Resolution Copper Tailings Calculations

Assumptio	ons: 25 years prod 600,000 tons 110,000 tons	duction (RCC /yr copper pro /day ore prod	website) oducted (RCC v uction (D Lorin	website) g)											
Productio	n: 110.000	tons/day	times (x)	365	davs/vr	equals ()	40 150 000	tons/vr	ore						
	110,000	tonio/day		000	ddy5/yr		40,100,000	(0110/ y1)							
	600,000	tons/yr Cu	divided by (/)	40,150,000	tons/yr ore	equals (=)	1.5%	copper	in ore						
Total Ore	Produced:														
	110,000	tons/day	times (x)	365	days/yr	times (x)	25	years	equals (=)				1,003,750,000	tons ore	
Total Bulk Tailings: Assume 33.3% of the concentrate is copper															
	110,000	tons/day	times (x)	365	days/yr	times (x)	25	years	times (x)	95.5%	% waste	equals (=)	958,581,250	tons bulk tailings	
Total Concentrate: Assume 33.3% of the concentrate is copper															
	110,000	tons/day	times (x)	365	days/yr	times (x)	25	years	times (x)	4.5%	% waste	equals (=)	45,168,750	tons concentrate	
Concentrate Tailings: If the concentrate is refined onsite (SX-EX or smelting), then there will be concentrate tailings. Assume 33% of the concentrate is copper															
	45,168,750 tons concentrate 45,168,750 tons concentrate			times (x)	33.3%	Cu	equals (=)		15,056,250 tons of copper equals (=)			30,112,500,000) pounds of copper		
				times (x)	66.7%	waste	equals (=)		30,112,500	tons of concentrate tailings					
Tailings V	olume: Assume:	tailings den 1 acre = 43	sity of 95 poun ,560 sq. ft												
	Bulk Tailing	s:													
	958,581,250	3,581,250 tons bulk tailings		times (x)	times (x) 95		equals (=)		20,180,657,895	cubic feet of tailings					
		Assumed depth of tailings =		200 feet		equals (=)	2,316	acres re	equired for bulk ta	ailings dis	posal				
	Concentrate	Concentrate Tailings:													
	30,112,500	tons concer	ntrate tailings	times (x)	95	lbs/ft ³	equals (=)		633,947,368	cubic fe	et of tailin	gs			
		Assumed dep	th of tailings =	200	feet	equals (=)	73	acres re	acres required for concentrate tailings disposal						
						:	2,389	acres re	acres required for bulk tailings & concentrate tailings disposal						