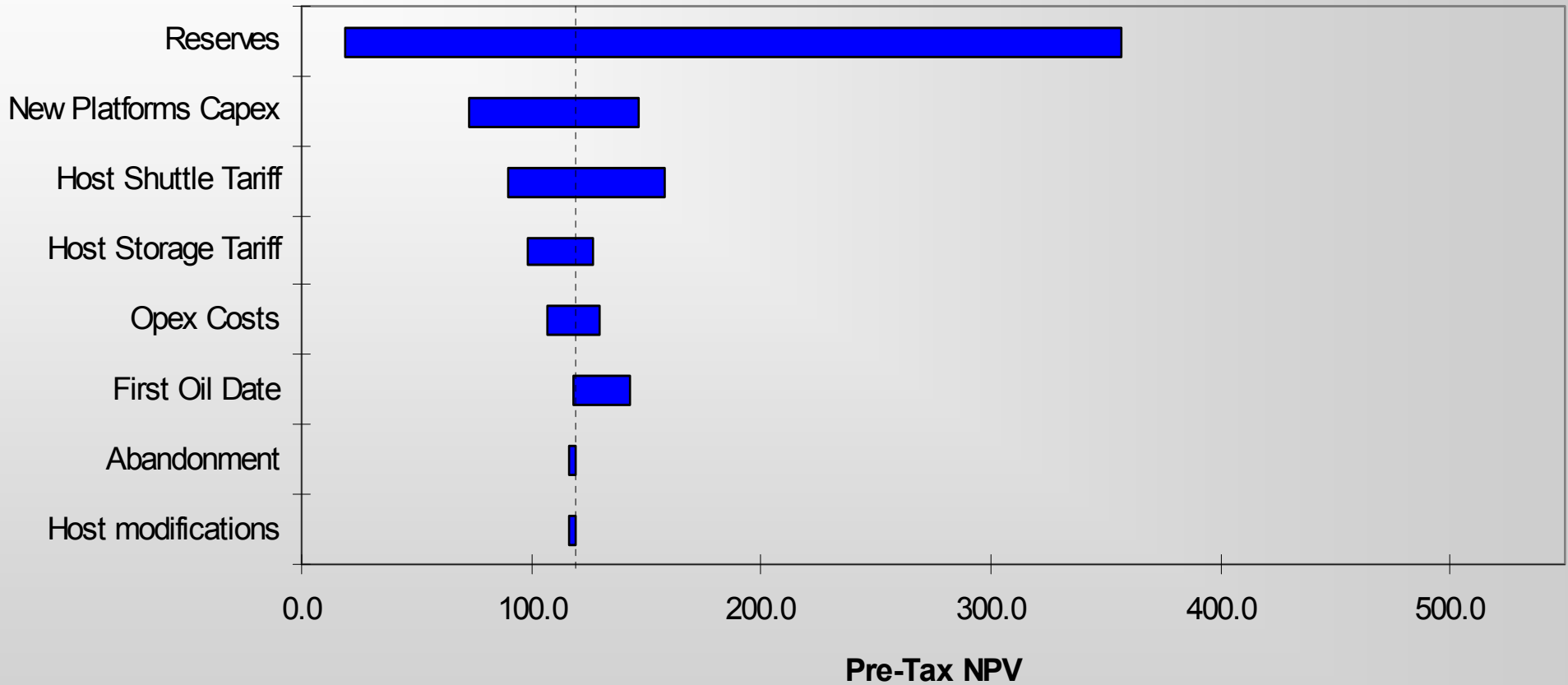
# The Alternatives

Case	Facility	Oil Storage	Oil Offtake	Gas Offtake
<b>NB</b>	New Build Platforms	3rd Party Facilities	3rd Party Tanker	P/L to Host
<b>R1</b>	Platform re-use	3rd Party Facilities	3rd Party Tanker	P/L to Host
<b>R2</b>	Platform re-use	FSU	Own Tanker	P/L to Host
<b>R3</b>	Platform re-use	CGBS	Own Tanker	P/L to Host
<b>F</b>	FPSO w/ WH Platform	Own (FPSO)	Own Tanker	P/L to Host

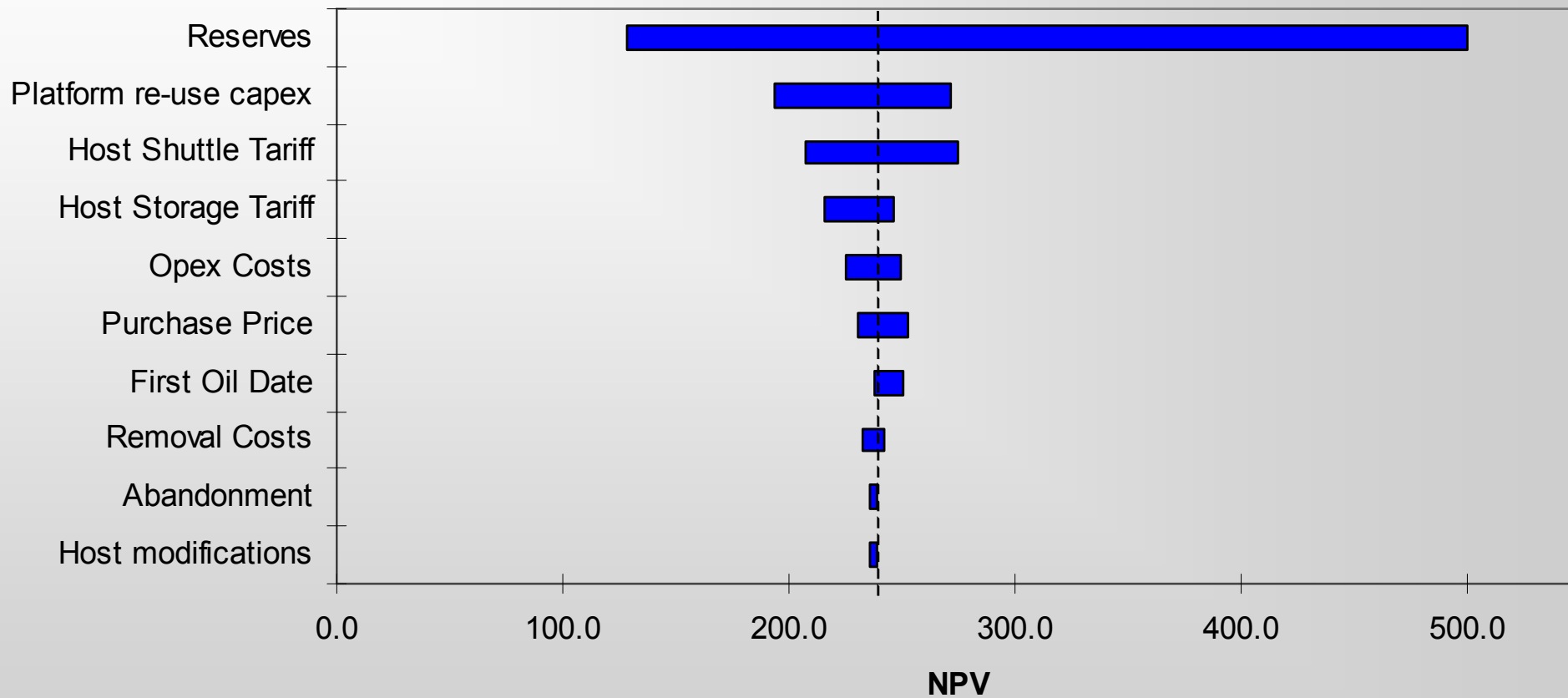
# The Analysis

- Agreed neutral economic assumptions
- Conoco to run pre-tax economics
- Oil Price treated deterministically! - effectively common to all
- All assumptions were clearly documented in Key Uncertainty Table
- Analysis included tornado plots, decision trees, calculation of EMV and Cumulative Probability Curves

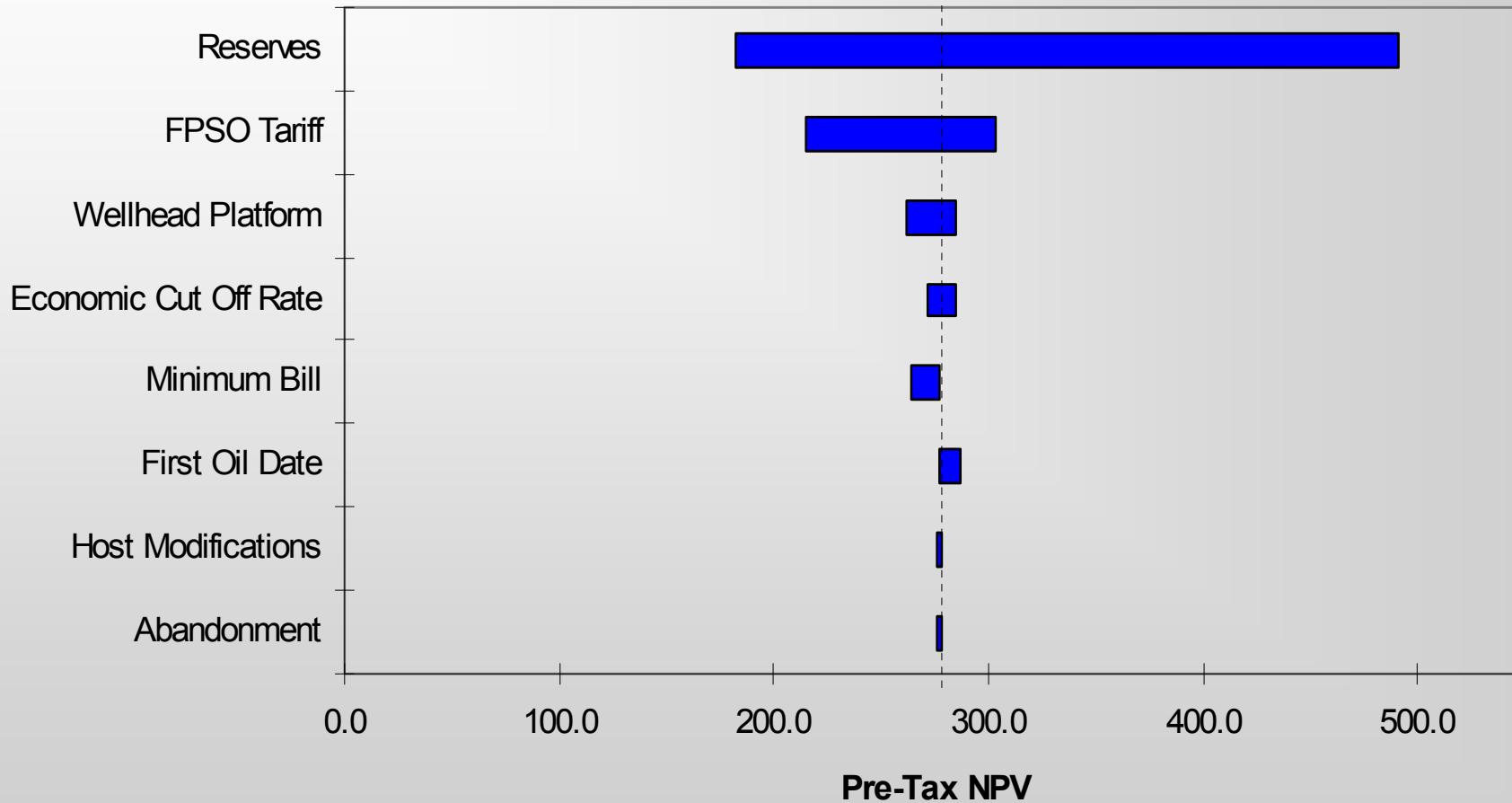
# Tornado Plot : New Build, Oil to Host



# Tornado Plot: Platform Re-use, Oil to Host



# Tornado Plot : FPSO



# Key Uncertainties

- New Build Platforms :
  - Reserves, New Build Capex
- Platform Re-use :
  - Reserves, Platform Re-use Capex
- FPSO :
  - Reserves, FPSO Tariff

# Decision Tree : Platform Re-use

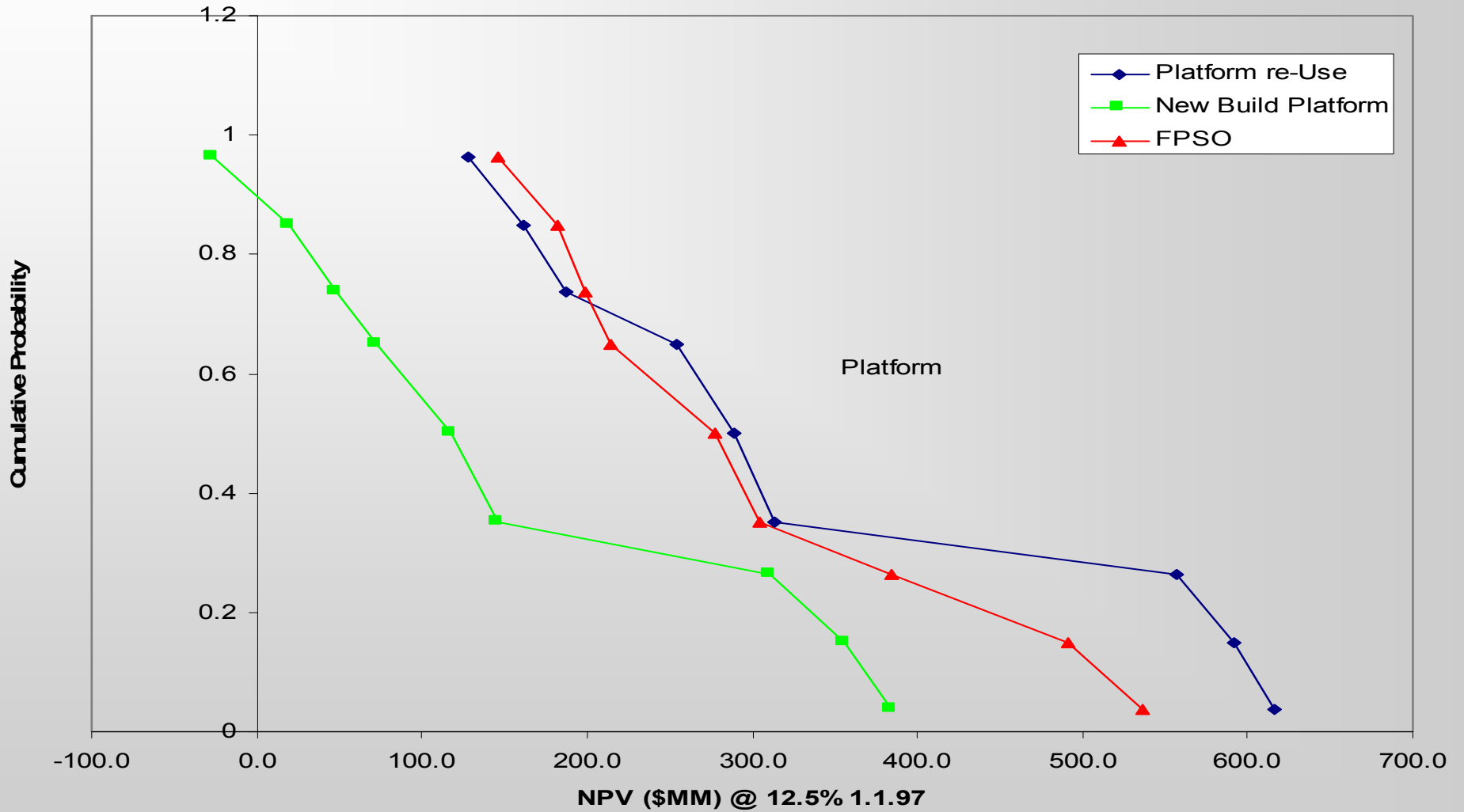
RESERVES	PLATFORM RE-USE CAPEX	CP	NPV	CP*NPV
High (P10)	Low (P10)	0.075	616.5	46.2
	0.25			
	Base (P50)	0.150	591.2	88.7
0.3	0.5			
	High (P90)	0.075	557.1	41.8
	0.25			
Base (P50)	Low (P10)	0.100	314.1	31.4
	0.25			
	Base (P50)	0.200	288.9	57.8
0.4	0.5			
	High (P90)	0.100	254.7	25.5
	0.25			
Low (P90)	Low (P10)	0.075	186.8	14.0
	0.25			
	Base (P50)	0.150	161.6	24.2
0.3	0.5			
	High (P90)	0.075	127.4	9.6
	0.25			
		1.000	EMV =	339.2

# Results : EMV

Case	Facility	EMV
<b>NB</b>	New Build Platforms, 3rd party storage & offtake	<b>155.7</b>
<b>R1</b>	Platform re-use, 3rd party storage & offtake	<b>280.6</b>
<b>R2</b>	Platform re-use, FSU, Shuttle Offtake	<b>314.9</b>
<b>R3</b>	Platform re-use, CGBS, Shuttle Offtake	<b>339.2</b>
<b>F</b>	FPSO + WH Platform, Shuttle Offtake	<b>303.2</b>



# Combined CPCs



# D&RA Conclusions

- New build option eliminated since much higher capex with no reduction in risk
- Re-use+CGBS was most competitive
- Risk to NPV with Re-use Capex no greater than risk with New Build Capex, or FPSO tariff
- Both Re-use and FPSO options were economically robust in downside cases
- The Re-use option would yield greater value in upside reserves cases

# The Decision!

- Presentation made to customer board member
  - Very satisfied with the process
  - Agreed Re-use & FPSO most competitive
  - Acknowledged outstanding technical issues w/ FPSO
- » **Requested customer begin detailed commercial negotiations with Conoco for the purchase of the deck facilities and for detailed engineering work to commence**

# What did D&RA do?

- Structured process provided objective, timely and reliable conclusion
- Promoted shared knowledge and understanding
- Focussed on the important 'strategic' decisions
- Understanding of risk and uncertainty
- Allowed two companies on opposite sides of the commercial fence work constructively together
- **Progressed an unusual business opportunity when it may otherwise have been lost!**