

Company Name :

Rosemont Copper Company

Date 1/31/13

Permit Type:

Class II Synthetic Minor

Permit Number:

55223

Eqpt ID	Description	Annual Thru'put	Units	Pollutant	EF	Units	EF Source	Control %	PM	PM ₁₀	PM _{2.5}	CO	NOX	SO ₂	VOC	H ₂ SO ₄	CH ₄	CO ₂	N ₂ O	HAPs	Pb*	
									Tons Per Year											0.1728 lbs/ton		
MINING																						
MN01	Drilling	29200	holes/yr	PM	1.3	lb/hole	AP-42 11.9-4	0%	18.98													0.00054
				PM ₁₀	0.429	lb/hole	33%PM			6.26												
				PM _{2.5}	0.079		18.5%PM10				1.16											
MN02	Blasting ave blast area = 81920 ft2 afno - 0.65 tons/hole 80 holes/last	365 81920 18098	blasts/yr sq ft tons AFNO	PM	328.26	lb/blast	AP-42 11.9-4	0%	59.91													0.00269
				PM ₁₀	170.69	lb/blast				31.15												
				PM _{2.5}	9.85	lb/blast					1.80											
				CO	67.00	lb/ton						606.28										
				NOX	17.00	lb/ton							153.83									
				SO ₂	2.00	lb/ton								18.10								
				CH ₄	0.023	lbs/ANFO											0.208					
				CO ₂	566.386	lbs/ANFO												5125.227				
				N ₂ O	0.005	lbs/ANFO													0.045			
MN03	Loading Concentrate Ore U - 4.14mph, M -4%	27375000	tons	PM	0.0007	lbs/ton	AP-42 13.2.4	0%	9.61													0.00039
				PM10	0.00033	lbs/ton				4.55												
				PM _{2.5}	0.00005	lbs/ton					0.69											
MN04	Loading Leach Ore U - 4.14mph, M -4%	20805000	tons	PM	0.0007	lbs/ton	AP-42 13.2.4	0%	7.30													0.0003
				PM10	0.00033	lbs/ton				3.45												
				PM _{2.5}	0.00005	lbs/ton					0.52											
MN05	Loading Waste Rock U - 4.14mph, M -4%	80300000	tons	PM	0.0007	lbs/ton	AP-42 13.2.4	0%	28.19													0.00115
				PM10	0.00033	lbs/ton				13.33												
				PM _{2.5}	0.00005	lbs/ton					2.02											
MN06a	Hauling Conc Ore to Pri Crusher/stockpile W-305 t; s-5%, p-61days In-pit	373295	VMT	PM	17.70	lbs/vmt	AP-42 13.2.2	90%	330.3													0.00733
				PM ₁₀	4.55	lbs/vmt				84.9												
				PM _{2.5}	0.45	lbs/vmt					8.49											
MN06b	Hauling Conc Ore to Pri Crusher/stockpile W-305 t; s-5%, p-61days Outside-pit	215889	VMT	PM	17.70	lbs/vmt	AP-42 13.2.2	90%	191.0													0.00424
				PM ₁₀	4.55	lbs/vmt				49.1												
				PM _{2.5}	0.45	lbs/vmt					4.91											
MN07a	Hauling Leach Ore to Leach Pad W-305 t; s-5%, p-61days In-pit	87854	VMT	PM	17.70	lbs/vmt	AP-42 13.2.2	90%	77.7													0.00173
				PM ₁₀	4.55	lbs/vmt				20.0												
				PM _{2.5}	0.45	lbs/vmt					2.00											
MN07b	Hauling Leach Ore to Leach Pad W-305 t; s-5%, p-61days Outside-pit	213819	VMT	PM	17.70	lbs/vmt	AP-42 13.2.2	90%	189.2													0.0042
				PM ₁₀	4.55	lbs/vmt				48.6												
				PM _{2.5}	0.45	lbs/vmt					4.86											
MN08a	Hauling Waste Rock to Storage W-305 t; s-5%, p-61days In-pit	786088	VMT	PM	17.70	lbs/vmt	AP-42 13.2.2	90%	695.5													0.01544
				PM ₁₀	4.55	lbs/vmt				178.7												
				PM _{2.5}	0.45	lbs/vmt					17.87											

										PM	PM ₁₀	PM _{2.5}	CO	NOX	SO ₂	VOC	H ₂ SO ₄	CH ₄	CO ₂	N ₂ O	HAPs	Pb	
MN08B	Hauling Waste Rock to Storage W-305 t; s-5%, p-61days In-pit	1392110	VMT	PM PM ₁₀ PM _{2.5}	17.70 4.55 0.45	lbs/vmt lbs/vmt lbs/vmt	AP-42 13.2.2	90%	1231.7		316.5	31.65											0.02734
MN09	Unloading Conc Ore to stockpile U - 6.21mph, M -4%	2737500	tons	PM PM ₁₀ PM _{2.5}	0.0012 0.00055 0.00008	lbs/ton lbs/ton lbs/ton	AP-42 13.2.4	0%	1.63		0.76	0.11											6.5E-05
MN10	Unloading Leach Ore to Leach Pad U - 6.21mph, M -4%	20805000	tons	PM PM ₁₀ PM _{2.5}	0.0012 0.00055 0.00008	lbs/ton lbs/ton lbs/ton	AP-42 13.2.4	0%	12.37		5.74	0.87											0.0005
MN11	Unloading Waste Rock to Storage U - 6.21mph, M -4%	80300000	tons	PM PM ₁₀ PM _{2.5}	0.0012 0.00055 0.00008	lbs/ton lbs/ton lbs/ton	AP-42 13.2.4	0%	47.75		22.16	3.36											0.00191
MN12	Bulldozers w-187.4 Tons, s-5%, +20%factor In-pit	55,170	hours	PM PM ₁₀ PM _{2.5}	2.82 0.53 0.30	lb/hr lb/hr lb/hr	AP-42 11.9-1	0%	77.87		14.66	8.20											
MN13a	Water Trucks w-187.4 Tons, s-5%, +20%factor In-pit	59,847	hours	PM PM ₁₀ PM _{2.5}	14.21 3.65 0.37	lb/hr lb/hr lb/hr	AP-42 11.9-1	90%	42.53		10.93	1.09											
MN13a	Water Trucks w-187.4 Tons, s-5%, +20%factor Outside-pit	83,153	hours	PM PM ₁₀ PM _{2.5}	14.21 3.65 0.37	lb/hr lb/hr lb/hr	AP-42 11.9-1	90%	59.09		15.18	1.52											
MN14	Graders w-187.4 Tons, S-11mph, s-5%, +20%factor Outside-pit	87,000	VMT	PM PM ₁₀ PM _{2.5}	2.00 0.70 0.06	lbs/vmt lbs/vmt lbs/vmt	AP-42 11.9-1	0%	86.92		30.41	2.69											
MN15a	Support Vehicles- unpaved roads W-42.8 t; s-5% In-pit	272398	VMT	PM PM ₁₀ PM _{2.5}	7.31 1.88 0.19	lbs/vmt lbs/vmt lbs/vmt	AP-42 13.2.2	90%	99.6		25.6	2.56											
MN15b	Support Vehicles - unpaved roads W-42.8 t; s-5% Outside-pit	272398	VMT	PM PM ₁₀ PM _{2.5}	7.31 1.88 0.19	lbs/vmt lbs/vmt lbs/vmt	AP-42 13.2.2	90%	99.6		25.6	2.56											
MN16a	Support Vehicles - paved roads W-16.5 t; s-0.2 g/m ² Within PAB	74399	VMT	PM PM ₁₀ PM _{2.5}	0.04 0.01 0.002	lbs/vmt lbs/vmt lbs/vmt	AP-42 13.2.1	0%	1.4		0.3	0.07											
MN16b	Support Vehicles - paved roads W-16.5 t; s-0.2 g/m ² Outside-PAB	322577	VMT	PM PM ₁₀ PM _{2.5}	0.04 0.01 0.002	lbs/vmt lbs/vmt lbs/vmt	AP-42 13.2.2	0%	6.0		1.2	0.29											
MN16c	Support Vehicles - paved roads W-10.7 t; s-8.2 g/m ² Outside-pit	185705	VMT	PM PM ₁₀ PM _{2.5}	0.70 0.14 0.034	lbs/vmt lbs/vmt lbs/vmt	AP-42 13.2.2	0%	64.8		13.0	3.18											
PC01	Wind Erosion of Stockpile e-38, s-2.5%, f-4.77%, PE-22	26	acres	PM PM ₁₀ PM _{2.5}	0.21 0.11 0.02	tons/acre tons/acre tons/acre	AP-42 13.2.2	0%	5.518		2.759	0.414											0.00024

									PM	PM ₁₀	PM _{2.5}	CO	NOX	SO ₂	VOC	H ₂ SO ₄	CH ₄	CO ₂	N ₂ O	HAPs	Pb	
PC02	Unloading to Pri Crusher Hopper U - 6.21mph, M -4% Water sprays	27375000 tons	PM PM ₁₀ PM _{2.5}	0.0012 0.00055 0.00008	lbs/ton lbs/ton lbs/ton	AP-42 13.2.4	83%	2.85	1.32	0.20												0.00011
PC03	Primary Crushing Cartridge Filter PCL01 (PC-CADC)	43362000 tons	PM PM ₁₀ PM _{2.5}	0.02 0.01 0.00	lbs/ton lbs/ton lbs/ton	2.22 - PM/PM ₁₀	PCL01	0.00	0.00	0.00												0
PC04	Pri Crusher to Hopper discharge U - 1.3mph, M -4%	43362000 tons	PM PM ₁₀ PM _{2.5}	0.0002 0.00007 0.00001	lbs/ton lbs/ton lbs/ton	AP-42 13.2.4	100% enclosed	0.00	0.00	0.00												0
PC05	Hopper discharge to Discharge Feeder U - 1.3mph, M -4% Cartridge Filter PCL01 (PC-CADC)	43362000 tons	PM PM ₁₀ PM _{2.5}	0.0002 0.00007 0.00001	lbs/ton lbs/ton lbs/ton	AP-42 13.2.4	PCL01	0.00	0.00	0.00												0
PC06	Discharge Feeder to Stkpile Feed Convyr U - 1.3mph, M -4% Cartridge Filter PCL01 (PC-CADC)	43362000 tons	PM PM ₁₀ PM _{2.5}	0.0002 0.00007 0.00001	lbs/ton lbs/ton lbs/ton	AP-42 13.2.4	PCL01	0.00	0.00	0.00												0
PC07	Stkpile Feed Convyr to Stkpile Tripper Conv U - 1.3mph, M -4% Cartridge Filter PCL03 (SF-CDC)	43362000 tons	PM PM ₁₀ PM _{2.5}	0.0002 0.00007 0.00001	lbs/hr lbs/hr lbs/hr	1.01 - PM/PM ₁₀	PCL03	0.00	0.00	0.00												2.8E-08
PC08	Stkpile Feed Convyr to covered coarse pile U - 1.3mph, M -4% Cartridge Filter PCL02 (SARTDC)	43362000 tons	PM PM ₁₀ PM _{2.5}	0.0002 0.00007 0.00001	lbs/ton lbs/ton lbs/ton	AP-42 13.2.4	PCL02 enclosed	0.00	0.00	0.00												0
PC09	Wind Erosion of Coarse Ore Stockpile e-38, s-2.5%, f-4.77%, PE-22	5 acres	PM PM ₁₀ PM _{2.5}	0.00 0.00 0.00	tons/acre tons/acre tons/acre	AP-42 13.2.2	100% enclosed	0.000	0.000	0.000												0
PC10	Coarse ore Stkpile to Reclaim Feeders U - 1.3mph, M -4%	43362000 tons	PM PM ₁₀ PM _{2.5}	0.0002 0.00007 0.00001	lbs/ton lbs/ton lbs/ton	AP-42 13.2.4	100% under-ground	0.00	0.00	0.00												0
PC11	Reclaim Feeders to Reclaim Convyr U - 1.3mph, M -4% Cartridge Filter PCL02 (SARTDC)	43362000 tons	PM PM ₁₀ PM _{2.5}	0.0002 0.00007 0.00001	lbs/hr lbs/hr lbs/hr	1.01 - PM/PM ₁₀	PCL02	0.00	0.00	0.00												2.8E-08
PC12	Reclaim Convyr to SAG Mill Feed Convyr U - 1.3mph, M -4% Cartridge Filter PCL12 (SFDC)	43362000 tons	PM PM ₁₀ PM _{2.5}	0.0002 0.00007 0.00001	lbs/hr lbs/hr lbs/hr	1.02 - PM/PM ₁₀	PCL03	0.00	0.00	0.00												2.8E-08
PC13	Pebble Conveyor No.3 to SAG Mill Feed Con U - 1.3mph, M -4% Cartridge Filter PCL12 (SFTDC)	6269400 tons	PM PM ₁₀ PM _{2.5}	0.0002 0.00007 0.00001	lbs/ton lbs/ton lbs/ton	AP-42 13.2.4	PCL03	0.00	0.00	0.00												0
PC14	SAG Mill Feed Convyr to SAG Mill U - 1.3mph, M -4% Water	49669200 tons	PM PM ₁₀ PM _{2.5}	0.0002 0.00007 0.00001	lbs/ton lbs/ton lbs/ton	AP-42 13.2.4	100%	0.00	0.00	0.00												0
M01	MILLING Sag Mill	49669200 tons	PM PM ₁₀ PM _{2.5}	0.0500 0.02000 0.00370	lbs/ton lbs/ton lbs/ton	AP-42 11.24-2	100% wet	0.00	0.00	0.00												0

										PM	PM ₁₀	PM _{2.5}	CO	NOX	SO ₂	VOC	H ₂ SO ₄	CH ₄	CO ₂	N ₂ O	HAPs	Pb	
M02	Sag Mill to Trommel Screen	49669200	tons	PM	0.0002	lbs/ton	AP-42 13.2.4	100%	enclosed	0.00													0
				PM ₁₀	0.00007	lbs/ton					0.00												0
				PM _{2.5}	0.00001	lbs/ton						0.00											0
M03	Trommel Screen	49669200	tons	PM	0.0250	lbs/ton	AP-42 13.2.4	100%	wet	0.00													0
				PM ₁₀	0.00870	lbs/ton					0.00												0
				PM _{2.5}	0.00059	lbs/ton	6.8% of PM ₁₀					0.00											0
M04	Trommel Screen to Pebble Convyr	10505042	tons	PM	0.0002	lbs/ton	AP-42 13.2.4	100%	clean	0.00													0
				PM ₁₀	0.00007	lbs/ton					0.00												0
				PM _{2.5}	0.00001	lbs/ton						0.00											0
M05	Pebble Convyr #1 to Pebble Wash Screen	10505042	tons	PM	0.0002	lbs/ton	AP-42 13.2.4	100%	clean	0.00													0
				PM ₁₀	0.00007	lbs/ton					0.00												0
				PM _{2.5}	0.00001	lbs/ton						0.00											0
M06	Pebble Wash Screen	10505042	tons	PM	0.0250	lbs/ton	AP-42 13.2.4	100%	wet	0.00													0
				PM ₁₀	0.00870	lbs/ton					0.00												0
				PM _{2.5}	0.00059	lbs/ton	6.8% of PM ₁₀					0.00											0
M07	Pebble wash screen to Pebble conveyr #2	6269400	tons	PM	0.0002	lbs/ton	AP-42 13.2.4	100%	clean	0.00													0
				PM ₁₀	0.00007	lbs/ton					0.00												0
				PM _{2.5}	0.00001	lbs/ton						0.00											0
M08	Pebble conveyr #2 to SAG Oversize Surge Bin	6269400	tons	PM	0.0002	lbs/ton	AP-42 13.2.4		PCL04	0.00													0
	Cartridge Filter PCL04 (PCADC)			PM ₁₀	0.00007	lbs/ton					0.00												0
				PM _{2.5}	0.00001	lbs/ton						0.00											0
M09	SAG Oversize Surge Bin to Pebble Crusher Feeder	6269400	tons	PM	0.0002	lbs/ton	AP-42 13.2.4		PCL04	0.00													0
	Cartridge Filter PCL04 (PCADC)			PM ₁₀	0.00007	lbs/ton					0.00												0
				PM _{2.5}	0.00001	lbs/ton						0.00											0
M10	Pebble Crusher Feeder to Pebble Crusher	6269400	tons	PM	0.0002	lbs/ton	AP-42 13.2.4	100%	enclosed	0.00													0
				PM ₁₀	0.00007	lbs/ton					0.00												0
				PM _{2.5}	0.00001	lbs/ton						0.00											0
M11	Pebble Crusher	6269400	tons	PM	0.0600	lbs/ton	AP-42 11.24-2		PCL04	0.00													0
	Cartridge Filter PCL04 (PCADC)			PM ₁₀	0.02000	lbs/ton					0.00												0
				PM _{2.5}	0.00370	lbs/ton						0.00											0
M12	Pebble Crusher to Pebble Convyr #3	6269400	tons	PM	0.0002	lbs/ton	AP-42 13.2.4		PCL04	0.00													0
	Cartridge Filter PCL04 (PCADC)			PM ₁₀	0.00007	lbs/ton					0.00												0
				PM _{2.5}	0.00001	lbs/ton						0.00											0
COPPER CONCENTRATE DEWATERING AND STACKING																							
CCD01	Copper Concentrate Filters to Conc Convy	550936	tons	PM	0.00004	lbs/ton	AP-42 13.2.4	100%	enclosed	0.00													0
	1.27% of crusher ore, U-1.3mph, M-10%;			PM ₁₀	0.00002	lbs/ton					0.00												0
				PM _{2.5}	0.000003	lbs/ton						0.00											0
CCD02	Copper Conc conveyr to conc loadout stkpile	550936	tons	PM	0.00004	lbs/ton			PCL05-06	0.00													0
	U-1.3mph, M-10%;			PM ₁₀	0.00002	lbs/ton					0.00												0
	Cartridge Filter PCL05-06 (CCDC)			PM _{2.5}	0.000003	lbs/ton						0.00											0
CCD03	Wind Erosion of Copper Conc Stockpile	1.17	acres	PM	0.00	tons/acre	AP-42 13.2.2	100%	enclosed	0.000													0
	U-1.3mph, M-10%;			PM ₁₀	0.00	tons/acre					0.000												0
				PM _{2.5}	0.00	tons/acre						0.000											0

									PM	PM ₁₀	PM _{2.5}	CO	NOX	SO ₂	VOC	H ₂ SO ₄	CH ₄	CO ₂	N ₂ O	HAPs	Pb	
CCD04	Copper Conc loadout stkipile to trucks U-1.3mph, M-10%; Cartridge Filter PCL05-06 (CCDC)	550936 tons	PM PM10 PM _{2.5}	0.00004 lbs/ton 0.00002 lbs/ton 0.000003 lbs/ton		PCL05-06		0.00		0.00	0.00											0
MOLYBDENUM DEWATERING AND PACKAGING																						
MD01	Moly conc Filter to Moly conc dryer U-1.3mph, M-10%;	6377 tons	PM PM10 PM _{2.5}	0.0002 lbs/ton 0.00007 lbs/ton 0.00001 lbs/ton	AP-42 13.2.4	100% enclosed		0.00		0.00	0.00											0
MD02	Moly conc Dryer U-1.3mph, M-10%; Wet Scrubber + ESP	6377 tons	PM PM10 PM _{2.5}	19.70 lbs/hr 12.00 lbs/hr 5.91 lbs/hr	P-42 Table11.24-	MS/ESP		0.00		0.00	0.00											0
MD03	Copper Concentrate Filters to Conc Convy U-1.3mph, M-6%; Wet Scrubber -(PC-MDC)	6377 tons 1500 acfm 653597276 dscf	PM PM10 PM _{2.5}	0.00004 gr/dscf 0.00002 gr/dscf 0.000003 gr/dscf		MDC																
MD04	Moly Conc bin to Moly conc hopper U - 6.21mph, M -10%	6377 tons	PM PM10 PM _{2.5}	0.0003 lbs/ton 0.00015 lbs/ton 0.00002 lbs/ton	AP-42 13.2.4	0%		0.001		0.0005	0.00007											4.2E-08
MD05	Moly conc hopper to Moly conc convyr U -1.3mph, M -10%	6377 tons	PM PM10 PM _{2.5}	0.00004 lbs/ton 0.00002 lbs/ton 0.000003 lbs/ton	AP-42 13.2.4	100% enclosed		0.00		0.00	0.00											0
MD06	Moly conc convyr to Moly Packaging & We U - 6.21mph, M -10% Wet Scrubber -MDC	6377 tons	PM PM10 PM _{2.5}	0.0003 lbs/ton 0.00015 lbs/ton 0.00002 lbs/ton	AP-42 13.2.4	MDC		0.99		0.47	0.07											4.1E-05
TAILINGS DEWATERING & PLACEMENT																						
TDS01	Tailings Filters to Tailings Belt Feeders U -1.3mph, M -15%	42804687 tons	PM PM10 PM _{2.5}	0.00002 lbs/ton 0.00001 lbs/ton 0.000002 lbs/ton	AP-42 13.2.4	100% enclosed		0.00		0.00	0.00											0
TDS02	Tailings Belt Feeders to Fixed Belt Feeders U -1.3mph, M -15%	42804687 tons	PM PM10 PM _{2.5}	0.00002 lbs/ton 0.00001 lbs/ton 0.000002 lbs/ton	AP-42 13.2.4	100% enclosed		0.00		0.00	0.00											0
TDS03	Fixed Tailings Convy No.1 to Fixed Tailings U -1.3mph, M -15%	42804687 tons	PM PM10 PM _{2.5}	0.00002 lbs/ton 0.00001 lbs/ton 0.000002 lbs/ton	AP-42 13.2.4	100% enclosed		0.00		0.00	0.00											0
TDS04	Fixed Tailings Convy No.2 to Fixed Tailings U -1.3mph, M -15%	42804687 tons	PM PM10 PM _{2.5}	0.00002 lbs/ton 0.00001 lbs/ton 0.000002 lbs/ton	AP-42 13.2.4	0%		0.52		0.25	0.04											2.8E-06
TDS05	Fixed Tailings Convy No.3 to Relocatable Co U -1.3mph, M -15%	42804687 tons	PM PM10 PM _{2.5}	0.00002 lbs/ton 0.00001 lbs/ton 0.000002 lbs/ton	AP-42 13.2.4	0%		0.52		0.25	0.04											2.8E-06
TDS06	Relocatable Convy to shiftable convyr U -1.3mph, M -15%	42804687 tons	PM PM10 PM _{2.5}	0.00002 lbs/ton 0.00001 lbs/ton 0.000002 lbs/ton	AP-42 13.2.4	0%		0.52		0.25	0.04											2.8E-06

										PM	PM ₁₀	PM _{2.5}	CO	NOX	SO ₂	VOC	H ₂ SO ₄	CH ₄	CO ₂	N ₂ O	HAPs	Pb			
TDS07	Shiftable convyr to Belt Wagon Convyr U -6.21mph, M -15%	42804687	tons	PM	0.0002	lbs/ton	AP-42 13.2.4	0%	4.00																
				PM ₁₀	0.0001	lbs/ton				1.89															2.1E-05
				PM _{2.5}	0.00001	lbs/ton					0.29														
TDS08	Belt Wagon Convyr to Spreader Crawler Mou U -6.21mph, M -15%	42804687	tons	PM	0.0002	lbs/ton	AP-42 13.2.4	0%	4.00																
				PM ₁₀	0.0001	lbs/ton				1.89															2.1E-05
				PM _{2.5}	0.00001	lbs/ton					0.29														
TDS09	Spreader Crawler Mounted convyr to Tailings U -6.21mph, M -15%	42804687	tons	PM	0.0002	lbs/ton	AP-42 13.2.4	0%	4.00																
				PM ₁₀	0.0001	lbs/ton				1.89															2.1E-05
				PM _{2.5}	0.00001	lbs/ton					0.29														
TDS10	Wind Erosion of Tailings Storage	1500	acres	PM	0.02	tons/acre	AP-42 13.2.5	0%	30.23																
				PM ₁₀	0.01	tons/acre				15.11															0.00017
				PM _{2.5}	0.00	tons/acre					2.27														
FUEL BURNING EQUIPMENT																									
FB01	EW Hot Water Generator Diesel	6 8760 19300 7.3775 137000 383.65	MMBtu/hr hrs/yr btu/lb lb/gal btu/gal 1000 gals/yr	PM	3.30	lbs/1000 gal	AP42 1.3-1,2	0%	0.63																
				PM ₁₀	2.30	lbs/1000 gal	AP42 1.3-1,2,6			0.44															
				PM _{2.5}	1.54	lbs/1000 gal	AP42 1.3-1,2,6				0.30														
				CO	5.00	lbs/1000 gal	AP 42 1.3-1					0.96													
				NO _x	20.00	lbs/1000 gal	AP42 1.3-1						3.84												
				SO ₂	0.21	lbs/1000 gal	AP42 1.3-1							0.04											
				VOC	0.20	lbs/1000 gal	AP42 1.3-1							0.04											
				CH ₄	0.94	lbs/1000 gal	40CFR98 TblC-2									0.18									
				CO ₂	23217.00	lbs/1000 gal	40CFR98 TblC-2										4453.60								
				N ₂ O	0.19	lbs/1000 gal	40CFR98 TblC-2														0.04				
				HAPs	500.59	lbs/10 ¹² Btu	1.3-8,10																		0.01
FB02	Thickner Area Emergency Generator Diesel	1000 500	kW hrs/yr	PM	0.20	g/kW-hr	Tier 2		0.1102																
				PM ₁₀	0.20	g/kW-hr	Tier 2			0.1102															
				PM _{2.5}	0.20	lbs/1000 gal	Tier 2				0.1102														
				CO	3.50	g/kW-hr	Tier 2					1.9290													
				SO ₂	0.01	g/kW-hr	AP 42 3.4-3							0.0036											
				VOC	0.40	g/kW-hr	Tier 2 -6.25%							0.220											
				CH ₄	0.03	g/kW-hr										0.0165									
				CO ₂	694.00	g/kW-hr											382.4956								
				N ₂ O	0.01	g/kW-hr																			0.0033
FB03	PLS Pond Area Emergency Generator Diesel	1000 500	kW hrs/yr	PM	0.20	g/kW-hr	Tier 2		0.1102																
				PM ₁₀	0.20	g/kW-hr	Tier 2			0.1102															
				PM _{2.5}	0.20	lbs/1000 gal	Tier 2				0.1102														
				CO	3.50	g/kW-hr	Tier 2					1.9290													
				NO _x	6.00	g/kW-hr	Tier 2 -93.75%							3.3069											
				SO ₂	0.01	g/kW-hr	AP 42 3.4-3							0.0036											
				VOC	0.40	g/kW-hr	Tier 2 -6.25%							0.220											
				CH ₄	0.03	g/kW-hr										0.0165									
				CO ₂	694.00	g/kW-hr											382.4956								
				N ₂ O	0.01	g/kW-hr																			0.0033

								PM	PM ₁₀	PM _{2.5}	CO	NOX	SO ₂	VOC	H ₂ SO ₄	CH ₄	CO ₂	N ₂ O	HAPs	Pb
FB04	Main Substation Emergency Generator Diesel	750 kW 500 hrs/yr	PM	0.20	g/kW-hr	Tier 2	0.0827	0.0827	0.0827	1.4468	2.4802	0.0027	0.165	0.0124	286.8717	0.0025				
			PM ₁₀	0.20	g/kW-hr	Tier 2														
			PM _{2.5}	0.20	lbs/1000 gal	Tier 2														
			CO	3.50	g/kW-hr	Tier 2														
			NO _x	6.00	g/kW-hr	Tier 2 -93.75%														
			SO ₂	0.01	g/kW-hr	AP 42 3.4-3														
			VOC	0.40	g/kW-hr	Tier 2 -6.25%														
			CH ₄	0.03	g/kW-hr															
			CO ₂	694.00	g/kW-hr															
N ₂ O	0.01	g/kW-hr																		
FB05	Administration Building Emergency Generator Diesel	750 kW 500 hrs/yr	PM	0.20	g/kW-hr	Tier 2	0.0827	0.0827	0.0827	1.4468	2.4802	0.0027	0.165	0.0124	286.8717	0.0025				
			PM ₁₀	0.20	g/kW-hr	Tier 2														
			PM _{2.5}	0.20	lbs/1000 gal	Tier 2														
			CO	3.50	g/kW-hr	Tier 2														
			NO _x	6.00	g/kW-hr	Tier 2 -93.75%														
			SO ₂	0.01	g/kW-hr	AP 42 3.4-3														
			VOC	0.40	g/kW-hr	Tier 2 -6.25%														
			CH ₄	0.03	g/kW-hr															
			CO ₂	694.00	g/kW-hr															
N ₂ O	0.01	g/kW-hr																		
FB06	EW Building Emergency Generator Diesel	50 kW 500 hrs/yr	PM	0.40	g/kW-hr	Tier 2	0.0110	0.0110	0.0110	0.1378	0.1221	0.0002	0.010	0.0000	0.0000	0.0000				
			PM ₁₀	0.40	g/kW-hr	Tier 2														
			PM _{2.5}	0.40	lbs/1000 gal	Tier 2														
			CO	5.00	g/kW-hr	Tier 2														
			NO _x	4.43	g/kW-hr	Tier 2 -94.29%														
			SO ₂	0.01	g/kW-hr	AP 42 3.4-3														
			VOC	0.37	g/kW-hr	Tier 2 -5.71%														
			CH ₄		g/kW-hr															
			CO ₂		g/kW-hr															
N ₂ O		g/kW-hr																		
FB07	Primary Crusher Firewater Pump -400HP Diesel	298.4 KW 500 hrs/yr	PM	0.20	g/kW-hr	nsps	0.0329	0.0329	0.0329	0.5757	0.6141	0.0011	0.044	0.0000	0.0000	0.0000				
			PM ₁₀	0.20	g/kW-hr															
			PM _{2.5}	0.20	g/kW-hr															
			CO	3.50	g/kW-hr															
			NO _x	3.73	g/kW-hr	93.33%														
			SO ₂	0.01	g/kW-hr															
			VOC	0.27	g/kW-hr	6.67%														
			CH ₄		g/kW-hr															
			CO ₂		g/kW-hr															
N ₂ O		g/kW-hr																		

								PM	PM ₁₀	PM _{2.5}	CO	NOX	SO ₂	VOC	H ₂ SO ₄	CH ₄	CO ₂	N ₂ O	HAPs	Pb		
FB08	SX/EW Firewater Pump 400 HP Diesel	298.4	KW	PM	0.20	g/kW-hr	nsps	0.0329														
		500	hrs/yr	PM ₁₀	0.20	g/kW-hr			0.0329													
				PM _{2.5}	0.20	g/kW-hr				0.0329												
				CO	3.50	g/kW-hr					0.5757											
				NO _x	3.73	g/kW-hr	93.33%					0.6141										
				SO ₂	0.01	g/kW-hr							0.0011									
				VOC	0.27	g/kW-hr	6.67%							0.044								
				CH ₄											0.0000							
		CO ₂														0.0000						
		N ₂ O																0.0000				
MISCELLANEOUS SOURCES																						
MS01	Transfer of Lime to Lime Storage Bin	56700	tons	PM	0.61	lb/ton	AP42 11.17-4	90%	1.73													
				PM ₁₀	0.29	lb/ton		47%		0.81												
				PM _{2.5}	0.04	lb/ton		7.20%			0.12											
MS02	Lime Storage Bin to Lime Transfer Screw C U-6.21 mph, M - 1%	56700	tons	PM	0.0083	lb/ton	AP42 11.17-4	100%	0.00													
				PM ₁₀	0.00384	lb/ton		enclosed		0.00												
				PM _{2.5}	0.00059	lb/ton					0.00											
MS03	Lime Tnsfr Screw Cnvr 1 & 2 to Slaker 1&2 U-6.21 mph, M - 1%	56700	tons	PM	0.0083	lb/ton	AP42 11.17-4	100%	0.00													
				PM ₁₀	0.00384	lb/ton		enclosed		0.00												
				PM _{2.5}	0.00059	lb/ton					0.00											
MS04	Lime Slaking in Lime Slakers 1 & 2 Lime Slaker Scrubber	56700	tons	PM	8.00	lb/ton	AP42 11.17-4	99%	2.27													
				PM ₁₀	8.00	lb/ton				2.27												
				PM _{2.5}	8.00	lb/ton					2.27											
MS05	Transfer of Sodium Metasilicate to storage bin U-6.21 mph, M - 1%	3000	tons	PM	0.0083	lb/ton	AP42 11.17-4	90%	0.001													
				PM ₁₀	0.00384	lb/ton				0.001												
				PM _{2.5}	0.00059	lb/ton					0.000											
MS06	Transfer of Flocculant to storage bin U-6.21 mph, M - 1%	1100	tons	PM	0.0083	lb/ton	AP42 11.17-4	0%	0.005													
				PM ₁₀	0.00384	lb/ton				0.002												
				PM _{2.5}	0.00059	lb/ton					0.000											
MS07	Transfer of Guar from Bags to Guar Feeder U-6.21 mph, M - 1%	150	tons	PM	0.0083	lb/ton	AP42 11.17-4	0%	0.001													
				PM ₁₀	0.00384	lb/ton				0.000												
				PM _{2.5}	0.00059	lb/ton					0.000											
MS08	Transfer of Granular Cobalt Sulfate from Bag U-6.21 mph, M - 1%	6	tons	PM	0.0083	lb/ton	AP42 11.17-4	0%	0.0000													
				PM ₁₀	0.00384	lb/ton				0.0000												
				PM _{2.5}	0.00059	lb/ton					0.0000											
OTHER DUST COLLECTORS																						
PCL01	Crusher Area Dust Collector (PC-CADC)	8760	hrs/yr	PM	1.421	lbs/hr	2.22 - PM/PM ₁₀		6.22													
				PM ₁₀	0.640	lbs/hr				2.80												
				PM _{2.5}	0.115	lbs/hr	0.18 - PM _{2.5} /PM ₁₀				0.50											
PCL02	Stockpile Area & Reclaim Tunnel DC U-1.3 mph, M - 1%	8760	hrs/yr	PM	3.102	lbs/hr	2.11 - PM/PM ₁₀		13.59													
				PM ₁₀	1.470	lbs/hr				6.44												

				PM _{2.5}	0.221	lbs/hr	0.15 - PM _{2.5} /PM ₁₀										
				PM	PM ₁₀	PM _{2.5}	CO	NOX	SO ₂	VOC	H ₂ SO ₄	CH ₄	CO ₂	N ₂ O	HAPs	Pb	
PCL03	Stockpile Feed Conveyor TP DC U-6.21 mph, M - 1%	8760	hrs/yr	PM	0.760	lbs/hr	2.11 - PM/PM ₁₀	3.33									0.00014
				PM ₁₀	0.360	lbs/hr			1.58								
				PM _{2.5}	0.054	lbs/hr	0.15 - PM _{2.5} /PM ₁₀			0.24							
PCL04	Pebble Crusher Area DC U-6.21 mph, M - 1%	8760	hrs/yr	PM	0.957	lbs/hr	2.99 - PM/PM ₁₀	4.19									0.00012
				PM ₁₀	0.320	lbs/hr			1.40								
				PM _{2.5}	0.058	lbs/hr	0.18 - PM _{2.5} /PM ₁₀			0.25							
PCL05	Copper Concentrate DC 1 U-6.21 mph, M - 1%	8760	hrs/yr	PM	3.756	lbs/hr	2.11 - PM/PM ₁₀	16.45									0.00067
				PM ₁₀	1.780	lbs/hr			7.80								
				PM _{2.5}	0.267	lbs/hr	0.15 - PM _{2.5} /PM ₁₀			1.17							
PCL06	Copper Concentrate DC 2 U-6.21 mph, M - 1%	8760	hrs/yr	PM	3.756	lbs/hr	2.11 - PM/PM ₁₀ 100%	16.45									0.00067
				PM ₁₀	1.780	lbs/hr			7.80								
				PM _{2.5}	0.267	lbs/hr	0.15 - PM _{2.5} /PM ₁₀			1.17							
PCL07	Molybdenum Scrubber/ ESP	8760	hrs/yr	PM	0.023	lbs/hr	1.65 - PM/PM ₁₀ 100%	0.10									5.3E-06
				PM ₁₀	0.014	lbs/hr			0.06								
				PM _{2.5}	0.007	lbs/hr	0.49 - PM _{2.5} /PM ₁₀			0.03							
PCL08	Molybdenum DC U-6.21 mph, M - 1%	8760	hrs/yr	PM	0.087	lbs/hr	1.65 - PM/PM ₁₀ 100%	0.38									2E-05
				PM ₁₀	0.053	lbs/hr			0.23								
				PM _{2.5}	0.026	lbs/hr	0.49 - PM _{2.5} /PM ₁₀			0.11							
PCL09	Laboratory Dust Collector 1 U-6.21 mph, M - 1%	8760	hrs/yr	PM	0.008	gr/dscf	1.65 - PM/PM ₁₀ 100%	2.56									0.00013
				PM ₁₀	0.005	gr/dscf			1.56								
				PM _{2.5}	0.002	gr/dscf	0.49 - PM _{2.5} /PM ₁₀			0.76							
PCL10	Laboratory Dust Collector 2 U-6.21 mph, M - 1%	8760	hrs/yr	PM	0.008	gr/dscf	1.65 - PM/PM ₁₀ 100%	2.56									0.00013
				PM ₁₀	0.005	gr/dscf			1.56								
				PM _{2.5}	0.002	gr/dscf	0.49 - PM _{2.5} /PM ₁₀			0.76							
PCL11	Laboratory Dust Collector 3 U-6.21 mph, M - 1%	8760	hrs/yr	PM	0.008	gr/dscf	1.65 - PM/PM ₁₀ 100%	2.56									0.00013
				PM ₁₀	0.005	gr/dscf			1.56								
				PM _{2.5}	0.002	gr/dscf	0.49 - PM _{2.5} /PM ₁₀			0.76							
PCL12	SAG Feed Conveyor DC U-6.21 mph, M - 1%	8760	hrs/yr	PM	0.759	gr/dscf	1.65 - PM/PM ₁₀ 100%	3.32									0.00017
				PM ₁₀	0.460	gr/dscf			2.01								
				PM _{2.5}	0.225	gr/dscf	0.49 - PM _{2.5} /PM ₁₀			0.99							
SOLVENT EXTRACTION AND ELECTROWINNING																	
SXE01	4 Primary Mix Tanks (7.75'D x 9.75' H each) 4 Secondary Mix Tanks (9.5'D X 9.75' H each) 3 Tertiary Mix Tank (9.5'D x 9.75'H) each 4 Extraction Settlers (64'L x 33'W x 3.33'H each)	9132.9	sq.ft	VOC				3.770 0.2700									
SXE02	Electrowinning Commercial Cells	2640	sq.ft	VOC	99%			0.020									
STORAGE TANKS																	
T01	C7 Distribution Tank - Sodium Akylmonothio	430733	gals/yr	VOC	0.01080	lbs/hr											
T02	MIBC Storage Tanks -Methyl Isobutyl Carbin	177521	gals/yr	VOC	0.00353	lbs/hr											
T03	Diesel Fuel Storage Tank - 1	6750000	gals/yr	VOC	0.01390	lbs/hr											

T04 Diesel Fuel Storage Tank - 2 6750000 gals/yr VOC 0.01390 lbs/hr

	PM	PM ₁₀	PM _{2.5}	CO	NOX	SO ₂	VOC	H ₂ SO ₄	CH ₄	CO ₂	N ₂ O	HAPs	Pb
TOTAL FUGITIVES	3490	947	106	606	154	18	3.770	0.2700	0.21	5125	0.05	0.00000	0.0684
TOTAL POINT SOURCE EMISSIONS	78.33	39.51	10.97	9.00	13.45	0.055	1.54	0.000	0.238	5792	0.0480	0.0132	0.0031
TOTAL EMISSIONS	3569	987	117	615	167	18	5	0.2700	0.45	10918	0.09	0.01	0.0715

GHG	5792.62
GHG	10918.10

Fugitives

Voluntary Limits on control equipment

Year 1 Maximum values

All others are based on maximum values reached in Year 5

Lead Calculations	
Concentration from Tetra Tech Report, 2007, whole rock analysis	80 mg/Kg
Gravimetric factor (convert converts formula weight of element to equivalent oxide)	1.08
conversion factor for mg/Kg to lbs/Ton	0.002
	=80 x 1.08 x 0.002
	0.1728 lbs/ton
Concentration from Tetra Tech Report, 2007, Tailings	10.4 mg/Kg
	=10.4x1.08x0.002
	0.0225