Appendix 6

DETAILED EMISSIONS CALCULATIONS

Proposed Particulate Emissions Inventory for Newmont Mining Corporation, Gold Quarry - Permit No. AP1041-0793
PM & PM10 Emissions Calculations

System #	Permit #	Source #	Source Description	Process Rate (ton/hr)	Process Rate (ton/yr)	Operating Hours (hr/yr)	Emission Factor (lb/ton) TSP	Emission Factor (lb/ton) PM10	Particulate Control Technology	Control Efficiency	Flow Rate (dscfm)	Grain Loading, (gr/dscf)	Calculated Emissions (lb/hr) TSP	Calculated Emissions (lb/hr) PM10	Calculated Emissions (ton/year) TSP	Calculated Emissions (ton/year) PM10	Emission Factor Reference
01	-0793	**Mill 5 Ore Receiving and Crushing System**															
		PF 1.001	(ROM) Ore Dump discharge/transfer to Primary Crusher Hopper (2200-BN-02)	1,500.00	8,500,000	8,760	-	-	Enclosure, water & surfactant	-	-	-	-	-	-	-	
		PF 1.002	Primary Crusher Hopper (2200-BN-02) discharge/transfer to Primary Crusher Apron Feeder - (2200-FE-03)	1,500.00	8,500,000	8,760	-	-	Enclosure, water & surfactant	-	-	-	-	-	-	-	
		PF 1.003	Primary crusher Apron Feeder (2200-FE-03) discharge/transfer to Primary Gyratory Crusher (2200-CR-02)	1,500.00	8,500,000	8,760	-	-	Enclosure, water & surfactant	-	-	-	-	-	-	-	
		PF 1.004	Primary Gyratory Crusher (2200-CR-02)	1,500.00	8,500,000	8,760	-	-	Enclosure, water & surfactant	-	-	-	-	-	-	-	
		PF 1.005	Primary Gyratory Crusher (220-CR-02) discharge/transfer to Conveyor (2200-CV-04)	1,500.00	8,500,000	8,760	-	-	Enclosure, water & surfactant	-	-	-	-	-	-	-	
		System Total		-	-	-	0.5	0.05		99%	-	-	7.50	0.75	21.25	2.13	A
02	-0793	**Mill 5 Crushed Ore Transfer System**															
		PF 1.006	Conveyor (2200-CV-04) discharge/transfer to Conveyor (2200-CV-03)	1,500.00	8,500,000	8,760	0.001084	0.000380	Enclosure, water & surfactant	99%	-	-	0.0163	0.0057	0.0461	0.0161	B
		PF 1.007	Conveyor (2200-CV-03) discharge/transfer to Conveyor (2200-BM-03)	1,500.00	8,500,000	8,760	0.001084	0.000380	Enclosure, water & surfactant	99%	-	-	0.0163	0.0057	0.0461	0.0161	B
		PF 1.008	Conveyor (2200-BM-03) discharge/transfer to Crushed Ore Stockpile	1,500.00	8,500,000	8,760	0.001084	0.000380	Water & surfactant	85%	-	-	0.2440	0.0854	0.6913	0.2419	B
		System Total		-	-	-	-	-		-			0.2765	0.0968	0.7834	0.2742	
03	-0793	**Mill 5 Ore Reclaim Transfer to SAG Mill and Cone Crusher Circuit**															
		S 2.001	Reclaim Feeder (2300-FE-09) discharge/transfer to SAG Mill Conveyor (2300-CV-14)	1,500.00	8,500,000	8,760	-	-	Wet Scrubber (2300-DC-02)	-	-	-	-	-	-	-	
		S 2.002	Reclaim Feeder (2300-FE-10) discharge/transfer to SAG Mill Conveyor (2300-CV-14)	1,500.00	8,500,000	8,760	-	-	Wet Scrubber (2300-DC-02)	-	-	-	-	-	-	-	
		S 2.003	Reclaim Feeder (2300-FE-11) discharge/transfer to SAG Mill Conveyor (2300-CV-14)	1,500.00	8,500,000	8,760	-	-	Wet Scrubber (2300-DC-02)	-	-	-	-	-	-	-	
		S 2.004	Conveyor (2300-FE-14) discharge/transfer to Secondary Cone Crusher (2300-CR-02)	1,500.00	8,500,000	8,760	-	-	Wet Scrubber (2300-DC-02)	-	-	-	-	-	-	-	
		S 2.005	Conveyor (2300-FE-15) discharge/transfer to Secondary Cone Crusher (2300-CR-03)	1,500.00	8,500,000	8,760	-	-	Wet Scrubber (2300-DC-02)	-	-	-	-	-	-	-	
		S 2.006	Secondary Cone Crusher (2300-CR-02)	1,500.00	8,500,000	8,760	-	-	Wet Scrubber (2300-DC-02)	-	-	-	-	-	-	-	
		S 2.007	Secondary Cone Crusher (2300-CR-03)	1,500.00	8,500,000	8,760	-	-	Wet Scrubber (2300-DC-02)	-	-	-	-	-	-	-	
		S 2.008	Secondary Cone Crusher (2300-CR-02) discharge/transfer to Conveyor (2300-CV-20)	1,500.00	8,500,000	8,760	-	-	Wet Scrubber (2300-DC-02)	-	-	-	-	-	-	-	
		S 2.009	Secondary Cone Crusher (2300-CR-03) discharge/transfer to Conveyor (2300-CV-21)	1,500.00	8,500,000	8,760	-	-	Wet Scrubber (2300-DC-02)	-	-	-	-	-	-	-	
		S 2.010	Conveyor (2300-CV-20) discharge/transfer to Conveyor (2300-CV-22)	1,500.00	8,500,000	8,760	-	-	Wet Scrubber (2300-DC-02)	-	-	-	-	-	-	-	
		S 2.011	Conveyor (2300-CV-21) discharge/transfer to Conveyor (2300-CV-22)	1,500.00	8,500,000	8,760	-	-	Wet Scrubber (2300-DC-02)	-	-	-	-	-	-	-	
		S 2.012	Conveyor (2300-CV-22) discharge/transfer to Conveyor (2300-CV-14)	1,500.00	8,500,000	8,760	-	-	Wet Scrubber (2300-DC-02)	-	-	-	-	-	-	-	
		S 2.013	Lime Silo - Unloading (2600-BN-02) discharge/transfer to Conveyor (2300-CV-14)	1,500.00	8,500,000	8,760	-	-	Wet Scrubber (2300-DC-02)	-	-	-	-	-	-	-	
		System Total		-	-	-	-	-		-	22,400	0.0219	3.8400	3.8400	16.8200	16.8200	K
03a	-0793	**Reagent Mix Tanks associated with Flotation Circuit at Mill 5**															
		PF 1.045	Reagent Mix Tank 1 (Loading)	7.72	2,738	8,760											
		System Total		-	-	-	-	-		-			0.1000	0.1000	0.0200	0.0200	F
03b	-0793	**Reagent Mix Tanks associated with Flotation Circuit at Mill 5**															
		PF 1.046	Reagent Mix Tank 2 (Loading)	3.87	2,738	8,760											
		System Total		-	-	-	-	-		-			0.1000	0.1000	0.0200	0.0200	F
03c	-0793	**Reagent Mix Tanks associated with Flotation Circuit at Mill 5**															
		PF 1.047	Reagent Mix Tank 3 (Loading)	7.72	2,738	8,760											
		System Total		-	-	-	-	-		-			0.1000	0.1000	0.0200	0.0200	F
04	-0793	**Chukar Underground Lime/Cement/Soda Ash Silo - Loading**															
		S 2.014	Chukar Underground Lime Silo - Loading (500-DC-014)	60.00		8,760	0.0089	0.0049	Baghouse (500-DC-014)		1,300	-	0.5340	0.2940	2.3389	1.2877	C
05	-0793	**South Area Leach Primary Crusher Circuit**															
		PF 1.009	(ROM) Ore Dump discharge/transfer to Primary Crusher Hopper (120-BN-01)	3,850	24,000,000	8,760	-	-	Enclosure, water & surfactant	-	-	-	-	-	-	-	
		PF 1.010	Primary Crusher Hopper (120-BN-01) discharge/transfer to Primary Gyratory Crusher (250-CR-01)	3,850	24,000,000	8,760	-	-	Enclosure	-	-	-	-	-	-	-	
		PF 1.011	Primary Gyratory Crusher (250-CR-01)	3,850	24,000,000	8,760	-	-	Enclosure	-	-	-	-	-	-	-	
		PF 1.012	Primary Gyratory Crusher (250-CR-01) discharge/transfer to Conveyor Fedder (220-CV-01)	3,850	24,000,000	8,760	-	-	Enclosure	-	-	-	-	-	-	-	
		PF 1.013	Conveyor Feeder (220-CV-01) discharge/transfer to Conveyor (230-CV-02)	3,850	24,000,000	8,760	-	-	Enclosure, water & surfactant	-	-	-	-	-	-	-	
		System Total		-	-	-	0.5	0.05		99%	-	-	19.25	1.925	60.00	6.00	A
06	-0793	**(Alternative Operating Scenario) - South Area Leach Primary Crusher Circuit**															
		PF 1.009	(ROM) Ore Dump discharge/transfer to Primary Crusher Hopper (120-BN-01)	3,850	24,000,000	8,760	-	-	Enclosure, water & surfactant	-	-	-	-	-	-	-	
		PF 1.010	Primary Crusher Hopper (120-BN-01) discharge/transfer to Primary Gyratory Crusher (250-CR-01)	3,850	24,000,000	8,760	-	-	Enclosure	-	-	-	-	-	-	-	
		PF 1.011	Primary Gyratory Crusher (250-CR-01)	3,850	24,000,000	8,760	-	-	Enclosure	-	-	-	-	-	-	-	
		PF 1.012	Primary Gyratory Crusher (250-CR-01) discharge/transfer to Conveyor Fedder (220-CV-01)	3,850	24,000,000	8,760	-	-	Enclosure	-	-	-	-	-	-	-	
		S 2.217	Conveyor Feeder (220-CV-01) discharge/transfer to Conveyor (230-CV-02)	3,850	24,000,000	8,760	-	-	Baghouse (200-DC-001)	-	4,900	0.0219	-	-	-	-	
		System Total		-	-	-	0.5	0.05		99%	-	-	-	-	-	-	A
07	-0793	**South Area Leach Transfer of Primary Crushed Ore**															
		PF 1.014	Conveyor (230-CV-02) discharge/transfer to Conveyor (230-CV-01)	3,850	24,000,000	8,760	0.001084	0.000380	Enclosure, water spray	99%	-	-	0.0417	0.0146	0.1301	0.0455	B
08	-0793	**(Alternative Operating Scenario) - South Area Leach Transfer of Primary Crushed Ore**															
		S 2.218	Conveyor (230-CV-02) discharge/transfer to Conveyor (230-CV-01)	3,850	24,000,000	8,760	-	-	Baghouse (200-DC-005)	99%	4,900	0.0219	-	-	-	-	
		System Total		-	-	-	0.001084	0.000380		-	-	-	-	-	-	-	B
09	-0793	**South Area Leach Transfer of Primary Crushed Ore System (Shuttle Conveyor)**															
		PF 1.015	Conveyor (230-CV-01) discharge/transfer to Shuttle Conveyor (Renamed 330-CV-01)	3,850	24,000,000	8,760	0.001084	0.000380	Enclosure, water spray	99%	-	-	0.0417	0.0146	0.1301	0.0455	B
10	-0793	**(Alternative Operating Scenario) - South Area Leach Transfer of Primary Crushed Ore System (Shuttle Conveyor)**															
		S 2.219	Conveyor (230-CV-01) discharge/transfer to Shuttle Conveyor (Renamed 330-CV-01)	3,850	24,000,000	8,760	-	-	Baghouse (200-DC-007)	99%	4,900	0.0219	-	-	-	-	
		System Total		-	-	-	0.001084	0.000380		-	-	-	-	-	-	-	B
11	-0793	**South Area Leach Cement/Lime Silo - Loading**															
		S 2.015	Cement/Lime Silo-Loading (630-BN-01)	60.0	110,000	8,760	0.0089	0.0049	Baghouse (630-DC-001)		1,350	-	0.534	0.294	0.4895	0.2695	C
11A	-0793	**South Area Leach Cement/Lime Silo - Loading**															
		S 2.221	Cement/Lime Silo-Loading (630-BN-04)	60.0	110,000	8,760	0.0089	0.0049	Baghouse (630-DC-045)		1,350	-	0.534	0.294	0.4895	0.2695	C
12	-0793	**South Area Leach Cement/Lime Silo - Unloading**															
		PF 1.016	Cement/Lime Silo - Unloading (630-BN-01) discharge/transfer to Conveyor (230-CV-02)	15.0	110,000	8,760	0.0568	0.016	Enclosure, water spray		-	-	0.852	0.240	3.124	0.880	C
12A	-0793	**South Area Leach Cement/Lime Silo - Unloading**															
		PF 1.048	Cement/Lime Silo - Unloading (630-BN-04) discharge/transfer to Conveyor (230-CV-02)	15.0	110,000	8,760	0.0568	0.016	Enclosure, water spray		-	-	0.852	0.240	3.124	0.880	C
13	-0793	**South Area Leach Transfer of Primary Crushed Ore to Secondary Stockpile, OR Truck Load-Out Stockpile**															
		PF 1.017	Shuttle Conveyor (330-CV-01) discharge/transfer to Secondary Crushing Stockpile, **OR**	-	-	8,760	0.001084	0.000380	Water spray	75%	-	-	-	-	-	-	
		PF 1.017.1	Shuttle Conveyor (330-CV-01) discharge/trasnfer to Truck Load-Out Stockpile	-	-	8,760	0.001084	0.000380	Water spray	75%	-	-	-	-	-	-	
		System Total		3,850	24,000,000	-	-	-		-	-	-	1.04	0.37	3.25	1.14	B
14	-0793	**South Area Leach Transfer of Secondary Crushed Ore to Tertiary Stockpile, OR Truck Load-Out Stockpile**															
		PF 1.023	Shuttle Conveyor (530-CV-03) discharge/transfer to Tertiary Crushing Stockpile, **OR**	-	-	8,760	0.001913	0.000670	Water spray	75%	-	-	-	-	-	-	
		PF 1.023.1	Shuttle Conveyor (530-CV-03) discharge/transfer to Truck Load-Out Stockpile	-	-	8,760	0.001913	0.000670	Water spray	75%	-	-	-	-	-	-	
		System Total		3,850	15,000,000	-	-	-		-	-	-	1.84	0.64	3.59	1.26	B
15	-0793	**South Area Leach Tertiary Crushing Reclaim Transfer System (DC-005)**															

Proposed Particulate Emissions Inventory for Newmont Mining Corporation, Gold Quarry - Permit No. AP1041-0793
PM & PM10 Emissions Calculations

System #	Permit #	Source #	Source Description	Process Rate (ton/hr)	Process Rate (ton/yr)	Operating Hours (hr/yr)	Emission Factor (lb/ton) TSP	Emission Factor (lb/ton) PM10	Particulate Control Technology	Control Efficiency	Flow Rate (dscfm)	Grain Loading, (gr/dscf)	Calculated Emissions (lb/hr) TSP	Calculated Emissions (lb/hr) PM10	Calculated Emissions (ton/year) TSP	Calculated Emissions (ton/year) PM10	Emission Factor Reference
		S 2.171	Conveyor (330-AF-01) discharge/transfer to Transfer Conveyor (300-CV-103)	3,850	15,000,000	7,884	-	-	Baghouse (330-DC-005)	-	-	-	-	-	-	-	
		S 2.172	Dribble Conveyor (330-CV-005) discharge/transfer to Transfer Conveyor (300-CV-103)	3,850	15,000,000	7,884	-	-	Baghouse (330-DC-005)	-	-	-	-	-	-	-	
		System Total		-	-	-	-	-		-	1,505	0.0219	0.0600	0.0600	0.2500	0.2500	G7
16	-0793	**South Area Leach Tertiary Crushing Reclaim Transfer System (DC-006)**															
		S 2.173	Conveyor (330-AF-02) discharge/transfer to Transfer Conveyor (300-CV-104)	3,850	15,000,000	7,884	-	-	Baghouse (330-DC-006)	-	-	-	-	-	-	-	
		S 2.174	Dribble Conveyor (330-CV-006) discharge/transfer to Transfer Conveyor (300-CV-104)	3,850	15,000,000	7,884	-	-	Baghouse (330-DC-006)	-	-	-	-	-	-	-	
		System Total		-	-	-	-	-		-	1,505	0.0219	0.0600	0.0600	0.2500	0.2500	G8
17	-0793	**South Area Leach Secondary Crushing Reclaim Transfer System**															
		S 2.175	Conveyor (330-AF-05) discharge/transfer to Transfer Conveyor (200-CV-001)	3,850	15,000,000	7,884	-	-	Baghouse (200-DC-002)	-	-	-	-	-	-	-	
		S 2.176	Dribble Conveyor (330-CV-08) discharge/transfer to Transfer Conveyor (200-CV-001)	3,850	15,000,000	7,884	-	-	Baghouse (200-DC-002)	-	-	-	-	-	-	-	
		System Total		-	-	-	-	-		-	2,614	0.0219	0.1100	0.1100	0.4400	0.4400	G9
18	-0793	**Refractory Leach Project Secondary Screening/Crushing Circuit**															
		S 2.177	Overhead Conveyor (200-CV-001) discharge/transfer to Secondary Screen (200-SC-001)	3,850	15,000,000	7,884	-	-	Baghouse (200-DC-003)	-	-	-	-	-	-	-	
		S 2.178	Secondary Screen (200-SC-001)	3,850	15,000,000	7,884	-	-	Baghouse (200-DC-003)	-	-	-	-	-	-	-	
		S 2.179	Secondary Screen (200-SC-001) undersize discharge/transfer to Screen Undersize Conveyor (200-CV-003)	3,850	15,000,000	7,884	-	-	Baghouse (200-DC-003)	-	-	-	-	-	-	-	
		S 2.180	Secondary Screen (200-SC-001) oversize discharge/transfer to Secondary Crusher (200-CR-001)	3,850	15,000,000	7,884	-	-	Baghouse (200-DC-003)	-	-	-	-	-	-	-	
		S 2.181	Secondary Crusher (200-CR-001)	3,850	15,000,000	7,884	-	-	Baghouse (200-DC-003)	-	-	-	-	-	-	-	
		S 2.182	Secondary Crusher (200-CR-001) discharge/transfer to Collecting Conveyor (200-CV-004)	3,850	15,000,000	7,884	-	-	Baghouse (200-DC-003)	-	-	-	-	-	-	-	
		S 2.183	Conveyor (200-CV-003) discharge/transfer to Collecting Conveyor (200-CV-004)	3,850	15,000,000	7,884	-	-	Baghouse (200-DC-003)	-	-	-	-	-	-	-	
		S 2.184	Conveyor (200-CV-003) discharge/transfer to Collecting Conveyor (300-CV-007)	3,850	15,000,000	7,884	-	-	Baghouse (200-DC-003)	-	-	-	-	-	-	-	
		S 2.185	Conveyor (200-CV-004) discharge/transfer to Conveyor (200-CV-006)	3,850	15,000,000	7,884	-	-	Baghouse (200-DC-003)	-	-	-	-	-	-	-	
		System Total		-	-	-	-	-		-	43,200	0.0219	0.9200	0.9200	3.6300	3.6300	G10
19	-0793	**Refractory Leach Project Transfer of Secondary Crushed Ore System**															
		S 2.186	Conveyor (530-CV-02) discharge/transfer to Shuttle Conveyor (530-CV-03)	3,850	15,000,000	7,884	-	-	Baghouse (200-DC-006)	-	-	-	-	-	-	-	
		System Total									3,961	0.0219	0.1000	0.1000	0.4000	0.4000	G11
19a	-0793	**(Alternative Operating Scenario) - Refractory Leach Project Transfer of Secondary Crushed Ore System**															
		PF 1.052	Conveyor (530-CV-02) discharge/transfer to Shuttle Conveyor (530-CV-03)	3,850	15,000,000	7,884	-	-	Water Spray	-	-	-	7.3600	2.5800	14.3500	5.0200	G12
		System Total											-	-	-	-	
20	-0793	**Refractory Leach Project Tertiary Crushing Circuit**															
		S 2.187	Conveyor (300-CV-103) discharge/transfer to Tertiary Screen (300-SC-002)	3,850	15,000,000	7,884	-	-	Baghouse (300-DC-011)	-	-	-	-	-	-	-	
		S 2.188	Conveyor (300-CV-104) discharge/transfer to Tertiary Screen (300-SC-003)	3,850	15,000,000	7,884	-	-	Baghouse (300-DC-011)	-	-	-	-	-	-	-	
		S 2.189	Tertiary Screen (300-SC-002)	3,850	15,000,000	7,884	-	-	Baghouse (300-DC-011)	-	-	-	-	-	-	-	
		S 2.190	Tertiary Screen (300-SC-003)	3,850	15,000,000	7,884	-	-	Baghouse (300-DC-011)	-	-	-	-	-	-	-	
		S 2.191	Tertiary Screen (300-SC-002) undersize discharge/transfer to Screen Discharge Conveyor (400-CV-107)	3,850	15,000,000	7,884	-	-	Baghouse (300-DC-011)	-	-	-	-	-	-	-	
		S 2.192	Tertiary Screen (300-SC-003) undersize discharge/transfer to Screen Discharge Conveyor (400-CV-108)	3,850	15,000,000	7,884	-	-	Baghouse (300-DC-011)	-	-	-	-	-	-	-	
		S 2.193	Tertiary Screen (300-SC-002) oversize discharge/transfer to Tertiary Crusher (300-CR-002)	3,850	15,000,000	7,884	-	-	Baghouse (300-DC-011)	-	-	-	-	-	-	-	
		S 2.194	Tertiary Screen (300-SC-003) oversize discharge/transfer to Tertiary Crusher (300-CR-003)	3,850	15,000,000	7,884	-	-	Baghouse (300-DC-011)	-	-	-	-	-	-	-	
		S 2.195	Tertiary Crusher (300-CR-002)	3,850	15,000,000	7,884	-	-	Baghouse (300-DC-011)	-	-	-	-	-	-	-	
		S 2.196	Tertiary Crusher (300-CR-003)	3,850	15,000,000	7,884	-	-	Baghouse (300-DC-011)	-	-	-	-	-	-	-	
		S 2.197	Tertiary Crusher (300-CR-002) discharge/trasnfer to Collecting Conveyor (400-CV-106)	3,850	15,000,000	7,884	-	-	Baghouse (300-DC-011)	-	-	-	-	-	-	-	
		S 2.198	Tertiary Crusher (300-CR-003) discharge/transfer to Collecting Conveyor (400-CV-106)	3,850	15,000,000	7,884	-	-	Baghouse (300-DC-011)	-	-	-	-	-	-	-	
		S 2.199	Screen Discharge Conveyor (400-CV-107) discharge/transfer to Collecting Conveyor (400-CV-106)	3,850	15,000,000	7,884	-	-	Baghouse (300-DC-011)	-	-	-	-	-	-	-	
		S 2.200	Screen Discharge Conveyor (400-CV-108) discharge/transfer to Collecting Conveyor (400-CV-106)	3,850	15,000,000	7,884	-	-	Baghouse (300-DC-011)	-	-	-	-	-	-	-	
		System Total		-	-	-	-	-		-	33,669	0.0219	0.8700	0.8700	3.4100	3.4100	G13
21	-0793	**Refractory Leach Project Crushed Ore Transfers: Collecting Conveyors**															
		S 2.201	Transfer Conveyor (200-CV-006) discharge/transfer to Conveyor (530-CV-02)	3,850	15,000,000	7,884	-	-	Baghouse (300-DC-009)	-	-	-	-	-	-	-	
		S 2.202	Collecting Conveyor (300-CV-007) discharge/transfer to Overland Conveyor (400-CV-014)	3,850	15,000,000	7,884	-	-	Baghouse (300-DC-009)	-	-	-	-	-	-	-	
		S 2.203	Collecting Conveyor (400-CV-106) discharge/transfer to Conveyor (530-CV-02)	3,850	15,000,000	7,884	-	-	Baghouse (300-DC-009)	-	-	-	-	-	-	-	
		System Total		-	-	-	-	-		-	14,000	0.0219	0.3100	0.3100	1.2400	1.2400	G14
24	-0793	**South Area Leach Truck Loading**															
		PF 1.025	Apron Feeder (330-AF-03) discharge/transfer to Truck Conveyor (330-CV-02)	4,400	24,000,000	8,760	0.001084	0.000380	Enclosure, wet dust suppression	99%	-	-	0.0477	0.0167	0.1301	0.0455	B
		PF 1.026	Apron Feeder (330-AF-04) discharge/transfer to Truck Conveyor (330-CV-02)	4,400	24,000,000	8,760	0.001084	0.000380	Enclosure, wet dust suppression	99%	-	-	0.0477	0.0167	0.1301	0.0455	B
		Partial System Subtotal				-	-	-		-	-	-	0.10	0.03	0.26	0.09	
		PF 1.027	Truck Conveyor (330-CV-02) dishcarge/transfer to Leach Pad Haul Truck	4,400	24,000,000	8,760	0.001084	0.000380	Wet dust suppression	95%	-	-	0.2385	0.0835	0.6506	0.2277	B
		System Total		-	-	-	-	-		-	-	-	0.33	0.12	0.91	0.32	
26	-0793	**Mill 5 Lime Silo - Loading**															
		S 2.210	Mill 5 Lime Silo - Loading (2600-DC-02)	120.0		7,884	0.0089	0.0049	Baghouse (2600-DC-02)		1,030		0.0107	0.0059	0.0468	0.0258	C
33	-0793	**Mill 6 Primary Crushing Circuit**															
		PF 1.028	ROM Ore discharge/transfer to Primary Crusher Hopper (200-BN-01)	1,000.00	3,200,000	8,760	-	-	Pneumatic fogging water spray	-	-	-	-	-	-	-	
		PF 1.029	Hopper (200-BN-01) discharge/transfer to Apron Feeder (200-FE-01)	1,000.00	3,200,000	8,760	-	-	Pneumatic fogging water spray	-	-	-	-	-	-	-	
		PF 1.030	Apron Feeder (200-FE-01) discharge/transfer to Feeder (200-FE-03)	1,000.00	3,200,000	8,760	-	-	Pneumatic fogging water spray	-	-	-	-	-	-	-	
		PF 1.031	Feeder (200-FE-03) discharge/transfer to Primary Jaw Crusher (200-CR-01)	1,000.00	3,200,000	8,760	-	-	Pneumatic fogging water spray	-	-	-	-	-	-	-	
		PF 1.032	Primary Jaw Crusher (200-CR-01)	1,000.00	3,200,000	8,760	-	-	Pneumatic fogging water spray	-	-	-	-	-	-	-	
		PF 1.033	Primary Jaw Crusher (200-CR-01) discharge/transfer to Conveyor (200-CV-01)	1,000.00	3,200,000	8,760	-	-	Pneumatic fogging water spray	-	-	-	-	-	-	-	
		PF 1.043	Scalping Screen	1,000.00	3,200,000	8,760	-	-	Pneumatic fogging water spray	-	-	-	-	-	-	-	
		System Total		-	-	-	0.5	0.05		95%	-	-	25.0000	2.5000	40.0000	4.0000	A
34	-0793	**Mill 6 Secondary Crushing Unit**															
		S 2.060	Conveyor (200-CV-01) discharge/transfer to High Angle Conveyor (6200-CV-002)	700.00	3,200,000	8,760	-	-	Baghouse (6200-DC-002)	-	-	-	-	-	-	-	
		S 2.061	High Angle Conveyor (6200-CV-002) discharge/transfer to Secondary Screen (6200-SC-002)	700.00	3,200,000	8,760	-	-	Baghouse (6200-DC-002)	-	-	-	-	-	-	-	
		S 2.062	Secondary Screen (6200-SC-002)	700.00	3,200,000	8,760	-	-	Baghouse (6200-DC-002)	-	-	-	-	-	-	-	
		S 2.063	Secondary Screen (6200-SC-002) undersize discharge/transfer to Product Conveyor (6200-CV-003)	700.00	3,200,000	8,760	-	-	Baghouse (6200-DC-002)	-	-	-	-	-	-	-	
		S 2.064	Secondary Screen (6200-SC-002) oversize discharge/transfer to Secondary Crusher (6200-CR-002)	700.00	3,200,000	8,760	-	-	Baghouse (6200-DC-002)	-	-	-	-	-	-	-	
		S 2.065	Secondary Crusher (6200-CR-002)	700.00	3,200,000	8,760	-	-	Baghouse (6200-DC-002)	-	-	-	-	-	-	-	
		S 2.066	Secondary Crusher (6200-CR-002) discharge/transfer to Product Conveyor (6200-CV-003)	700.00	3,200,000	8,760	-	-	Baghouse (6200-DC-002)	-	-	-	-	-	-	-	
		S 2.067	Product Conveyor (6200-CV-003) discharge/transfer to Radial Stacker (200-BM-01)	700.00	3,200,000	8,760	-	-	Baghouse (6200-DC-002)	-	-	-	-	-	-	-	
		System Total		-	-	-	-	-		-	28,000	0.0219	1.2200	1.2200	5.3400	5.3400	G15
35	-0793	**Mill 6 Radial Stacker**															
		PF 1.034	Radial Stacker (200-BM-01) discharge/transfer to Stockpile	700.00	3,200,000	8,760	0.001084	0.000380	Water spray	75%	-	-	0.1898	0.0664	0.4337	0.1518	B
36	-0793	**Mill 6 Tertiary Crushing Circuit**															

Proposed Particulate Emissions Inventory for Newmont Mining Corporation, Gold Quarry - Permit No. AP1041-0793
PM & PM10 Emissions Calculations

System #	Permit #	Source #	Source Description	Process Rate (ton/hr)	Process Rate (ton/yr)	Operating Hours (hr/yr)	Emission Factor (lb/ton) TSP	Emission Factor (lb/ton) PM10	Particulate Control Technology	Control Efficiency	Flow Rate (dscfm)	Grain Loading, (gr/dscf)	Calculated Emissions (lb/hr) TSP	Calculated Emissions (lb/hr) PM10	Calculated Emissions (ton/year) TSP	Calculated Emissions (ton/year) PM10	Emission Factor Reference
		S 2.068	Apron Feeder (300-FE-01) discharge/transfer to Reclaim Conveyor (6300-CV-004)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-003)	-	-	-	-	-	-	-	
		S 2.069	Apron Feeder (300-FE-02) discharge/transfer to Reclaim Conveyor (6300-CV-004)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-003)	-	-	-	-	-	-	-	
		S 2.070	Apron Feeder (300-FE-03) discharge/transfer to Reclaim Conveyor (6300-CV-004)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-003)	-	-	-	-	-	-	-	
		S 2.071	Lime Bin - Unloading (600-BN-01)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-003)	-	-	-	-	-	-	-	
		S 2.072	Pyrite Feed Hopper (6300-BN-01)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-003)	-	-	-	-	-	-	-	
		S 2.073	Feed Conveyor (6300-FE-04) discharge/transfer to Pyrite Conveyor (6300-FE-05)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-003)	-	-	-	-	-	-	-	
		S 2.074	Pyrite Conveyor (6300-FE-05) discharge/transfer to Relcaim Conveyor (6300-CV-004)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-003)	-	-	-	-	-	-	-	
		S 2.075	Reclaim Conveyor (6300-CV-004) discharge/transfer to Reclaim Conveyor (6300-CV-005)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-003)	-	-	-	-	-	-	-	
		S 2.076	Reclaim Conveyor (6300-CV-005) discharge/transfer to Conveyor (300-CV-03)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-003)	-	-	-	-	-	-	-	
		S 2.077	Conveyor (300-CV-03) discharge/transfer to Crusher Surge Bin (2300-BN-03)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-003)	-	-	-	-	-	-	-	
		S 2.078	Crusher Surge Bin (2300-BN-03) discharge/transfer to Tertiary Cone Crusher Feeder (2300-FE-04)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-003)	-	-	-	-	-	-	-	
		S 2.079	Tertiary Cone Crusher Feeder (2300-FE-04) discharge/transfer to Tertiary Cone Crusher (300-CR-01)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-003)	-	-	-	-	-	-	-	
		S 2.080	Tertiary Cone Crusher (300-CR-01)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-003)	-	-	-	-	-	-	-	
		S 2.081	Tertiary Cone Crusher (300-CR-01) discharge/transfer to Product Conveyor (2300-CV-026)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-003)	-	-	-	-	-	-	-	
		S 2.082	Product Conveyor (2300-CV-026) discharge/transfer to Conveyor (2300-CV-027)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-003)	-	-	-	-	-	-	-	
		System Total		-	-	-	-	-		-	19,065	0.0219	0.9400	0.9400	4.1200	4.1200	G16
37	-0793	**Mill 6 Lime/Trona Bin Loading**															
		S 2.083	Mill 6 Lime/Trona Bin - Loading (600-BN-01)	60.00	525,600	8,760	0.0568	0.016	Baghouse (600-DC-001)		1,640	-	0.03408	0.0096	0.1493	0.0420	C
38	-0793	**Mill 6 Crushed Ore Transfer**															
		S 2.084	Conveyor (6300-CV-027) discharge/transfer to Feed Conveyor (6300-CV-028)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-004)	99%	7,708	-	0.3800	0.3800	1.6600	1.6600	G18
39	-0793	**Mill 6 Grinding and Ore Re-circulation Circuit**															
		S 2.085	Feed Conveyor (6300-CV-028) discharge/transfer to Double Rotator (6300-ML-001)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-005)	-	-	-	-	-	-	-	
		S 2.086	Double Rotator (6300-ML-001)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-005)	-	-	-	-	-	-	-	
		S 2.087	Double Rotator (6300-ML-001) discharge/transfer to Air Slide (6300-AS-001)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-005)	-	-	-	-	-	-	-	
		S 2.088	Air Slide (6300-AS-001) discharge/transfer to Bucket Elevator (6300-BE-001)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-005)	-	-	-	-	-	-	-	
		S 2.089	Bucket Elevator (6300-BE-001) discharge/transfer to Air Slide (6300-AS-003)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-005)	-	-	-	-	-	-	-	
		S 2.090	Air Slide (6300-AS-003) discharge/transfer to Dynamic Separator (6300-CS-002)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-005)	-	-	-	-	-	-	-	
		S 2.091	Dynamic Separator (6300-CS-002) discharge/transfer to Air Slide (6300-AS-025)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-005)	-	-	-	-	-	-	-	
		S 2.092	Air Slide (6300-AS-025) discharge/transfer to Air Slide (6300-AS-005)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-005)	-	-	-	-	-	-	-	
		S 2.093	Air Slide (6300-AS-025) discharge/transfer to Air Slide (6300-AS-006)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-005)	-	-	-	-	-	-	-	
		S 2.094	Air Slide (6300-AS-005) dishcarge/transfer to Air Slide (6300-AS-050)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-005)	-	-	-	-	-	-	-	
		S 2.095	Air Slide (6300-AS-006) discharge/transfer to Air Slide (6300-AS-060)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-005)	-	-	-	-	-	-	-	
		S 2.096	Air Slide (6300-AS-050) discharge/transfer to Double Rotator (6300-ML-001)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-005)	-	-	-	-	-	-	-	
		S 2.097	Air Slide (6300-AS-060) discharge/transfer to Double Rotator (6300-ML-001)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-005)	-	-	-	-	-	-	-	
		System Total		-	-	-	-	-		-	17,916	0.0219	0.8800	0.8800	3.8700	3.8700	G19
40	-0793	**Mill 6 Dynamic Separator Baghouses**															
		S 2.098	Dynamic Separator Product Baghouse (6300-DC-010)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-010)	-	-	-	-	-	-	-	
		S 2.099	Dynamic Separator Product Baghouse (6300-DC-011)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-011)	-	-	-	-	-	-	-	
		S 2.100	Dynamic Separator Product Baghouse (6300-DC-012)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-012)	-	-	-	-	-	-	-	
		S 2.101	Dynamic Separator Product Baghouse (6300-DC-013)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-013)	-	-	-	-	-	-	-	
		System Total		-	-	-	-	-		-	203,216	-	17.87	17.87	78.28	78.28	G20
41	-0793	**Mill 6 Transfers to Fine Ore Bin and Roaster Day Bins**															
		S 2.102	Dynamic Separator Product Baghouse (6300-DC-010) discharge/transfer to Fine Ore Bin (6300-BN-001)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-026)	-	-	-	-	-	-	-	
		S 2.103	Dynamic Separator Product Baghouse (6300-DC-011) discharge/transfer to Fine Ore Bin (6300-BN-001)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-026)	-	-	-	-	-	-	-	
		S 2.104	Dynamic Separator Product Baghouse (6300-DC-012) discharge/transfer to Fine Ore Bin (6300-BN-001)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-026)	-	-	-	-	-	-	-	
		S 2.105	Dynamic Separator Product Baghouse (6300-DC-013) discharge/transfer to Fine Ore Bin (6300-BN-001)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-026)	-	-	-	-	-	-	-	
		S 2.106	Fine Ore Bin Baghouse (6300-DC-026) discharge/transfer to Fine Ore Bin (6300-BN-001)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-026)	-	-	-	-	-	-	-	
		S 2.107	Static Baghouse (6300-DC-006) discharge/transfer to Air Slide (6300-AS-008)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-026)	-	-	-	-	-	-	-	
		S 2.108	Static Baghouse (6300-DC-007) discharge/transfer to Air Slide (6300-AS-008)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-026)	-	-	-	-	-	-	-	
		S 2.109	Static Baghouse (6300-DC-008) discharge/transfer to Air Slide (6300-AS-007)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-026)	-	-	-	-	-	-	-	
		S 2.110	Static Baghouse (6300-DC-009) discharge/transfer to Air Slide (6300-AS-007)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-026)	-	-	-	-	-	-	-	
		S 2.111	Air Slide (6300-AS-008) discharge/transfer to Fine Ore Bin (6300-BN-001)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-026)	-	-	-	-	-	-	-	
		S 2.112	Air Slide (6300-AS-007) discharge/transfer to Fine Ore Bin (6300-BN-001)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-026)	-	-	-	-	-	-	-	
		S 2.113	Fine Ore Bin (6300-BN-001) discharge/transfer to Air Slide (6300-AS-009)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-026)	-	-	-	-	-	-	-	
		S 2.114	Air Slide (6300-AS-021) discharge/transfer to Bucket Elevator (6300-BE-003)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-026)	-	-	-	-	-	-	-	
		S 2.115	Air Slide (6300-AS-022) discharge/transfer to Bucket Elevator (6300-BE-004)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-026)	-	-	-	-	-	-	-	
		S 2.116	Bucket Elevator (6300-BE-003) discharge/transfer to Air Slide (6300-AS-023)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-026)	-	-	-	-	-	-	-	
		S 2.117	Bucket Elevator (6300-BE-004) discharge/transfer to Air Slide (6300-AS-024)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-026)	-	-	-	-	-	-	-	
		S 2.118	Air Slide (6300-AS-023) discharge/transfer to North Day Bin (6400-BN-003)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-026)	-	-	-	-	-	-	-	
		S 2.119	Air Slide (6300-AS-024) discharge/transfer to South Day Bin (6900-BE-004)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-026)	-	-	-	-	-	-	-	
		System Total		-	-	-	-	-		-	5,972	-	0.2900	0.2900	1.2900	1.2900	G21
41A	-0793	(Alternative Operating Scenario) **Mill 6 Transfers to Fine Ore Bin and Roaster Day Bins**															
		S 2.102	Dynamic Separator Product Baghouse (6300-DC-010) discharge/transfer to Fine Ore Bin (6300-BN-001)	560.00	4,905,600	500	-	-	Baghouse (6300-DC-005) + System 40	-	-	-	-	-	-	-	
		S 2.103	Dynamic Separator Product Baghouse (6300-DC-011) discharge/transfer to Fine Ore Bin (6300-BN-001)	560.00	4,905,600	500	-	-	Baghouse (6300-DC-005) + System 40	-	-	-	-	-	-	-	
		S 2.104	Dynamic Separator Product Baghouse (6300-DC-012) discharge/transfer to Fine Ore Bin (6300-BN-001)	560.00	4,905,600	500	-	-	Baghouse (6300-DC-005) + System 40	-	-	-	-	-	-	-	
		S 2.105	Dynamic Separator Product Baghouse (6300-DC-013) discharge/transfer to Fine Ore Bin (6300-BN-001)	560.00	4,905,600	500	-	-	Baghouse (6300-DC-005) + System 40	-	-	-	-	-	-	-	
		S 2.106	Fine Ore Bin Baghouse (6300-DC-026) discharge/transfer to Fine Ore Bin (6300-BN-001)	560.00	4,905,600	500	-	-	Baghouse (6300-DC-005) + System 40	-	-	-	-	-	-	-	
		S 2.107	Static Baghouse (6300-DC-006) discharge/transfer to Air Slide (6300-AS-008)	560.00	4,905,600	500	-	-	Baghouse (6300-DC-005) + System 40	-	-	-	-	-	-	-	
		S 2.108	Static Baghouse (6300-DC-007) discharge/transfer to Air Slide (6300-AS-008)	560.00	4,905,600	500	-	-	Baghouse (6300-DC-005) + System 40	-	-	-	-	-	-	-	
		S 2.109	Static Baghouse (6300-DC-008) discharge/transfer to Air Slide (6300-AS-007)	560.00	4,905,600	500	-	-	Baghouse (6300-DC-005) + System 40	-	-	-	-	-	-	-	
		S 2.110	Static Baghouse (6300-DC-009) discharge/transfer to Air Slide (6300-AS-007)	560.00	4,905,600	500	-	-	Baghouse (6300-DC-005) + System 40	-	-	-	-	-	-	-	
		S 2.111	Air Slide (6300-AS-008) discharge/transfer to Fine Ore Bin (6300-BN-001)	560.00	4,905,600	500	-	-	Baghouse (6300-DC-005) + System 40	-	-	-	-	-	-	-	
		S 2.112	Air Slide (6300-AS-007) discharge/transfer to Fine Ore Bin (6300-BN-001)	560.00	4,905,600	500	-	-	Baghouse (6300-DC-005) + System 40	-	-	-	-	-	-	-	
		S 2.113	Fine Ore Bin (6300-BN-001) discharge/transfer to Air Slide (6300-AS-009)	560.00	4,905,600	500	-	-	Baghouse (6300-DC-005) + System 40	-	-	-	-	-	-	-	
		S 2.114	Air Slide (6300-AS-021) discharge/transfer to Bucket Elevator (6300-BE-003)	560.00	4,905,600	500	-	-	Baghouse (6300-DC-005) + System 40	-	-	-	-	-	-	-	
		S 2.115	Air Slide (6300-AS-022) discharge/transfer to Bucket Elevator (6300-BE-004)	560.00	4,905,600	500	-	-	Baghouse (6300-DC-005) + System 40	-	-	-	-	-	-	-	
		S 2.116	Bucket Elevator (6300-BE-003) discharge/transfer to Air Slide (6300-AS-023)	560.00	4,905,600	500	-	-	Baghouse (6300-DC-005) + System 40	-	-	-	-	-	-	-	
		S 2.117	Bucket Elevator (6300-BE-004) discharge/transfer to Air Slide (6300-AS-024)	560.00	4,905,600	500	-	-	Baghouse (6300-DC-005) + System 40	-	-	-	-	-	-	-	
		S 2.118	Air Slide (6300-AS-023) discharge/transfer to North Day Bin (6400-BN-003)	560.00	4,905,600	500	-	-	Baghouse (6300-DC-005) + System 40	-	-	-	-	-	-	-	

Proposed Particulate Emissions Inventory for Newmont Mining Corporation, Gold Quarry - Permit No. AP1041-0793
PM & PM10 Emissions Calculations

System #	Permit #	Source #	Source Description	Process Rate (ton/hr)	Process Rate (ton/yr)	Operating Hours (hr/yr)	Emission Factor (lb/ton) TSP	Emission Factor (lb/ton) PM10	Particulate Control Technology	Control Efficiency	Flow Rate (dscfm)	Grain Loading, (gr/dscf)	Calculated Emissions (lb/hr) TSP	Calculated Emissions (lb/hr) PM10	Calculated Emissions (ton/year) TSP	Calculated Emissions (ton/year) PM10	Emission Factor Reference
		S 2.119	Air Slide (6300-AS-024) discharge/transfer to South Day Bin (6900-BE-004)	560.00	4,905,600	500	-	-	Baghouse (6300-DC-005) + System 40	-	-	-	-	-	-	-	
		System Total		-	-	-	-	-		-	221,132	0.02185					G39
		Roaster Umbrella Units															
42	-0793	**Mill 6 Static Separator** (S2.120 - S2.124) (Exhaust Stack - (E6))															
		S 2.120	Double Rotator Air Preheater (6300-BU-001)	*2,263.00*	*1,189.60*	8,760	-	-		-	-	-	-	-	-	-	
		S 2.121	Static Separator Product Baghouse (6300-DC-006)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-006)	-	-	-	-	-	-	-	
		S 2.122	Static Separator Product Baghouse (6300-DC-007)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-007)	-	-	-	-	-	-	-	
		S 2.123	Static Separator Product Baghouse (6300-DC-008)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-008)	-	-	-	-	-	-	-	
		S 2.124	Static Separator Product Baghouse (6300-DC-009)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-009)	-	-	-	-	-	-	-	
		System Total		-	-	-	-	-		-	124,782	-	281.28	23.31	0.0000	0.0000	G4
43	-0793	**North CFB Preheater** (S2.125 - S2.127) and **South CFB Preheater** (S2.128 - S2.130) (Exhaust Stack - E8))															
		S 2.125	Heater (6400-BU-003)	*986.19*	*518.34*	8,760	-	-	Baghouse (6300-DC-017)/Scrubber	-	-	-	-	-	-	-	
		S 2.126	Day Bin (6400-BN-003) discharge/transfer to CFB Ore Preheater (6400-PH-001)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-017)/Scrubber	-	-	-	-	-	-	-	
		S 2.127	Preheater Baghouse (6400-DC-017) discharge/transfer to Dust Bin (6400-BN-007)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-017)/Scrubber	-	-	-	-	-	-	-	
		S 2.128	Heater (6400-BU-002)	*986.19*	*518.34*	8,760	-	-	Baghouse (6300-DC-016)/Scrubber	-	-	-	-	-	-	-	
		S 2.129	Day Bin (6400-BN-004) discharge/transfer to CFB Ore Preheater (6400-PH-002)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-016)/Scrubber	-	-	-	-	-	-	-	
		S 2.130	Preheater Baghouse (6400-DC-016) discharge/transfer to Dust Bin (6400-BN-008)	560.00	4,905,600	8,760	-	-	Baghouse (6300-DC-016)/Scrubber	-	-	-	-	-	-	-	
		North and South CFB Preheater Total		-	-	-	-	-		-	129,331.0	-	281.29	5.54	0.0000	0.0000	G5
44	-0793	**North CFB Roaster** (S2.131 - S2.142) and **South CFB Roaster** (S2.143 - S2.154) and **Regenerative Thermal Oxidizer** (S2.155 - S2.156) (Exhaust Stack - (E14A))															
		S 2.131	Primary Gas Heater (6400-BU-005)	*195.00*	*102.49*	8,760	-	-	H2SO4 Plant, Gas Cooling Plants	-	-	-	-	-	-	-	
		S 2.132	Primary Gas Heater (6400-BU-009)	*195.00*	*102.49*	8,760	-	-	H2SO4 Plant, Gas Cooling Plants	-	-	-	-	-	-	-	
		S 2.133	CFB Ore Preheater (6400-PH-001) discharge/transfer to CFB Roaster (6400-RO-001)	560.00	4,905,600	8,760	-	-	H2SO4 Plant, Gas Cooling Plants	-	-	-	-	-	-	-	
		S 2.134	Roaster Seal Device discharge/transfer to Calcine Cooler (6400-CC-001 and 6400-CC-003)	560.00	4,905,600	8,760	-	-	H2SO4 Plant, Gas Cooling Plants	-	-	-	-	-	-	-	
		S 2.135	Dust Bin (6400-BN-007) discharge/transfer to CFB Roaster (6400-RO-001)	560.00	4,905,600	8,760	-	-	H2SO4 Plant, Gas Cooling Plants	-	-	-	-	-	-	-	
		S 2.136	Calcine Cooler (6400-CC-001 and 6400-CC- 003) discharge/transfer to Air Cyclones (6400-CS-011 and 6400-CS- 013)	560.00	4,905,600	8,760	-	-	H2SO4 Plant, Gas Cooling Plants	-	-	-	-	-	-	-	
		S 2.137	Air Cyclones (6400-CS-011 and 6400-CS-013) discharge/transfer to Screw Conveyors	560.00	4,905,600	8,760	-	-	H2SO4 Plant, Gas Cooling Plants	-	-	-	-	-	-	-	
		S 2.138	Screw Conveyor discharge/transfer to Calcine Cooler (6400-CC-001)	560.00	4,905,600	8,760	-	-	H2SO4 Plant, Gas Cooling Plants	-	-	-	-	-	-	-	
		S 2.139	Screw Conveyor discharge/transfer to Calcine Cooler (6400-CC-003)	560.00	4,905,600	8,760	-	-	H2SO4 Plant, Gas Cooling Plants	-	-	-	-	-	-	-	
		S 2.140	Waste Heat Boiler (6400-WB-001) discharge/transfer to Screw Conveyors	560.00	4,905,600	8,760	-	-	H2SO4 Plant, Gas Cooling Plants	-	-	-	-	-	-	-	
		S 2.141	Precipitator (6500-EP-001) discharge/transfer to Screw Conveyors	560.00	4,905,600	8,760	-	-	H2SO4 Plant, Gas Cooling Plants	-	-	-	-	-	-	-	
		S 2.142	Screw Conveyor discharge/transfer to Calcine Cooler (6400-CC-001 and 6400-CC-003)	560.00	4,905,600	8,760	-	-	H2SO4 Plant, Gas Cooling Plants	-	-	-	-	-	-	-	
		S 2.143	Primary Gas Heater (6400-BU-004)	*195.00*	*102.49*	8,760	-	-	H2SO4 Plant, Gas Cooling Plants	-	-	-	-	-	-	-	
		S 2.144	Primary Gas Heater (6400-BU-008)	*195.00*	*102.49*	8,760	-	-	H2SO4 Plant, Gas Cooling Plants	-	-	-	-	-	-	-	
		S 2.145	CFB Ore Preheater (6400-PH-002) discharge/transfer to CFB Roaster (6400-RO-002)	560.00	4,905,600	8,760	-	-	H2SO4 Plant, Gas Cooling Plants	-	-	-	-	-	-	-	
		S 2.146	Roaster Seal Device discharge/transfer to Calcine Cooler (6400-CC-002 and 6400-CC-004)	560.00	4,905,600	8,760	-	-	H2SO4 Plant, Gas Cooling Plants	-	-	-	-	-	-	-	
		S 2.147	Dust Bin (6400-BN-008) discharge/transfer to CFB Roaster (6400-RO-002)	560.00	4,905,600	8,760	-	-	H2SO4 Plant, Gas Cooling Plants	-	-	-	-	-	-	-	
		S 2.148	Calcine Cooler (6400-CC-002 and 6400-CC-004) discharge/transfer to Air Cyclones (6400-CS-012 and 6400-CS-014)	560.00	4,905,600	8,760	-	-	H2SO4 Plant, Gas Cooling Plants	-	-	-	-	-	-	-	
		S 2.149	Air Cyclones (6400-CS-012 and 6400-CS-014) discharge/transfer to Screw Conveyors	560.00	4,905,600	8,760	-	-	H2SO4 Plant, Gas Cooling Plants	-	-	-	-	-	-	-	
		S 2.150	Screw Conveyor discharge/transfer to Calcine Cooler (6400-CC-002)	560.00	4,905,600	8,760	-	-	H2SO4 Plant, Gas Cooling Plants	-	-	-	-	-	-	-	
		S 2.151	Screw Conveyor discharge/transferr to Calcine Cooler (6400-CC-004)	560.00	4,905,600	8,760	-	-	H2SO4 Plant, Gas Cooling Plants	-	-	-	-	-	-	-	
		S 2.152	Waste Heat Boiler (6400-WB-002) discharge/transfer to Screw Conveyors	560.00	4,905,600	8,760	-	-	H2SO4 Plant, Gas Cooling Plants	-	-	-	-	-	-	-	
		S 2.153	Precipitator (6500-EP-002) discharge/transfer to Screw Conveyors	560.00	4,905,600	8,760	-	-	H2SO4 Plant, Gas Cooling Plants	-	-	-	-	-	-	-	
		S 2.154	Screw Conveyor discharge/transfer to Calcine Cooler (6400-CC-002 and 6400-CC-004)	560.00	4,905,600	8,760	-	-	H2SO4 Plant, Gas Cooling Plants	-	-	-	-	-	-	-	
		S 2.155	Thermal Oxidizer Heater (6600-BU-011), Burner #1	*66.00*	*34.69*	8,760	-	-	Best operational practices	-	-	-	-	-	-	-	
		S 2.156	Thermal Oxidizer Heater (6600-BU-011), Burner #2	*66.00*	*34.69*	8,760	-	-	Best operational practices	-	-	-	-	-	-	-	
		North and South CFB Roaster Total									19,800		70.32	3.7	-	-	G6
		Total for Roaster Umbrella Units		-	-	-	-	-		-	-	-	0.000	0.000	129.54	129.54	G40
45	-0793	**Acid Plant Startup Heater**															
		S 2.157	Acid Plant Startup Heater (6600-BU-010), Burner #10	*278.58*	*89.00*	8,760	7.6	7.6	Best operational practices	-	-	-	0.1270	0.1270	0.3382	0.3382	D1
46	-0793	**ROTP/Mill 6 Cooling Tower**															
		S 2.401	ROTP/Mill 6 two-cell counterflow Cooling Tower (Model & Serial Numbers not provided by Facility)								-	-	0.7500	0.7500	3.2700	3.2700	G22
47	-0793	**North Calcine Quench (Normal Operations)**															
		S 2.158	Calcine Cooler (6400-CC-001) discharge/transfer to Quench Tank (6400-TK-001)	560.00		8,760	-	-	Wet Scrubbers (6400-DC-021, 023)	-	-	-	-	-	-	-	
		S 2.159	Calcine Cooler (6400-CC-003) discharge/transfer to Quench Tank (6400-TK-003)	560.00		8,760	-	-	Wet Scrubbers (6400-DC-021, 023)	-	-	-	-	-	-	-	
		System Total		-	-	-	-	-		-	10,000	-	0.990	0.990	4.550	4.550	G23
48	-0793	**Alternative Operating Scenario - North Calcine Quench (Maintenance Conditions #1)**															
		S 2.158A	Calcine Cooler (6400-CC-001) discharge/transfer to Quench Tank (6400-TK-001)	70.00		500			Wet Scrubbers (6400-DC-021, 023)	-	-	-	-	-	-	-	
		S 2.159A	Calcine Cooler (6400-CC-003) discharge/transfer to Quench Tank (6400-TK-003)	70.00		500			Wet Scrubbers (6400-DC-021, 023)	-	-	-	-	-	-	-	
		System Total		-	-	-	-	-		-			1.87	1.87			
49	-0793	**Alternative Operating Scenario - North Calcine Quench (Maintenance Conditions #2)**															
		S 2.158B	Calcine Cooler (6400-CC-001) discharge/transfer to Quench Tank (6400-TK-001)	70.00		500			Wet Scrubbers (6400-DC-021, 023)	-	-	-	-	-	-	-	
		S 2.159B	Calcine Cooler (6400-CC-003) discharge/transfer to Quench Tank (6400-TK-003)	70.00		500			Wet Scrubbers (6400-DC-021, 023)	-	-	-	-	-	-	-	
		System Total		-	-	-	-	-		-			1.87	1.87			
50	-0793	**Alternative Operating Scenario - North Calcine Quench (Maintenance Conditions #3)**															
		S 2.158C	Calcine Cooler (6400-CC-001) discharge/transfer to Quench Tank (6400-TK-001)	55.00		500			Wet Scrubbers (6400-DC-021, 023)	-	-	-	-	-	-	-	
		S 2.159C	Calcine Cooler (6400-CC-003) discharge/transfer to Quench Tank (6400-TK-003)	55.00		500			Wet Scrubbers (6400-DC-021, 023)	-	-	-	-	-	-	-	
		System Total		-	-	-	-	-		-			0.99	0.99			
51	-0793	**South Calcine Quench (Normal Operations)**															
		S 2.160	Calcine Cooler (6400-CC-002) discharge/transfer to Quench Tank(6400-TK-002)	560.00		8,760	-	-	Wet Scrubbers (6400-DC-020, 022)	-	-	-	-	-	-	-	
		S 2.161	Calcine Cooler (6400-CC-004) discharge/transfer to Quench Tank (6400-TK-004)	560.00		8,760	-	-	Wet Scrubbers (6400-DC-020, 022)	-	-	-	-	-	-	-	
		System Total		-	-	-	-	-		-	10,000	-	0.990	0.990	4.550	4.550	G24
52	-0793	**Alternative Operating Scenario - South Calcine Quench (Maintenance Conditions #1)**															
		S 2.160A	Calcine Cooler (6400-CC-002) discharge/transfer to Quench Tank(6400-TK-002)	70.00		500			Wet Scrubbers (6400-DC-020, 022)	-	-	-	-	-	-	-	
		S 2.161A	Calcine Cooler (6400-CC-004) discharge/transfer to Quench Tank (6400-TK-004)	70.00		500			Wet Scrubbers (6400-DC-020, 022)	-	-	-	-	-	-	-	
		System Total		-	-	-	-	-		-			1.87	1.87			
53	-0793	**Alternative Operating Scenario - South Calcine Quench (Maintenance Conditions #2)**															
		S 2.160B	Calcine Cooler (6400-CC-002) discharge/transfer to Quench Tank(6400-TK-002)	70.00		500			Wet Scrubbers (6400-DC-020, 022)	-	-	-	-	-	-	-	
		S 2.161B	Calcine Cooler (6400-CC-004) discharge/transfer to Quench Tank (6400-TK-004)	70.00		500			Wet Scrubbers (6400-DC-020, 022)	-	-	-	-	-	-	-	
		System Total		-	-	-	-	-		-			1.87	1.87			

Proposed Particulate Emissions Inventory for Newmont Mining Corporation, Gold Quarry - Permit No. AP1041-0793
PM & PM10 Emissions Calculations

System #	Permit #	Source #	Source Description	Process Rate (ton/hr)	Process Rate (ton/yr)	Operating Hours (hr/yr)	Emission Factor (lb/ton) TSP	Emission Factor (lb/ton) PM10	Particulate Control Technology	Control Efficiency	Flow Rate (dscfm)	Grain Loading, (gr/dscf)	Calculated Emissions (lb/hr) TSP	Calculated Emissions (lb/hr) PM10	Calculated Emissions (ton/year) TSP	Calculated Emissions (ton/year) PM10	Emission Factor Reference
54	-0793		**Alternative Operating Scenario - South Calcine Quench (Maintenance Conditions #3)**														
		S 2.160C	Calcine Cooler (6400-CC-002) discharge/transfer to Quench Tank(6400-TK-002)	55.00		500			Wet Scrubbers (6400-DC-020, 022)	-	-	-	-	-	-	-	
		S 2.161C	Calcine Cooler (6400-CC-004) discharge/transfer to Quench Tank (6400-TK-004)	55.00		500			Wet Scrubbers (6400-DC-020, 022)	-	-	-	-	-	-	-	
		System Total		-	-	-	-	-		-			0.99	0.99			
55	-0793		**Mill 6 Lime Storage**														
		S 2.162	Lime Bin - Loading (6800-BN-09)	60.00	525,600	8,760	0.0568	0.016	Baghouse (6800-DC-025)			-	3.408	0.96	14.9270	4.2048	C
56	-0793		**CFB North Roaster Lime/Soda Ash Storage**														
		S 2.163	Bin - Loading (6400-BN-005)	60.00	525,600	8,760	0.0568	0.016	Baghouse (6400-DC-019)			-	3.408	0.96	14.9270	4.2048	C
57	-0793		**CFB South Roaster Lime/Soda Ash Storage**														
		S 2.164	Bin - Loading (6400-BN-006)	60.00	525,600	8,760	0.0568	0.016	Baghouse (6400-DC-018)			-	3.408	0.96	14.9270	4.2048	C
58	-0793		**CFB North Roaster Oxygen Preheater**														
		S 2.165	Oxygen Preheater (6400-BU-007)	*113.58*	*59.70*	8,760	7.6	7.6	Best operational practices	-	-	-	0.0518	0.0518	0.2268	0.2268	D2
59	-0793		**CFB South Roaster Oxygen Preheater**														
		S 2.166	Oxygen Preheater (6400-BU-006)	*113.58*	*59.70*	8,760	7.6	7.6	Best operational practices	-	-	-	0.0518	0.0518	0.2268	0.2268	D3
61	-0793		**Gold Quarry Bioleach Test Project - Mixer**														
		PF 1.035	Mixer (BLM-002)	1,000.00	1,000,000	8,760	0.000874	0.000306	Maintain moisture @ 7%	0%	-	-	0.8738	0.3058	0.4369	0.1529	B
62	-0793		**Gold Quarry Bioleach Test Project - Silo Loading**														
		S 2.169	Lime/Cement/Soda Ash Silo - Loading	60.00		8,760	0.0089	0.0049	Baghouse (SAL-DC-001)		1,440	-	0.534	0.294	2.3389	1.2877	C
63	-0793		**Gold Quarry Bioleach Test Project - Silo Discharge**														
		PF 1.036	Lime/Cement/Soda Ash Silo - Discharge	24.00		8,760	0.0051	0.0024	Best Operational Practices	0%	-	-	0.1224	0.0576	0.5361	0.2523	C
64	-0793		**Gold Quarry Bioleach Test Project - Silo Loading**														
		S 2.170	Lime/Cement/Soda Ash Silo - Loading	60.00		8,760	0.0089	0.0049	Baghouse (SAL-DC-002)		1,440		0.534	0.294	2.3389	1.2877	C
65	-0793		**Gold Quarry Bioleach Test Project - Silo Discharge**														
		PF 1.037	Lime/Cement/Soda Ash Silo - Discharge	24.00		8,760	0.0051	0.0024	Best operational practices	0%	-	-	0.1224	0.0576	0.5361	0.2523	C
72	-0793		**Carbon Regeneration Kiln #1**														
		S 2.056	Carbon Regeneration Kiln (500-DC-014)	1.25	10,950.00	8,760	-	-	Wet Scrubber (500-DC-014)	-	1,800	-	-	-	-	-	
		S 2.057	Carbon Regeneration Kiln (500-DC-014-Burner)	*295.86*	*155.50*	8,760	7.6	7.6	Best operational practices	-	-	-	0.1349	0.1349	0.5909	0.5909	D11
		System Total		-	-	-	-	-		-			0.5200	0.5200	2.0800	2.0800	G25
73	-0793		**Carbon Regeneration Kiln #2**														
		S 2.058	Carbon Regeneration Kiln (2550-DC-03)	1.25	10,950.00	8,760	-	-	Wet Scrubber (2550-DC-03)	-	1,800	-	-	-	-	-	
		S 2.059	Carbon Regeneration Kiln (2550-DC-03-Burner)	*295.86*	*155.50*	8,760	7.6	7.6	Best operational practices	-	-	-	0.1349	0.1349	0.5909	0.5909	D12
		System Total		-	-	-	-	-		-			0.5200	0.5200	2.0800	2.0800	G26
78	-0793		**Electric Refinery Induction Furnaces**														
		S 2.047	Electric Induction Furnace (500-FC-16)	-	-	-	-	-	Filter Pack (500-DC-012)	-	-	-	-	-	-	-	
		S 2.048	Electric Induction Furnace (500-FC-17)	-	-	-	-	-	Filter Pack (500-DC-012)	-	-	-	-	-	-	-	
		S 2.049	Electric Induction Furnace (500-FC-05)	-	-	-	-	-	Filter Pack (500-DC-012)	-	-	-	-	-	-	-	
		System Total		5.0	1,752	2,200	-	-		-	9,500	-	1.220	1.220	1.340	1.340	G32
79	-0793		**Integrated Laboratory Crushing System #1**														
		S 2.036	Primary Crusher (858-CR-100)	0.825	7,227.00	8,760	-	-	Baghouse (858-DC-001)	-	-	-	-	-	-	-	
		S 2.037	Secondary Crusher (858-CR-101)	0.825	7,227.00	8,760	-	-	Baghouse (858-DC-001)	-	-	-	-	-	-	-	
		S 2.037A	Secondary Crusher (858-CR-102)	0.825	7,227.00	8,760	-	-	Baghouse (858-DC-001)	-	-	-	-	-	-	-	
		S 2.037B	Secondary Crusher (858-CR-103)	0.825	7,227.00	8,760	-	-	Baghouse (858-DC-001)	-	-	-	-	-	-	-	
		System Total		-	-	-	-	-		-	13,000	-	0.8400	0.8400	3.6600	3.6600	G33
80	-0793		**Integrated Laboratory Crushing System #2**														
		S 2.038	Primary Crusher (858-CR-86)	0.825	7,227.00	8,760	-	-	Baghouse (858-DC-002)	-	-	-	-	-	-	-	
		S 2.039	Secondary Crusher (858-CR-88)	0.825	7,227.00	8,760	-	-	Baghouse (858-DC-002)	-	-	-	-	-	-	-	
		S 2.039A	Secondary Crusher (858-CR-89)	0.825	7,227.00	8,760	-	-	Baghouse (858-DC-002)	-	-	-	-	-	-	-	
		S 2.039B	Secondary Crusher (858-CR-90)	0.825	7,227.00	8,760	-	-	Baghouse (858-DC-002)	-	-	-	-	-	-	-	
		System Total		-	-	-	-	-		-	13,000	-	0.8400	0.8400	3.6600	3.6600	G34
81	-0793		**Integrated Lab Riffle Splitter**														
		S 2.228	Riffle Splitter (858-LB-76)	0.165	482.00	2,920	-	-	Baghouse (858-DC-003)	-	2,800	0.0219	0.5244	0.5244	0.7656	0.7656	I
82	-0793		**Trim Fuel Storage Tank**														
		PF 1.038	Trim Fuel Storage Tank, 50,000 gallons capacity	-	-	8,760	-	-	Roof, submerged fill, best operational practice	-	-	-	0.0000	0.0000	0.0000	0.0000	H1
83	-0793		**Diesel Fuel Storage Tanks**														
		PF 1.039	Diesel Fuel Storage Tank, 50,000 gallons capacity (830-TK-01)	-	-	8,760	-	-	Submerged fill, best operational practices	-	-	-	0.0000	0.0000	0.0000	0.0000	
		PF 1.040	Diesel Fuel Storage Tank, 50,000 gallons capacity (830-TK-09)	-	-	8,760	-	-	Submerged fill, best operational practices	-	-	-	0.0000	0.0000	0.0000	0.0000	
		PF 1.041	Diesel Fuel Storage Tank, 50,000 gallons capacity (830-TK-10)	-	-	8,760	-	-	Submerged fill, best operational practices	-	-	-	0.0000	0.0000	0.0000	0.0000	
		PF 1.042	Diesel Fuel Storage Tank, 50,000 gallons capacity	-	-	8,760	-	-	Submerged fill, best operational practices	-	-	-	0.0000	0.0000	0.0000	0.0000	H2
84	-0793		**Oxygen Plant Regenerative Heater**														
		S 2.400	Oxygen Plant Regenerative Heater			8,760			Best operational practices	-	-	-	0.0700	0.0700	0.2800	0.2800	G36
85	-0793		**Underground Ore Receiving System**														
		PF 1.048	ROM Discharge to vibratory grizzly	1,000	1,500,000	8,760	0.0019196	0.0006719	Underground	0%	-	-	1.9196	0.6719	1.4397	0.5039	B
86	-0793		**Underground Ore Metal Removal Plant**														
		S 2.220	Vibratory grizzly and discharge undersize to metal removal conveyor #1	1,000	1,500,000	8,760			Baghouse (MRB-1)	-	-	-	-	-	-	-	
		S 2.220.1	Vibratory grizzly discharge to oversize inclined belt feeder	1,000	1,500,000	8,760			Baghouse (MRB-1)	-	-	-	-	-	-	-	
		S 2.221	Metal removal conveyor #1 and discharge to metal removal conveyor #2	1,000	1,500,000	8,760			Baghouse (MRB-1)	-	-	-	-	-	-	-	
		S 2.222	Metal removal conveyor #2 and discharge to transfer conveyor #3	1,000	1,500,000	8,760			Baghouse (MRB-1)	-	-	-	-	-	-	-	
		S2.223	Transfer conveyor #3 and discharge to radial stacker	1,000	1,500,000	8,760			Baghouse (MRB-1)	-	-	-	-	-	-	-	
		System Total								-	9056	0.0219	0.7760	0.7760	3.3900	3.3900	G37
87	-0793		**Ore Stockpile Drops**														
		PF 1.049	Radial stacker and discharge to undersize stockpile	1,000	1,500,000	8,760	0.0019196	0.0006719	None	0%	-	-	1.9196	0.6719	1.4397	0.5039	B
		PF 1.050	Inclined belt feeder and discharge to oversize stockpile	1,000	1,500,000	8,760	0.0019196	0.0006719	None	0%	-	-	1.9196	0.6719	1.4397	0.5039	B
		System Total								-	-	-	3.839	1.344	2.879	1.008	
88	-0793		**Phoenix Prep Room Laboratory Crusher System**														
		S 2.222	Primary Crusher (850-CR-210)	0.25	2,190.00	8,760	-	-	Baghouse (850-DC-350)	-	-	-	-	-	-	-	
		S 2.223	Primary Crusher (850-CR-211)	0.25	2,190.00	8,760	-	-	Baghouse (850-DC-350)	-	-	-	-	-	-	-	
		S 2.224	Secondary Crusher (850-ML-210)	0.25	2,190.00	8,760	-	-	Baghouse (850-DC-350)	-	-	-	-	-	-	-	
		S 2.225	Secondary Crusher (850-ML-211)	0.25	2,190.00	8,760	-	-	Baghouse (850-DC-350)	-	-	-	-	-	-	-	
		S 2.226	Secondary Crusher (850-ML-220)	0.25	2,190.00	8,760	-	-	Baghouse (850-DC-350)	-	-	-	-	-	-	-	

Proposed Particulate Emissions Inventory for Newmont Mining Corporation, Gold Quarry - Permit No. AP1041-0793
PM & PM10 Emissions Calculations

System #	Permit #	Source #	Source Description	Process Rate (ton/hr)	Process Rate (ton/yr)	Operating Hours (hr/yr)	Emission Factor (lb/ton) TSP	Emission Factor (lb/ton) PM10	Particulate Control Technology	Control Efficiency	Flow Rate (dscfm)	Grain Loading, (gr/dscf)	Calculated Emissions (lb/hr) TSP	Calculated Emissions (lb/hr) PM10	Calculated Emissions (ton/year) TSP	Calculated Emissions (ton/year) PM10	Emission Factor Reference
		S 2.227	Secondary Crusher (850-ML-221)	0.25	2,190.00	8,760	-	-	Baghouse (850-DC-350)	-	-	-	-	-	-	-	
		System Total		-	-	-	-	-		-	10,000	0.0219	0.6500	0.6500	2.8600	2.8600	G38
89	-0793	**Chukar Underground Lime/Cement/Soda Ash Silo**															
		S2.224	Lime/cement/flyash silo, loading	60.00	35,100	8,760	0.0089	0.0049	Baghouse (500-DC-044)		1,300	-	0.534	0.294	2.339	1.288	C
		PF1.053	Lime/cement/flyash silo discharge to Hopper C-1	10.00	35,100	8,760	0.0051	0.0024	Enclosure	50%			0.026	0.012	0.0448	0.0211	C
		System Total											0.560	0.306	2.384	1.309	
90	-0793	**Chukar Underground Aggregate Loading**															
		PF1.054	Coarse/fine aggregate loading to Hopper C-3	27.00	94,900	8,760	0.0069	0.0033	None	0%			0.186	0.089	0.3274	0.1566	C
91	-0793	**Chukar Underground Aggregate Hopper**															
		PF1.055	Hopper C-3 and discharge to mixing hopper C-2 via totally enclosed feed auger	27.00	94,900	8,760	0.0069	0.0033	Enclosure & water sprays	87.5%			0.023	0.011	0.0409	0.0196	C
92	-0793	**Chukar Underground Lime/Cement/Flyash Hopper**															
		PF1.056	Lime/cement/flyash hopper C-1 and discharge to mixing hopper C-2 via totally enclosed feed auger	10.00	35,100	8,760	0.544	0.134	Enclosure & water sprays	87.5%			0.680	0.168	1.1934	0.2940	C
93	-0793	**Chukar Underground Mixing Hopper**															
		PF1.057	Mixing Hopper C-2 and discharge to truck mixing auger	37.00	130,000	8,760	0.995	0.278	Enclosure	50%			18.408	5.143	32.3375	9.0350	C
99	-0793	**Met Lab Bucking Room**															
		S 2.239	Secondary Crusher (856-CR-110)	1.5	13,140	8,760	-	-	Baghouse (856-DC-150)	-	-	-	-	-	-	-	
		S 2.240	Secondary Crusher (856-CR-111)	1.5	13,140	8,760	-	-	Baghouse (856-DC-150)	-	-	-	-	-	-	-	
		S 2.241	Tertiary Crusher (856-CR-115)	1.5	13,140	8,760	-	-	Baghouse (856-DC-150)	-	-	-	-	-	-	-	
		S 2.242	Ball Mill (856-ML-114)	1.5	13,140	8,760	-	-	Baghouse (856-DC-150)	-	-	-	-	-	-	-	
		System Total					-	-			13,500	0.0100	1.157	1.157	5.068	5.068	I
Total PM and PM10 Emissions													705.77	95.50	517.14	334.98	

Proposed SO2, NOx, CO, & VOC Emissions Inventory for Newmont Mining Corporation, Gold Quarry - Permit No. AP1041-0793
SO2, NOx, CO, & VOC Emissions Calculations

System #	Permit #	Source #	Source Description	Rated Head Input (MMBtu/hr)	Fuel Rate (scfm)	Fuel Rate (MMscf/yr)	Operating Hours (hr/yr)	Emission Factor (lb/Mmbtu) SO2	NOx	CO	VOC	Emission Factor (lb/MMscf) SO2	NOx	CO	VOC	Calculated Emissions (lb/hr) SO2	NOx	CO	VOC	Calculated Emissions (ton/yr) SO2	NOx	CO	VOC	Emission Factor Reference
42	-0793		**Roaster Umbrella Units**																					
			Mill 6 Static Separator																					
		S 2.120	Double Rotator Air Preheater	**137.70**	**2,263.00**	**1,189.60**	8,760					259.9434	82.5486	28.1298	29.1608	**27.40**	**31.93**	**4.89**	**3.28**	-	-	-	-	G4
43	-0793		**North CFB Preheater** and **South CFB Preheater** (Exhaust Stack - E8)																					
		S 2.125	Heater	**60.00**	**986.19**	**518.34**	8,760					80.3595	59.3190	118.0465	29.0680	-	-	-	-	-	-	-	-	
		S 2.128	Heater	**60.00**	**986.19**	**518.34**	8,760					80.3595	59.3190	118.0465	29.0680	**12.91**	**18.11**	**10.63**	**9.28**	-	-	-	-	G5
44	-0793		**North CFB Roaster** and **South CFB Roaster** and **Regenerative Thermal Oxidizer** (Exhaust Stack - (E14A)																					
		S 2.131	Primary Gas Heater	**11.93**	**195.00**	**102.49**	8,760					-	-	-	-	-	-	-	-	-	-	-	-	
		S 2.132	Primary Gas Heater	**11.93**	**195.00**	**102.49**	8,760					-	-	-	-	-	-	-	-	-	-	-	-	
			CFB North Roaster Total	-	**195.00**	**102.49**	-					216.7393	1,309.3604	186.1408	28.8986	-	-	-	-	-	-	-	-	
			CFB South Roaster																					
		S 2.143	Primary Gas Heater	**11.93**	-	-	8,760					-	-	-	-	-	-	-	-	-	-	-	-	
		S 2.144	Primary Gas Heater	**11.93**	-	-	8,760					-	-	-	-	-	-	-	-	-	-	-	-	
			CFB South Roaster Total	-	**195.00**	**102.49**	-					216.7393	1,309.3604	186.1408	28.8986	-	-	-	-	-	-	-	-	
			Regenerative Thermal Oxidizer																					
		S 2.155	Thermal Oxidizer Heater, Burner #1	**4.00**	**66.00**	**34.69**	8,760					9.5696	100	84	5.5	-	-	-	-	-	-	-	-	
		S 2.156	Thermal Oxidizer Heater, Burner #2	**4.00**	**66.00**	**34.69**	8,760					9.5696	100	84	5.5	-	-	-	-	-	-	-	-	
			North CFB Roaster, South CFB Roaster and Regenerative Thermal Oxidizer Subtotal													**39.53**	**13.22**	**24.18**	**0.70**					G6
			Total for Roaster Umbrella Units													-	-	-	-	**218.61**	**214.80**	**97.10**	**35.39**	G40
45	-0793		**Acid Plant Startup Heater**																					
		S 2.157	Acid Plant Startup Heater, Burner #10	**16.949**	**278.58**	**89.00**	8,760					9.5696	100	84	5.5	**0.1600**	**1.6715**	**1.4041**	**0.0919**	**0.4258**	**4.4500**	**3.7380**	**0.2448**	D1
58	-0793		**North Roaster Oxygen Preheater**																					
		S 2.165	Oxygen Preheater	**6.910**	**113.58**	**59.70**	8,760					9.5696	100	73.37	5.5	**0.0652**	**0.6815**	**0.5000**	**0.04**	**0.2856**	**2.9848**	**2.1899**	**0.1642**	D2
59	-0793		**South Roaster Oxygen Preheater**																					
		S 2.166	Oxygen Preheater	**6.910**	**113.58**	**59.70**	8,760					9.5696	100	73.37	5.5	**0.0652**	**0.6815**	**0.5000**	**0.04**	**0.2856**	**2.9848**	**2.1899**	**0.1642**	D3
72	-0793		**Carbon Regeneration Kiln #1**																					
		S 2.057	Boliden-Alis Carbon Regeneration Kiln Burner	**18.00**	**295.86**	**155.50**	8,760					9.5696	100	84	5.5	**0.1699**	**1.7751**	**10.0000**	**0.200**	**0.7441**	**7.7751**	**43.800**	**0.9000**	D11
73	-0793		**Carbon Regeneration Kiln #2**																					
		S 2.059	Boliden-Alis Carbon Regeneration Kiln Burner	**18.00**	**295.86**	**155.50**	8,760					9.5696	100	84	5.5	**0.1699**	**1.7751**	**10.0000**	**0.20**	**0.7441**	**7.7751**	**43.80**	**0.9000**	D12
82	-0793		**Trim Fuel Storage Tank**																					
		PF 1.038	Trim Fuel Storage Tank, 50,000 gallons capacity	-	-	-	8,760					-	-	-	-	0.0000	0.0000	0.0000	**0.1260**	0.0000	0.0000	0.0000	**0.5519**	H1
83	-0793		**Diesel Fuel Storage Tanks**																					
		PF 1.039	Diesel Fuel Storage Tank, 50,000 gallons capacity	-	-	-	8,760					-	-	-	-	-	-	-	0.0045	-	-	-	0.0197	H2
		PF 1.040	Diesel Fuel Storage Tank, 50,000 gallons capacity	-	-	-	8,760					-	-	-	-	-	-	-	0.0045	-	-	-	0.0197	H2
		PF 1.041	Diesel Fuel Storage Tank, 50,000 gallons capacity	-	-	-	8,760					-	-	-	-	-	-	-	0.0045	-	-	-	0.0197	H2
		PF 1.042	Diesel Fuel Storage Tank, 50,000 gallons capacity	-	-	-	8,760					-	-	-	-	-	-	-	0.0045	-	-	-	0.0197	H2
			System Total	-	-	-	-					-	-	-	-	-	-	-	**0.0180**	-	-	-	**0.0788**	
84	-0793		**Oxygen Plant Regenerative Heater**																					
		S 2.400	Oxygen Plant Regenerative Heater	**8.7**	**145**	-	8,760					-	-	-	-	**0.005**	**0.85**	**0.72**	**0.05**	**0.0200**	**3.7400**	**3.1400**	**0.2100**	G36
Total SO2, NOx, CO and VOC Emissions																**80.48**	**70.69**	**62.82**	**14.02**	**221.12**	**244.51**	**195.96**	**38.52**	

SOUTH AREA PM EMISSION FACTOR CALCULATIONS AND REFERENCES

EMISSION FACTOR REFERENCES	VALUE	NOTES	SYSTEM
A AP-42, Section 11.24, Metallic Metals Processing, Table 11.24-2, June 2006			01, 05, 06, 33
PM - Primary Crushing - (lb/ton)	0.5		
PM10 - Primary Crushing - (lb/ton)	0.05		
PM & PM10 - Control Technology - (%)	99%	Enclosure, water & surfactant	
PM & PM10 - Control Technology - (%)	95%	Pneumatic fogging water sprays	
PM & PM10 - Control Technology - (%)	95%	Water sprays	
B AP-42, Section 13.2.4, Aggregate Handling and Storage Piles, January 1995			See Table

E = emission factor (lb/ton) = k(0.0032)((U/5)^1.3)/((M/2)^1.4)
k = particulate size multiplier (1 for TSP and 0.35 for PM10)
U = mean wind speed in mph (7.10 for open sources, 1.00 for enclosed, 0.25 for underground transfer) — Based on 2004-2009 Met Data
M = moisture content of material in % (4.00 for ore, 6.00 for added moisture, and 7.00 for Bioleach mixers)

System #	Source Description	Source #	U (mph)	M (%)	PM (lb/hr)	PM10 (lb/hr)	Control Efficiency
02	Conveyor discharge/transfer to Conveyor	PF 1.006	7.10	6.00	0.001084	0.000380	99%
	Conveyor discharge/transfer to Conveyor	PF 1.007	7.10	6.00	0.001084	0.000380	99%
	Conveyor discharge/transfer to Crushed Ore Stockpile	PF 1.008	7.10	6.00	0.001084	0.000380	85%
07	Conveyor discharge/transfer to Conveyor	PF 1.014	7.10	6.00	0.001084	0.000380	99%
08	Conveyor discharge/transfer to Conveyor (Alternative Scenario)	S 2.218	7.10	6.00	0.001084	0.000380	99%
09	Conveyor discharge/transfer to Shuttle Conveyor	PF 1.015	7.10	6.00	0.001084	0.000380	99%
10	Conveyor discharge/transfer to Shuttle Conveyor (Alternative Scenario)	S 2.219	7.10	6.00	0.001084	0.000380	99%
13	Shuttle Conveyor discharge/transfer to Secondary Crushing Stockpile	PF 1.017	7.10	6.00	0.001084	0.000380	75%
	Shuttle Conveyor discharge/transfer to Truck Load-out Stockpile	PF 1.017.1	7.10	6.00	0.001084	0.000380	75%
14	Shuttle Conveyor discharge/transfer to Tertiary Crushing Stockpile	PF 1.023	7.10	4.00	0.001913	0.000670	75%
	Shuttle Conveyor discharge/transfer to Truck Load-out Stockpile	PF 1.023.1	7.10	4.00	0.001913	0.000670	75%
24	Apron Feeder discharge/transfer to Truck Conveyor	PF 1.025	7.10	6.00	0.001084	0.000380	99%
	Apron Feeder discharge/transfer to Truck Conveyor	PF 1.026	7.10	6.00	0.001084	0.000380	99%
	Truck Conveyor discharge/transfer to Leach Pad Haul Truck	PF 1.027	7.10	6.00	0.001084	0.000380	95%
35	Radial Stacker discharge/transfer to Stockpile	PF 1.034	7.10	6.00	0.001084	0.000380	75%
61	Mixer	PF 1.035	7.10	7.00	0.000874	0.000306	0%
85	ROM Discharge to vibrating grizzly	PF 1.048	7.10	3.99	0.001920	0.000672	0%
87	Ore Stockpile Drops-to undersize stockpile	PF 1.049	7.10	3.99	0.001920	0.000672	0%
	Ore Stockpile Drops-to oversize stockpile	PF 1.050	7.10	3.99	0.001920	0.000672	0%

C AP-42, Section 11.12, Concrete Batching, Equation 11.12-1, Table 11.12-3, June 2006		Assume lime and cement are similar in dusting properties	04, 04A, 11, 11A, 12, 12A, 26, 37, 55, 56, 57, 62
PM - Cement supplement unloading to elevated storage silo (pneumatic) - (lb/ton)	0.0089	Controlled EF	63, 64, 65, 89, 90, 91, 92, 93
PM10 - Cement supplement unloading to elevated storage silo (pneumatic) - (lb/ton)	0.0049	Controlled EF	
PM - Truck loading - (lb/ton)	0.0568	Controlled EF	
PM10 - Truck loading - (lb/ton)	0.0160	Controlled EF	
PM - Weigh hopper loading - (lb/ton)	0.0051	Uncontrolled EF	
PM10 - Weigh hopper loading - (lb/ton)	0.0024	Uncontrolled EF	
PM - Aggregate Transfer - (lb/ton)	0.0069	Uncontrolled EF	
PM10 - Aggregate Transfer - (lb/ton)	0.0033	Uncontrolled EF	
PM - Mixer loading (central mix) - (lb/ton)	0.5440	Uncontrolled EF	
PM10 - Mixer loading (central mix) - (lb/ton)	0.1340	Uncontrolled EF	
PM - Truck loading - (lb/ton)	0.9950	Uncontrolled EF	
PM10 - Truck loading - (lb/ton)	0.2780	Uncontrolled EF	
PM & PM10 - Control Technology - (%)		Baghouse	
PM & PM10 - Control Technology - (%)	87.5%	Enclosure, water spray	
PM & PM10 - Control Technology - (%)		Enclosure, water spray	
PM & PM10 - Control Technology - (%)	50%	Enclosure	
PM & PM10 - Control Technology - (%)	0%	None	

D AP-42, Section 1.4, Natural Gas Combustion, Tables 1.4-1 & 1.4-2, July 1998 — See Table

Reference	System #	Maximum Emission Rate PM/PM10 (lb/MMscf)	SO2 (lb/MMscf)	NOx (lb/MMscf)	CO (lb/MMscf)	VOC (lb/MMscf)
D1	45	7.6	9.5696	100	84	5.5
D2	58	7.6	9.5696	100	73.37	5.5
D3	59	7.6	9.5696	100	73.37	5.5
D11	72	7.6	9.5696	100	84	5.5
D12	73	7.6	9.5696	100	84	5.5

F See permit minor revision application dated February 23, 2004 for emission calculations. — 03a, 03b, 03c

PM & PM10 Emissions - (lb/hr) 0.10

PM & PM10 Emissions - (ton/yr) 0.02

G Based on Title V Permit Limit (Permit #AP1041-0793) — See Table

Reference	System #	Max Loading Rate PM & PM10 (g/dscm)	Maximum Emission Rate PM (lb/hr)	PM10 (lb/hr)	PM (ton/yr)	PM10 (ton/yr)	SO2 (lb/hr)	SO2 (ton/yr)	NOx (lb/hr)	NOx (ton/yr)	CO (lb/hr)	CO (ton/yr)	VOC (lb/hr)	VOC (ton/yr)	Flow Rate (dscfm)
G4	42	----	281.28	23.31	----	----	27.4	----	31.93	----	4.89	----	3.28	----	124782
G5	43	----	281.29	5.54	----	----	12.91	----	18.11	----	10.63	----	9.28	----	129331
G6	44	----	70.32	3.70	----	----	39.53	----	13.22	----	24.18	----	0.70	----	19800
G7	15	0.05	0.06	0.06	0.25	0.25	----	----	----	----	----	----	----	----	1505
G8	16	0.05	0.06	0.06	0.25	0.25	----	----	----	----	----	----	----	----	1505
G9	17	0.05	0.11	0.11	0.44	0.44	----	----	----	----	----	----	----	----	2614
G10	18	0.05	0.92	0.92	3.63	3.63	----	----	----	----	----	----	----	----	43200
G11	19	0.05	0.10	0.10	0.40	0.40	----	----	----	----	----	----	----	----	3961
G12	19a	----	7.36	2.58	14.35	5.02	----	----	----	----	----	----	----	----	----
G13	20	0.05	0.87	0.87	3.41	3.41	----	----	----	----	----	----	----	----	33669
G14	21	0.05	0.31	0.31	1.24	1.24	----	----	----	----	----	----	----	----	14000
G15	34	0.05	1.22	1.22	5.34	5.34	----	----	----	----	----	----	----	----	28000
G16	36	0.05	0.94	0.94	4.12	4.12	----	----	----	----	----	----	----	----	19065
G18	38	0.05	0.38	0.38	1.66	1.66	----	----	----	----	----	----	----	----	7708
G19	39	0.05	0.88	0.88	3.87	3.87	----	----	----	----	----	----	----	----	17916
G20	40	----	17.87	17.87	78.28	78.28	----	----	----	----	----	----	----	----	203216
G21	41	----	0.29	0.29	1.29	1.29	----	----	----	----	----	----	----	----	5972
G22	46	----	0.75	0.75	3.27	3.27	----	----	----	----	----	----	----	----	----
G23	47	----	0.99	0.99	4.55	4.55	----	----	----	----	----	----	----	----	10000
G24	51	----	0.99	0.99	4.55	4.55	----	----	----	----	----	----	----	----	10000
G25	72	----	0.52	0.52	2.08	2.08	----	----	----	----	----	----	----	----	1800
G26	73	----	0.52	0.52	2.08	2.08	----	----	----	----	----	----	----	----	1800
G31	77	----	0.39	0.39	1.69	1.69	----	----	----	----	----	----	----	----	7500
G32	78	----	1.22	1.22	1.34	1.34	----	----	----	----	----	----	----	----	9500
G33	79	----	0.84	0.84	3.66	3.66	----	----	----	----	----	----	----	----	13000
G34	80	----	0.84	0.84	3.66	3.66	----	----	----	----	----	----	----	----	13000
G36	84	----	0.07	0.07	0.28	0.28	0.005	0.02	0.85	3.74	0.72	3.14	0.05	0.21	----
G37	86	0.05	0.776	0.776	3.39	3.39	----	----	----	----	----	----	----	----	9056
G38	88	0.05	0.65	0.65	2.86	2.86	----	----	----	----	----	----	----	----	10000
G39	41A	0.05	0.88	0.88	3.87	3.87	----	----	----	----	----	----	----	----	221132
G40	Umbrella	----	----	----	129.54	129.54	----	218.61	----	214.8	----	97.1	----	35.39	----

H Based on Tanks 2 claculation submitted with original Title V Permit Application — See Table

Reference	System #	Maximum Emission Rate SO2 (lb/hr)	VOC (lb/hr)
H1	82	0.126	0.5519
H2	83	0.0045	0.0197

I Emissions based on:

2800 dscfm		(System 81)
13500 dscfm		(System 99)
0.05 g/dscm		(System 81)
0.01 gr/dscf		(System 99)

J Based on manufacturer information.

PM & PM10 (lb/hr)	0.0015
PM & PM10 (ton/yr)	0.0066
PM & PM10 - Control Technology - (%)	99%

K Emissions based on vendor information.

NOTES:

1) Control efficiencies that are not from NDEP-BAPC, Emission Control Technology - Control Efficiency Ratings, have the manufacturer's guarantee on file at BAPC
2) D - SO2 emission factor calculated by NDEP
3) D - CO emission factors for Systems 58 & 59 are based on permitted lb/hr limits requested by Newmont on 1/22/93

APPENDIX G - FABRIC FILTERS

(Emission Factor Source: AP-42 (5th Ed. - 09/90) Appendix B.2 (Generalized Particle Size Distributions))

1000 tons/year (generic uncontrolled mass emission rate used to calculate controlled emission ratios)

Source: AP-42 (4th Ed. – 09/90) Appendix B.2 (Generalized Particle Size Distributions)), Table B.2-2							Source: AP-42 (4th Ed. – 09/90) Appendix B.2 (Generalized Particle Size Distributions)), Table B.2-3				
Category	Process	Material	Cumulative % ≤ Stated Size (Uncontrolled)			Ratio of PM2.5 to PM10	Collection Efficiency			Mass of Controlled Emissions ≤PM10	Ratio of PM2.5 to PM10
			PM10	PM6	PM2.5		PM10-PM6	PM6-PM2.5	≤PM2.5		
							99.50%	99.50%	99.00%		
1	Stationary Internal Combustion Engines	Gasoline and Diesel Fuel	96%	93%	90%	94%	0.15	0.15	9.00	9.30	0.9677
			960.00	930.00	900.00		30.00	30.00	900.00		
3	Mechanically Generated	Aggregate, Unprocessed Ores	51%	34%	15%	29%	0.85	0.95	1.50	3.30	0.4545
			510.00	340.00	150.00		170.00	190.00	150.00		
4	Mechanically Generated	Processed Ores and Nonmetallic Minerals	85%	62%	30%	35%	1.15	1.60	3.00	5.75	0.5217
			850.00	620.00	300.00		230.00	320.00	300.00		
5	Calcining and Other Heat Reaction Processes	Aggregate, Unprocessed Ores	53%	37%	18%	34%	0.80	0.95	1.80	3.55	0.5070
			530.00	370.00	180.00		160.00	190.00	180.00		
8	Melting, Smelting, Refining	Metals, except Aluminum	92%	89%	82%	89%	0.15	0.35	8.20	8.70	0.9425
			920.00	890.00	820.00		30.00	70.00	820.00		
9	Condensation, Hydration, Absorption, Prilling, and Distillation	All	94%	91%	78%	83%	0.15	0.65	7.80	8.60	0.9070
			940.00	910.00	780.00		30.00	130.00	780.00		

Mass emission rates (tons/year) calculated using the generic uncontrolled mass emission rate of 1,000 tons/year and the cumulative uncontrolled percentages from Table B.2-2 and the collection efficiencies in Table B.2-3.

APPENDIX G - HIGH EFFICIENCY WET SCRUBBERS

(Emission Factor Source: AP-42 (5th Ed. - 09/90) Appendix B.2 (Generalized Particle Size Distributions))

1000 tons/year (generic uncontrolled mass emission rate used to calculate controlled emission ratios)

Source: AP-42 (4th Ed. – 09/90) Appendix B.2 (Generalized Particle Size Distributions)), Table B.2-2							Source: AP-42 (4th Ed. – 09/90) Appendix B.2 (Generalized Particle Size Distributions)), Table B.2-3				
Category	Process	Material	Cumulative % ≤ Stated Size (Uncontrolled)			Ratio of PM2.5 to PM10	Collection Efficiency			Mass of Controlled Emissions ≤PM10	Ratio of PM2.5 to PM10
			PM10	PM6	PM2.5		PM10-PM6	PM6-PM2.5	≤PM2.5		
							99.00%	95.00%	90.00%		
1	Stationary Internal Combustion Engines	Gasoline and Diesel Fuel	96%	93%	90%	94%	0.30	1.50	90.00	91.80	0.9804
			960.00	930.00	900.00		30.00	30.00	900.00		
3	Mechanically Generated	Aggregate, Unprocessed Ores	51%	34%	15%	29%	1.70	9.50	15.00	26.20	0.5725
			510.00	340.00	150.00		170.00	190.00	150.00		
4	Mechanically Generated	Processed Ores and Nonmetallic Minerals	85%	62%	30%	35%	2.30	16.00	30.00	48.30	0.6211
			850.00	620.00	300.00		230.00	320.00	300.00		
5	Calcining and Other Heat Reaction Processes	Aggregate, Unprocessed Ores	53%	37%	18%	34%	1.60	9.50	18.00	29.10	0.6186
			530.00	370.00	180.00		160.00	190.00	180.00		
8	Melting, Smelting, Refining	Metals, except Aluminum	92%	89%	82%	89%	0.30	3.50	82.00	85.80	0.9557
			920.00	890.00	820.00		30.00	70.00	820.00		
9	Condensation, Hydration, Absorption, Prilling, and Distillation	All	94%	91%	78%	83%	0.30	6.50	78.00	84.80	0.9198
			940.00	910.00	780.00		30.00	130.00	780.00		

Mass emission rates (tons/year) calculated using the generic uncontrolled mass emission rate of 1,000 tons/year and the cumulative uncontrolled percentages from Table B.2-2 and the collection efficiencies in Table B.2-3.

System 3 - Mill 5 Ore Reclaim Transfer to SAG Mill and Cone Crusher Circuit PSD Analysis

Past Actual Emissions

Year	Throughput (ton/yr)	PM Emission Factor (lb/ton)	PM2.5 Actual Emissions (ton/yr)	PM10 Actual Emissions (ton/yr)	PM Actual Emissions (ton/yr)
2001	3,714,641.00	0.00178	1.89	3.30	3.30
2002	3,691,412.00	0.00178	1.88	3.28	3.28
2003	1,799,370.67	0.00178	0.92	1.60	1.60
2004	3,268,521.92	0.00178	1.67	2.91	2.91
2005	4,089,607.40	0.00178	2.08	3.64	3.64
2006	4,848,886.40	0.00178	2.47	4.32	4.32
2007	5,436,851.70	0.00178	2.77	4.84	4.84
2008	5,248,042.80	0.00178	2.67	4.67	4.67
2009	5,286,621.60	0.00178	2.69	4.71	4.71
2010	4,799,122.40	0.00178	2.45	4.27	4.27
2011	4,918,315.00	0.00178	2.51	4.38	4.38

Year	Average Highest 24 Consecutive Month Emissions		
	PM2.5 Emissions (ton/yr)	PM10 Emissions (ton/yr)	PM Emissions (ton/yr)
2007	2.72	4.75	4.75
2008			

Potential-To-Emit Emissions

Replacement Scrubber (2300-DC-02)

Maximum Flow Rate: 22,400 dscfm

Control Efficiency: 0.02 gr/dscf

PM2.5 Emissions (ton/yr)	PM10 Emissions (ton/yr)	PM Emissions (ton/yr)
9.63	16.82	16.82

Potential-To-Emit vs. Past Actual Emissions Comparison

	PM2.5 Emissions (ton/yr)	PM10 Emissions (ton/yr)	PM Emissions (ton/yr)
	6.91	12.06	12.06
PSD Pollutant Threshold	10	15	25
Over PSD Threshold?	NO	NO	NO

NOTES:

1) All PM emissions are considered to be PM10 emissions
2) PM2.5 emissions are based on AP-42 (5th Ed. - 09/09) Appendix B.2 - Generalized Particle Size Distributions
   PM2.5 = 0.5725 x PM10
3) Potential-To-Emit emissions are based on 8760 hr/yr

Appendix 7

EMISSIONS CAP

☒ Please Check if not applicable