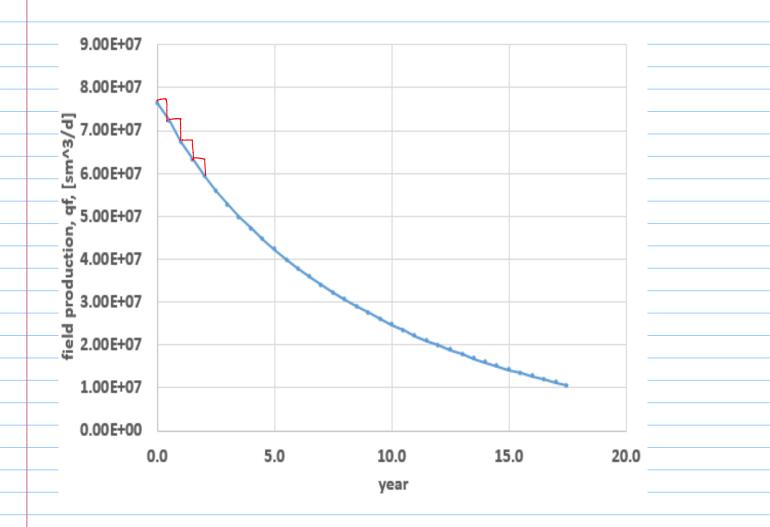


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	20-VA01 B 1. TRINN B SEPARATOR	look how the equipm like in real life	ent (bolks
 Production potential Grand Grand Grand Grand<	sequential calculations t 9 0 7ppi 0,5 9ppz 1 9pp3 0,5 1	open choke 6p $pp0$ $pp10^{2} pp10^{2} pp1$	0 -> 6.5 fpp, operational Mays in a year = 355

 $y = y_1 + \left(\frac{y_1 - y_1}{x_1 - x_1}\right) \left(x_1 - x_1\right)$ (χ_1, χ_2) X, Y, X3 X Excel +VBA (visual basic for applications) Reduce trust settings to minimum - enable all macros Alt [F11] to access VBA environment LOF .- User defined function Microsoft Visual Basic for Applications - Exercise_production_potential.xls - [Module1 (Code)] 2 _ 8 X 🗱 File Edit View Insert Format Debug Run Tools Add-Ins Window Help 🔟 🖳 - 🔚 | 🙏 🖻 🛍 👫 | 🍠 (* | 🕨 💷 👱 | 🍇 🖀 😚 🎘 | 😮 | Ln 2, Col 16 Project - VBAProject X (General) lininterpol Function limiterpol(x1, y1, x2, y2, x3) limiterpol = y1 + (((y2 - y1) / (x2 - x1)) * (x3 - x1)) $\int frictive of a COF$ Ŧ III III 📔 E SenoseworkbookXLA (AspenOSEWorkbook.) End Function 🗄 🍇 AspenSimulationWorkbookXLA (AspenSimulati 🗄 🐯 atpvbaen.xls (ATPVBAEN.XLAM) 🗄 🐰 Solver (SOLVER.XLAM) Statistics Contential State Contential State Sta - Microsoft Excel Objects Breet1 (Data) 📲 Sheet2 (Sheet1) ThisWorkbook 🗄 👘 🏐 Modules Module1 ∀BAProject (Exercise_production_potential_Sc 🗄 🐰 VBAProject (FUNCRES.XLAM) Suben placed in a module, it is available for all sheets in an excel file, , when placed in a sheet, it is only available for that sheet.

Gp pR Well qpp Field qpp time qfield Gp qppf [Sm^3] [bara] [Sm^3/d] [Sm^3/d] [Sm^3/d] [sm^3/d] [sm^3/d] [sm^3/d] 0.00E+00 276 9.55E+06 9.55E+06 0.0 9.55E+06 0 0 0 5.55E+05 0 9.55E+06 0 0 0 5.55E+05 0
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Function tabinterpol(x, col, Matrix As Range) 'function to perform linear interpolation in tables for properties VAR1, VAR2, 'INPUT: --- • • . ßь bs Mь VA22 VAR3 VANI X X Υı Xz 1 1 Xn 2 \times f_x =tabinterpol(H10,4,\$A\$7:\$D\$37) * ÷ SUM С D A В Е F G Н - I -1 N Wells 8 2 G [Sm^3] 2.7E+11 3 **Field production** [Sm^3/d] 2.00E+07 4 5 Well qpp Field qpp qfield pR time Gp Gp appf 6 [Sm^3] * [Sm^3/d] [Sm^3/d] [years] [sm^3/d] [sm^3] [sm^3/d] [bara] 7 0.00E+00 276 9.55E+06 7.64E+07 0.0 7.64E+07 0 7.64E+07 9.27E+06 7.41E+07 7.29E+09 0.5 7.19E+07 8 269 1.36F+10 7.19F+07 9 1.46E+10 260 8.94E+06 7.15E+07 1.0 6.73E+07 2.63E+10 6.73E+07 10 2.19E+10 251 8.61E+06 6.89E+07 1.5 6.32E+07 3.83E+10 =tabinterpo 8.29E+06 6.63E+07 4.95E+10 5.94E+07 11 2.92E+10 242 2.0 5.94E+07 12 3.65E+10 234 7.97E+06 6.38E+07 2.5 5.59E+07 6.00E+10 5.59E+07 7.66E+06 6.13E+07 3.0 5.28E+07 13 4.37E+10 226 7.00E+10 5.28E+07 14 5.10E+10 218 7.36E+06 5.89E+07 3.5 4.98E+07 7.93E+10 4.98E+07 7.06E+06 5.65E+07 8.82E+10 15 5.83E+10 210 4.0 4.71E+07 4.71E+07 16 6.56E+10 202 6.77E+06 5.41E+07 4.5 4.45E+07 9.65E+10 4.45E+07 17 7.29E+10 194 6.48E+06 5.18E+07 5.0 4.22E+07 1.04E+11 4.22E+07 18 8.02E+10 187 6.19E+06 4.95E+07 5.5 3.99E+07 1.12E+11 3.99E+07 5.91E+06 4.73E+07 19 8.75E+10 6.0 3.78E+07 1.19E+11 179 3.78E+07 20 9.48E+10 172 5.63E+06 4.51E+07 6.5 3.58E+07 1.26E+11 3.58E+07 21 1.02E+11 165 5.36E+06 4.29E+07 7.0 3.40E+07 1.32E+11 3.40E+07 22 1.09E+11 157 5.09E+06 4.07E+07 7.5 3.22E+07 1.38E+11 3.22E+07 23 1.44E+11 1.17E+11 150 4.82E+06 3.85E+07 8.0 3.05E+07 3.05E+07 24 1.24E+11 143 4.55E+06 3.64E+07 8.5 2.90E+07 1.49E+11 2.90E+07 25 1.31E+11 136 4.28E+06 3.42E+07 9.0 2.74E+07 1.54E+11 2.74E+07 1.39E+11 4.01E+06 3.21E+07 1.59E+11 26 129 9.5 2.60F+07 2.60F+07 27 1.46E+11 122 3.75E+06 3.00E+07 10.0 2.47E+07 1.64E+11 2.47E+07 28 1.46E+11 3.75E+06 3.00E+07 10.5 2.34E+07 1.68E+11 2.34E+07 122 1.72E+11 29 1.53E+11 115 3.48E+06 2.78E+07 11.0 2.21E+07 2.21E+07 1.60F+11 108 3.21E+06 2.57E+07 11.5 2.10E+07 1.76F+11 2.10F+07 30 31 1.68E+11 101 2.94E+06 2.35E+07 12.0 1.99E+07 1.80E+11 1.99E+07 32 1.75E+11 94 2.67E+06 2.14E+07 12.5 1.88E+07 1.84E+11 1.88E+07 33 1.82E+11 87 2.40E+06 1.92E+07 13.0 1.78E+07 1.87E+11 1.78E+07 34 1.90E+11 80 2.13E+06 1.70E+07 13.5 1.68E+07 1.90E+11 1.68E+07 35 1.97E+11 73 1.85E+06 1.48E+07 14.0 1.59E+07 1.93E+11 1.59E+07 36 2.04E+11 66 1.56E+06 1.25E+07 14.5 1.51E+07 1.96E+11 1.51E+07 37 15.0 1.42E+07 1.99E+11 1.42E+07 2.11E+11 59 1.27E+06 1.02E+07 38 15.5 1.34E+07 2.01E+11 1.34E+07



Calculations for plateau mode. Plateau rate of 20 E6 Sm^3/d

	time	qfield	Gp	qppf	\mathbf{i}		
	[years]	[sm^3/d]	[sm^3]	[sm^3/d]			
	0.0	2.00E+07	0	7.64E+07			
	0.5	2.00E+07	3.55E+09	7.53E+07			
	1.0	2.00E+07	7.10E+09	7.42E+07		-	
	1.5	2.00E+07	1.07E+10	7.29E+07		1	
	2.0	2.00E+07	1.42E+10	7.17E+07		<u> </u>	
	2.5	2.00E+07	1.78E+10	7.04E+07			_
_	3.0	2.00E+07	2.13E+10	6.91E+07			_
	3.5	2.00E+07	2.49E+10	6.78E+07			
	4.0	2.00E+07	2.84E+10	6.66E+07			
	4.5	2.00E+07	3.20E+10	6.54E+07			For all these years, production
	5.0	2.00E+07	3.55E+10	6.41E+07		$\overline{\ }$	For all these years, production
	5.5	2.00E+07	3.91E+10	6.29E+07		_/	potential is greater than
	6.0	2.00E+07	4.26E+10	6.17E+07			f plateau rate, that means that it
	6.5	2.00E+07	4.62E+10	6.05E+07			is feasible to produce it!
	7.0	2.00E+07	4.97E+10	5.93E+07			
	7.5	2.00E+07	5.33E+10	5.82E+07			
	8.0	2.00E+07	5.68E+10	5.70E+07			
	8.5	2.00E+07	6.04E+10	5.58E+07			
	9.0	2.00E+07	6.39E+10	5.47E+07			
	9.5	2.00E+07	6.75E+10	5.36E+07			
	10.0	2.00E+07	7.10E+10	5.24E+07)
	10.5	2.00E+07	7.46E+10	5.13E+07	~		
	11.0	2.00E+07	7.81E+10	5.02E+07			
	11.5	2.00E+07	8.17E+10	4.91E+07			

_	24.0	2.00E+07	1./UE+11	2.2/E+U/	
_	24.5	2.00E+07	1.74E+11	2.17E+07	
_	25.0	2.00E+07	1.78E+11	2.06E+07	ρ
	25.2	2.00E+07	1.79E+11	2.02E+07	11
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<u>H</u> jelp	Lø <u>s</u>	L <u>u</u> kk	End of plateau 25.291 2.00E+07 1.80E+11 2.00E+07 =(158-G58) 26.0 1.85E+07 1.85E+11 1.85E+07

After plateau, the field its producing at is production potential

 End of plateau	25.291	2.00E+07	1.80E+11	2.00E+07	1.38778E-17
	26.0	1.85E+07	1.85E+11	1.85E+07	
	26.5	1.75E+07	1.88E+11	1.75E+07	
	27.0	1.66E+07	1.91E+11	1.66E+07	
	27.5	1.57E+07	1.94E+11	1.57E+07	
	28.0	1.48E+07	1.97E+11	1.48E+07	
 	28.5	1.40E+07	1.99E+11	1.40E+07	
	29.0	1.32E+07	2.02E+11	1.32E+07	
	29.5	1.25E+07	2.04E+11	1.25E+07	
	30.0	1.18E+07	2.06E+11	1.18E+07	
	30.5	1.11E+07	2.08E+11	1.11E+07	

