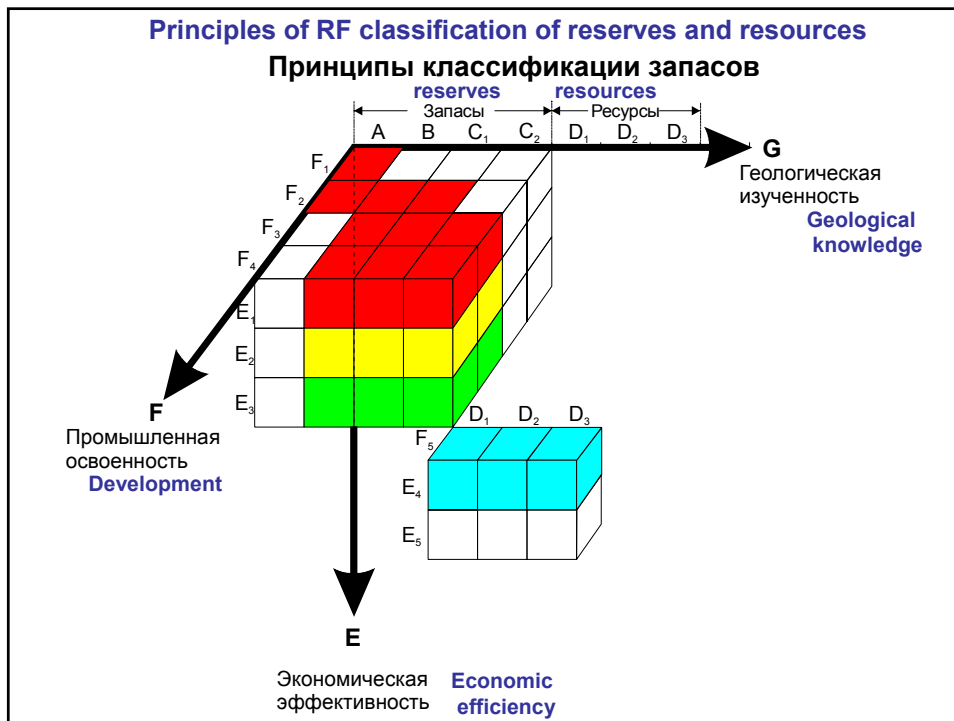


Alexander Gert

New Russian Classification – Approximation To The International Standards

Novosibirsk, Russia



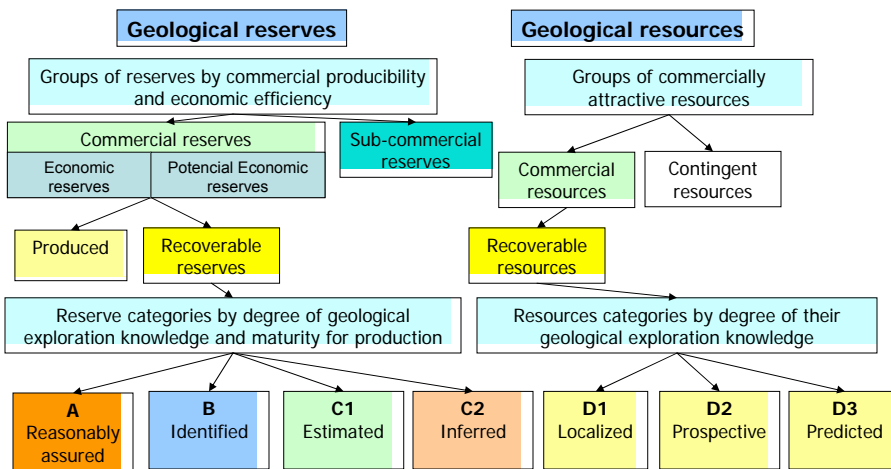
New in classification

- Commercial
 - Reserves $NPV > 0$
 - Resources $EMV = NPV * p - Z*(1-p) > 0$

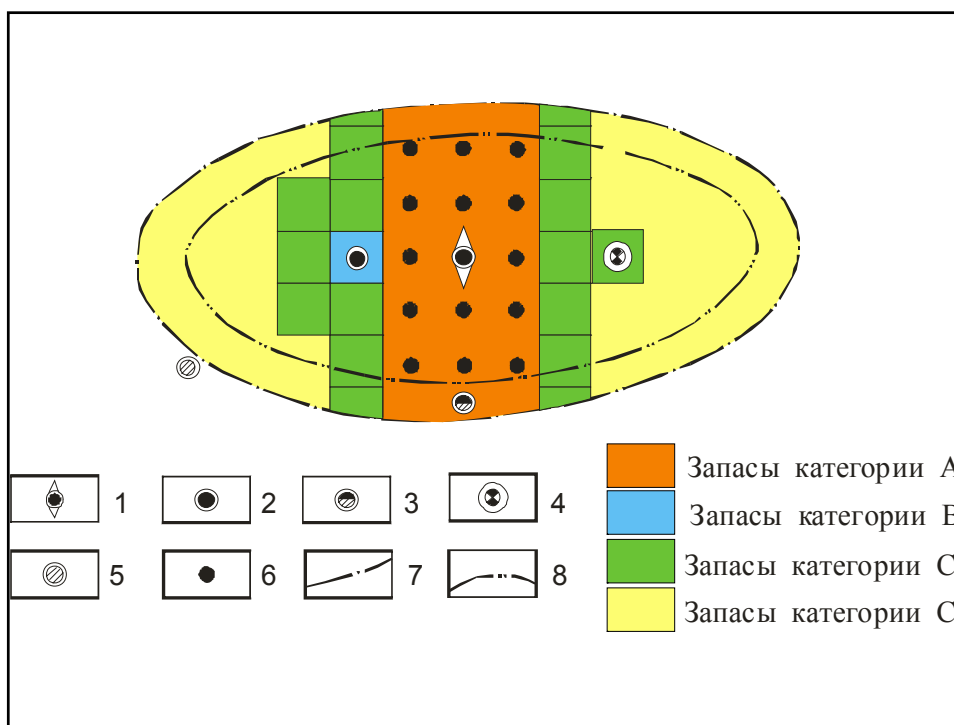
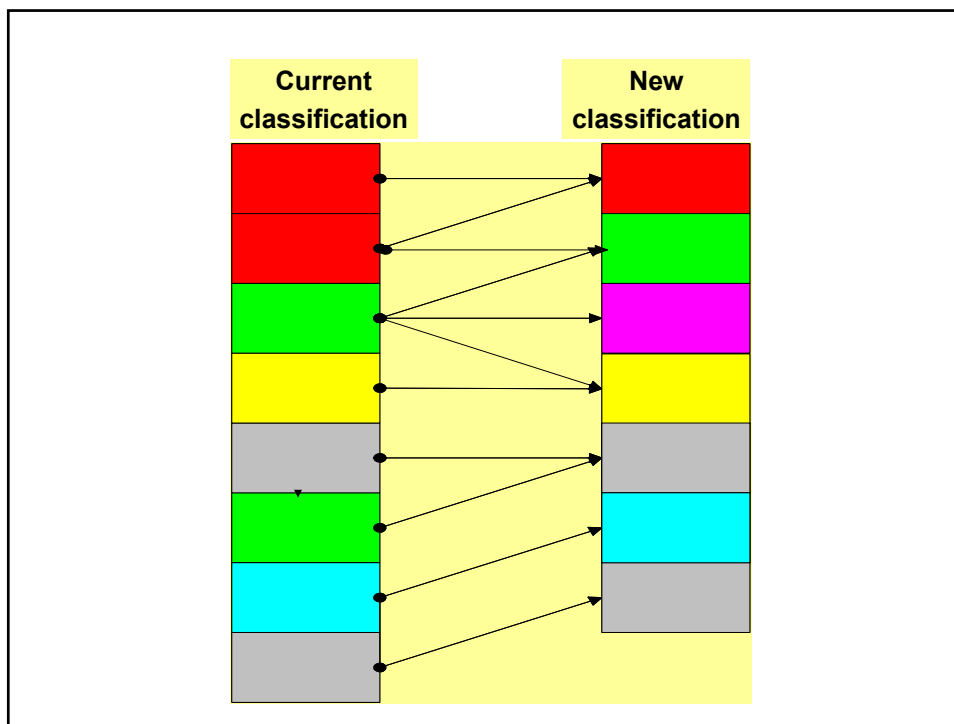
- Recoverable reserves } volume with $NPV > 0$
 Recoverable resources } $EMV > 0$

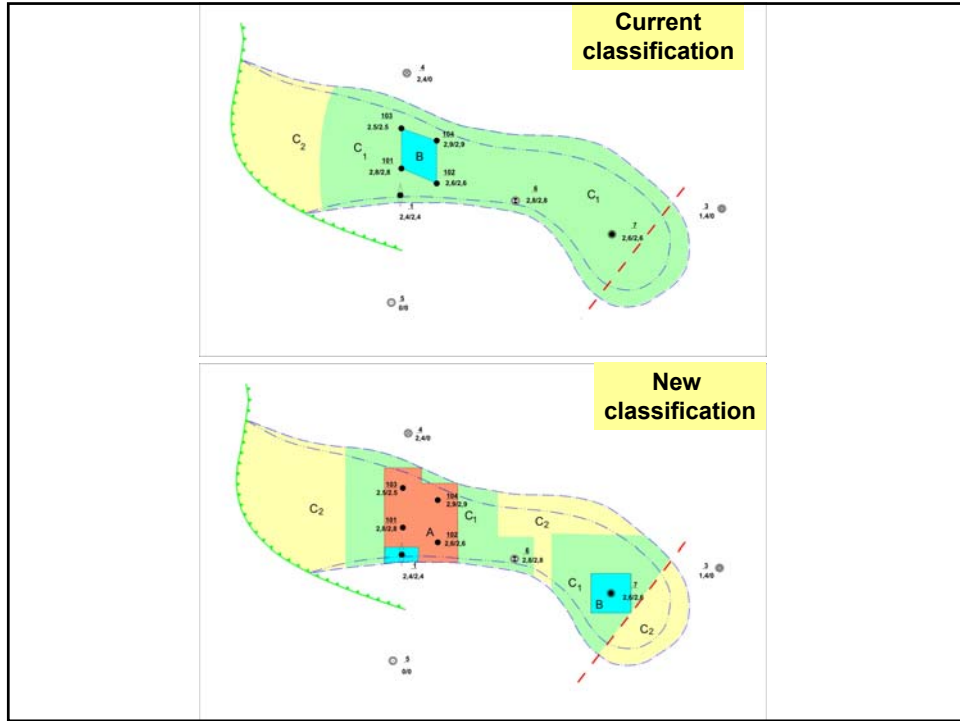
- More precise quantity A, B, C1, C2

RF Classification of Reserves and Resources



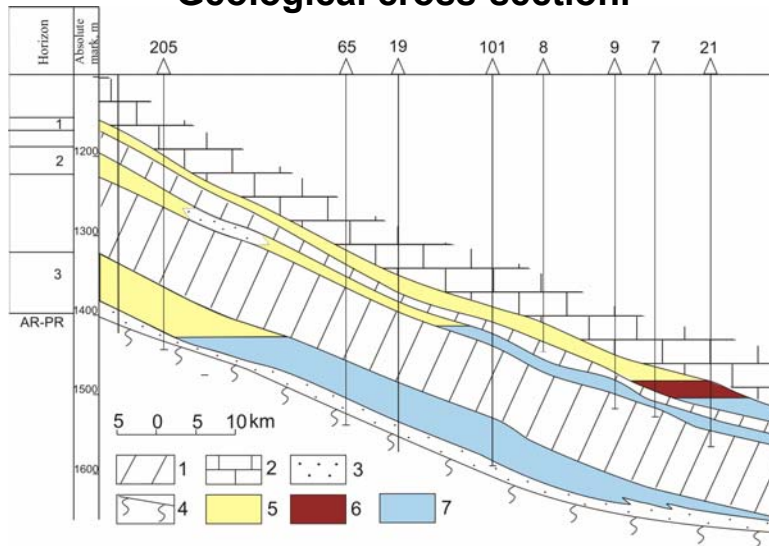
© Gabrielants G.A., Poroskun V.I., Krasilnikova T.B.





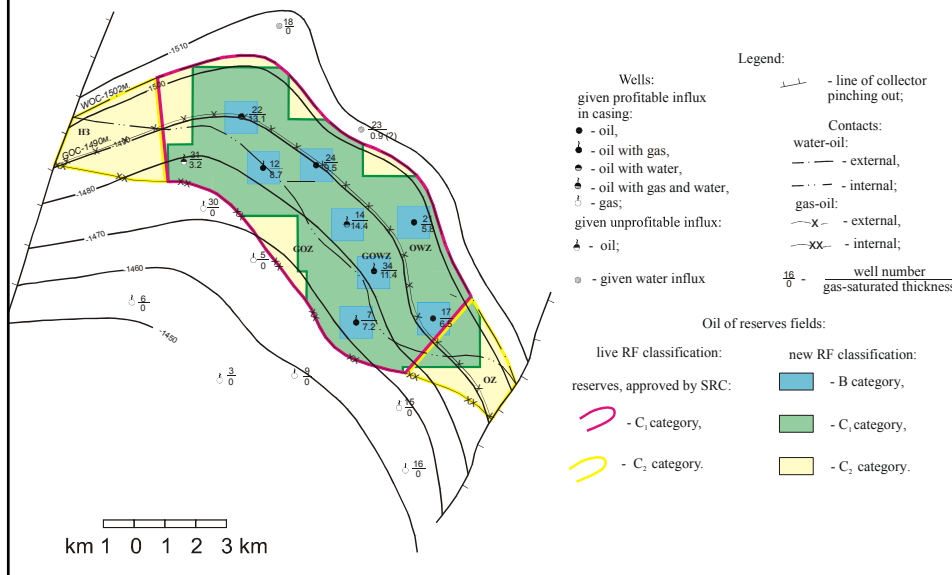
RF classification		SPE/WPC/AAPG	
Total petroleum reserves and resources in place	Geological reserves	Commercial reserves	Production
		Potential economic reserves	Project Status
	Economic reserves	Reserves	On production Under development Planned for development
	Reasonably assured	Proved	
Identified A	Proved plus Probable	Development pending Development on hold Development not viable	
Identified B	Proved plus Possible		
Estimated C1	Contingent resources	Development pending Development on hold Development not viable	
Inferred C2	Low estimate		
Sub-commercial reserves	Best estimate	Development pending Development on hold Development not viable	
Range of uncertainty	High estimate		
Geological resources	Economic reserves	Unrecoverable	Prospective resources
		Unrecoverable	Project Status
	Localized D1	Low estimate	Prospect Lead Play
	Prospective D2	Best estimate	
Predicted D3	High estimate	Development pending Development on hold Development not viable	
Range of uncertainty	Unrecoverable		
Contingent resources	Range of uncertainty	Unrecoverable	Unrecoverable

Eastern Siberia field. Geological cross-section.

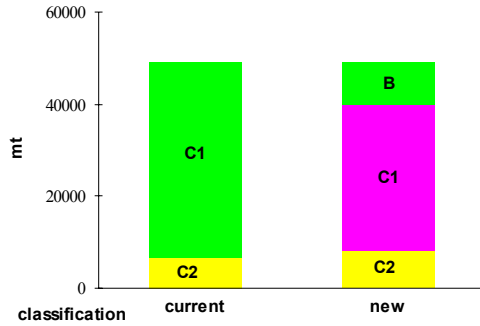


Impermeable rocks: 1- mudstone, 2 - mainly carbonate, 3 - sandstone, 4 - crystalline basement;
sandstone saturation: 5 - gas, 6 - oil, 7 - water.

Eastern Siberia oil and gas field. Comparison of estimated oil reserves by current and new RF classification



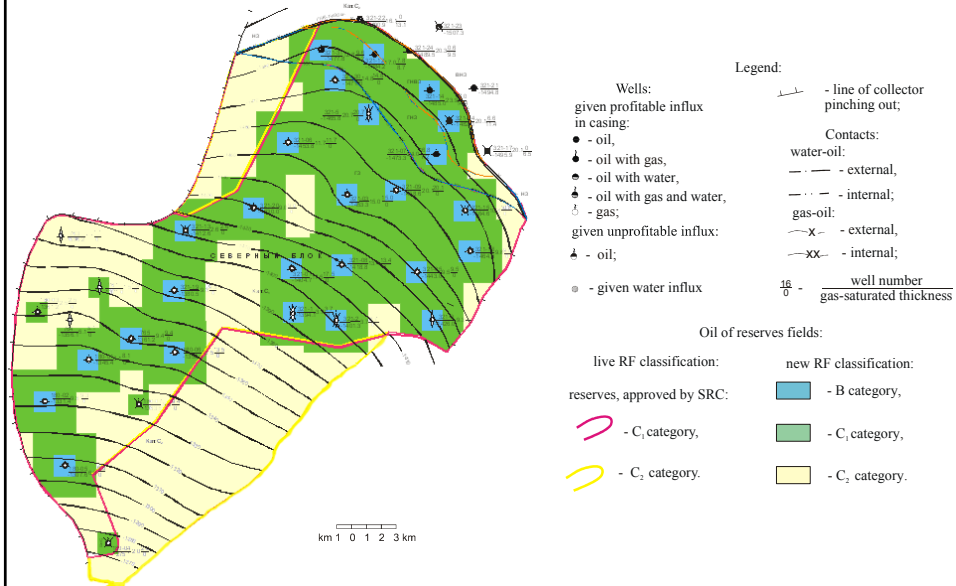
Сравнение запасов нефтяного объекта в старой и новой классификации Classification comparison for oil object

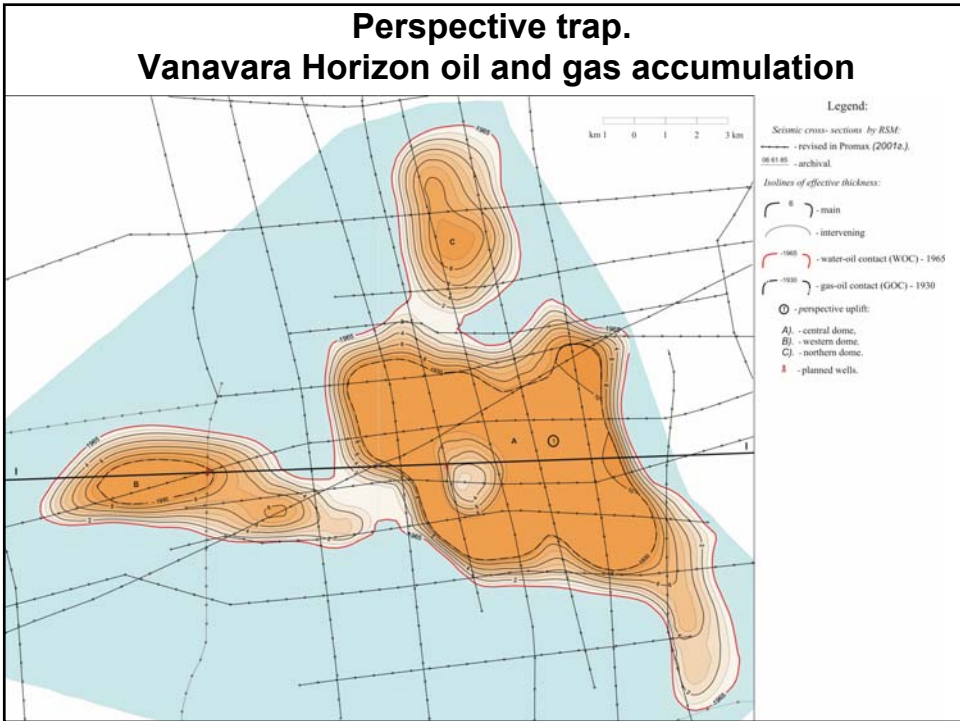
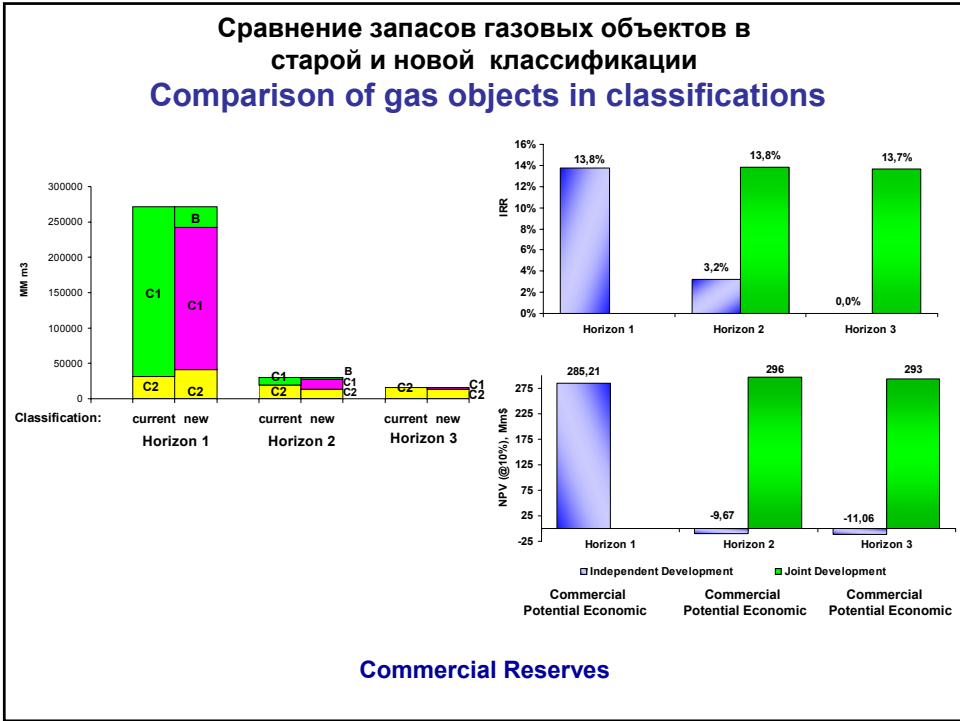


NPV(@ 10%) = 68.45 \$mm
IRR = 13.18%

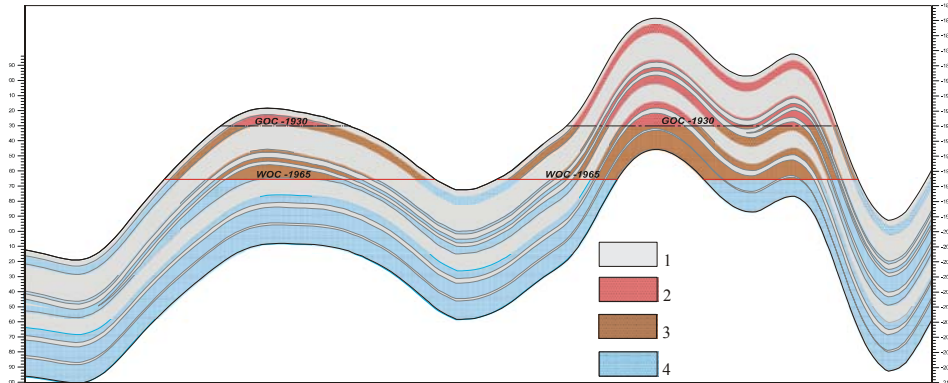
Potential economic reserves
Commercial reserves

Eastern Siberia oil and gas field. Comparison of estimated gas reserves by current and new RF classification



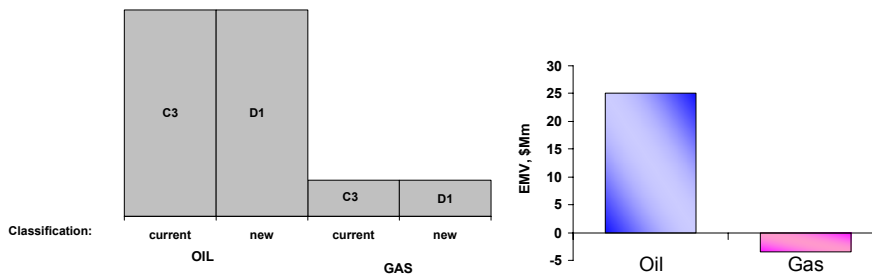


Perspective trap. Geological cross-section of sand stone Horizon oil and gas accumulation

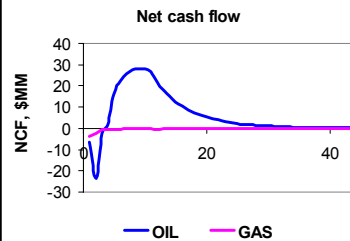


1 - argillaceous deposits of sand stone Formation, 2 - gas-saturated sandstone of sand stone Formation, 3 - oil-saturated sandstone of sand stone Formation, 4 - water-saturated sand stone of sand stone Formation.

Сравнение нефтегазовых объектов перспективной ловушки Comparison of oil & gas objects of prospective trap



	Oil	Gas
Exploration cost (Z), \$mm	22.11	0
NPV, \$mm	72.4	-6.96
Probability of success (p), %	50%	50%
Expected Monetary Value (EMV), \$mm	25.15	-3.48
EMV = NPV * p - Z*(1-p)		



Classification comparison

Object	Classification				
	current	RF		UNFC	SPEWPCIAAPG
			new		
Field reserves:					
<i>Oil</i>		Commercial reserves	E2- potential economic	Undeveloped	
		Potential economic reserves	F2 - contingent development project	Justified for Development	
	C1+C2	B+C1+C2	G1+G2+G3	Proved + probable reserves	
<i>Gas:</i> Horizon 1		Commercial reserves	E2- potential economic	Development Unclarified or on Hold	
		Potential economic reserves	F2 - contingent development project		
	C1+C2	B+C1+C2	G1+G2+G3	Contingent resources	
Horizon 2		Commercial reserves	E2- potential economic	Development Unclarified or on Hold	
		Potential economic reserves	F2 - contingent development project		
	C1+C2	B+C1+C2	G1+G2+G3	Contingent resources	
Horizon 3		Commercial reserves	E2- potential economic	Development Unclarified or on Hold	
		Potential economic reserves	F2 - contingent development project		
	C1+C2	C1+C2	G2+G3	Contingent resources	
Resources:					
<i>Oil</i>		Commercial resources	E3- intrinsically economic F3 - project undefined	Prospect	
	C3	D1	G4	Prospective resources	
		Commercial resources	E3- intrinsically economic F3 - project undefined	Prospect	
<i>Gas</i>			G4	Prospective resources	
	C3	D1			

Спасибо за внимание
Thank you for your attention