



1.7 Mtpa Mass Balance:																																											
Stream Number		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
Description		ROM Feed	Secondary Crusher Product	Mill Stockpile Withdrawal	Primary Mill Feed Dilution Water	Total Mill Feed/Product	Primary Mill Discharge Tank Dilution Water	Cyclone Feed	Cyclone Underflow	Cyclone Overflow to Surge Tank								Aeration Circuit Feed Dilution Water	Ni-Cu-Co Bulk Flotation Feed Conditioner Product (Pumped)	Rougher Flotation HG Concentrate + Spraywater	Regind Mill Cyclone Feed	Rougher Flotation Tailings	Regind Mill Feed Cyclone O/F	Regind Mill Feed Cyclone U/F	Medium Grade CL Flotation Concentrate	Scav. Cleaner Concentrate (Pumped)	Jameson ReCL Flotation Concentrate	CL Scav. Flotation Concentrate										Ni-Cu-Co Concentrate Thickener Feed	Ni-Cu-Co Concentrate Thickener U/F	Ni-Cu-Co Concentrate Filter Filtrate	Ni-Cu-Co Concentrate Filter Filtrate		
Solids	t/h	283.3	341.5	212.5		624.9		624.9	412.3	212.6								92.3	212.8	16.8	31.3	164.7	6.3	25.1	26.5	6.8	13.0	26.5											21.7	21.7	21.7		
Solution	t/h	14.9	21.0	13.1	61.6	237.6	197.2	437.8	137.4	300.4								92.3	397.4	49.3	104.6	262.0	74.0	30.6	83.6	34.8	37.4	169.7											67.0	14.5	3.0	11.5	
Total Mass	t/h	298.2	362.5	225.6	61.6	862.5	197.2	1062.7	549.7	513.0								92.3	610.2	66.1	135.9	426.8	80.3	55.7	110.1	41.6	50.4	196.2											88.6	36.2	24.6	11.5	
Solids SG	t/m³	4.27	4.27	4.27		4.27		4.27	4.27	4.27								4.27	4.60	4.60	4.55	4.18	4.55	4.18	4.55	4.60	4.53												4.60	4.60	4.60		
Slurry SG	t/m³	3.67	3.59	3.59	1.00	2.25	1.00	1.82	2.35	1.46								1.00	1.36	1.25	1.22	1.42	1.06	1.54	1.23	1.14	1.25	1.12											1.24	1.89	3.21	1.00	
Total Volume	m³/h	81.3	101.0	62.8	61.6	384.0	197.2	584.2	234.0	350.2								92.3	447.3	52.9	111.5	301.4	75.5	36.1	89.4	36.4	40.3	175.5											71.7	19.2	7.7	11.5	
% Solids	% ww	95.0	94.2	94.2		72.4		58.8	75.0	41.4								34.9	25.5	23.4	38.6	7.8	45.0	24.1	16.3	25.8	13.5												24.5	60.0	88.0		
% Solids	% vv	81.7	79.2	79.2		38.1	0.0	25.1	41.3	14.2								11.1	6.9	6.2	13.1	1.8	15.1	6.5	4.4	7.0	3.3											6.6	24.6	61.5			

Stream Number		43	44	45	46	47	48	49	50	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82
Description		Ni-Cu-Co Concentrate Thickener O/F	Total Spray and Gland Service Water	Excess Water to Intermediate Thick O/F Water Tank	Intermediate Thickener Feed	Intermediate Thickener O/F	Intermediate Thickener U/F	Pyrrhotite Flotation Feed Dilution Water	Pyrrhotite Rougher Flotation Feed Stream 1		Pyrrhotite Rougher Flotation Concentrate	Pyrrhotite Rougher Flotation Tailings (Pumped)	Pyrrhotite Conc Thickener U/F	Pyrrhotite Conc Thickener O/F	Pyrrhotite Tailings Pumped to TSF	Non-Pyrrhotite Tailings Thickener U/F	Non-Pyrrhotite Tailings Thickener O/F	Pumped Non-Pyrrhotite Tailings	Total Raw Water Demand	Crusher Circuit Dust Suppression	Primary Mill Feed Dilution Water	Reagent Make-Up Water	Raw Water to Potable Treatment Plant	Milling & Bulk Flotation Process Water Make-Up	Total Bulk Flotation Water	TSF Return Water	Excess Po Flotation Water	Total Water Treatment Plant Feed	Recycle to Mill & Bulk Float Process Water (Via WTP)	WTP Discharge (Brine)	Po Process Water Make-up	GSW and Spray Water Make-up	HG Jameson Cleaner Concentrate (Pumped)	HG Jameson Cleaner Tails	MG Jameson ReCL Flotation Tailings				Ni-Cu-Co Process Water Make-up	Raw Water Make Up Water	Mill Seal Water	Pyrrhotite Flotation Water
Solids	t/h	66.0	138.2		191.3	347.3	191.3	250.0	355.2	191.3	139.2	52.1	139.2		139.2	52.1		52.1	39.0	5.0	61.6	8.5	5.0	4.5	383.4	24.8	8.9	33.6	31.6	2.0		28.2	8.7	8.1	21.7				44.0	28.2	5.0	250.0
Solution	t/h	66.0	138.2		431.7	622.9	103.0	250.0	355.2	431.7	262.5	98.8	162.0	123.9	28.0	96.9	91.1	117.8	117.8	5.0	61.6	8.5	5.0	4.5	383.4	24.8	8.9	33.6	31.6	2.0		28.2	29.5	47.5	134.3			28.2	28.2	5.0	250.0	
Total Mass	t/h	66.0	138.2		622.9	960.1	353.0	500.0	710.4	863.0	401.7	150.9	253.1	162.0	263.1	80.1	96.9	91.1	117.8	5.0	61.6	8.5	5.0	4.5	383.4	24.8	8.9	33.6	31.6	2.0		28.2	38.2	55.6	156.0			44.0	28.2	5.0	250.0	
Solids SG	t/m³				4.23	4.23	4.23	4.23	4.23	4.23	4.65	3.41	4.65	4.65	4.65	3.41		1.68	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		4.60	4.60	4.59				1.00	1.00	1.00	1.00	
Slurry SG	t/m³	1.00	0.00		1.31	1.00	1.29	1.00	1.36	1.37	1.37	1.32	1.76	1.00	1.71	1.85	1.00	1.68	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.22	1.13	1.12				1.00	1.00	1.00	1.00
Total Volume	m³/h	66.0	138.2		476.9	347.3	148.2	250.0	400.4	350.0	292.4	114.1	143.8	62.0	153.8	43.3	96.9	54.3	117.8	5.0	61.6	8.5	5.0	4.5	383.4	24.8	8.9	33.6	31.6	2.0		28.2	31.4	49.2	139.0			44.0	28.2	5.0	250.0	
% Solids	% ww				30.7	65.0		35.0	34.7	34.5	55.0	62.9	65.0	55.0	52.9	65.0	57.2	57.2	57.2	5.0	61.6	8.5	5.0	4.5	383.4	24.8	8.9	33.6	31.6	2.0		22.7	14.6	13.9								
% Solids	% vv				9.5	30.5		11.3	11.3	11.3	10.2	13.3	21.1				28.1																6.0	3.6	3.4							

3.4 Mtpa Mass Balance:

Stream Number		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42			
Description		ROM Feed	Secondary Crusher Product	Mill Stockpile Withdrawal	Primary Mill Feed Dilution Water	Total Mill Feed/Product	Primary Mill Discharge Tank Dilution Water	Cyclone Feed	Cyclone Underflow	Cyclone Overflow to Surge Tank	Mill Stockpile Withdrawal	Primary Mill Feed Dilution Water	Total Mill Feed/Product	Primary Mill Discharge Tank Dilution Water	Cyclone Feed	Cyclone Underflow	Cyclone Overflow to Surge Tank	Aeration Circuit Feed Dilution Water	Ni-Cu-Co Bulk Flotation Feed Conditioner Product (Pumped)	Rougher Flotation HG Concentrate + Spraywater	Regind Mill Cyclone Feed	Rougher Flotation Tailings	Regind Mill Feed Cyclone O/F	Regind Mill Feed Cyclone U/F	Medium Grade CL Flotation Concentrate	Scav. Cleaner Concentrate (Pumped)	Jameson ReCL Flotation Concentrate	CL Scav. Flotation Concentrate	Aeration Circuit Feed Dilution Water	Ni-Cu-Co Bulk Flotation Feed Conditioner Product (Pumped)	Flotation Feed Concentrate	WTP Discharge (Brine)	Po Process Water Make-up	Combined Regind Circuit Feed	Rougher Flotation Tailings	Regind Mill Feed Cyclone O/F	Regind Mill Feed Cyclone U/F	Medium Grade CL Flotation Concentrate	Scav. Cleaner Concentrate (Pumped)	Jameson ReCL Flotation Concentrate	Module #2 MG Jameson ReCL Concentrate	CL Scav. Flotation Tailings	Ni-Cu-Co Concentrate Thickener Feed	Ni-Cu-Co Concentrate Thickener U/F	Ni-Cu-Co Concentrate Filter Filtrate	Ni-Cu-Co Concentrate Filter Filtrate
Solids	t/h	566.7	683.0	212.5	61.6	624.9	197.2	624.9	412.3	212.6	212.5	62.5	624.9	197.2	624.9	412.3	212.6	0.0	212.8	16.8	31.3	164.7	6.3	25.1	26.5	6.8	13.0	26.5	92.3	212.8	16.8	31.3	164.7	6.3	25.1	26.5	6.8	13.0	26.5	43.4	43.4	43.4				
Solution	t/h	29.8	39.0	13.1	61.6	237.6	197.2	437.8	137.4	300.4	12.1	62.5	237.6	197.2	437.8	137.4	300.4	92.3	397.4	49.3	104.6	262.0	74.0	30.6	83.6	34.8	37.4	169.7	92.3	397.4	39.3	102.6	262.0	74.0	30.6	83.6	34.8	37.4	169.7	133.9	28.9	5.9	23.0			
Total Mass	t/h	596.5	721.9	225.6	61.6	862.5	197.2	1062.7	549.7	513.0	22.6	62.5	862.5	197.2	1062.7	549.7	513.0	92.3	610.2	66.1	135.9	426.8	80.3	55.7	110.1	41.6	50.4	196.2	92.3	610.2	56.1	133.9	426.8	80.3	55.7	110.1	41.6	50.4	196.2	177.3	72.3	49.3	23.0			
Solids SG	t/m³	4.27	4.27	4.27		4.27		4.27	4.27	4.27		4.27	4.27	4.27	4.27	4.27	4.27	4.27	4.60	4.60	4.55	4.18	4.55	4.18	4.55	4.60	4.53		4.27	4.60	4.55	4.20	4.55	4.60	4.53	4.18	4.55	4.60	4.53	4.18	4.55	4.60	4.53	4.18		
Slurry SG	t/m³	3.67	3.63	3.59	1.00	2.25	1.00	1.82	2.35	1.46	1.00	2.27	1.00	1.82	2.35	1.46	1.00	1.36	1.25	1.22	1.42	1.06	1.54	1.23	1.14	1.25	1.12	1.00	1.36	1.31	1.22	1.42	1.06	1.54	1.23	1.14	1.28	1.12	1.24	1.89	3.21	1.00				
Total Volume	m³/h	162.5	198.9	62.8	61.6	384.0	197.2	584.2	234.0	350.2	61.9	62.5	384.0	197.2	584.2	234.0	350.2	92.3	447.3	52.9	111.5	301.4	75.5	36.1	89.4	36.4	40.3	175.5	92.3	447.2																