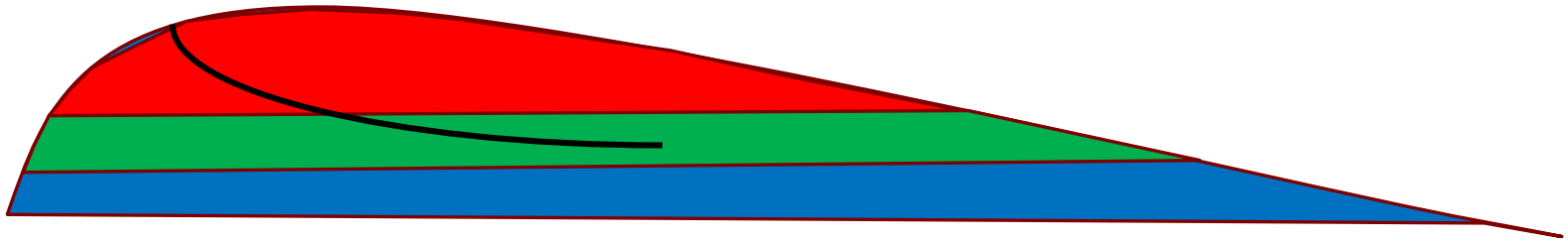
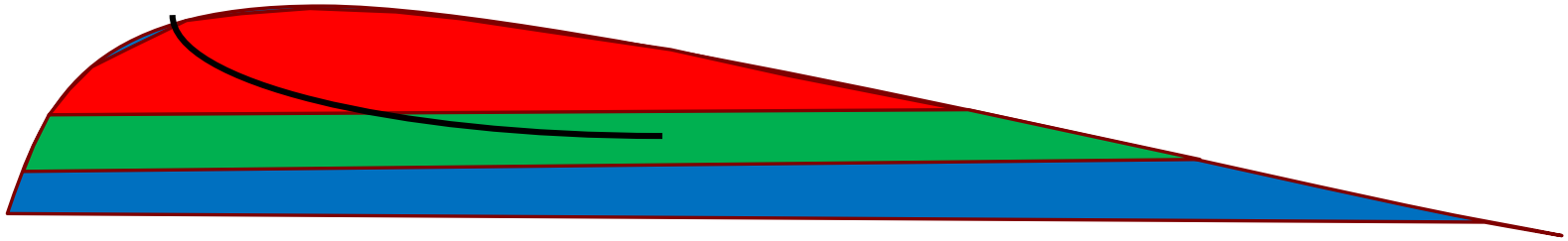
Classification Case Study



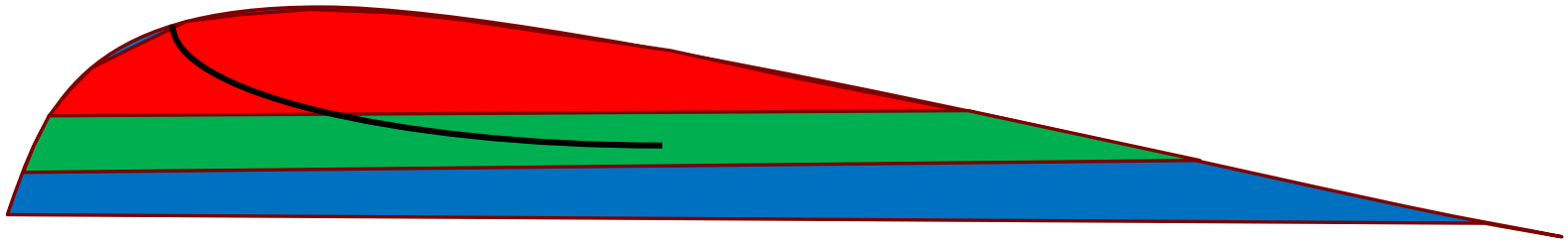
- A Company is developing an onshore field with a very thin oil rim (strong aquifer, large gas cap) with no direct commercial analogues
- To keep things simple we will assume there are no commercial contingencies except the economics
- A vertical well was tested and produced a small amount of oil but mostly gas (the gas has no value)
- The Company intends to sidetrack the discovery well horizontally and then drill 5 horizontal wells
- The Company says it is committed to drilling the STK and all 5 HZ wells and has an FDP in place
- There is a risk the volumes recovered will be uneconomic
- How do you classify the resources?

Option 1



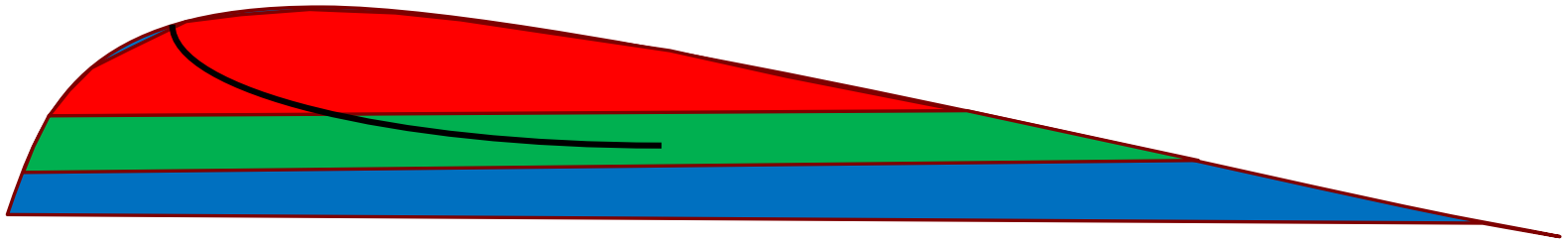
- The Company convinces you the “Project” is all 6 wells (1 STK + 5 HZs)
- You decide volumes are economic on a P50 and P10 basis but uneconomic on a P90 basis
- You assign 2P and 3P Reserves for the full project but do not assign any 1P
- The Company is happy with this outcome as it maximizes the 2P reserves

Option 2



- The Company convinces you the “Project” is all 6 wells (1 STK + 5 HZs)
- You decide volumes are economic on a P50 and P10 basis but uneconomic on a P90 basis
- You decide the recoverable volumes should all be classified as Contingent Resources until the STK has been drilled and the development concept has been established to be commercial
- The Company is unhappy with this outcome as it has no reserves to book

Option 3



- You decide there are really 2 “Projects”
  - Firstly 1 STK Well
  - Secondly 5 HZ wells contingent on the success of the STK
- You decide STK recoverable volumes are economic on a P50 and P10 basis but uneconomic on a P90 basis
- You assign 2P and 3P Reserves for the 1 STK and assign Contingent Resources to the 5 HZ wells
- The Company is fairly unhappy because it wanted Option 1

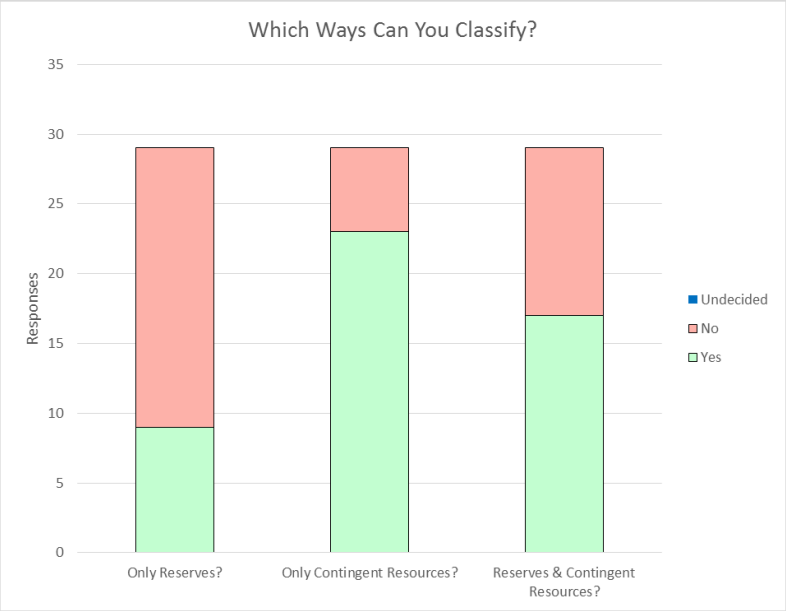
Survey Responses

- 29 Responses
  - 15 SPEE Members
  - 20 with Consultancies, 8 with Oil & Gas Companies, 1 in Banking
  - 26 applied SPE-PRMS and 3 applied COGEH

  - No clear differences between how different groups responded e.g. SPEE Members versus Non-Members or Consultants versus Companies

Selected Options

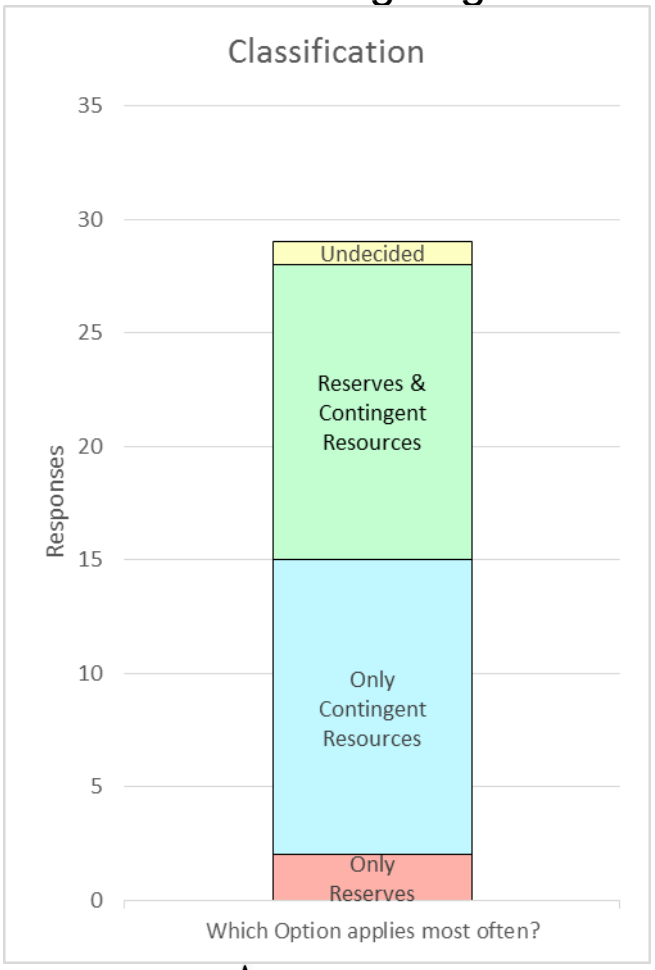
» All classification options were considered applicable but 20 out of 27 felt classifying as reserves was not an option.



Respondents Selecting Only 1 Option	#
Reserves Only	-
Contingent Resources Only	10
Reserves & Contingent Resources Only	3
Excluded Options	
Responses excluding Option 1 (Reserves Only)	20
Responses excluding Option 2 (Contingent Resources Only)	6
Responses excluding Option 3 (Reserves & Contingent Resources)	12
Respondents who considered all options were possible	4

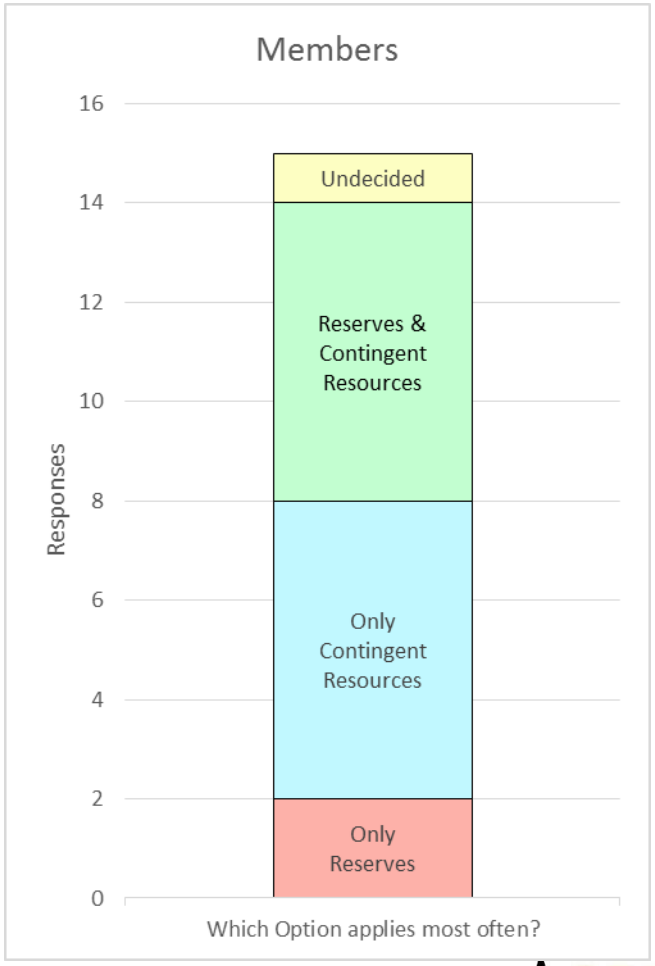
Preferred Option

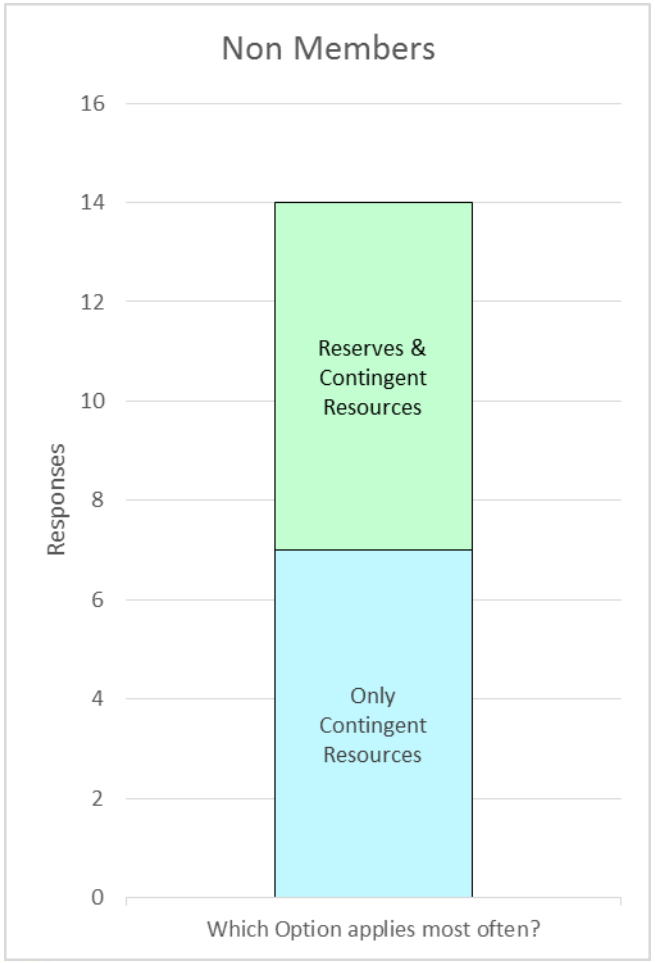
» The preferred option was split evenly (12 for each) between assigning only contingent resources and assigning a mix.



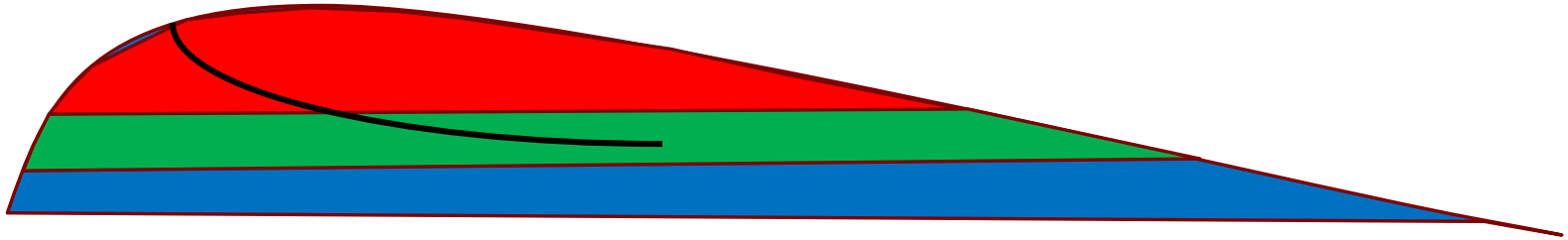
SPEE Members vs Non Members

» Read into this what you like



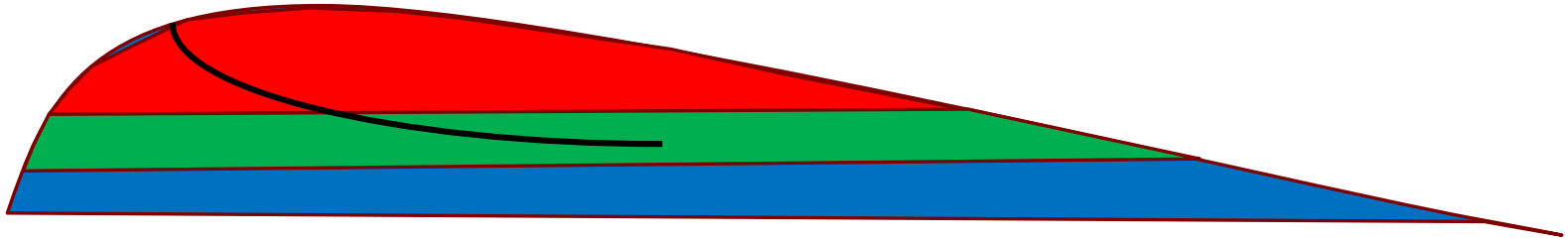


A Further Point



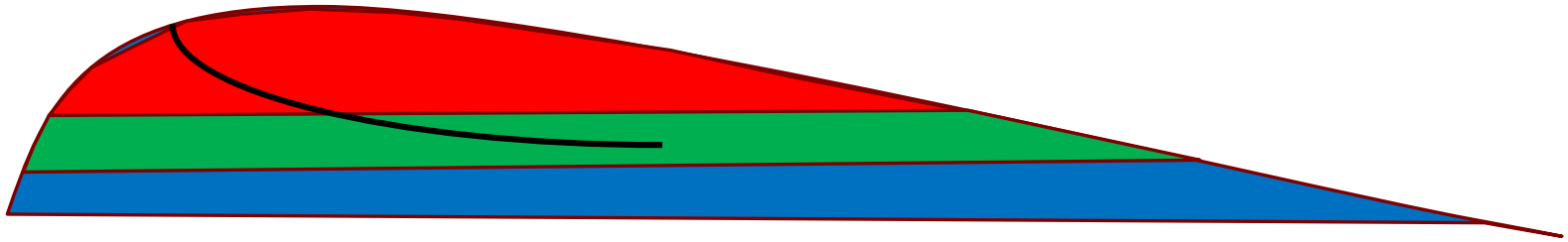
- The first options 1 to 3 assumed the project only failed in the low case
- But what happens if you decide the recoverable volumes are economic only on a P10 basis?
- Options A to C on the next slides give some new choices

Option A



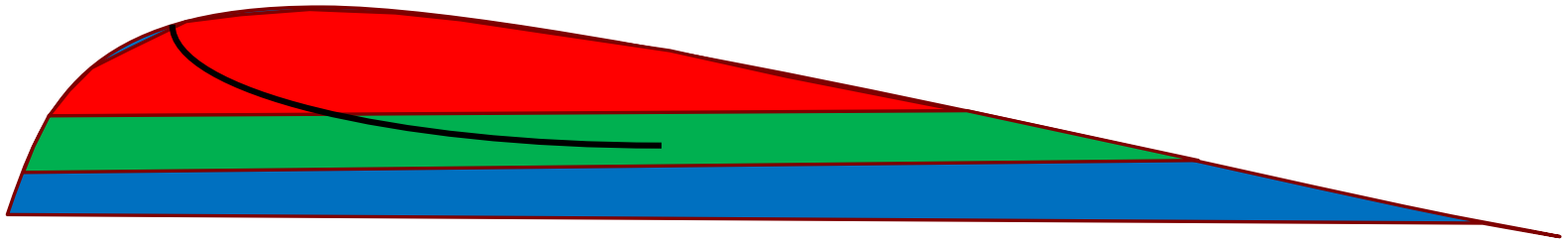
- You assume the “Project” is all 6 wells (1 STK + 5 HZs)
- You decide the recoverable volumes are economic on a P10 basis only
- You decide to assign sub-economic Contingent Resources

Option B



- You decide there are really 2 “Projects”
  - Firstly 1 STK Well
  - Secondly 5 HZ wells contingent on the success of the STK
- You decide the recoverable volumes are economic on a P10 basis only
- You assign Possible Reserves (with no 1P or 2P) for the 1 STK as it is going ahead and treat the resources associated with the 5 HZ wells as Contingent Resources

Option C



- You decide there are really 2 “Projects”
  - Firstly 1 STK Well
  - Secondly 5 HZ wells contingent on the success of the STK
- You decide the recoverable volumes are economic on a P10 basis only
- You assign all volumes to Contingent Resources as you do not believe it is correct to assign standalone Possible Reserves
- (Which is then the same as Option A)

Preferred Option – Only P10 is Economic

- 11 respondents went for Option A which aligns with the previous Option 2.
- 4 respondents went for Option B and would assign Possible Reserves.
- 13 respondents went for Option C which aligns with the previous Option 3 but does not result in reserves being assigned because the 2P is uneconomic.