APPENDIX A
REVISED TABLE S-2
REVISED FACILITY ANNUAL EMISSIONS SUMMARY
Lehigh Southwest Cement Company
Cupertino Facility

Pollutant[1]	Chemical Group	Kiln	DC-Cement	DC-Rock	PF-Cement	PF-Crushing and Screening	PF-Rock Plant	Dispensing Facilities	Emergency Diesel Generators	Welding Stationary IC Engines	Unpaved Roads Wind Erosion	Paved/Unpaved Roads Dust Entrainment	Stockpile Wind Erosion	Stockpile Material Handling	Mine MF10[2]	Mine MF24[3]	(Aug 2014) Total (tons or lbs/yr)
CO	Criteria Pollutant	1155.25							0.07	0.31							1.16E+03
NOx	Criteria Pollutant	1941.51							0.26	0.12							1.94E+03
PM10	Criteria Pollutant	9.79	108.50	3.35	19.52	17.94	9.85				21.72	13.71	7.48	16.94	31.83	13.97	2.75E+02
SOx	Criteria Pollutant	235.53							0.00	0.01							2.36E+02
VOC	Criteria Pollutant	287.88							0.01	0.02							2.88E+02
Diesel PM	Other TAC								9.42	15.32							2.47E+01
Gasoline PM	PM									0.9301							9.30E-01
Antimony	Metals	6.78E-01	6.34E-01	1.68E-02	1.03E-01	8.97E-02	5.04E-02				1.09E-01	6.86E-02	3.91E-02	8.66E-02	1.59E-01	6.99E-02	2.10E+00
Arsenic	Metals	7.60E-01	9.24E-01	8.38E-03	1.86E-01	1.07E-01	2.52E-02				5.43E-02	8.11E-02	2.44E-02	5.93E-02	1.19E-01	6.93E-02	2.42E+00
Barium	Metals	9.81E+00	2.04E+02	5.23E+00	4.92E+01	4.11E+01	1.57E+01				4.34E+01	2.98E+01	9.60E+00	2.07E+01	6.61E+01	2.46E+01	5.19E+02
Beryllium	Metals	3.80E-01	1.69E-01	5.03E-03	2.70E-02	2.69E-02	1.51E-02				3.26E-02	2.06E-02	1.83E-02	2.56E-02	4.77E-02	2.10E-02	7.89E-01
Cadmium	Metals	3.80E-01	3.18E-01	8.38E-03	6.58E-02	5.79E-02	2.52E-02				5.43E-02	3.43E-02	2.01E-02	5.58E-02	7.96E-02	3.49E-02	1.13E+00
Total Chromium	Metals	5.55E+00	1.03E+01	1.61E-01	1.66E+00	1.07E+00	4.84E-01				1.78E+00	1.14E+00	3.51E-01	7.52E-01	1.63E+00	6.81E-01	2.56E+01
Cobalt	Metals	1.75E+00	1.46E+00	4.29E-02	2.25E-01	2.02E-01	1.29E-01				4.26E-01	2.30E-01	8.98E-02	1.94E-01	4.93E-01	1.90E-01	5.43E+00
Copper	Metals	4.24E+00	4.99E+00	9.39E-02	1.25E+00	8.84E-01	2.82E-01				1.07E+00	7.80E-01	2.02E-01	5.99E-01	1.45E+00	6.59E-01	1.65E+01
Lead	Metals	8.86E-01	5.77E-01	8.72E-03	9.47E-02	5.69E-02	2.62E-02				9.99E-02	1.13E-01	2.28E-02	5.02E-02	7.96E-02	3.49E-02	2.05E+00
Manganese	Metals	3.99E+00	--	--	--	--	--				--	--	--	--	--	--	3.99E+00
Mercury	Metals	5.81E+02	1.97E-01	1.34E-03	6.38E-02	9.63E-03	4.03E-03				6.08E-03	4.56E-03	4.38E-03	7.56E-03	1.83E-02	7.96E-03	5.82E+02
Molybdenum	Metals	1.29E+01	1.84E+00	1.68E-02	2.41E-01	1.59E-01	5.04E-02				1.09E-01	1.33E-01	4.25E-02	8.78E-02	1.59E-01	6.99E-02	1.58E+01
Nickel	Metals	6.53E+00	3.39E+01	1.54E-01	2.44E+00	1.21E+00	4.63E-01				2.33E+00	2.37E+00	4.69E-01	9.03E-01	2.56E+00	1.02E+00	5.43E+01
Phosphorous	Metals	7.37E+01	--	--	--	--	--				--	--	--	--	--	--	7.37E+01
Selenium	Metals	4.25E+00	5.65E-01	1.68E-02	9.87E-02	8.97E-02	5.04E-02				1.09E-01	1.45E-02	3.80E-02	8.53E-02	1.59E-01	6.99E-02	5.55E+00
Silver	Metals	7.39E-01	2.83E-01	8.72E-03	4.94E-02	4.57E-02	2.62E-02				5.43E-02	3.43E-02	1.96E-02	4.41E-02	7.96E-02	3.49E-02	1.42E+00
Thallium	Metals	4.25E+00	5.80E+00	8.72E-03	2.63E+00	1.15E-01	2.62E-02				5.43E-02	3.43E-02	2.07E-02	4.41E-02	7.96E-02	3.49E-02	1.31E+01
Vanadium	Metals	3.80E+00	1.15E+02	1.27E-01	1.04E+01	4.07E+00	3.83E-01				3.62E+00	7.01E+00	9.74E-01	2.54E+00	2.81E+00	1.43E+00	1.52E+02
Zinc	Metals	5.14E+01	1.29E+01	1.68E-01	3.73E+00	2.58E+00	5.04E-01				1.48E+00	1.68E+00	4.29E-01	1.34E+00	2.32E+00	1.33E+00	7.99E+01
Chromium (VI)	Metals	3.36E-01	1.59E+00	0.00E+00	1.31E-01	7.95E-03	0.00E+00				8.25E-02	4.49E-02	2.23E-04	8.34E-04	4.68E-03	1.33E-03	2.20E+00
Total Crystalline Silica	Other TAC	--	7.28E+01	2.49E+01	3.17E+01	8.69E+01	7.48E+01				3.08E+02	8.01E+01	4.53E+01	1.21E+02	3.79E+02	1.35E+02	1.36E+03
Naphthalene	PAH's	1.39E+02															1.39E+02
2-Methyl naphthalene	PAH's	1.13E+02															1.13E+02
Acenaphthylene	PAH's	1.15E+00															1.15E+00
Acenaphthene	PAH's	1.77E-01															1.77E-01
Fluorene	PAH's	1.65E+01															1.65E+01
Phenanthrene	PAH's	9.17E+01															9.17E+01
Anthracene	PAH's	6.17E-01															6.17E-01
Fluoranthene	PAH's	1.57E+00															1.57E+00
Pyrene	PAH's	1.17E+00															1.17E+00
Benz[a]anthracene	PAH's	1.31E-02															1.31E-02
Chrysene	PAH's	3.86E-02															3.86E-02
Benzo[b]fluoranthene	PAH's	1.87E-03															1.87E-03
Benzo[k]fluoranthene	PAH's	2.95E-04															2.95E-04
Benzo[e]pyrene	PAH's	1.37E-03															1.37E-03
Benzo[a]pyrene	PAH's	2.95E-04															2.95E-04
Perylene	PAH's	2.95E-04															2.95E-04
Indeno[1,2,3-c,d]pyrene	PAH's	2.19E-04															2.19E-04
Dibenz[a,h]anthracene	PAH's	2.95E-04															2.95E-04
Benzo[g,h,i]perylene	PAH's	2.95E-04															2.95E-04
1,2,3,4,6,7,8-HpCDD	PCDD/PCDF	9.63E-06															9.63E-06
1,2,3,4,6,7,8-HpCDF	PCDD/PCDF	4.67E-06															4.67E-06
1,2,3,4,7,8,9-HpCDF	PCDD/PCDF	1.20E-06															1.20E-06
1,2,3,4,7,8-HxCDD	PCDD/PCDF	2.69E-06															2.69E-06
1,2,3,4,7,8-HxCDF	PCDD/PCDF	4.07E-06															4.07E-06
1,2,3,6,7,8-HxCDD	PCDD/PCDF	2.65E-06															2.65E-06
1,2,3,6,7,8-HxCDF	PCDD/PCDF	3.81E-06															3.81E-06

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1,2,3,7,8,9-HxCDD	PCDD/PCDF	2.75E-06															2.75E-06
1,2,3,7,8,9-HxCDF	PCDD/PCDF	1.28E-06															1.28E-06
1,2,3,7,8-PeCDD	PCDD/PCDF	2.37E-06															2.37E-06
1,2,3,7,8-PeCDF	PCDD/PCDF	1.83E-05															1.83E-05
2,3,4,6,7,8-HxCDF	PCDD/PCDF	2.34E-06															2.34E-06
2,3,4,7,8-PeCDF	PCDD/PCDF	2.74E-05															2.74E-05
2,3,7,8-TCDD	PCDD/PCDF	2.33E-06															2.33E-06
2,3,7,8-TCDF	PCDD/PCDF	1.15E-04															1.15E-04
HpCDD (Total)	PCDD/PCDF	1.51E-05															1.51E-05
HpCDF (Total)	PCDD/PCDF	4.75E-06															4.75E-06
HxCDD (Total)	PCDD/PCDF	6.71E-05															6.71E-05
HxCDF (Total)	PCDD/PCDF	2.34E-05															2.34E-05
OCDD	PCDD/PCDF	2.02E-05															2.02E-05
OCDF	PCDD/PCDF	4.61E-06															4.61E-06
PeCDD (Total)	PCDD/PCDF	7.18E-05															7.18E-05
PeCDF (Total)	PCDD/PCDF	7.01E-04															7.01E-04
TCDD (Total)	PCDD/PCDF	1.91E-04															1.91E-04
TCDF (Total)	PCDD/PCDF	1.31E-02															1.31E-02
1,1,1-trichloroethane	TAC	3.21E+01															3.21E+01
1,1,2,2-tetrachloroethane	TAC	4.03E+01															4.03E+01
1,1,2-trichloroethane	TAC	5.34E+01															5.34E+01
1,1-dichloroethane	TAC	1.98E+01															1.98E+01
1,1-dichloroethylene	TAC	3.89E+01															3.89E+01
1,2,4-trichlorobenzene	TAC	1.09E+02															1.09E+02
1,2,4-trimethylbenzene	TAC	1.38E+03															1.38E+03
1,2-dibromoethane	TAC	6.02E+01															6.02E+01
1,2-dichloroethane	TAC	2.38E+01															2.38E+01
1,2-dichloropropane	TAC	2.71E+01															2.71E+01
1,3,5-trimethylbenzene	TAC	1.13E+03															1.13E+03
1,3-butadiene	TAC	9.18E+01															9.18E+01
4-ethyl-toluene	TAC	4.30E+02															4.30E+02
Acrolein	TAC	4.49E+01															4.49E+01
Benzene	TAC	9.65E+03						9.24E-03									9.65E+03
Benzyl chloride	TAC	1.01E+02															1.01E+02
c-1,2-dichloroethene	TAC	3.89E+01															3.89E+01
c-1,3-dichloropropene	TAC	6.67E+01															6.67E+01
Carbon Tetrachloride	TAC	6.16E+01															6.16E+01
Chlorobenzene	TAC	5.54E+02															5.54E+02
Chloroform	TAC	2.87E+01															2.87E+01
Dichloromethane	TAC	1.29E+02															1.29E+02
Ethyl Chloride	TAC	3.87E+01															3.87E+01
Ethylbenzene	TAC	9.59E+02															9.59E+02
Freon 11	TAC	3.30E+01															3.30E+01
Freon 113	TAC	4.50E+01															4.50E+01
Freon 114	TAC	4.11E+01															4.11E+01
Freon 12	TAC	2.42E+01															2.42E+01
Hexachlorobutadiene	TAC	1.05E+02															1.05E+02
m+p-xylenes	TAC	6.94E+03						4.06E-05									6.94E+03
m-dichlorobenzene	TAC	4.71E+01															4.71E+01
Methyl Bromide	TAC	6.25E+02															6.25E+02
Methyl Chloride	TAC	1.10E+03															1.10E+03
o-dichlorobenzene	TAC	4.71E+01															4.71E+01
o-xylene	TAC	1.36E+03															1.36E+03
p-dichlorobenzene	TAC	5.89E+01															5.89E+01
Perchloroethylene	TAC	5.31E+01															5.31E+01

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Lehigh Southwest Cement Company
Cupertino Facility

Pollutant[1]	Chemical Group	Kiln	DC-Cement	DC-Rock	PF-Cement	PF-Crushing and Screening	PF-Rock Plant	Dispensing Facilities	Emergency Diesel Generators	Welding Stationary IC Engines	Unpaved Roads Wind Erosion	Paved/Unpaved Roads Dust Entrainment	Stockpile Wind Erosion	Stockpile Material Handling	Mine MF10[2]	Mine MF24[3]	(Aug 2014) Total (tons or lbs/yr)
Styrene	TAC	2.43E+02															2.43E+02
t-1,3-dichloropropene	TAC	4.44E+01															4.44E+01
Toluene	TAC	8.65E+03						4.13E-02									8.65E+03
Trichloroethene	TAC	4.21E+01															4.21E+01
Vinyl Chloride	TAC	1.42E+02															1.42E+02
Hydrogen Chloride	Other	1.07E+05															1.07E+05
Acetaldehyde	Volatile Organics	1.16E+03															1.16E+03
Formaldehyde	Volatile Organics	6.31E+01															6.31E+01

Notes
1. Criteria Pollutant reported in tons/yr. All other pollutants reported in lbs/yr.
2. MF10 are mine fugitives emissions occurring over 10 hours per day (operating hours).
3. MF24 are mine fugitive emissions occuring 24 hours per day.

APPENDIX A
REVISED TABLE S-3
REVISED FACILITY HOURLY EMISSIONS SUMMARY
Lehigh Southwest Cement Company
Cupertino Facility

Pollutant	Chemical Group	Kiln	DC-Cement	DC-Rock	PF-Cement	PF-Crushing and Screening	PF-Rock Plant	Dispensing Facilities	Emergency Diesel Generators	Welding Stationary IC Engines	Unpaved Roads Wind Erosion	Paved/Unpaved Roads Dust Entrainment	Stockpile Wind Erosion	Stockpile Material Handling	Mines MF10[2]	Mines MF24[3]	(Aug 2014) Total (lb/hr)[1]
CO	Criteria Pollutant	335.00							13.31	5.89							3.54E+02
NOx	Criteria Pollutant	563.00							50.11	1.21							6.14E+02
PM10	Criteria Pollutant	2.84	36.25	1.97	16.32	11.66	13.03				17.38	10.97	5.94	13.55	25.47	11.18	1.67E+02
SOx	Criteria Pollutant	68.30							0.02	0.08							6.84E+01
VOC	Criteria Pollutant	83.48							1.41	0.37							8.53E+01
Diesel PM	Other TAC								0.90	0.08							9.73E-01
Gasoline PM	PM									0.0093							9.30E-03
Antimony	Metals	9.83E-05	1.09E-04	4.92E-06	4.54E-05	8.09E-06	3.35E-05				2.73E-06	2.74E-05	1.56E-05	3.46E-05	6.37E-05	2.79E-05	4.71E-04
Arsenic	Metals	1.10E-04	1.60E-04	2.46E-06	7.93E-05	9.69E-06	1.67E-05				1.36E-06	3.24E-05	9.75E-06	2.37E-05	4.77E-05	2.77E-05	5.21E-04
Barium	Metals	1.42E-03	3.44E-02	1.53E-03	2.13E-02	3.70E-03	1.05E-02				1.09E-03	1.19E-02	3.84E-03	8.27E-03	2.64E-02	9.85E-03	1.34E-01
Beryllium	Metals	5.52E-05	2.84E-05	1.48E-06	1.20E-05	2.43E-06	1.00E-05				8.19E-07	8.23E-06	7.32E-06	1.02E-05	1.91E-05	8.38E-06	1.64E-04
Cadmium	Metals	5.52E-05	5.35E-05	2.46E-06	2.89E-05	5.22E-06	1.67E-05				1.36E-06	1.37E-05	8.06E-06	2.23E-05	3.18E-05	1.40E-05	2.53E-04
Total Chromium	Metals	8.04E-04	1.76E-03	4.72E-05	6.50E-04	9.69E-05	3.22E-04				4.48E-05	4.56E-04	1.40E-04	3.01E-04	6.54E-04	2.73E-04	5.55E-03
Cobalt	Metals	2.54E-04	2.63E-04	1.26E-05	1.03E-04	1.82E-05	8.58E-05				1.07E-05	9.21E-05	3.59E-05	7.74E-05	1.97E-04	7.62E-05	1.23E-03
Copper	Metals	6.15E-04	8.59E-04	2.75E-05	5.43E-04	7.98E-05	1.88E-04				2.69E-05	3.12E-04	8.09E-05	2.40E-04	5.81E-04	2.64E-04	3.82E-03
Lead	Metals	1.28E-04	9.95E-05	2.56E-06	3.68E-05	5.13E-06	1.74E-05				2.51E-06	4.54E-05	9.10E-06	2.01E-05	3.18E-05	1.40E-05	4.13E-04
Manganese	Metals	5.79E-04	--	--	--	--	--				--	--	--	--	--	--	5.79E-04
Mercury	Metals	8.43E-02	3.00E-05	3.93E-07	1.26E-05	8.69E-07	2.68E-06				1.53E-07	1.82E-06	1.75E-06	3.02E-06	7.32E-06	3.18E-06	8.44E-02
Molybdenum	Metals	1.88E-03	2.98E-04	4.92E-06	9.98E-05	1.44E-05	3.35E-05				2.73E-06	5.34E-05	1.70E-05	3.51E-05	6.37E-05	2.79E-05	2.53E-03
Nickel	Metals	9.46E-04	5.56E-03	4.53E-05	1.05E-03	1.09E-04	3.08E-04				5.86E-05	9.47E-04	1.88E-04	3.61E-04	1.03E-03	4.10E-04	1.10E-02
Phosphorous	Metals	1.07E-02	--	--	--	--	--				--	--	--	--	--	--	1.07E-02
Selenium	Metals	6.17E-04	9.52E-05	4.92E-06	4.18E-05	8.09E-06	3.35E-05				2.73E-06	5.81E-06	1.52E-05	3.41E-05	6.37E-05	2.79E-05	9.50E-04
Silver	Metals	1.07E-04	4.76E-05	2.56E-06	2.09E-05	4.12E-06	1.74E-05				1.36E-06	1.37E-05	7.82E-06	1.76E-05	3.18E-05	1.40E-05	2.86E-04
Thallium	Metals	6.17E-04	8.62E-04	2.56E-06	4.35E-04	1.04E-05	1.74E-05				1.36E-06	1.37E-05	8.27E-06	1.76E-05	3.18E-05	1.40E-05	2.03E-03
Vanadium	Metals	5.52E-04	1.89E-02	3.74E-05	4.32E-03	3.67E-04	2.55E-04				9.10E-05	2.80E-03	3.89E-04	1.02E-03	1.12E-03	5.72E-04	3.04E-02
Zinc	Metals	7.46E-03	2.18E-03	4.92E-05	1.66E-03	2.33E-04	3.35E-04				3.71E-05	6.71E-04	1.72E-04	5.38E-04	9.27E-04	5.31E-04	1.48E-02
Chromium (VI)	Metals	4.87E-05	2.77E-04	0.00E+00	4.15E-05	7.17E-07	0.00E+00				2.07E-06	1.80E-05	8.92E-08	3.34E-07	1.87E-06	5.33E-07	3.91E-04
Total Crystalline Silica	Other TAC	--	1.23E-02	7.30E-03	1.55E-02	7.84E-03	4.97E-02				7.75E-03	3.20E-02	1.81E-02	4.82E-02	1.51E-01	5.39E-02	4.04E-01
Naphthalene	PAH's	2.01E-02															2.01E-02
2-Methyl naphthalene	PAH's	1.64E-02															1.64E-02
Acenaphthylene	PAH's	1.67E-04															1.67E-04
Acenaphthene	PAH's	2.57E-05															2.57E-05
Fluorene	PAH's	2.39E-03															2.39E-03
Phenanthrene	PAH's	1.33E-02															1.33E-02
Anthracene	PAH's	8.94E-05															8.94E-05
Fluoranthene	PAH's	2.28E-04															2.28E-04
Pyrene	PAH's	1.70E-04															1.70E-04
Benz[a]anthracene	PAH's	1.90E-06															1.90E-06
Chrysene	PAH's	5.60E-06															5.60E-06
Benzo[b]fluoranthene	PAH's	2.71E-07															2.71E-07
Benzo[k]fluoranthene	PAH's	4.27E-08															4.27E-08
Benzo[e]pyrene	PAH's	1.99E-07															1.99E-07
Benzo[a]pyrene	PAH's	4.27E-08															4.27E-08
Perylene	PAH's	4.27E-08															4.27E-08
Indeno[1,2,3-c,d]pyrene	PAH's	3.17E-08															3.17E-08
Dibenz[a,h]anthracene	PAH's	4.27E-08															4.27E-08
Benzo[g,h,i]perylene	PAH's	4.27E-08															4.27E-08
1,2,3,4,6,7,8-HpCDD	PCDD/PCDF	1.40E-09															1.40E-09
1,2,3,4,6,7,8-HpCDF	PCDD/PCDF	6.77E-10															6.77E-10
1,2,3,4,7,8,9-HpCDF	PCDD/PCDF	1.75E-10															1.75E-10
1,2,3,4,7,8-HxCDD	PCDD/PCDF	3.90E-10															3.90E-10
1,2,3,4,7,8-HxCDF	PCDD/PCDF	5.90E-10															5.90E-10
1,2,3,6,7,8-HxCDD	PCDD/PCDF	3.85E-10															3.85E-10
1,2,3,6,7,8-HxCDF	PCDD/PCDF	5.52E-10															5.52E-10

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APPENDIX A
REVISED TABLE S-3
REVISED FACILITY HOURLY EMISSIONS SUMMARY
Lehigh Southwest Cement Company
Cupertino Facility

Pollutant	Chemical Group	Kiln	DC-Cement	DC-Rock	PF-Cement	PF-Crushing and Screening	PF-Rock Plant	Dispensing Facilities	Emergency Diesel Generators	Welding Stationary IC Engines	Unpaved Roads Wind Erosion	Paved/Unpaved Roads Dust Entrainment	Stockpile Wind Erosion	Stockpile Material Handling	Mines MF10[2]	Mines MF24[3]	(Aug 2014) Total (lb/hr)[1]
1,2,3,7,8,9-HxCDD	PCDD/PCDF	3.98E-10															3.98E-10
1,2,3,7,8,9-HxCDF	PCDD/PCDF	1.86E-10															1.86E-10
1,2,3,7,8-PeCDD	PCDD/PCDF	3.44E-10															3.44E-10
1,2,3,7,8-PeCDF	PCDD/PCDF	2.66E-09															2.66E-09
2,3,4,6,7,8-HxCDF	PCDD/PCDF	3.40E-10															3.40E-10
2,3,4,7,8-PeCDF	PCDD/PCDF	3.98E-09															3.98E-09
2,3,7,8-TCDD	PCDD/PCDF	3.38E-10															3.38E-10
2,3,7,8-TCDF	PCDD/PCDF	1.67E-08															1.67E-08
HpCDD (Total)	PCDD/PCDF	2.19E-09															2.19E-09
HpCDF (Total)	PCDD/PCDF	6.89E-10															6.89E-10
HxCDD (Total)	PCDD/PCDF	9.73E-09															9.73E-09
HxCDF (Total)	PCDD/PCDF	3.39E-09															3.39E-09
OCDD	PCDD/PCDF	2.92E-09															2.92E-09
OCDF	PCDD/PCDF	6.69E-10															6.69E-10
PeCDD (Total)	PCDD/PCDF	1.04E-08															1.04E-08
PeCDF (Total)	PCDD/PCDF	1.02E-07															1.02E-07
TCDD (Total)	PCDD/PCDF	2.76E-08															2.76E-08
TCDF (Total)	PCDD/PCDF	1.90E-06															1.90E-06
1,1,1-trichloroethane	TAC	4.65E-03															4.65E-03
1,1,2,2-tetrachloroethane	TAC	5.85E-03															5.85E-03
1,1,2-trichloroethane	TAC	7.75E-03															7.75E-03
1,1-dichloroethane	TAC	2.87E-03															2.87E-03
1,1-dichloroethylene	TAC	5.64E-03															5.64E-03
1,2,4-trichlorobenzene	TAC	1.58E-02															1.58E-02
1,2,4-trimethylbenzene	TAC	2.00E-01															2.00E-01
1,2-dibromoethane	TAC	8.73E-03															8.73E-03
1,2-dichloroethane	TAC	3.45E-03															3.45E-03
1,2-dichloropropane	TAC	3.94E-03															3.94E-03
1,3,5-trimethylbenzene	TAC	1.64E-01															1.64E-01
1,3-butadiene	TAC	1.33E-02															1.33E-02
4-ethyl-toluene	TAC	6.23E-02															6.23E-02
Acrolein	TAC	6.51E-03															6.51E-03
Benzene	TAC	1.40E+00						3.70E-06									1.40E+00
Benzyl chloride	TAC	1.47E-02															1.47E-02
c-1,2-dichloroethene	TAC	5.64E-03															5.64E-03
c-1,3-dichloropropene	TAC	9.67E-03															9.67E-03
Carbon Tetrachloride	TAC	8.94E-03															8.94E-03
Chlorobenzene	TAC	8.04E-02															8.04E-02
Chloroform	TAC	4.16E-03															4.16E-03
Dichloromethane	TAC	1.87E-02															1.87E-02
Ethyl Chloride	TAC	5.62E-03															5.62E-03
Ethylbenzene	TAC	1.39E-01															1.39E-01
Freon 11	TAC	4.79E-03															4.79E-03
Freon 113	TAC	6.53E-03															6.53E-03
Freon 114	TAC	5.95E-03															5.95E-03
Freon 12	TAC	3.51E-03															3.51E-03
Hexachlorobutadiene	TAC	1.52E-02															1.52E-02
m+p-xylenes	TAC	1.01E+00						4.06E-05									1.01E+00
m-dichlorobenzene	TAC	6.83E-03															6.83E-03
Methyl Bromide	TAC	9.07E-02															9.07E-02
Methyl Chloride	TAC	1.60E-01															1.60E-01
o-dichlorobenzene	TAC	6.83E-03															6.83E-03
o-xylene	TAC	1.97E-01															1.97E-01
p-dichlorobenzene	TAC	8.54E-03															8.54E-03
Perchloroethylene	TAC	7.70E-03															7.70E-03

APPENDIX A
REVISED TABLE S-3
REVISED FACILITY HOURLY EMISSIONS SUMMARY
Lehigh Southwest Cement Company
Cupertino Facility

Pollutant	Chemical Group	Kiln	DC-Cement	DC-Rock	PF-Cement	PF-Crushing and Screening	PF-Rock Plant	Dispensing Facilities	Emergency Diesel Generators	Welding Stationary IC Engines	Unpaved Roads Wind Erosion	Paved/Unpaved Roads Dust Entrainment	Stockpile Wind Erosion	Stockpile Material Handling	Mines MF10[2]	Mines MF24[3]	(Aug 2014) Total (lb/hr)[1]
Styrene	TAC	3.52E-02															3.52E-02
t-1,3-dichloropropene	TAC	6.44E-03															6.44E-03
Toluene	TAC	1.25E+00						1.65E-05									1.25E+00
Trichloroethene	TAC	6.10E-03															6.10E-03
Vinyl Chloride	TAC	2.06E-02															2.06E-02
Hydrogen Chloride	Other	1.55E+01															1.55E+01
Acetaldehyde	Volatile Organics	1.68E-01															1.68E-01
Formaldehyde	Volatile Organics	9.15E-03															9.15E-03

Notes
1. All polllutants reported in lbs/hr
2. MF10 are mine fugitives emissions occurring over 10 hours per day (operating hours).
3. MF24 are mine fugitive emissions occuring 24 hours per day.

REVISED TABLE A-10

PLANT PAVED AND UNPAVED ROAD EMISSIONS
Lehigh Southwest Cement Company
Cupertino Facility

Dust Entrainment				
	Emission Factor	**Vehicle miles (VMT) [2]**	**PM10 emissions [1]**	
	lbs/VMT	miles/year	tons/year	tons/hour
Dust entrainment from unpaved roads	0.22	15,720	1.7	0.001
Dust entrainment from paved roads	1.02	23,580	12.0	0.0048
Wind erosion				
	Emission Factor	**Area**	**PM10 emissions [1]**	
	tons/acre-year	acre	tons/year	tons/hour
Wind erosion from unpaved roads [3]	1.22	17.81	21.72	0.00869

Conversion Factors

2.30E-05	acre/sq.ft
4	miles of paved roads, on-site drive through
5	miles of unpaved roads, on-site drive through
108	miles/day on paved road
151	miles/day on unpaved road
262	weekdays for 2008

Note:
1. The maximum hourly emission is based on annual emission divided by 2500 hours/year.
2. Miles per day traveled on paved/unpaved roads provided by Lehigh
3. Estimated unpaved road width within cement plant is 30'

REVISED TABLE A-11

PLANT STOCKPILE EMISSIONS
Lehigh Southwest Cement Company
Cupertino Facility

Stockpile	Material ID	Wind Erosion Emissions				Material Handling Emissions			
		Stockpile Area[1,2]		Annual PM10 emissions from wind erosion[3]	Hourly PM_{10} Emissions from Wind Erosion[4]	Stockpile Throughput for 2005[5]	Material Handling Emission Factor[6]	Annual PM10 emissions from material handling	Hourly PM_{10} Emissions from Material Handling[4]
		ft^2	m^2	tons/year	lbs/hour	tons/yr	lbs/ton	tons/year	lbs/hour
Quarry Overburden	SP1	717,166	66,651	5.48	4.38	3,877,770	5.52E-03	1.07E+01	8.56E+00
Primary Crushed Limestone (High Grade)	SP2	37,399	3,476	0.29	0.23	1,161,017	5.52E-03	3.21E+00	2.56E+00
Primary Crushed Limestone (Medium Grade)	SP3	37,399	3,476	0.29	0.23	883,795	5.52E-03	2.44E+00	1.95E+00
Bauxite	SP4	17,810	1,655	0.136	0.11	54,463	5.52E-03	1.50E-01	1.20E-01
Iron Ore	SP5	14,655	1,362	0.112	0.09	45,100	5.52E-03	1.25E-01	9.96E-02
Coal	SP6	17,810	1,655	0.136	0.06	Coal not used			
Coke	SP7	18,004	1,673	0.138	0.11	7,655	5.52E-03	2.11E-02	1.69E-02
Clinker [7]	SP8	NA	NA	NA	NA	17,565	5.52E-03	4.85E-02	3.88E-02
Natural Gypsum	SP9	NA	NA	NA	NA	57,491	5.52E-03	1.59E-01	1.27E-01
Pozzolan	SP10	NA	NA	NA	NA	4,616	5.52E-03	1.27E-02	1.02E-02
Slag	SP11	111,055	10,321	0.85	0.68	0	5.52E-03	0.00E+00	0.00E+00
Low Grade Limestone (Non-Process) [8]	SP15	7,946	738	0.061	0.05	27,752	5.52E-03	7.66E-02	6.13E-02
				7.48	**5.94**			**16.94**	**13.55**

Conversion Factors
1 m^2 = 10.76 ft^2

Notes:
1. 2007 outside stockpile areas confirmed by Scott Renfrew after site visit by AMEC. Stockpiles assumed to be conical.
2. Natural gympsum and pozzolan stockpiles are indoors. There is no standing outdoors clinker stockpile.
3. Equation is from AP-42, Industrial Wind Erosion Sec. 13.2.5. On-site meteorological data for July 1, 2010 through June 30, 2011 was used for wind gust speed calculations. Assumed a stockpile disturbance every day.
4. The maximum hourly emission is based on annual emission divided by 2500 hours/year.
5. 2005 stockpile throughputs provided by Scott Renfrew. Clinker throughput for 2008.
6. Equation is from AP-42, Aggregate Handling and Storage Piles Sec. 13.2.4.
7. There is no active clinker stockpile on-site. Clinker is directly delivered to the kiln so there is an associated material handling emission.
8. Low grade limestone material in this stockpile not used in any plant processes.

TABLE A-12A
FUGITIVE EMISSIONS FROM MINE OPERATIONS - BLASTING AND MATERIAL HANDLING
Lehigh Southwest Cement Company
Cupertino Facility

Activity	Units of Emission Factor	Emission Factor	Throughput		Annual PM10 Emissions (tons/yr)	Annual PM10 Emissions (lb/yr)	Hourly PM10 Emissions (lb/hr) [1]
Material Handling	lb/ton	2.20E-03	3,519,780	ton/yr	3.87E+00	7.74E+03	3.10E+00
Blasting	lb/ton	6.50E-05	3,519,780	ton/yr	1.14E-01	2.29E+02	9.15E-02
Bulldozing	lb/ton	6.25E-04	3,519,780	ton/yr	1.10E+00	2.20E+03	8.80E-01
Grading	lb/ton	1.91E-03	3,519,780	ton/yr	3.37E+00	6.73E+03	2.69E+00

REVISED TABLE A-12B
FUGITIVE EMISSIONS FROM MINE OPERATIONS - UNPAVED ROADS
Lehigh Southwest Cement Company
Cupertino Facility

Activity	Units of Emission Factor	Emission Factor	Throughput		Annual PM10 Emissions (tons/yr)	Annual PM10 Emissions (lb/yr)	Hourly PM10 Emissions (lb/hr) [1]
Dust Entrainment - Unpaved Roads	lb/VMT	1.98E+00	23,580	miles/yr	2.34E+01	4.68E+04	1.87E+01
Wind Erosion - Unpaved Roads	ton/acre*yr	1.22E+00	5.46	acre	6.66E+00	1.33E+04	5.33E+00

REVISED TABLE A-12C
FUGITIVE EMISSIONS FROM MINE OPERATIONS - WIND EROSION FROM DISTURBED AREA
Lehigh Southwest Cement Company
Cupertino Facility

Activity	Units of Emission Factor	Emission Factor	Throughput		Annual PM10 Emissions (tons/yr)	Annual PM10 Emissions (lb/yr)	Hourly PM10 Emissions (lb/hr) [1]
Wind Erosion - Mine Area	ton/acre*yr	1.22E+00	6	acre	7.32E+00	1.46E+04	5.85E+00

Conversion Factors:

2000 lb = 1 ton

Notes:
1. Assumed 2500 hours per year

REVISED TABLE B-3

WIND EROSION FROM UNPAVED ROADS

Lehigh Southwest Cement Company
Cupertino Facility

Equation for TSP Emission Factor as per EPA AP-42[1]

Step 1: Correct wind speed data to reference height of 10 m:

$$u_{10}^{+} = u_{z}^{+} \frac{\ln\left(\frac{10}{.005}\right)}{\ln\left(\frac{z}{.005}\right)}$$

Step 2: Calculate u* for the unpaved road:

$$u^{*} = 0.053 u_{10}^{+}$$

Step 3: Calculate the emission factor for each disturbance:

$$P_i = 58\left(u^{*} - u_t^{*}\right)^2 + 25(u^{*} - u_t^{*})$$

Step 4: Sum the disturbances (not including weekends):

$$Ef = k\sum_{i-1}^{N} Pi$$

Equation element	Symbol	Value used	Notes
Particle size multiplier for PM10	k	0.5	pg. 13.2.5-3 EPA AP-42
"Fastest mile" of wind speed per disturbance at height z (m/s)	u^{+}_{z}	Met. Data	Wind gust data from July 1, 2010 through July 30, 2011 using on-site data
Height at which meteorlogical data was taken (m)	z	10	
"Fastest mile" of wind speed per disturbance at 10m (m/s)	u^{+}_{10}	calculated	Step 1
Number of disturbances per year	N	Every day	Assume a disturbance every day of the year
Threshold friction velocity (m/s)	u^{*}_{t}	0.62	Table 13.2.5-2 EPA AP-42. Value for scraper tracks on coal pile.
Friction velocity per disturbance (m/s)	u*	calculated	Step 2
Erosion potential per disturbance (g/m^2)	P_i	calculated	Step 3
PM10 emission factor (tons/acre*yr)	E_f	1.22	Emission factor determined from calculations shown in Appendix C

Conversion Factor:

907,185 grams = 1 ton
4,049 m^2= acre

Notes:
1. Section 13.2.5 Industrial Wind Erosion from EPA AP-42

REVISED TABLE B-4

WIND EROSION FROM STOCKPILES

Lehigh Southwest Cement Company
Cupertino Facility

Development of PM_{10} Emission Factor
Example for Quarry Overburden

Equations for TSP Emission Factor as per EPA AP-42[1]

Step 1: Correct wind speed data to reference height of 10 m:

$$u_{10}^{+} = u_{z}^{+} \frac{\ln\left(\frac{10}{.005}\right)}{\ln\left(\frac{z}{.005}\right)}$$

Step 2: Calculate u* for each pile section subject to wind:

$$u^{*} = 0.10 u_{s}^{+}$$

where $$u_{s}^{+} = \left(\frac{u_{s}}{u_{r}}\right) u_{10}^{+}$$

Step 3: Calculate the emission factor for that disturbance:

$$P_{i} = 58\left(u^{*} - u_{t}^{*}\right)^{2} + 25\left(u^{*} - u_{t}^{*}\right)$$

Step 4: Sum the disturbances (not including weekends):

$$Ef = k \sum_{i-1}^{N} A(Pi)$$

Equation element	Symbol	Value used	Notes
Particle size multiplier for PM10	k	0.5	pg. 13.2.5-3 EPA AP-42
"Fastest mile" wind speed per disturbance at height z (m/s)	u^{+}_{z}	Met. Data	Wind gust data from July 1, 2010 through July 30, 2011 using on-site data
Height at which meteorological data was taken (m)	z	10	
"Fastest mile" of wind speed per disturbance at 10m (m/s)	u^{+}_{10}	calculated	Step 1
Number of disturbances per year	N	Every day	Assume a disturbance every day of the year
Threshold friction velocity (m/s)	u^{*}_{t}	1.12	Table 13.2.5-2 EPA AP-42. Value for uncrusted coal pile.
Surface wind speed distribution (m/s)	u^{+}_{s}	calculated	calculated from "fastest mile" wind speed data (u_z^{+}) and geometry of the stockpile (see Appendix C), Figure 13.2.5-2 AP-42, Step 2
Friction velocity per disturbance (m/s)	u*	calculated	calculated from "fastest mile" wind speed data (u_z^{+}) and surface wind speed distribution (u_s^{+}), Step 2
Ratio of surface wind speed to approach wind speed	u_s/u_r	AP-42	Table 13.2.5-3 EPA AP-42. Assume conical stockpile with windspeed approach normal to pile
Erosion potential per disturbance (g/m^2)	P_i	calculated	Step 3
Area for the stockpile section (m^2)	A	calculated	Calculation of areas for specific sections of the stockpile that are subject to wind erosion (see Appendix C)
PM10 emission factor (tons/yr)	E_f	5.48	Emission factor determined from calculations shown in attached

Conversion Factor:

907,185 grams = 1 ton

4,049 m^2 = acre

Notes:
1. Section 13.2.5 Industrial Wind Erosion from EPA AP-42

REVISED TABLE B-5

MATERIAL HANDLING OF STOCKPILES

Lehigh Southwest Cement Company
Cupertino Facility

Equations for TSP Emission Factor as per EPA AP-42[1]
Example for Quarry Overburden

$$E_f = k \times 0.0032 \times \frac{\left(\frac{U}{5}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}}$$

Equation element	Symbol	Value used	Notes
Particle size multiplier for PM10	k	0.35	pg. 13.2.4-4, AP-42 Aggregate Handling and Storage Piles
Mean wind speed (mph) @ 10 m	U	5.51	Average wind data from July 1, 2010 through June 30, 2011 from on-site data
Moisture content (%) [2]	M	0.70	Assume no watering
PM10 emission factor (lb/ton)	E_f	5.52E-03	

Notes:
1. Equation is from US EPA AP-42 discussion on aggregate handling and storage piles (13.2.4) equation 1
2. Values for moisture content taken from Table 13.2.4-1, AP-42. Assumed that all materials have moisture content of crushed limestone

REVISED TABLE B-9

WIND EROSION OF UNPAVED ROADS - MINE

Lehigh Southwest Cement Company
Cupertino Facility

Equation for TSP Emission Factor as per EPA AP-42[1]

Step 1: Correct wind speed data to reference height of 10 m:

$$u_{10}^{+} = u_{z}^{+} \frac{\ln\left(\frac{10}{.005}\right)}{\ln\left(\frac{z}{.005}\right)}$$

Step 2: Calculate u* for the unpaved road:

$$u^{*} = 0.053 u_{10}^{+}$$

Step 3: Calculate the emission factor for each disturbance:

$$P_i = 58\left(u^{*} - u_t^{*}\right)^2 + 25(u^{*} - u_t^{*})$$

Step 4: Sum the disturbances (not including weekends):

$$Ef = k\sum_{i-1}^{N} Pi$$

Equation element	Symbol	Value used	Notes
Particle size multiplier for PM10	k	0.5	pg. 13.2.5-3 EPA AP-42
"Fastest mile" of wind speed per disturbance at height z (m/s)	u^{+}_{z}	Met. Data	Wind gust data from July 1, 2010 through July 30, 2011 using on-site data
Height at which meteorlogical data was taken (m)	z	10	
"Fastest mile" of wind speed per disturbance at 10m (m/s)	u^{+}_{10}	calculated	Step 1
Number of disturbances per year	N	Every day	Assume a disturbance every day of the year
Threshold friction velocity (m/s)	u^{*}_{t}	0.62	Table 13.2.5-2 EPA AP-42. Value for scraper tracks on coal pile.
Friction velocity per disturbance (m/s)	u*	calculated	Step 2
Erosion potential per disturbance (g/m^2)	P_i	calculated	Step 3
PM10 emission factor (tons/acre*yr)	E_f	1.22	Emission factor determined from calculations shown in Appendix C

Conversion Factor:

907,185 grams = 1 ton
4,049 m^2 = acre
43,560 ft^2 = acre

Notes:
1. Section 13.2.5 Industrial Wind Erosion from EPA AP-42

REVISED TABLE B-10

WIND EROSION FROM DISTRUBED MINE AREA

Lehigh Southwest Cement Company
Cupertino Facility

Equation for TSP Emission Factor as per EPA AP-42[1]

Step 1: Correct wind speed data to reference height of 10 m:

$$u_{10}^{+} = u_{z}^{+} \frac{\ln\left(\frac{10}{.005}\right)}{\ln\left(\frac{z}{.005}\right)}$$

Step 2: Calculate u* for the unpaved road:

$$u^{*} = 0.053 u_{10}^{+}$$

Step 3: Calculate the emission factor for each disturbance:

$$P_i = 58\left(u^{*} - u_t^{*}\right)^2 + 25(u^{*} - u_t^{*})$$

Step 4: Sum the disturbances (not including weekends):

$$Ef = k\sum_{i-1}^{N} Pi$$

Equation element	Symbol	Value used	Notes
Particle size multiplier for PM10	k	0.5	pg. 13.2.5-3 EPA AP-42
"Fastest mile" of wind speed per disturbance at height z (m/s)	u^{+}_{z}	Met. Data	Wind gust data from July 1, 2010 through July 30, 2011 using on-site data
Height at which meteorlogical data was taken (m)	z	10	
"Fastest mile" of wind speed per disturbance at 10m (m/s)	u^{+}_{10}	calculated	Step 1
Number of disturbances per year	N	Every day	Assume a disturbance every day of the year
Threshold friction velocity (m/s)	u^{*}_{t}	0.62	Table 13.2.5-2 EPA AP-42. Value for scraper tracks on coal pile.
Friction velocity per disturbance (m/s)	u*	calculated	Step 2
Erosion potential per disturbance (g/m^2)	P_i	calculated	Step 3
PM10 emission factor (tons/acre*yr)	E_f	1.22	Emission factor determined from calculations shown in Appendix C

Conversion Factor:

907,185 grams = 1 ton
4,049 m^2 = acre

Notes:
1. Section 13.2.5 Industrial Wind Erosion from EPA AP-42

REVISED TABLE C-1

WIND EROSION FROM UNPAVED ROADS

Lehigh Southwest Cement Company
Cupertino Facility

k (PM10) = 0.5

threshold friction velocity (u^*_t) = 0.62 <=AP-42 [2]

Ef (PM10)= 1.22 ton/acre*yr <=365 days

Date	Day	N	u+ (m/s) [1, 3]	u^*_{10} (m/s)	u* (m/s)	P_i (g/m^2)
7/1/2010	Th	1	6.8	6.8	0.359667397	0
7/2/2010	Fr	2	7.6	7.6	0.404211185	0
7/3/2010	100	3	8.1	8.1	0.427667754	0
7/4/2010	100	4	8.1	8.1	0.43169565	0
7/5/2010	M	5	7.1	7.1	0.378859135	0
7/6/2010	T	6	6.6	6.6	0.351137735	0
7/7/2010	W	7	8.1	8.1	0.427667754	0
7/8/2010	Th	8	6.3	6.3	0.335026152	0
7/9/2010	Fr	9	6.6	6.6	0.35042693	0
7/10/2010	100	10	6.4	6.4	0.341423398	0
7/11/2010	100	11	6.7	6.7	0.354691761	0
7/12/2010	M	12	7.4	7.4	0.389995082	0
7/13/2010	T	13	7.7	7.7	0.406343601	0
7/14/2010	W	14	6.3	6.3	0.335026152	0
7/15/2010	Th	15	8.1	8.1	0.427667754	0
7/16/2010	Fr	16	5.7	5.7	0.300433636	0
7/17/2010	100	17	5.3	5.3	0.282663508	0
7/18/2010	100	18	5.3	5.3	0.281952702	0
7/19/2010	M	19	6.0	6.0	0.317256024	0
7/20/2010	T	20	6.1	6.1	0.324364075	0
7/21/2010	W	21	6.2	6.2	0.329339711	0
7/22/2010	Th	22	7.0	7.0	0.373172694	0
7/23/2010	Fr	23	6.9	6.9	0.366775448	0
7/24/2010	100	24	6.3	6.3	0.336447763	0
7/25/2010	100	25	7.1	7.1	0.377437525	0
7/26/2010	M	26	6.7	6.7	0.357534981	0
7/27/2010	T	27	7.6	7.6	0.40207877	0
7/28/2010	W	28	7.9	7.9	0.416294872	0
7/29/2010	Th	29	6.6	6.6	0.347820645	0
7/30/2010	Fr	30	5.5	5.5	0.291903974	0
7/31/2010	100	31	6.9	6.9	0.366775448	0
8/1/2010	100	32	5.8	5.8	0.307541687	0
8/2/2010	M	33	5.8	5.8	0.308252492	0
8/3/2010	T	34	5.5	5.5	0.292614779	0
8/4/2010	W	35	6.7	6.7	0.354691761	0

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WIND EROSION FROM UNPAVED ROADS

Lehigh Southwest Cement Company

Cupertino Facility

Date	Day	N	u+ (m/s) [1, 3]	u^{+}_{10} (m/s)	u* (m/s)	P_i (g/m^2)
8/5/2010	Th	36	7.1	7.1	0.377437525	0
8/6/2010	Fr	37	6.8	6.8	0.358245787	0
8/7/2010	100	38	6.9	6.9	0.366064643	0
8/8/2010	100	39	10.1	10.1	0.534288524	0
8/9/2010	M	40	6.7	6.7	0.354691761	0
8/10/2010	T	41	6.0	6.0	0.316545219	0
8/11/2010	W	42	8.6	8.6	0.455863025	0
8/12/2010	Th	43	6.8	6.8	0.359667397	0
8/13/2010	Fr	44	6.6	6.6	0.349242255	0
8/14/2010	100	45	6.5	6.5	0.345688229	0
8/15/2010	100	46	6.7	6.7	0.354691761	0
8/16/2010	M	47	6.1	6.1	0.325785686	0
8/17/2010	T	48	6.3	6.3	0.333604542	0
8/18/2010	W	49	7.3	7.3	0.386677992	0
8/19/2010	Th	50	5.6	5.6	0.29830122	0
8/20/2010	Fr	51	6.1	6.1	0.325785686	0
8/21/2010	100	52	7.7	7.7	0.405632795	0
8/22/2010	100	53	9.1	9.1	0.48334749	0
8/23/2010	M	54	7.3	7.3	0.388099602	0
8/24/2010	T	55	7.1	7.1	0.373883499	0
8/25/2010	W	56	6.3	6.3	0.333604542	0
8/26/2010	Th	57	6.7	6.7	0.355402566	0
8/27/2010	Fr	58	6.7	6.7	0.353270151	0
8/28/2010	100	59	10.0	10.0	0.528602083	0
8/29/2010	100	60	8.6	8.6	0.454441414	0
8/30/2010	M	61	8.8	8.8	0.464392686	0
8/31/2010	T	62	8.6	8.6	0.45515222	0
9/1/2010	W	63	7.7	7.7	0.409897626	0
9/2/2010	Th	64	7.9	7.9	0.417005678	0
9/3/2010	Fr	65	6.0	6.0	0.317966829	0
9/4/2010	100	66	4.8	4.8	0.255889848	0
9/5/2010	100	67	7.0	7.0	0.369618669	0
9/6/2010	M	68	7.4	7.4	0.392127498	0
9/7/2010	T	69	7.2	7.2	0.382413161	0
9/8/2010	W	70	10.5	10.5	0.554664938	0
9/9/2010	Th	71	9.1	9.1	0.479793464	0
9/10/2010	Fr	72	7.5	7.5	0.394970718	0
9/11/2010	100	73	7.5	7.5	0.397813939	0

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Date	Day	N	u+ (m/s) [1, 3]	u^{+}_{10} (m/s)	u* (m/s)	P_i (g/m^2)
9/12/2010	100	74	6.4	6.4	0.338580178	0
9/13/2010	M	75	6.2	6.2	0.327207296	0
9/14/2010	T	76	6.1	6.1	0.32223166	0
9/15/2010	W	77	6.6	6.6	0.347820645	0
9/16/2010	Th	78	7.1	7.1	0.37814833	0
9/17/2010	Fr	79	5.2	5.2	0.277687872	0
9/18/2010	100	80	7.1	7.1	0.377437525	0
9/19/2010	100	81	8.8	8.8	0.464392686	0
9/20/2010	M	82	8.6	8.6	0.45515222	0
9/21/2010	T	83	11.2	11.2	0.59138987	0
9/22/2010	W	84	9.9	9.9	0.522915642	0
9/23/2010	Th	85	7.2	7.2	0.382413161	0
9/24/2010	Fr	86	6.4	6.4	0.338580178	0
9/25/2010	100	87	6.4	6.4	0.341423398	0
9/26/2010	100	88	6.5	6.5	0.343555814	0
9/27/2010	M	89	6.8	6.8	0.358245787	0
9/28/2010	T	90	6.2	6.2	0.327918101	0
9/29/2010	W	91	6.0	6.0	0.315834414	0
9/30/2010	Th	92	5.7	5.7	0.301144441	0
10/1/2010	Fr	93	5.8	5.8	0.308963297	0
10/2/2010	100	94	5.2	5.2	0.275555456	0
10/3/2010	100	95	11.7	11.7	0.61768966	0
10/4/2010	M	96	12.6	12.6	0.666972149	1.302273925
10/5/2010	T	97	6.4	6.4	0.338580178	0
10/6/2010	W	98	9.0	9.0	0.478371854	0
10/7/2010	Th	99	6.6	6.6	0.347820645	0
10/8/2010	Fr	100	6.9	6.9	0.363221423	0
10/9/2010	100	101	6.5	6.5	0.344266619	0
10/10/2010	100	102	5.8	5.8	0.306830882	0
10/11/2010	M	103	6.5	6.5	0.34710984	0
10/12/2010	T	104	8.9	8.9	0.469842192	0
10/13/2010	W	105	6.0	6.0	0.320099244	0
10/14/2010	Th	106	5.7	5.7	0.301855246	0
10/15/2010	Fr	107	5.7	5.7	0.302566051	0
10/16/2010	100	108	5.4	5.4	0.286928338	0
10/17/2010	100	109	7.7	7.7	0.406343601	0
10/18/2010	M	110	6.5	6.5	0.343555814	0
10/19/2010	T	111	5.6	5.6	0.295458	0
10/20/2010	W	112	6.1	6.1	0.32081005	0
10/21/2010	Th	113	8.9	8.9	0.471263803	0

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Date	Day	N	u+ (m/s) [1, 3]	u^{+}_{10} (m/s)	u* (m/s)	P_i (g/m^2)
10/22/2010	Fr	114	6.8	6.8	0.359667397	0
10/23/2010	100	115	12.4	12.4	0.655125397	0.949694942
10/24/2010	100	116	17.3	17.3	0.914332335	12.38293673
10/25/2010	M	117	10.3	10.3	0.547556887	0
10/26/2010	T	118	10.8	10.8	0.573856677	0
10/27/2010	W	119	6.8	6.8	0.358956592	0
10/28/2010	Th	120	14.9	14.9	0.787809021	5.82849786
10/29/2010	Fr	121	15.5	15.5	0.821690733	7.401659114
10/30/2010	100	122	9.8	9.8	0.520783227	0
10/31/2010	100	123	6.3	6.3	0.336447763	0
11/1/2010	M	124	7.2	7.2	0.380280746	0
11/2/2010	T	125	7.6	7.6	0.404211185	0
11/3/2010	W	126	5.5	5.5	0.289060754	0
11/4/2010	Th	127	6.1	6.1	0.32507488	0
11/5/2010	Fr	128	9.3	9.3	0.491877151	0
11/6/2010	100	129	10.0	10.0	0.530023694	0
11/7/2010	100	130	10.5	10.5	0.558929769	0
11/8/2010	M	131	10.9	10.9	0.575989092	0
11/9/2010	T	132	10.8	10.8	0.570302651	0
11/10/2010	W	133	11.4	11.4	0.602051947	0
11/11/2010	Th	134	10.3	10.3	0.543528991	0
11/12/2010	Fr	135	7.0	7.0	0.368907864	0
11/13/2010	100	136	10.9	10.9	0.576699897	0
11/14/2010	100	137	10.8	10.8	0.572435066	0
11/15/2010	M	138	11.2	11.2	0.59138987	0
11/16/2010	T	139	6.8	6.8	0.361799812	0
11/17/2010	W	140	6.2	6.2	0.330761321	0
11/18/2010	Th	141	5.3	5.3	0.281952702	0
11/19/2010	Fr	142	11.2	11.2	0.595654701	0
11/20/2010	100	143	13.9	13.9	0.738526532	3.77797856
11/21/2010	100	144	11.3	11.3	0.597787116	0
11/22/2010	M	145	11.0	11.0	0.581675533	0
11/23/2010	T	146	11.1	11.1	0.588546649	0
11/24/2010	W	147	9.9	9.9	0.523626447	0
11/25/2010	Th	148	6.4	6.4	0.340001788	0
11/26/2010	Fr	149	5.4	5.4	0.286217533	0
11/27/2010	100	150	11.1	11.1	0.590679065	0
11/28/2010	100	151	13.0	13.0	0.686874693	1.931256338
11/29/2010	M	152	7.5	7.5	0.398524744	0
11/30/2010	T	153	5.0	5.0	0.265130314	0

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Date	Day	N	u+ (m/s) [1, 3]	u^{+}_{10} (m/s)	u* (m/s)	P_i (g/m^2)
12/1/2010	W	154	5.0	5.0	0.262997899	0
12/2/2010	Th	155	4.4	4.4	0.232433278	0
12/3/2010	Fr	156	5.7	5.7	0.303276856	0
12/4/2010	100	157	13.9	13.9	0.737104922	3.72300969
12/5/2010	100	158	23.3	23.3	1.235142385	37.3257685
12/6/2010	M	159	16.3	16.3	0.862680495	9.482854106
12/7/2010	T	160	5.5	5.5	0.289771559	0
12/8/2010	W	161	9.0	9.0	0.476239439	0
12/9/2010	Th	162	5.9	5.9	0.311569583	0
12/10/2010	Fr	163	6.0	6.0	0.315834414	0
12/11/2010	100	164	3.4	3.4	0.181681792	0
12/12/2010	100	165	6.3	6.3	0.334315347	0
12/13/2010	M	166	6.2	6.2	0.330050516	0
12/14/2010	T	167	8.5	8.5	0.450887389	0
12/15/2010	W	168	5.8	5.8	0.308252492	0
12/16/2010	Th	169	5.9	5.9	0.314412803	0
12/17/2010	Fr	170	19.2	19.2	1.0202423	19.2973036
12/18/2010	100	171	16.8	16.8	0.88826948	10.88091081
12/19/2010	100	172	16.0	16.0	0.850122938	8.824554312
12/20/2010	M	173	12.2	12.2	0.64446332	0.646293327
12/21/2010	T	174	12.0	12.0	0.636644463	0.432179796
12/22/2010	W	175	7.3	7.3	0.384545576	0
12/23/2010	Th	176	6.8	6.8	0.361089007	0
12/24/2010	Fr	177	9.1	9.1	0.481215074	0
12/25/2010	100	178	24.2	24.2	1.284661809	42.23951378
12/26/2010	100	179	7.1	7.1	0.37814833	0
12/27/2010	M	180	7.2	7.2	0.380991551	0
12/28/2010	T	181	18.4	18.4	0.975224641	16.19931968
12/29/2010	W	182	18.8	18.8	0.995601055	17.57244322
12/30/2010	Th	183	9.9	9.9	0.522915642	0
12/31/2010	Fr	184	5.6	5.6	0.297590415	0
1/1/2011	100	185	15.0	15.0	0.795627878	6.179715733
1/2/2011	100	186	7.1	7.1	0.376015915	0
1/3/2011	M	187	4.8	4.8	0.252335822	0
1/4/2011	T	188	4.8	4.8	0.253046627	0
1/5/2011	W	189	6.7	6.7	0.352559346	0
1/6/2011	Th	190	7.0	7.0	0.369618669	0
1/7/2011	Fr	191	4.5	4.5	0.24096294	0
1/8/2011	100	192	5.8	5.8	0.305409272	0
1/9/2011	100	193	7.1	7.1	0.37530511	0

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Date	Day	N	u+ (m/s) [1, 3]	u^{+}_{10} (m/s)	u* (m/s)	P_i (g/m^2)
1/10/2011	M	194	9.4	9.4	0.496141982	0
1/11/2011	T	195	7.2	7.2	0.381702356	0
1/12/2011	W	196	5.5	5.5	0.292614779	0
1/13/2011	Th	197	6.9	6.9	0.366775448	0
1/14/2011	Fr	198	7.5	7.5	0.395681524	0
1/15/2011	100	199	8.0	8.0	0.425535339	0
1/16/2011	100	200	5.0	5.0	0.263708704	0
1/17/2011	M	201	6.3	6.3	0.333604542	0
1/18/2011	T	202	8.7	8.7	0.460127856	0
1/19/2011	W	203	10.8	10.8	0.571013456	0
1/20/2011	Th	204	9.7	9.7	0.516518396	0
1/21/2011	Fr	205	7.6	7.6	0.40350038	0
1/22/2011	100	206	9.1	9.1	0.480504269	0
1/23/2011	100	207	11.7	11.7	0.62053288	0.013338478
1/24/2011	M	208	6.5	6.5	0.344977424	0
1/25/2011	T	209	10.6	10.6	0.5631946	0
1/26/2011	W	210	7.7	7.7	0.410608431	0
1/27/2011	Th	211	5.5	5.5	0.290482364	0
1/28/2011	Fr	212	5.6	5.6	0.29830122	0
1/29/2011	100	213	7.6	7.6	0.404211185	0
1/30/2011	100	214	8.6	8.6	0.45799544	0
1/31/2011	M	215	6.2	6.2	0.327918101	0
2/1/2011	T	216	10.8	10.8	0.570302651	0
2/2/2011	W	217	9.1	9.1	0.482636685	0
2/3/2011	Th	218	6.4	6.4	0.337158568	0
2/4/2011	Fr	219	6.5	6.5	0.342845009	0
2/5/2011	100	220	13.9	13.9	0.737104922	3.72300969
2/6/2011	100	221	14.7	14.7	0.778094685	5.402015015
2/7/2011	M	222	10.3	10.3	0.545661406	0
2/8/2011	T	223	17.0	17.0	0.899642362	11.5266504
2/9/2011	W	224	9.9	9.9	0.523626447	0
2/10/2011	Th	225	6.5	6.5	0.344977424	0
2/11/2011	Fr	226	5.8	5.8	0.309674103	0
2/12/2011	100	227	5.1	5.1	0.27010595	0
2/13/2011	100	228	4.7	4.7	0.248781796	0
2/14/2011	M	229	16.4	16.4	0.866945326	9.71058881
2/15/2011	T	230	21.5	21.5	1.141789977	28.83610669
2/16/2011	W	231	16.9	16.9	0.896088337	11.32324505
2/17/2011	Th	232	16.7	16.7	0.887558675	10.84105026
2/18/2011	Fr	233	11.5	11.5	0.608449193	0

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Date	Day	N	u+ (m/s) [1, 3]	u^{+}_{10} (m/s)	u* (m/s)	P_i (g/m^2)
2/19/2011	100	234	10.3	10.3	0.545661406	0
2/20/2011	100	235	7.4	7.4	0.390705888	0
2/21/2011	M	236	8.8	8.8	0.467235907	0
2/22/2011	T	237	7.1	7.1	0.374594305	0
2/23/2011	W	238	11.9	11.9	0.631668827	0.299618054
2/24/2011	Th	239	10.7	10.7	0.56461621	0
2/25/2011	Fr	240	17.8	17.8	0.941105995	14.00797535
2/26/2011	100	241	8.1	8.1	0.428141625	0
2/27/2011	100	242	9.6	9.6	0.51012115	0
2/28/2011	M	243	10.0	10.0	0.529312888	0
3/1/2011	T	244	11.7	11.7	0.621243685	0.031181848
3/2/2011	W	245	19.1	19.1	1.011949573	18.70895846
3/3/2011	Th	246	9.0	9.0	0.475528633	0
3/4/2011	Fr	247	6.9	6.9	0.368197058	0
3/5/2011	100	248	6.9	6.9	0.366064643	0
3/6/2011	100	249	13.8	13.8	0.730707676	3.478550885
3/7/2011	M	250	21.2	21.2	1.124256784	27.35436404
3/8/2011	T	251	6.1	6.1	0.325785686	0
3/9/2011	W	252	6.3	6.3	0.335736957	0
3/10/2011	Th	253	11.8	11.8	0.627403997	0.188279427
3/11/2011	Fr	254	8.6	8.6	0.45657383	0
3/12/2011	100	255	5.9	5.9	0.310858778	0
3/13/2011	100	256	10.8	10.8	0.574567482	0
3/14/2011	M	257	6.8	6.8	0.361799812	0
3/15/2011	T	258	13.4	13.4	0.711515937	2.773658103
3/16/2011	W	259	9.4	9.4	0.500406813	0
3/17/2011	Th	260	11.3	11.3	0.597076311	0
3/18/2011	Fr	261	22.2	22.2	1.178514909	32.05532913
3/19/2011	100	262	17.8	17.8	0.94323841	14.14097831
3/20/2011	100	263	21.1	21.1	1.115727122	26.64641009
3/21/2011	M	264	11.2	11.2	0.592100675	0
3/22/2011	T	265	12.5	12.5	0.663655058	1.201910777
3/23/2011	W	266	17.6	17.6	0.931391658	13.40874781
3/24/2011	Th	267	22.7	22.7	1.202682284	34.25913841
3/25/2011	Fr	268	8.9	8.9	0.469131387	0
3/26/2011	100	269	11.9	11.9	0.633090438	0.337199796
3/27/2011	100	270	10.2	10.2	0.541396576	0
3/28/2011	M	271	8.5	8.5	0.452308999	0
3/29/2011	T	272	9.5	9.5	0.503250034	0
3/30/2011	W	273	10.3	10.3	0.546135276	0

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Lehigh Southwest Cement Company

Cupertino Facility

Date	Day	N	u+ (m/s) [1, 3]	u^{+}_{10} (m/s)	u* (m/s)	P_i (g/m^2)
3/31/2011	Th	274	9.1	9.1	0.48334749	0
4/1/2011	Fr	275	8.1	8.1	0.428141625	0
4/2/2011	100	276	6.3	6.3	0.335026152	0
4/3/2011	100	277	7.5	7.5	0.399235549	0
4/4/2011	M	278	6.5	6.5	0.343555814	0
4/5/2011	T	279	9.4	9.4	0.500406813	0
4/6/2011	W	280	11.9	11.9	0.632379633	0.318379621
4/7/2011	Th	281	15.0	15.0	0.796338683	6.21199628
4/8/2011	Fr	282	9.0	9.0	0.478371854	0
4/9/2011	100	283	11.3	11.3	0.599919531	0
4/10/2011	100	284	9.3	9.3	0.492587957	0
4/11/2011	M	285	8.4	8.4	0.443068532	0
4/12/2011	T	286	10.7	10.7	0.569591846	0
4/13/2011	W	287	10.4	10.4	0.549689302	0
4/14/2011	Th	288	8.0	8.0	0.424824534	0
4/15/2011	Fr	289	7.9	7.9	0.419138093	0
4/16/2011	100	290	10.3	10.3	0.546846082	0
4/17/2011	100	291	7.0	7.0	0.371040279	0
4/18/2011	M	292	6.8	6.8	0.361089007	0
4/19/2011	T	293	7.1	7.1	0.374594305	0
4/20/2011	W	294	12.5	12.5	0.660101033	1.095795201
4/21/2011	Th	295	8.1	8.1	0.42885243	0
4/22/2011	Fr	296	9.8	9.8	0.520783227	0
4/23/2011	100	297	10.2	10.2	0.538553355	0
4/24/2011	100	298	8.2	8.2	0.43311726	0
4/25/2011	M	299	9.9	9.9	0.525758863	0
4/26/2011	T	300	9.5	9.5	0.504671644	0
4/27/2011	W	301	6.4	6.4	0.339290983	0
4/28/2011	Th	302	10.3	10.3	0.544950601	0
4/29/2011	Fr	303	12.5	12.5	0.660101033	1.095795201
4/30/2011	100	304	15.2	15.2	0.804868345	6.603934295
5/1/2011	100	305	7.3	7.3	0.388099602	0
5/2/2011	M	306	6.6	6.6	0.349242255	0
5/3/2011	T	307	8.6	8.6	0.45799544	0
5/4/2011	W	308	7.4	7.4	0.394259913	0
5/5/2011	Th	309	7.2	7.2	0.383123966	0
5/6/2011	Fr	310	6.7	6.7	0.354691761	0
5/7/2011	100	311	10.9	10.9	0.578121507	0
5/8/2011	100	312	10.8	10.8	0.572435066	0
5/9/2011	M	313	8.9	8.9	0.474107023	0

REVISED TABLE C-1

WIND EROSION FROM UNPAVED ROADS

Lehigh Southwest Cement Company

Cupertino Facility

Date	Day	N	u+ (m/s) [1, 3]	u^{+}_{10} (m/s)	u* (m/s)	P_i (g/m^2)
5/10/2011	T	314	7.4	7.4	0.394259913	0
5/11/2011	W	315	7.3	7.3	0.388099602	0
5/12/2011	Th	316	8.9	8.9	0.473396218	0
5/13/2011	Fr	317	7.4	7.4	0.393549108	0
5/14/2011	100	318	11.0	11.0	0.585229559	0
5/15/2011	100	319	11.7	11.7	0.621243685	0.031181848
5/16/2011	M	320	16.0	16.0	0.849412133	8.78783907
5/17/2011	T	321	13.8	13.8	0.729996871	3.451681837
5/18/2011	W	322	13.4	13.4	0.707961912	2.647811067
5/19/2011	Th	323	8.1	8.1	0.429563235	0
5/20/2011	Fr	324	6.9	6.9	0.366775448	0
5/21/2011	100	325	9.0	9.0	0.478371854	0
5/22/2011	100	326	11.1	11.1	0.589257455	0
5/23/2011	M	327	13.2	13.2	0.7018016	2.433147117
5/24/2011	T	328	7.8	7.8	0.412740847	0
5/25/2011	W	329	13.4	13.4	0.707961912	2.647811067
5/26/2011	Th	330	9.9	9.9	0.525048058	0
5/27/2011	Fr	331	11.6	11.6	0.615557244	0
5/28/2011	100	332	15.1	15.1	0.800603514	6.406910338
5/29/2011	100	333	13.3	13.3	0.703697081	2.498728697
5/30/2011	M	334	13.7	13.7	0.725021235	3.265239534
5/31/2011	T	335	13.7	13.7	0.72857526	3.398119566
6/1/2011	W	336	11.2	11.2	0.592100675	0
6/2/2011	Th	337	9.2	9.2	0.488323126	0
6/3/2011	Fr	338	7.6	7.6	0.40492199	0
6/4/2011	100	339	19.5	19.5	1.034458402	20.32445455
6/5/2011	100	340	8.5	8.5	0.448044168	0
6/6/2011	M	341	11.1	11.1	0.588546649	0
6/7/2011	T	342	8.3	8.3	0.437382091	0
6/8/2011	W	343	6.7	6.7	0.353980956	0
6/9/2011	Th	344	6.3	6.3	0.332182932	0
6/10/2011	Fr	345	8.9	8.9	0.474107023	0
6/11/2011	100	346	9.5	9.5	0.505382449	0
6/12/2011	100	347	7.8	7.8	0.414162457	0
6/13/2011	M	348	8.0	8.0	0.424113729	0
6/14/2011	T	349	7.3	7.3	0.385967187	0
6/15/2011	W	350	6.9	6.9	0.364643033	0
6/16/2011	Th	351	6.5	6.5	0.345688229	0
6/17/2011	Fr	352	6.9	6.9	0.368197058	0
6/18/2011	100	353	7.4	7.4	0.394259913	0

REVISED TABLE C-1

WIND EROSION FROM UNPAVED ROADS

Lehigh Southwest Cement Company

Cupertino Facility

Date	Day	N	u+ (m/s) [1, 3]	u^{+}_{10} (m/s)	u* (m/s)	P_i (g/m^2)
6/19/2011	100	354	9.2	9.2	0.48619071	0
6/20/2011	M	355	7.9	7.9	0.417005678	0
6/21/2011	T	356	6.9	6.9	0.366064643	0
6/22/2011	W	357	6.1	6.1	0.32365327	0
6/23/2011	Th	358	7.4	7.4	0.394259913	0
6/24/2011	Fr	359	7.4	7.4	0.389995082	0
6/25/2011	100	360	7.1	7.1	0.37814833	0
6/26/2011	100	361	7.6	7.6	0.400657159	0
6/27/2011	M	362	6.6	6.6	0.35042693	0
6/28/2011	T	363	8.1	8.1	0.429563235	0
6/29/2011	W	364	7.7	7.7	0.410608431	0
6/30/2011	Th	365	7.7	7.7	0.406343601	0
					Sum:	547.8652942
					Ef (TSP)=	2.44
					Ef (PM10)=	1.22

Notes:

1. For u^{+} used gust speed. Data was measured at a height of 10 m with on-site meteorological data.
2. u^{*}_{t} obtained from Table 13.2.5-2 AP-42
3. Maximum wind gust speed was used in place of fastest mile.

REVISED TABLE C-2

WIND EROSION CALCULATION FOR QUARRY OVERBURDEN STOCKPILE

Lehigh Southwest Cement Company
Cupertino Facility

k (PM10) = 0.5

threshold friction velocity (u^*_t) = 1.12 m/s [2]

				Pile Subarea				Pile Subarea			
			u_s/u_r [3]:	0.2a	0.2b	0.6a	0.9	0.2a	0.2b	0.6a	0.9
		u^+ [1]	u^+_{10}	u*	u*	u*	u*	P_i	P_i	P_i	P_i
Date	N	(m/s)	(m/s)	(m/s)	(m/s)	(m/s)	(m/s)	(g/m^2)	(g/m^2)	(g/m^2)	(g/m^2)
7/1/2010	1	6.8	6.786177299	0.135724	0.135724	0.407171	0.61075596	0	0	0	0
7/2/2010	2	7.6	7.626626134	0.152533	0.152533	0.457598	0.68639635	0	0	0	0
7/3/2010	3	8.1	8.069202915	0.161384	0.161384	0.484152	0.72622826	0	0	0	0
7/4/2010	4	8.1	8.145200948	0.162904	0.162904	0.488712	0.73306809	0	0	0	0
7/5/2010	5	7.1	7.148285574	0.142966	0.142966	0.428897	0.6433457	0	0	0	0
7/6/2010	6	6.6	6.625240288	0.132505	0.132505	0.397514	0.59627163	0	0	0	0
7/7/2010	7	8.1	8.069202915	0.161384	0.161384	0.484152	0.72622826	0	0	0	0
7/8/2010	8	6.3	6.321248156	0.126425	0.126425	0.379275	0.56891233	0	0	0	0
7/9/2010	9	6.6	6.61182887	0.132237	0.132237	0.39671	0.5950646	0	0	0	0
7/10/2010	10	6.4	6.441950914	0.128839	0.128839	0.386517	0.57977558	0	0	0	0
7/11/2010	11	6.7	6.692297376	0.133846	0.133846	0.401538	0.60230676	0	0	0	0
7/12/2010	12	7.4	7.358397783	0.147168	0.147168	0.441504	0.6622558	0	0	0	0
7/13/2010	13	7.7	7.666860387	0.153337	0.153337	0.460012	0.69001743	0	0	0	0
7/14/2010	14	6.3	6.321248156	0.126425	0.126425	0.379275	0.56891233	0	0	0	0
7/15/2010	15	8.1	8.069202915	0.161384	0.161384	0.484152	0.72622826	0	0	0	0
7/16/2010	16	5.7	5.668559167	0.113371	0.113371	0.340114	0.51017033	0	0	0	0
7/17/2010	17	5.3	5.333273727	0.106665	0.106665	0.319996	0.47999464	0	0	0	0
7/18/2010	18	5.3	5.319862309	0.106397	0.106397	0.319192	0.47878761	0	0	0	0
7/19/2010	19	6.0	5.985962716	0.119719	0.119719	0.359158	0.53873664	0	0	0	0
7/20/2010	20	6.1	6.120076892	0.122402	0.122402	0.367205	0.55080692	0	0	0	0
7/21/2010	21	6.2	6.213956815	0.124279	0.124279	0.372837	0.55925611	0	0	0	0
7/22/2010	22	7.0	7.040994233	0.14082	0.14082	0.42246	0.63368948	0	0	0	0
7/23/2010	23	6.9	6.920291475	0.138406	0.138406	0.415217	0.62282623	0	0	0	0
7/24/2010	24	6.3	6.348070991	0.126961	0.126961	0.380884	0.57132639	0	0	0	0
7/25/2010	25	7.1	7.121462739	0.142429	0.142429	0.427288	0.64093165	0	0	0	0
7/26/2010	26	6.7	6.745943046	0.134919	0.134919	0.404757	0.60713487	0	0	0	0
7/27/2010	27	7.6	7.586391882	0.151728	0.151728	0.455184	0.68277527	0	0	0	0
7/28/2010	28	7.9	7.854620233	0.157092	0.157092	0.471277	0.70691582	0	0	0	0
7/29/2010	29	6.6	6.562653672	0.131253	0.131253	0.393759	0.59063883	0	0	0	0
7/30/2010	30	5.5	5.507622156	0.110152	0.110152	0.330457	0.49568599	0	0	0	0
7/31/2010	31	6.9	6.920291475	0.138406	0.138406	0.415217	0.62282623	0	0	0	0
8/1/2010	32	5.8	5.802673343	0.116053	0.116053	0.34816	0.5222406	0	0	0	0
8/2/2010	33	5.8	5.81608476	0.116322	0.116322	0.348965	0.52344763	0	0	0	0
8/3/2010	34	5.5	5.521033573	0.110421	0.110421	0.331262	0.49689302	0	0	0	0
8/4/2010	35	6.7	6.692297376	0.133846	0.133846	0.401538	0.60230676	0	0	0	0
8/5/2010	36	7.1	7.121462739	0.142429	0.142429	0.427288	0.64093165	0	0	0	0

REVISED TABLE C-2

WIND EROSION CALCULATION FOR QUARRY OVERBURDEN STOCKPILE

Lehigh Southwest Cement Company
Cupertino Facility

				Pile Subarea				Pile Subarea			
			u_s/u_r [3]:	0.2a	0.2b	0.6a	0.9	0.2a	0.2b	0.6a	0.9
		u^{+} [1]	u^{+}_{10}	u*	u*	u*	u*	P_i	P_i	P_i	P_i
Date	N	(m/s)	(m/s)	(m/s)	(m/s)	(m/s)	(m/s)	(g/m^2)	(g/m^2)	(g/m^2)	(g/m^2)
8/6/2010	37	6.8	6.759354464	0.135187	0.135187	0.405561	0.6083419	0	0	0	0
8/7/2010	38	6.9	6.906880057	0.138138	0.138138	0.414413	0.62161921	0	0	0	0
8/8/2010	39	10.1	10.08091555	0.201618	0.201618	0.604855	0.9072824	0	0	0	0
8/9/2010	40	6.7	6.692297376	0.133846	0.133846	0.401538	0.60230676	0	0	0	0
8/10/2010	41	6.0	5.972551299	0.119451	0.119451	0.358353	0.53752962	0	0	0	0
8/11/2010	42	8.6	8.601189146	0.172024	0.172024	0.516071	0.77410702	0	0	0	0
8/12/2010	43	6.8	6.786177299	0.135724	0.135724	0.407171	0.61075596	0	0	0	0
8/13/2010	44	6.6	6.589476508	0.13179	0.13179	0.395369	0.59305289	0	0	0	0
8/14/2010	45	6.5	6.52241942	0.130448	0.130448	0.391345	0.58701775	0	0	0	0
8/15/2010	46	6.7	6.692297376	0.133846	0.133846	0.401538	0.60230676	0	0	0	0
8/16/2010	47	6.1	6.146899727	0.122938	0.122938	0.368814	0.55322098	0	0	0	0
8/17/2010	48	6.3	6.294425321	0.125889	0.125889	0.377666	0.56649828	0	0	0	0
8/18/2010	49	7.3	7.295811167	0.145916	0.145916	0.437749	0.65662301	0	0	0	0
8/19/2010	50	5.6	5.628324914	0.112566	0.112566	0.337699	0.50654924	0	0	0	0
8/20/2010	51	6.1	6.146899727	0.122938	0.122938	0.368814	0.55322098	0	0	0	0
8/21/2010	52	7.7	7.65344897	0.153069	0.153069	0.459207	0.68881041	0	0	0	0
8/22/2010	53	9.1	9.119763959	0.182395	0.182395	0.547186	0.82077876	0	0	0	0
8/23/2010	54	7.3	7.322634002	0.146453	0.146453	0.439358	0.65903706	0	0	0	0
8/24/2010	55	7.1	7.054405651	0.141088	0.141088	0.423264	0.63489651	0	0	0	0
8/25/2010	56	6.3	6.294425321	0.125889	0.125889	0.377666	0.56649828	0	0	0	0
8/26/2010	57	6.7	6.705708793	0.134114	0.134114	0.402343	0.60351379	0	0	0	0
8/27/2010	58	6.7	6.665474541	0.133309	0.133309	0.399928	0.59989271	0	0	0	0
8/28/2010	59	10.0	9.973624212	0.199472	0.199472	0.598417	0.89762618	0	0	0	0
8/29/2010	60	8.6	8.574366311	0.171487	0.171487	0.514462	0.77169297	0	0	0	0
8/30/2010	61	8.8	8.762126157	0.175243	0.175243	0.525728	0.78859135	0	0	0	0
8/31/2010	62	8.6	8.587777728	0.171756	0.171756	0.515267	0.7729	0	0	0	0
9/1/2010	63	7.7	7.733917475	0.154678	0.154678	0.464035	0.69605257	0	0	0	0
9/2/2010	64	7.9	7.868031651	0.157361	0.157361	0.472082	0.70812285	0	0	0	0
9/3/2010	65	6.0	5.999374134	0.119987	0.119987	0.359962	0.53994367	0	0	0	0
9/4/2010	66	4.8	4.828110331	0.096562	0.096562	0.289687	0.43452993	0	0	0	0
9/5/2010	67	7.0	6.973937145	0.139479	0.139479	0.418436	0.62765434	0	0	0	0
9/6/2010	68	7.4	7.398632035	0.147973	0.147973	0.443918	0.66587688	0	0	0	0
9/7/2010	69	7.2	7.215342662	0.144307	0.144307	0.432921	0.64938084	0	0	0	0
9/8/2010	70	10.5	10.46537619	0.209308	0.209308	0.627923	0.94188386	0	0	0	0
9/9/2010	71	9.1	9.052706871	0.181054	0.181054	0.543162	0.81474362	0	0	0	0
9/10/2010	72	7.5	7.452277706	0.149046	0.149046	0.447137	0.67070499	0	0	0	0
9/11/2010	73	7.5	7.505923376	0.150118	0.150118	0.450355	0.6755331	0	0	0	0
9/12/2010	74	6.4	6.388305244	0.127766	0.127766	0.383298	0.57494747	0	0	0	0
9/13/2010	75	6.2	6.173722562	0.123474	0.123474	0.370423	0.55563503	0	0	0	0
9/14/2010	76	6.1	6.079842639	0.121597	0.121597	0.364791	0.54718584	0	0	0	0

REVISED TABLE C-2

WIND EROSION CALCULATION FOR QUARRY OVERBURDEN STOCKPILE

Lehigh Southwest Cement Company
Cupertino Facility

				Pile Subarea				Pile Subarea			
			u_s/u_r [3]:	0.2a	0.2b	0.6a	0.9	0.2a	0.2b	0.6a	0.9
		u^+ [1]	u^+_{10}	u*	u*	u*	u*	P_i	P_i	P_i	P_i
Date	N	(m/s)	(m/s)	(m/s)	(m/s)	(m/s)	(m/s)	(g/m^2)	(g/m^2)	(g/m^2)	(g/m^2)
9/15/2010	77	6.6	6.562653672	0.131253	0.131253	0.393759	0.59063883	0	0	0	0
9/16/2010	78	7.1	7.134874156	0.142697	0.142697	0.428092	0.64213867	0	0	0	0
9/17/2010	79	5.2	5.239393804	0.104788	0.104788	0.314364	0.47154544	0	0	0	0
9/18/2010	80	7.1	7.121462739	0.142429	0.142429	0.427288	0.64093165	0	0	0	0
9/19/2010	81	8.8	8.762126157	0.175243	0.175243	0.525728	0.78859135	0	0	0	0
9/20/2010	82	8.6	8.587777728	0.171756	0.171756	0.515267	0.7729	0	0	0	0
9/21/2010	83	11.2	11.15829943	0.223166	0.223166	0.669498	1.00424695	0	0	0	0
9/22/2010	84	9.9	9.866332871	0.197327	0.197327	0.59198	0.88796996	0	0	0	0
9/23/2010	85	7.2	7.215342662	0.144307	0.144307	0.432921	0.64938084	0	0	0	0
9/24/2010	86	6.4	6.388305244	0.127766	0.127766	0.383298	0.57494747	0	0	0	0
9/25/2010	87	6.4	6.441950914	0.128839	0.128839	0.386517	0.57977558	0	0	0	0
9/26/2010	88	6.5	6.482185167	0.129644	0.129644	0.388931	0.58339667	0	0	0	0
9/27/2010	89	6.8	6.759354464	0.135187	0.135187	0.405561	0.6083419	0	0	0	0
9/28/2010	90	6.2	6.18713398	0.123743	0.123743	0.371228	0.55684206	0	0	0	0
9/29/2010	91	6.0	5.959139881	0.119183	0.119183	0.357548	0.53632259	0	0	0	0
9/30/2010	92	5.7	5.681970584	0.113639	0.113639	0.340918	0.51137735	0	0	0	0
10/1/2010	93	5.8	5.829496178	0.11659	0.11659	0.34977	0.52465466	0	0	0	0
10/2/2010	94	5.2	5.199159551	0.103983	0.103983	0.31195	0.46792436	0	0	0	0
10/3/2010	95	11.7	11.65452188	0.23309	0.23309	0.699271	1.04890697	0	0	0	0
10/4/2010	96	12.6	12.58438017	0.251688	0.251688	0.755063	1.13259422	0	0	0	0.324055
10/5/2010	97	6.4	6.388305244	0.127766	0.127766	0.383298	0.57494747	0	0	0	0
10/6/2010	98	9.0	9.025884036	0.180518	0.180518	0.541553	0.81232956	0	0	0	0
10/7/2010	99	6.6	6.562653672	0.131253	0.131253	0.393759	0.59063883	0	0	0	0
10/8/2010	100	6.9	6.853234387	0.137065	0.137065	0.411194	0.61679109	0	0	0	0
10/9/2010	101	6.5	6.495596585	0.129912	0.129912	0.389736	0.58460369	0	0	0	0
10/10/2010	102	5.8	5.789261925	0.115785	0.115785	0.347356	0.52103357	0	0	0	0
10/11/2010	103	6.5	6.549242255	0.130985	0.130985	0.392955	0.5894318	0	0	0	0
10/12/2010	104	8.9	8.864947025	0.177299	0.177299	0.531897	0.79784523	0	0	0	0
10/13/2010	105	6.0	6.039608387	0.120792	0.120792	0.362377	0.54356475	0	0	0	0
10/14/2010	106	5.7	5.695382002	0.113908	0.113908	0.341723	0.51258438	0	0	0	0
10/15/2010	107	5.7	5.708793419	0.114176	0.114176	0.342528	0.51379141	0	0	0	0
10/16/2010	108	5.4	5.413742233	0.108275	0.108275	0.324825	0.4872368	0	0	0	0
10/17/2010	109	7.7	7.666860387	0.153337	0.153337	0.460012	0.69001743	0	0	0	0
10/18/2010	110	6.5	6.482185167	0.129644	0.129644	0.388931	0.58339667	0	0	0	0
10/19/2010	111	5.6	5.574679244	0.111494	0.111494	0.334481	0.50172113	0	0	0	0
10/20/2010	112	6.1	6.053019804	0.12106	0.12106	0.363181	0.54477178	0	0	0	0
10/21/2010	113	8.9	8.89176986	0.177835	0.177835	0.533506	0.80025929	0	0	0	0
10/22/2010	114	6.8	6.786177299	0.135724	0.135724	0.407171	0.61075596	0	0	0	0
10/23/2010	115	12.4	12.36085654	0.247217	0.247217	0.741651	1.11247709	0	0	0	0
10/24/2010	116	17.3	17.25155349	0.345031	0.345031	1.035093	1.55263981	0	0	0	21.672273

REVISED TABLE C-2

WIND EROSION CALCULATION FOR QUARRY OVERBURDEN STOCKPILE

Lehigh Southwest Cement Company
Cupertino Facility

				Pile Subarea				Pile Subarea			
			u_s/u_r [3]:	0.2a	0.2b	0.6a	0.9	0.2a	0.2b	0.6a	0.9
		u^+ [1]	u^+_{10}	u*	u*	u*	u*	P_i	P_i	P_i	P_i
Date	N	(m/s)	(m/s)	(m/s)	(m/s)	(m/s)	(m/s)	(g/m^2)	(g/m^2)	(g/m^2)	(g/m^2)
10/25/2010	117	10.3	10.33126201	0.206625	0.206625	0.619876	0.92981358	0	0	0	0
10/26/2010	118	10.8	10.82748447	0.21655	0.21655	0.649649	0.9744736	0	0	0	0
10/27/2010	119	6.8	6.772765881	0.135455	0.135455	0.406366	0.60954893	0	0	0	0
10/28/2010	120	14.9	14.86432116	0.297286	0.297286	0.891859	1.3377889	0	0	0	8.195779
10/29/2010	121	15.5	15.50359873	0.310072	0.310072	0.930216	1.39532389	0	0	0	11.279685
10/30/2010	122	9.8	9.826098619	0.196522	0.196522	0.589566	0.88434888	0	0	0	0
10/31/2010	123	6.3	6.348070991	0.126961	0.126961	0.380884	0.57132639	0	0	0	0
11/1/2010	124	7.2	7.175108409	0.143502	0.143502	0.430507	0.64575976	0	0	0	0
11/2/2010	125	7.6	7.626626134	0.152533	0.152533	0.457598	0.68639635	0	0	0	0
11/3/2010	126	5.5	5.453976485	0.10908	0.10908	0.327239	0.49085788	0	0	0	0
11/4/2010	127	6.1	6.13348831	0.12267	0.12267	0.368009	0.55201395	0	0	0	0
11/5/2010	128	9.3	9.28070097	0.185614	0.185614	0.556842	0.83526309	0	0	0	0
11/6/2010	129	10.0	10.00044705	0.200009	0.200009	0.600027	0.90004023	0	0	0	0
11/7/2010	130	10.5	10.5458447	0.210917	0.210917	0.632751	0.94912602	0	0	0	0
11/8/2010	131	10.9	10.86771872	0.217354	0.217354	0.652063	0.97809468	0	0	0	0
11/9/2010	132	10.8	10.76042738	0.215209	0.215209	0.645626	0.96843846	0	0	0	0
11/10/2010	133	11.4	11.3594707	0.227189	0.227189	0.681568	1.02235236	0	0	0	0
11/11/2010	134	10.3	10.25526398	0.205105	0.205105	0.615316	0.92297376	0	0	0	0
11/12/2010	135	7.0	6.960525728	0.139211	0.139211	0.417632	0.62644732	0	0	0	0
11/13/2010	136	10.9	10.88113014	0.217623	0.217623	0.652868	0.97930171	0	0	0	0
11/14/2010	137	10.8	10.80066163	0.216013	0.216013	0.64804	0.97205955	0	0	0	0
11/15/2010	138	11.2	11.15829943	0.223166	0.223166	0.669498	1.00424695	0	0	0	0
11/16/2010	139	6.8	6.826411552	0.136528	0.136528	0.409585	0.61437704	0	0	0	0
11/17/2010	140	6.2	6.24077965	0.124816	0.124816	0.374447	0.56167017	0	0	0	0
11/18/2010	141	5.3	5.319862309	0.106397	0.106397	0.319192	0.47878761	0	0	0	0
11/19/2010	142	11.2	11.23876794	0.224775	0.224775	0.674326	1.01148911	0	0	0	0
11/20/2010	143	13.9	13.93446287	0.278689	0.278689	0.836068	1.25410166	0	0	0	4.3955702
11/21/2010	144	11.3	11.27900219	0.22558	0.22558	0.67674	1.0151102	0	0	0	0
11/22/2010	145	11.0	10.97501006	0.2195	0.2195	0.658501	0.98775091	0	0	0	0
11/23/2010	146	11.1	11.10465376	0.222093	0.222093	0.666279	0.99941884	0	0	0	0
11/24/2010	147	9.9	9.879744289	0.197595	0.197595	0.592785	0.88917699	0	0	0	0
11/25/2010	148	6.4	6.415128079	0.128303	0.128303	0.384908	0.57736153	0	0	0	0
11/26/2010	149	5.4	5.400330815	0.108007	0.108007	0.32402	0.48602977	0	0	0	0
11/27/2010	150	11.1	11.14488801	0.222898	0.222898	0.668693	1.00303992	0	0	0	0
11/28/2010	151	13.0	12.95989986	0.259198	0.259198	0.777594	1.16639099	0	0	0	1.2845979
11/29/2010	152	7.5	7.519334794	0.150387	0.150387	0.45116	0.67674013	0	0	0	0
11/30/2010	153	5.0	5.00245876	0.100049	0.100049	0.300148	0.45022129	0	0	0	0
12/1/2010	154	5.0	4.962224507	0.099244	0.099244	0.297733	0.44660021	0	0	0	0
12/2/2010	155	4.4	4.385533551	0.087711	0.087711	0.263132	0.39469802	0	0	0	0
12/3/2010	156	5.7	5.722204837	0.114444	0.114444	0.343332	0.51499844	0	0	0	0

REVISED TABLE C-2

WIND EROSION CALCULATION FOR QUARRY OVERBURDEN STOCKPILE

Lehigh Southwest Cement Company
Cupertino Facility

				Pile Subarea				Pile Subarea			
			u_s/u_r [3]:	0.2a	0.2b	0.6a	0.9	0.2a	0.2b	0.6a	0.9
		u^+ [1]	u^+_{10}	u*	u*	u*	u*	P_i	P_i	P_i	P_i
Date	N	(m/s)	(m/s)	(m/s)	(m/s)	(m/s)	(m/s)	(g/m^2)	(g/m^2)	(g/m^2)	(g/m^2)
12/4/2010	157	13.9	13.90764004	0.278153	0.278153	0.834458	1.2516876	0	0	0	4.2980043
12/5/2010	158	23.3	23.30457329	0.466091	0.466091	1.398274	2.0974116	0	0	11.448185	79.844629
12/6/2010	159	16.3	16.27699048	0.32554	0.32554	0.976619	1.46492914	0	0	0	15.523843
12/7/2010	160	5.5	5.467387903	0.109348	0.109348	0.328043	0.49206491	0	0	0	0
12/8/2010	161	9.0	8.985649783	0.179713	0.179713	0.539139	0.80870848	0	0	0	0
12/9/2010	162	5.9	5.878671376	0.117573	0.117573	0.35272	0.52908042	0	0	0	0
12/10/2010	163	6.0	5.959139881	0.119183	0.119183	0.357548	0.53632259	0	0	0	0
12/11/2010	164	3.4	3.427958335	0.068559	0.068559	0.205678	0.30851625	0	0	0	0
12/12/2010	165	6.3	6.307836738	0.126157	0.126157	0.37847	0.56770531	0	0	0	0
12/13/2010	166	6.2	6.227368233	0.124547	0.124547	0.373642	0.56046314	0	0	0	0
12/14/2010	167	8.5	8.507309223	0.170146	0.170146	0.510439	0.76565783	0	0	0	0
12/15/2010	168	5.8	5.81608476	0.116322	0.116322	0.348965	0.52344763	0	0	0	0
12/16/2010	169	5.9	5.932317046	0.118646	0.118646	0.355939	0.53390853	0	0	0	0
12/17/2010	170	19.2	19.24985471	0.384997	0.384997	1.154991	1.73248692	0	0	0.9457967	37.070307
12/18/2010	171	16.8	16.75980151	0.335196	0.335196	1.005588	1.50838214	0	0	0	18.458313
12/19/2010	172	16.0	16.04005543	0.320801	0.320801	0.962403	1.44360499	0	0	0	14.163896
12/20/2010	173	12.2	12.15968528	0.243194	0.243194	0.729581	1.09437168	0	0	0	0
12/21/2010	174	12.0	12.01215969	0.240243	0.240243	0.72073	1.08109437	0	0	0	0
12/22/2010	175	7.3	7.255576914	0.145112	0.145112	0.435335	0.65300192	0	0	0	0
12/23/2010	176	6.8	6.813000134	0.13626	0.13626	0.40878	0.61317001	0	0	0	0
12/24/2010	177	9.1	9.079529706	0.181591	0.181591	0.544772	0.81715767	0	0	0	0
12/25/2010	178	24.2	24.23890205	0.484778	0.484778	1.454334	2.18150118	0	0	14.841553	91.891046
12/26/2010	179	7.1	7.134874156	0.142697	0.142697	0.428092	0.64213867	0	0	0	0
12/27/2010	180	7.2	7.188519827	0.14377	0.14377	0.431311	0.64696678	0	0	0	0
12/28/2010	181	18.4	18.40046493	0.368009	0.368009	1.104028	1.65604184	0	0	0	30.066816
12/29/2010	182	18.8	18.78492557	0.375699	0.375699	1.127096	1.6906433	0	0	0.1803085	33.152842
12/30/2010	183	9.9	9.866332871	0.197327	0.197327	0.59198	0.88796996	0	0	0	0
12/31/2010	184	5.6	5.614913496	0.112298	0.112298	0.336895	0.50534221	0	0	0	0
1/1/2011	185	15.0	15.01184675	0.300237	0.300237	0.900711	1.35106621	0	0	0	8.8733675
1/2/2011	186	7.1	7.094639903	0.141893	0.141893	0.425678	0.63851759	0	0	0	0
1/3/2011	187	4.8	4.761053243	0.095221	0.095221	0.285663	0.42849479	0	0	0	0
1/4/2011	188	4.8	4.774464661	0.095489	0.095489	0.286468	0.42970182	0	0	0	0
1/5/2011	189	6.7	6.652063123	0.133041	0.133041	0.399124	0.59868568	0	0	0	0
1/6/2011	190	7.0	6.973937145	0.139479	0.139479	0.418436	0.62765434	0	0	0	0
1/7/2011	191	4.5	4.546470562	0.090929	0.090929	0.272788	0.40918235	0	0	0	0
1/8/2011	192	5.8	5.76243909	0.115249	0.115249	0.345746	0.51861952	0	0	0	0
1/9/2011	193	7.1	7.081228486	0.141625	0.141625	0.424874	0.63731056	0	0	0	0
1/10/2011	194	9.4	9.361169476	0.187223	0.187223	0.56167	0.84250525	0	0	0	0

REVISED TABLE C-2

WIND EROSION CALCULATION FOR QUARRY OVERBURDEN STOCKPILE

Lehigh Southwest Cement Company
Cupertino Facility

				Pile Subarea				Pile Subarea			
			u_s/u_r [3]:	0.2a	0.2b	0.6a	0.9	0.2a	0.2b	0.6a	0.9
		u^+ [1]	u^+_{10}	u*	u*	u*	u*	P_i	P_i	P_i	P_i
Date	N	(m/s)	(m/s)	(m/s)	(m/s)	(m/s)	(m/s)	(g/m^2)	(g/m^2)	(g/m^2)	(g/m^2)
1/11/2011	195	7.2	7.201931244	0.144039	0.144039	0.432116	0.64817381	0	0	0	0
1/12/2011	196	5.5	5.521033573	0.110421	0.110421	0.331262	0.49689302	0	0	0	0
1/13/2011	197	6.9	6.920291475	0.138406	0.138406	0.415217	0.62282623	0	0	0	0
1/14/2011	198	7.5	7.465689123	0.149314	0.149314	0.447941	0.67191202	0	0	0	0
1/15/2011	199	8.0	8.028968662	0.160579	0.160579	0.481738	0.72260718	0	0	0	0
1/16/2011	200	5.0	4.975635925	0.099513	0.099513	0.298538	0.44780723	0	0	0	0
1/17/2011	201	6.3	6.294425321	0.125889	0.125889	0.377666	0.56649828	0	0	0	0
1/18/2011	202	8.7	8.681657651	0.173633	0.173633	0.520899	0.78134919	0	0	0	0
1/19/2011	203	10.8	10.77383879	0.215477	0.215477	0.64643	0.96964549	0	0	0	0
1/20/2011	204	9.7	9.745630113	0.194913	0.194913	0.584738	0.87710671	0	0	0	0
1/21/2011	205	7.6	7.613214717	0.152264	0.152264	0.456793	0.68518932	0	0	0	0
1/22/2011	206	9.1	9.066118289	0.181322	0.181322	0.543967	0.81595065	0	0	0	0
1/23/2011	207	11.7	11.70816755	0.234163	0.234163	0.70249	1.05373508	0	0	0	0
1/24/2011	208	6.5	6.509008002	0.13018	0.13018	0.39054	0.58581072	0	0	0	0
1/25/2011	209	10.6	10.6263132	0.212526	0.212526	0.637579	0.95636819	0	0	0	0
1/26/2011	210	7.7	7.747328893	0.154947	0.154947	0.46484	0.6972596	0	0	0	0
1/27/2011	211	5.5	5.48079932	0.109616	0.109616	0.328848	0.49327194	0	0	0	0
1/28/2011	212	5.6	5.628324914	0.112566	0.112566	0.337699	0.50654924	0	0	0	0
1/29/2011	213	7.6	7.626626134	0.152533	0.152533	0.457598	0.68639635	0	0	0	0
1/30/2011	214	8.6	8.641423398	0.172828	0.172828	0.518485	0.77772811	0	0	0	0
1/31/2011	215	6.2	6.18713398	0.123743	0.123743	0.371228	0.55684206	0	0	0	0
2/1/2011	216	10.8	10.76042738	0.215209	0.215209	0.645626	0.96843846	0	0	0	0
2/2/2011	217	9.1	9.106352541	0.182127	0.182127	0.546381	0.81957173	0	0	0	0
2/3/2011	218	6.4	6.361482409	0.12723	0.12723	0.381689	0.57253342	0	0	0	0
2/4/2011	219	6.5	6.468773749	0.129375	0.129375	0.388126	0.58218964	0	0	0	0
2/5/2011	220	13.9	13.90764004	0.278153	0.278153	0.834458	1.2516876	0	0	0	4.2980043
2/6/2011	221	14.7	14.68103179	0.293621	0.293621	0.880862	1.32129286	0	0	0	7.3824128
2/7/2011	222	10.3	10.29549823	0.20591	0.20591	0.61773	0.92659484	0	0	0	0
2/8/2011	223	17.0	16.97438419	0.339488	0.339488	1.018463	1.52769458	0	0	0	19.832827
2/9/2011	224	9.9	9.879744289	0.197595	0.197595	0.592785	0.88917699	0	0	0	0
2/10/2011	225	6.5	6.509008002	0.13018	0.13018	0.39054	0.58581072	0	0	0	0
2/11/2011	226	5.8	5.842907595	0.116858	0.116858	0.350574	0.52586168	0	0	0	0
2/12/2011	227	5.1	5.096338683	0.101927	0.101927	0.30578	0.45867048	0	0	0	0
2/13/2011	228	4.7	4.693996155	0.09388	0.09388	0.28164	0.42245965	0	0	0	0
2/14/2011	229	16.4	16.35745898	0.327149	0.327149	0.981448	1.47217131	0	0	0	15.997711
2/15/2011	230	21.5	21.54320712	0.430864	0.430864	1.292592	1.93888864	0	0	6.0425231	59.365775
2/16/2011	231	16.9	16.9073271	0.338147	0.338147	1.01444	1.52165944	0	0	0	19.398644
2/17/2011	232	16.7	16.74639009	0.334928	0.334928	1.004783	1.50717511	0	0	0	18.373842
2/18/2011	233	11.5	11.48017345	0.229603	0.229603	0.68881	1.03321561	0	0	0	0
2/19/2011	234	10.3	10.29549823	0.20591	0.20591	0.61773	0.92659484	0	0	0	0

REVISED TABLE C-2

WIND EROSION CALCULATION FOR QUARRY OVERBURDEN STOCKPILE

Lehigh Southwest Cement Company
Cupertino Facility

				Pile Subarea				Pile Subarea			
			u_s/u_r [3]:	0.2a	0.2b	0.6a	0.9	0.2a	0.2b	0.6a	0.9
		u^+ [1]	u^+_{10}	u*	u*	u*	u*	P_i	P_i	P_i	P_i
Date	N	(m/s)	(m/s)	(m/s)	(m/s)	(m/s)	(m/s)	(g/m^2)	(g/m^2)	(g/m^2)	(g/m^2)
2/20/2011	235	7.4	7.3718092	0.147436	0.147436	0.442309	0.66346283	0	0	0	0
2/21/2011	236	8.8	8.815771827	0.176315	0.176315	0.528946	0.79341946	0	0	0	0
2/22/2011	237	7.1	7.067817068	0.141356	0.141356	0.424069	0.63610354	0	0	0	0
2/23/2011	238	11.9	11.91827976	0.238366	0.238366	0.715097	1.07264518	0	0	0	0
2/24/2011	239	10.7	10.65313604	0.213063	0.213063	0.639188	0.95878224	0	0	0	0
2/25/2011	240	17.8	17.75671688	0.355134	0.355134	1.065403	1.59810452	0	0	0	25.210481
2/26/2011	241	8.1	8.07814386	0.161563	0.161563	0.484689	0.72703295	0	0	0	0
2/27/2011	242	9.6	9.624927355	0.192499	0.192499	0.577496	0.86624346	0	0	0	0
2/28/2011	243	10.0	9.98703563	0.199741	0.199741	0.599222	0.89883321	0	0	0	0
3/1/2011	244	11.7	11.72157897	0.234432	0.234432	0.703295	1.05494211	0	0	0	0
3/2/2011	245	19.1	19.09338817	0.381868	0.381868	1.145603	1.71840494	0	0	0.6781029	35.729254
3/3/2011	246	9.0	8.972238366	0.179445	0.179445	0.538334	0.80750145	0	0	0	0
3/4/2011	247	6.9	6.94711431	0.138942	0.138942	0.416827	0.62524029	0	0	0	0
3/5/2011	248	6.9	6.906880057	0.138138	0.138138	0.414413	0.62161921	0	0	0	0
3/6/2011	249	13.8	13.78693728	0.275739	0.275739	0.827216	1.24082436	0	0	0	3.8673233
3/7/2011	250	21.2	21.21239215	0.424248	0.424248	1.272744	1.90911529	0	0	5.1717622	55.844653
3/8/2011	251	6.1	6.146899727	0.122938	0.122938	0.368814	0.55322098	0	0	0	0
3/9/2011	252	6.3	6.334659574	0.126693	0.126693	0.38008	0.57011936	0	0	0	0
3/10/2011	253	11.8	11.83781126	0.236756	0.236756	0.710269	1.06540301	0	0	0	0
3/11/2011	254	8.6	8.614600563	0.172292	0.172292	0.516876	0.77531405	0	0	0	0
3/12/2011	255	5.9	5.865259958	0.117305	0.117305	0.351916	0.5278734	0	0	0	0
3/13/2011	256	10.8	10.84089588	0.216818	0.216818	0.650454	0.97568063	0	0	0	0
3/14/2011	257	6.8	6.826411552	0.136528	0.136528	0.409585	0.61437704	0	0	0	0
3/15/2011	258	13.4	13.424829	0.268497	0.268497	0.80549	1.20823461	0	0	0	2.6574154
3/16/2011	259	9.4	9.441637981	0.188833	0.188833	0.566498	0.84974742	0	0	0	0
3/17/2011	260	11.3	11.26559077	0.225312	0.225312	0.675935	1.01390317	0	0	0	0
3/18/2011	261	22.2	22.23613036	0.444723	0.444723	1.334168	2.00125173	0	0	8.0145312	67.074361
3/19/2011	262	17.8	17.79695114	0.355939	0.355939	1.067817	1.6017256	0	0	0	25.502594
3/20/2011	263	21.1	21.05145514	0.421029	0.421029	1.263087	1.89463096	0	0	4.7646734	54.168855
3/21/2011	264	11.2	11.17171085	0.223434	0.223434	0.670303	1.00545398	0	0	0	0
3/22/2011	265	12.5	12.52179355	0.250436	0.250436	0.751308	1.12696142	0	0	0	0.1768463
3/23/2011	266	17.6	17.57342751	0.351469	0.351469	1.054406	1.58160848	0	0	0	23.89899

REVISED TABLE C-2

WIND EROSION CALCULATION FOR QUARRY OVERBURDEN STOCKPILE

Lehigh Southwest Cement Company
Cupertino Facility

				Pile Subarea				Pile Subarea			
			u_s/u_r [3]:	0.2a	0.2b	0.6a	0.9	0.2a	0.2b	0.6a	0.9
		u^+ [1]	u^+_{10}	u*	u*	u*	u*	P_i	P_i	P_i	P_i
Date	N	(m/s)	(m/s)	(m/s)	(m/s)	(m/s)	(m/s)	(g/m^2)	(g/m^2)	(g/m^2)	(g/m^2)
3/24/2011	267	22.7	22.69211856	0.453842	0.453842	1.361527	2.04229067	0	0	9.4216279	72.393231
3/25/2011	268	8.9	8.851535607	0.177031	0.177031	0.531092	0.7966382	0	0	0	0
3/26/2011	269	11.9	11.9451026	0.238902	0.238902	0.716706	1.07505923	0	0	0	0
3/27/2011	270	10.2	10.21502973	0.204301	0.204301	0.612902	0.91935268	0	0	0	0
3/28/2011	271	8.5	8.534132058	0.170683	0.170683	0.512048	0.76807189	0	0	0	0
3/29/2011	272	9.5	9.495283651	0.189906	0.189906	0.569717	0.85457553	0	0	0	0
3/30/2011	273	10.3	10.30443918	0.206089	0.206089	0.618266	0.92739953	0	0	0	0
3/31/2011	274	9.1	9.119763959	0.182395	0.182395	0.547186	0.82077876	0	0	0	0
4/1/2011	275	8.1	8.07814386	0.161563	0.161563	0.484689	0.72703295	0	0	0	0
4/2/2011	276	6.3	6.321248156	0.126425	0.126425	0.379275	0.56891233	0	0	0	0
4/3/2011	277	7.5	7.532746211	0.150655	0.150655	0.451965	0.67794716	0	0	0	0
4/4/2011	278	6.5	6.482185167	0.129644	0.129644	0.388931	0.58339667	0	0	0	0
4/5/2011	279	9.4	9.441637981	0.188833	0.188833	0.566498	0.84974742	0	0	0	0
4/6/2011	280	11.9	11.93169118	0.238634	0.238634	0.715901	1.07385221	0	0	0	0
4/7/2011	281	15.0	15.02525817	0.300505	0.300505	0.901515	1.35227324	0	0	0	8.9359805
4/8/2011	282	9.0	9.025884036	0.180518	0.180518	0.541553	0.81232956	0	0	0	0
4/9/2011	283	11.3	11.31923644	0.226385	0.226385	0.679154	1.01873128	0	0	0	0
4/10/2011	284	9.3	9.294112388	0.185882	0.185882	0.557647	0.83647011	0	0	0	0
4/11/2011	285	8.4	8.359783629	0.167196	0.167196	0.501587	0.75238053	0	0	0	0
4/12/2011	286	10.7	10.74701596	0.21494	0.21494	0.644821	0.96723144	0	0	0	0
4/13/2011	287	10.4	10.37149627	0.20743	0.20743	0.62229	0.93343466	0	0	0	0
4/14/2011	288	8.0	8.015557244	0.160311	0.160311	0.480933	0.72140015	0	0	0	0
4/15/2011	289	7.9	7.908265904	0.158165	0.158165	0.474496	0.71174393	0	0	0	0
4/16/2011	290	10.3	10.3178506	0.206357	0.206357	0.619071	0.92860655	0	0	0	0
4/17/2011	291	7.0	7.00075998	0.140015	0.140015	0.420046	0.6300684	0	0	0	0
4/18/2011	292	6.8	6.813000134	0.13626	0.13626	0.40878	0.61317001	0	0	0	0
4/19/2011	293	7.1	7.067817068	0.141356	0.141356	0.424069	0.63610354	0	0	0	0
4/20/2011	294	12.5	12.45473647	0.249095	0.249095	0.747284	1.12092628	0	0	0	0.0232068
4/21/2011	295	8.1	8.091555277	0.161831	0.161831	0.485493	0.72823997	0	0	0	0
4/22/2011	296	9.8	9.826098619	0.196522	0.196522	0.589566	0.88434888	0	0	0	0
4/23/2011	297	10.2	10.16138406	0.203228	0.203228	0.609683	0.91452457	0	0	0	0
4/24/2011	298	8.2	8.172023783	0.16344	0.16344	0.490321	0.73548214	0	0	0	0
4/25/2011	299	9.9	9.919978542	0.1984	0.1984	0.595199	0.89279807	0	0	0	0
4/26/2011	300	9.5	9.522106487	0.190442	0.190442	0.571326	0.85698958	0	0	0	0
4/27/2011	301	6.4	6.401716661	0.128034	0.128034	0.384103	0.5761545	0	0	0	0
4/28/2011	302	10.3	10.28208682	0.205642	0.205642	0.616925	0.92538781	0	0	0	0
4/29/2011	303	12.5	12.45473647	0.249095	0.249095	0.747284	1.12092628	0	0	0	0.0232068
4/30/2011	304	15.2	15.18619518	0.303724	0.303724	0.911172	1.36675757	0	0	0	9.7005184
5/1/2011	305	7.3	7.322634002	0.146453	0.146453	0.439358	0.65903706	0	0	0	0
5/2/2011	306	6.6	6.589476508	0.13179	0.13179	0.395369	0.59305289	0	0	0	0

REVISED TABLE C-2

WIND EROSION CALCULATION FOR QUARRY OVERBURDEN STOCKPILE

Lehigh Southwest Cement Company
Cupertino Facility

				Pile Subarea				Pile Subarea			
			u_s/u_r [3]:	0.2a	0.2b	0.6a	0.9	0.2a	0.2b	0.6a	0.9
		u^+ [1]	u^+_{10}	u*	u*	u*	u*	P_i	P_i	P_i	P_i
Date	N	(m/s)	(m/s)	(m/s)	(m/s)	(m/s)	(m/s)	(g/m^2)	(g/m^2)	(g/m^2)	(g/m^2)
5/3/2011	307	8.6	8.641423398	0.172828	0.172828	0.518485	0.77772811	0	0	0	0
5/4/2011	308	7.4	7.438866288	0.148777	0.148777	0.446332	0.66949797	0	0	0	0
5/5/2011	309	7.2	7.228754079	0.144575	0.144575	0.433725	0.65058787	0	0	0	0
5/6/2011	310	6.7	6.692297376	0.133846	0.133846	0.401538	0.60230676	0	0	0	0
5/7/2011	311	10.9	10.90795297	0.218159	0.218159	0.654477	0.98171577	0	0	0	0
5/8/2011	312	10.8	10.80066163	0.216013	0.216013	0.64804	0.97205955	0	0	0	0
5/9/2011	313	8.9	8.94541553	0.178908	0.178908	0.536725	0.8050874	0	0	0	0
5/10/2011	314	7.4	7.438866288	0.148777	0.148777	0.446332	0.66949797	0	0	0	0
5/11/2011	315	7.3	7.322634002	0.146453	0.146453	0.439358	0.65903706	0	0	0	0
5/12/2011	316	8.9	8.932004113	0.17864	0.17864	0.53592	0.80388037	0	0	0	0
5/13/2011	317	7.4	7.425454871	0.148509	0.148509	0.445527	0.66829094	0	0	0	0
5/14/2011	318	11.0	11.04206715	0.220841	0.220841	0.662524	0.99378604	0	0	0	0
5/15/2011	319	11.7	11.72157897	0.234432	0.234432	0.703295	1.05494211	0	0	0	0
5/16/2011	320	16.0	16.02664402	0.320533	0.320533	0.961599	1.44239796	0	0	0	14.088495
5/17/2011	321	13.8	13.77352586	0.275471	0.275471	0.826412	1.23961733	0	0	0	3.8203149
5/18/2011	322	13.4	13.35777192	0.267155	0.267155	0.801466	1.20219947	0	0	0	2.4468785
5/19/2011	323	8.1	8.104966695	0.162099	0.162099	0.486298	0.729447	0	0	0	0
5/20/2011	324	6.9	6.920291475	0.138406	0.138406	0.415217	0.62282623	0	0	0	0
5/21/2011	325	9.0	9.025884036	0.180518	0.180518	0.541553	0.81232956	0	0	0	0
5/22/2011	326	11.1	11.11806518	0.222361	0.222361	0.667084	1.00062587	0	0	0	0
5/23/2011	327	13.2	13.24153963	0.264831	0.264831	0.794492	1.19173857	0	0	0	2.0919566
5/24/2011	328	7.8	7.787563145	0.155751	0.155751	0.467254	0.70088068	0	0	0	0
5/25/2011	329	13.4	13.35777192	0.267155	0.267155	0.801466	1.20219947	0	0	0	2.4468785
5/26/2011	330	9.9	9.906567124	0.198131	0.198131	0.594394	0.89159104	0	0	0	0
5/27/2011	331	11.6	11.61428763	0.232286	0.232286	0.696857	1.04528589	0	0	0	0
5/28/2011	332	15.1	15.10572668	0.302115	0.302115	0.906344	1.3595154	0	0	0	9.3152074
5/29/2011	333	13.3	13.27730341	0.265546	0.265546	0.796638	1.19495731	0	0	0	2.1998114
5/30/2011	334	13.7	13.67964594	0.273593	0.273593	0.820779	1.23116813	0	0	0	3.4959879
5/31/2011	335	13.7	13.74670303	0.274934	0.274934	0.824802	1.23720327	0	0	0	3.726805
6/1/2011	336	11.2	11.17171085	0.223434	0.223434	0.670303	1.00545398	0	0	0	0
6/2/2011	337	9.2	9.213643882	0.184273	0.184273	0.552819	0.82922795	0	0	0	0
6/3/2011	338	7.6	7.640037552	0.152801	0.152801	0.458402	0.68760338	0	0	0	0
6/4/2011	339	19.5	19.51808306	0.390362	0.390362	1.171085	1.75662748	0	0	1.4284858	39.42277
6/5/2011	340	8.5	8.453663552	0.169073	0.169073	0.50722	0.76082972	0	0	0	0
6/6/2011	341	11.1	11.10465376	0.222093	0.222093	0.666279	0.99941884	0	0	0	0

REVISED TABLE C-2

WIND EROSION CALCULATION FOR QUARRY OVERBURDEN STOCKPILE

Lehigh Southwest Cement Company
Cupertino Facility

				Pile Subarea				Pile Subarea			
			u_s/u_r [3]:	0.2a	0.2b	0.6a	0.9	0.2a	0.2b	0.6a	0.9
		u^{+} [1]	u^{+}_{10}	u*	u*	u*	u*	P_i	P_i	P_i	P_i
Date	N	(m/s)	(m/s)	(m/s)	(m/s)	(m/s)	(m/s)	(g/m^2)	(g/m^2)	(g/m^2)	(g/m^2)
6/7/2011	342	8.3	8.252492288	0.16505	0.16505	0.49515	0.74272431	0	0	0	0
6/8/2011	343	6.7	6.678885958	0.133578	0.133578	0.400733	0.60109974	0	0	0	0
6/9/2011	344	6.3	6.267602486	0.125352	0.125352	0.376056	0.56408422	0	0	0	0
6/10/2011	345	8.9	8.94541553	0.178908	0.178908	0.536725	0.8050874	0	0	0	0
6/11/2011	346	9.5	9.535517904	0.19071	0.19071	0.572131	0.85819661	0	0	0	0
6/12/2011	347	7.8	7.814385981	0.156288	0.156288	0.468863	0.70329474	0	0	0	0
6/13/2011	348	8.0	8.002145827	0.160043	0.160043	0.480129	0.72019312	0	0	0	0
6/14/2011	349	7.3	7.28239975	0.145648	0.145648	0.436944	0.65541598	0	0	0	0
6/15/2011	350	6.9	6.880057222	0.137601	0.137601	0.412803	0.61920515	0	0	0	0
6/16/2011	351	6.5	6.52241942	0.130448	0.130448	0.391345	0.58701775	0	0	0	0
6/17/2011	352	6.9	6.94711431	0.138942	0.138942	0.416827	0.62524029	0	0	0	0
6/18/2011	353	7.4	7.438866288	0.148777	0.148777	0.446332	0.66949797	0	0	0	0
6/19/2011	354	9.2	9.173409629	0.183468	0.183468	0.550405	0.82560687	0	0	0	0
6/20/2011	355	7.9	7.868031651	0.157361	0.157361	0.472082	0.70812285	0	0	0	0
6/21/2011	356	6.9	6.906880057	0.138138	0.138138	0.414413	0.62161921	0	0	0	0
6/22/2011	357	6.1	6.106665475	0.122133	0.122133	0.3664	0.54959989	0	0	0	0
6/23/2011	358	7.4	7.438866288	0.148777	0.148777	0.446332	0.66949797	0	0	0	0
6/24/2011	359	7.4	7.358397783	0.147168	0.147168	0.441504	0.6622558	0	0	0	0
6/25/2011	360	7.1	7.134874156	0.142697	0.142697	0.428092	0.64213867	0	0	0	0
6/26/2011	361	7.6	7.559569046	0.151191	0.151191	0.453574	0.68036121	0	0	0	0
6/27/2011	362	6.6	6.61182887	0.132237	0.132237	0.39671	0.5950646	0	0	0	0
6/28/2011	363	8.1	8.104966695	0.162099	0.162099	0.486298	0.729447	0	0	0	0
6/29/2011	364	7.7	7.747328893	0.154947	0.154947	0.46484	0.6972596	0	0	0	0
6/30/2011	365	7.7	7.666860387	0.153337	0.153337	0.460012	0.69001743	0	0	0	0
							Sum:	0	0	63	993
							Pi x A	0	0	2,013,532	7,945,397

Ef = 9.96E+06 g/yr

PM10 Ef: 4.98E+06 g/yr

E (ton/yr) 5.48 tons/yr everyday disturbance

Pile Area:

Area Section	u_s/u_r	% total A	A (m^2)
1	0.9	12	7,998
2	0.6	48	31,993
3	0.2	40	26,660
		Total Area:	66,651

Notes:

1. On-site meteorological data for July 1, 2010 through June 30, 2011 was used for wind gust speed calculations (u+). Data was measured at an anemometer height of 10m.
2. u^*_t obtained from Table 13.2.5-2 from AP-42
3. u_s/u_r values obtained from Table 13.2.5-3 from AP-42