3.4 Line F Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					15.03	0.00	15.03	6.62	0.00	6.62						0.00
Off-Road	8.12	64.44	38.55	0.07		3.15	3.15		3.15	3.15		7,035.55		0.73		7,050.84
Total	**8.12**	**64.44**	**38.55**	**0.07**	**15.03**	**3.15**	**18.18**	**6.62**	**3.15**	**9.77**		**7,035.55**		**0.73**		**7,050.84**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	7.18	84.76	38.33	0.15	171.67	3.36	175.03	0.52	3.36	3.88		15,173.64		0.35		15,180.93
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.07	0.08	0.92	0.00	0.20	0.01	0.20	0.01	0.01	0.01		154.61		0.01		154.79
Total	**7.25**	**84.84**	**39.25**	**0.15**	**171.87**	**3.37**	**175.23**	**0.53**	**3.37**	**3.89**		**15,328.25**		**0.36**		**15,335.72**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.86	0.00	5.86	2.58	0.00	2.58						0.00
Off-Road	5.38	35.20	37.83	0.07		2.42	2.42		2.42	2.42	0.00	7,035.55		0.73		7,050.84
Total	**5.38**	**35.20**	**37.83**	**0.07**	**5.86**	**2.42**	**8.28**	**2.58**	**2.42**	**5.00**	**0.00**	**7,035.55**		**0.73**		**7,050.84**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	7.18	84.76	38.33	0.15	171.67	3.36	175.03	0.52	3.36	3.88		15,173.64		0.35		15,180.93
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.07	0.08	0.92	0.00	0.20	0.01	0.20	0.01	0.01	0.01		154.61		0.01		154.79
Total	**7.25**	**84.84**	**39.25**	**0.15**	**171.87**	**3.37**	**175.23**	**0.53**	**3.37**	**3.89**		**15,328.25**		**0.36**		**15,335.72**

3.5 Line F-2 Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					15.96	0.00	15.96	3.31	0.00	3.31						0.00
Off-Road	4.06	32.22	19.27	0.03		1.57	1.57		1.57	1.57		3,517.78		0.36		3,525.42
Total	**4.06**	**32.22**	**19.27**	**0.03**	**15.96**	**1.57**	**17.53**	**3.31**	**1.57**	**4.88**		**3,517.78**		**0.36**		**3,525.42**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.57	30.38	13.74	0.05	18.59	1.21	19.80	0.18	1.21	1.39		5,438.80		0.12		5,441.42
Vendor	0.02	0.29	0.15	0.00	0.02	0.01	0.03	0.00	0.01	0.01		54.45		0.00		54.48
Worker	0.04	0.04	0.49	0.00	0.10	0.00	0.11	0.00	0.00	0.01		82.46		0.00		82.55
Total	**2.63**	**30.71**	**14.38**	**0.05**	**18.71**	**1.22**	**19.94**	**0.18**	**1.22**	**1.41**		**5,575.71**		**0.12**		**5,578.45**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.23	0.00	6.23	1.29	0.00	1.29						0.00
Off-Road	2.69	17.60	18.92	0.03		1.21	1.21		1.21	1.21	0.00	3,517.78		0.36		3,525.42
Total	**2.69**	**17.60**	**18.92**	**0.03**	**6.23**	**1.21**	**7.44**	**1.29**	**1.21**	**2.50**	**0.00**	**3,517.78**		**0.36**		**3,525.42**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.57	30.38	13.74	0.05	18.59	1.21	19.80	0.18	1.21	1.39		5,438.80		0.12		5,441.42
Vendor	0.02	0.29	0.15	0.00	0.02	0.01	0.03	0.00	0.01	0.01		54.45		0.00		54.48
Worker	0.04	0.04	0.49	0.00	0.10	0.00	0.11	0.00	0.00	0.01		82.46		0.00		82.55
Total	**2.63**	**30.71**	**14.38**	**0.05**	**18.71**	**1.22**	**19.94**	**0.18**	**1.22**	**1.41**		**5,575.71**		**0.12**		**5,578.45**

3.6 Cactus Basin Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					16.02	0.00	16.02	6.62	0.00	6.62						0.00
Off-Road	13.02	106.56	56.98	0.11		4.77	4.77		4.77	4.77		12,219.54		1.17		12,244.04
Total	**13.02**	**106.56**	**56.98**	**0.11**	**16.02**	**4.77**	**20.79**	**6.62**	**4.77**	**11.39**		**12,219.54**		**1.17**		**12,244.04**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	55.17	651.67	294.67	1.12	990.90	25.86	1,016.76	3.97	25.86	29.83		116,661.29		2.67		########
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.12	1.40	0.00	0.30	0.01	0.31	0.01	0.01	0.02		237.07		0.01		237.34
Total	**55.27**	**651.79**	**296.07**	**1.12**	**991.20**	**25.87**	**1,017.07**	**3.98**	**25.87**	**29.85**		**116,898.36**		**2.68**		########

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.25	0.00	6.25	2.58	0.00	2.58						0.00
Off-Road	9.05	59.06	61.63	0.11		3.79	3.79		3.79	3.79	0.00	12,219.54		1.17		12,244.04
Total	**9.05**	**59.06**	**61.63**	**0.11**	**6.25**	**3.79**	**10.04**	**2.58**	**3.79**	**6.37**	**0.00**	**12,219.54**		**1.17**		**12,244.04**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	55.17	651.67	294.67	1.12	990.90	25.86	1,016.76	3.97	25.86	29.83		116,661.29		2.67		########
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.12	1.40	0.00	0.30	0.01	0.31	0.01	0.01	0.02		237.07		0.01		237.34
Total	**55.27**	**651.79**	**296.07**	**1.12**	**991.20**	**25.87**	**1,017.07**	**3.98**	**25.87**	**29.85**		**116,898.36**		**2.68**		########

3.6 Cactus Basin Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					16.02	0.00	16.02	6.62	0.00	6.62						0.00
Off-Road	12.32	98.51	54.51	0.11		4.37	4.37		4.37	4.37		12,219.54		1.10		12,242.56
Total	**12.32**	**98.51**	**54.51**	**0.11**	**16.02**	**4.37**	**20.39**	**6.62**	**4.37**	**10.99**		**12,219.54**		**1.10**		**12,242.56**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	49.54	580.88	269.34	1.12	990.91	22.69	1,013.60	3.97	22.69	26.66		116,843.06		2.40		########
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.11	1.28	0.00	0.30	0.01	0.31	0.01	0.01	0.02		231.46		0.01		231.71
Total	**49.64**	**580.99**	**270.62**	**1.12**	**991.21**	**22.70**	**1,013.91**	**3.98**	**22.70**	**26.68**		**117,074.52**		**2.41**		########

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.25	0.00	6.25	2.58	0.00	2.58						0.00
Off-Road	8.96	58.45	61.59	0.11		3.72	3.72		3.72	3.72	0.00	12,219.54		1.10		12,242.56
Total	**8.96**	**58.45**	**61.59**	**0.11**	**6.25**	**3.72**	**9.97**	**2.58**	**3.72**	**6.30**	**0.00**	**12,219.54**		**1.10**		**12,242.56**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	49.54	580.88	269.34	1.12	990.91	22.69	1,013.60	3.97	22.69	26.66		116,843.06		2.40		########
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.11	1.28	0.00	0.30	0.01	0.31	0.01	0.01	0.02		231.46		0.01		231.71
Total	**49.64**	**580.99**	**270.62**	**1.12**	**991.21**	**22.70**	**1,013.91**	**3.98**	**22.70**	**26.68**		**117,074.52**		**2.41**		########

3.7 Line F-2 Paving - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.73	10.73	7.47	0.01		0.88	0.88		0.88	0.88		1,074.09		0.16		1,077.35
Paving	0.25					0.00	0.00		0.00	0.00						0.00
Total	**1.98**	**10.73**	**7.47**	**0.01**		**0.88**	**0.88**		**0.88**	**0.88**		**1,074.09**		**0.16**		**1,077.35**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.02	0.27	0.13	0.00	0.02	0.01	0.03	0.00	0.01	0.01		54.51		0.00		54.53
Worker	0.03	0.04	0.45	0.00	0.10	0.00	0.11	0.00	0.00	0.01		80.51		0.00		80.59
Total	**0.05**	**0.31**	**0.58**	**0.00**	**0.12**	**0.01**	**0.14**	**0.00**	**0.01**	**0.02**		**135.02**		**0.00**		**135.12**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.73	10.73	7.47	0.01		0.88	0.88		0.88	0.88	0.00	1,074.09		0.16		1,077.35
Paving	0.25					0.00	0.00		0.00	0.00						0.00
Total	**1.98**	**10.73**	**7.47**	**0.01**		**0.88**	**0.88**		**0.88**	**0.88**	**0.00**	**1,074.09**		**0.16**		**1,077.35**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.02	0.27	0.13	0.00	0.02	0.01	0.03	0.00	0.01	0.01		54.51		0.00		54.53
Worker	0.03	0.04	0.45	0.00	0.10	0.00	0.11	0.00	0.00	0.01		80.51		0.00		80.59
Total	**0.05**	**0.31**	**0.58**	**0.00**	**0.12**	**0.01**	**0.14**	**0.00**	**0.01**	**0.02**		**135.02**		**0.00**		**135.12**

3.8 Line F Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.06	0.37	0.31	0.00		0.02	0.02		0.02	0.02		50.47		0.01		50.58
Total	**0.06**	**0.37**	**0.31**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**		**50.47**		**0.01**		**50.58**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.02	0.27	0.13	0.00	0.02	0.01	0.03	0.00	0.01	0.01		54.51		0.00		54.53
Worker	0.01	0.01	0.17	0.00	0.04	0.00	0.04	0.00	0.00	0.00		30.19		0.00		30.22
Total	**0.03**	**0.28**	**0.30**	**0.00**	**0.06**	**0.01**	**0.07**	**0.00**	**0.01**	**0.01**		**84.70**		**0.00**		**84.75**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.06	0.37	0.31	0.00		0.02	0.02		0.02	0.02	0.00	50.47		0.01		50.58
Total	**0.06**	**0.37**	**0.31**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**50.47**		**0.01**		**50.58**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.02	0.27	0.13	0.00	0.02	0.01	0.03	0.00	0.01	0.01		54.51		0.00		54.53
Worker	0.01	0.01	0.17	0.00	0.04	0.00	0.04	0.00	0.00	0.00		30.19		0.00		30.22
Total	**0.03**	**0.28**	**0.30**	**0.00**	**0.06**	**0.01**	**0.07**	**0.00**	**0.01**	**0.01**		**84.70**		**0.00**		**84.75**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Unmitigated	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT

Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
NaturalGas Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Other Asphalt Surfaces	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Other Non-Asphalt Surfaces	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**	**0.00**	**0.00**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Other Asphalt Surfaces	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Other Non-Asphalt Surfaces	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**	**0.00**	**0.00**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					

Architectural Coating	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

Moreno MDP

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Other Asphalt Surfaces	0.58	Acre
Other Non-Asphalt Surfaces	26.3	Acre

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Southern California Edison
Climate Zone	10		2.4		
		Precipitation Freq (Days)			
			28		

1.3 User Entered Comments

Project Characteristics -

Land Use - Pipeline Construction disturbance area: Line F = 3.66 ac, Cactus Basin = 25.8 ac

Paved area: Line F 2 = 58 ac

Construction Phase - Cactus Basin Site Prep - 1 Week, Basin Grading - 1.5 Months

Line F Site Prep - 2 weeks during grading, Line F Grading - 2 Months total

Off-road Equipment - Grader -2, Dozers -2, Scrapers -2, Cement & mortar mixer -1, tractor/loader/backhoes -2

Off-road Equipment - Excavator -1, Scraper -1

Off-road Equipment - Grading Drainage Ditch

Off-road Equipment - Dozer -1, Grader -1, Tractor/loader/backhoe -1

Off-road Equipment - Paver -1, Roller -1, Cement & mortar mixer -1

Off-road Equipment - Cement & mortar mixer - 1

Off-road Equipment - Graders -2, Dozers -2, Tractor/loader/backhoe -2

Off-road Equipment - Excavators -2

Trips and VMT - F-2 Grading assumes 2 vendor trips/day

F-3 Repaving assumes 2 trips/day

Grading - Line F=1860CYx40 days=74,400

Line F-3 = 600yd(1800ft)x4yd(12ft)x2.22yd(10ft)=8,000CY

Construction Off-road Equipment Mitigation -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	69.70	787.87	380.53	1.23	1,007.22	30.96	1,038.18	10.60	30.96	41.56	0.00	128,409.93	0.00	3.91	0.00	128,492.13
2015	63.31	704.02	352.62	1.23	1,007.23	27.36	1,034.59	10.61	27.36	37.97	0.00	128,576.81	0.00	3.57	0.00	128,651.81
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	65.73	740.37	385.17	1.23	997.45	29.98	1,027.43	6.56	29.98	36.54	0.00	128,409.93	0.00	3.91	0.00	128,492.13

2015	59.95	663.95	359.71	1.23	997.46	26.71	1,024.16	6.57	26.71	33.27	0.00	128,576.81	0.00	3.57	0.00	128,651.81
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**	**0.00**	**0.00**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**		**0.00**	**0.00**	**0.00**

3.0 Construction Detail

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Water Exposed Area

3.2 Cactus Basin Site Prep - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00						0.00
Off-Road	3.33	27.52	14.38	0.03		1.17	1.17		1.17	1.17		3,462.90		0.30		3,469.14
Total	**3.33**	**27.52**	**14.38**	**0.03**	**0.00**	**1.17**	**1.17**	**0.00**	**1.17**	**1.17**		**3,462.90**		**0.30**		**3,469.14**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.03	0.27	0.00	0.07	0.00	0.07	0.00	0.00	0.00		45.86		0.00		45.91
Total	**0.02**	**0.03**	**0.27**	**0.00**	**0.07**	**0.00**	**0.07**	**0.00**	**0.00**	**0.00**		**45.86**		**0.00**		**45.91**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00						0.00
Off-Road	2.44	15.84	17.58	0.03		1.02	1.02		1.02	1.02	0.00	3,462.90		0.30		3,469.14
Total	**2.44**	**15.84**	**17.58**	**0.03**	**0.00**	**1.02**	**1.02**	**0.00**	**1.02**	**1.02**	**0.00**	**3,462.90**		**0.30**		**3,469.14**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.03	0.27	0.00	0.07	0.00	0.07	0.00	0.00	0.00		45.86		0.00		45.91
Total	**0.02**	**0.03**	**0.27**	**0.00**	**0.07**	**0.00**	**0.07**	**0.00**	**0.00**	**0.00**		**45.86**		**0.00**		**45.91**

3.3 Line F Site Prep - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00						0.00
Off-Road	0.91	6.65	5.32	0.01		0.36	0.36		0.36	0.36		896.14		0.08		897.83
Total	**0.91**	**6.65**	**5.32**	**0.01**	**0.00**	**0.36**	**0.36**	**0.00**	**0.36**	**0.36**		**896.14**		**0.08**		**897.83**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.01	0.02	0.16	0.00	0.04	0.00	0.04	0.00	0.00	0.00		27.51		0.00		27.55
Total	**0.01**	**0.02**	**0.16**	**0.00**	**0.04**	**0.00**	**0.04**	**0.00**	**0.00**	**0.00**		**27.51**		**0.00**		**27.55**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00						0.00
Off-Road	0.63	4.10	5.83	0.01		0.35	0.35		0.35	0.35	0.00	896.14		0.08		897.83
Total	**0.63**	**4.10**	**5.83**	**0.01**	**0.00**	**0.35**	**0.35**	**0.00**	**0.35**	**0.35**	**0.00**	**896.14**		**0.08**		**897.83**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.01	0.02	0.16	0.00	0.04	0.00	0.04	0.00	0.00	0.00		27.51		0.00		27.55
Total	**0.01**	**0.02**	**0.16**	**0.00**	**0.04**	**0.00**	**0.04**	**0.00**	**0.00**	**0.00**		**27.51**		**0.00**		**27.55**

3.4 Line F Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					15.03	0.00	15.03	6.62	0.00	6.62						0.00
Off-Road	8.12	64.44	38.55	0.07		3.15	3.15		3.15	3.15		7,035.55		0.73		7,050.84
Total	**8.12**	**64.44**	**38.55**	**0.07**	**15.03**	**3.15**	**18.18**	**6.62**	**3.15**	**9.77**		**7,035.55**		**0.73**		**7,050.84**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	7.36	88.60	41.92	0.14	171.67	3.40	175.08	0.52	3.40	3.92		15,084.96		0.36		15,092.43
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.07	0.08	0.80	0.00	0.20	0.01	0.20	0.01	0.01	0.01		137.57		0.01		137.73
Total	**7.43**	**88.68**	**42.72**	**0.14**	**171.87**	**3.41**	**175.28**	**0.53**	**3.41**	**3.93**		**15,222.53**		**0.37**		**15,230.16**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.86	0.00	5.86	2.58	0.00	2.58						0.00
Off-Road	5.38	35.20	37.83	0.07		2.42	2.42		2.42	2.42	0.00	7,035.55		0.73		7,050.84
Total	**5.38**	**35.20**	**37.83**	**0.07**	**5.86**	**2.42**	**8.28**	**2.58**	**2.42**	**5.00**	**0.00**	**7,035.55**		**0.73**		**7,050.84**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	7.36	88.60	41.92	0.14	171.67	3.40	175.08	0.52	3.40	3.92		15,084.96		0.36		15,092.43
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.07	0.08	0.80	0.00	0.20	0.01	0.20	0.01	0.01	0.01		137.57		0.01		137.73
Total	**7.43**	**88.68**	**42.72**	**0.14**	**171.87**	**3.41**	**175.28**	**0.53**	**3.41**	**3.93**		**15,222.53**		**0.37**		**15,230.16**

3.5 Line F-2 Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					15.96	0.00	15.96	3.31	0.00	3.31						0.00
Off-Road	4.06	32.22	19.27	0.03		1.57	1.57		1.57	1.57		3,517.78		0.36		3,525.42
Total	**4.06**	**32.22**	**19.27**	**0.03**	**15.96**	**1.57**	**17.53**	**3.31**	**1.57**	**4.88**		**3,517.78**		**0.36**		**3,525.42**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.64	31.76	15.03	0.05	18.59	1.22	19.81	0.18	1.22	1.41		5,407.02		0.13		5,409.69
Vendor	0.02	0.30	0.17	0.00	0.02	0.01	0.03	0.00	0.01	0.01		53.97		0.00		54.00
Worker	0.04	0.05	0.43	0.00	0.10	0.00	0.11	0.00	0.00	0.01		73.37		0.00		73.45
Total	**2.70**	**32.11**	**15.63**	**0.05**	**18.71**	**1.23**	**19.95**	**0.18**	**1.23**	**1.43**		**5,534.36**		**0.13**		**5,537.14**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.23	0.00	6.23	1.29	0.00	1.29						0.00
Off-Road	2.69	17.60	18.92	0.03		1.21	1.21		1.21	1.21	0.00	3,517.78		0.36		3,525.42
Total	**2.69**	**17.60**	**18.92**	**0.03**	**6.23**	**1.21**	**7.44**	**1.29**	**1.21**	**2.50**	**0.00**	**3,517.78**		**0.36**		**3,525.42**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.64	31.76	15.03	0.05	18.59	1.22	19.81	0.18	1.22	1.41		5,407.02		0.13		5,409.69
Vendor	0.02	0.30	0.17	0.00	0.02	0.01	0.03	0.00	0.01	0.01		53.97		0.00		54.00
Worker	0.04	0.05	0.43	0.00	0.10	0.00	0.11	0.00	0.00	0.01		73.37		0.00		73.45
Total	**2.70**	**32.11**	**15.63**	**0.05**	**18.71**	**1.23**	**19.95**	**0.18**	**1.23**	**1.43**		**5,534.36**		**0.13**		**5,537.14**

3.6 Cactus Basin Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					16.02	0.00	16.02	6.62	0.00	6.62						0.00
Off-Road	13.02	106.56	56.98	0.11		4.77	4.77		4.77	4.77		12,219.54		1.17		12,244.04
Total	**13.02**	**106.56**	**56.98**	**0.11**	**16.02**	**4.77**	**20.79**	**6.62**	**4.77**	**11.39**		**12,219.54**		**1.17**		**12,244.04**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	56.57	681.18	322.32	1.11	990.90	26.18	1,017.08	3.97	26.18	30.15		115,979.46		2.74		116,036.91
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.13	1.23	0.00	0.30	0.01	0.31	0.01	0.01	0.02		210.93		0.01		211.18
Total	**56.67**	**681.31**	**323.55**	**1.11**	**991.20**	**26.19**	**1,017.39**	**3.98**	**26.19**	**30.17**		**116,190.39**		**2.75**		**116,248.09**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.25	0.00	6.25	2.58	0.00	2.58						0.00
Off-Road	9.05	59.06	61.63	0.11		3.79	3.79		3.79	3.79	0.00	12,219.54		1.17		12,244.04
Total	**9.05**	**59.06**	**61.63**	**0.11**	**6.25**	**3.79**	**10.04**	**2.58**	**3.79**	**6.37**	**0.00**	**12,219.54**		**1.17**		**12,244.04**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	56.57	681.18	322.32	1.11	990.90	26.18	1,017.08	3.97	26.18	30.15		115,979.46		2.74		116,036.91
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.13	1.23	0.00	0.30	0.01	0.31	0.01	0.01	0.02		210.93		0.01		211.18
Total	**56.67**	**681.31**	**323.55**	**1.11**	**991.20**	**26.19**	**1,017.39**	**3.98**	**26.19**	**30.17**		**116,190.39**		**2.75**		**116,248.09**

3.6 Cactus Basin Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					16.02	0.00	16.02	6.62	0.00	6.62						0.00
Off-Road	12.32	98.51	54.51	0.11		4.37	4.37		4.37	4.37		12,219.54		1.10		12,242.56
Total	**12.32**	**98.51**	**54.51**	**0.11**	**16.02**	**4.37**	**20.39**	**6.62**	**4.37**	**10.99**		**12,219.54**		**1.10**		**12,242.56**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	50.90	605.39	297.00	1.11	990.91	22.98	1,013.88	3.97	22.98	26.95		116,151.37		2.46		116,203.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.09	0.12	1.12	0.00	0.30	0.01	0.31	0.01	0.01	0.02		205.90		0.01		206.12
Total	**50.99**	**605.51**	**298.12**	**1.11**	**991.21**	**22.99**	**1,014.19**	**3.98**	**22.99**	**26.97**		**116,357.27**		**2.47**		**116,409.25**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.25	0.00	6.25	2.58	0.00	2.58						0.00
Off-Road	8.96	58.45	61.59	0.11		3.72	3.72		3.72	3.72	0.00	12,219.54		1.10		12,242.56
Total	**8.96**	**58.45**	**61.59**	**0.11**	**6.25**	**3.72**	**9.97**	**2.58**	**3.72**	**6.30**	**0.00**	**12,219.54**		**1.10**		**12,242.56**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	50.90	605.39	297.00	1.11	990.91	22.98	1,013.88	3.97	22.98	26.95		116,151.37		2.46		116,203.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.09	0.12	1.12	0.00	0.30	0.01	0.31	0.01	0.01	0.02		205.90		0.01		206.12
Total	**50.99**	**605.51**	**298.12**	**1.11**	**991.21**	**22.99**	**1,014.19**	**3.98**	**22.99**	**26.97**		**116,357.27**		**2.47**		**116,409.25**

3.7 Line F-2 Paving - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.73	10.73	7.47	0.01		0.88	0.88		0.88	0.88		1,074.09		0.16		1,077.35
Paving	0.25					0.00	0.00		0.00	0.00						0.00
Total	**1.98**	**10.73**	**7.47**	**0.01**		**0.88**	**0.88**		**0.88**	**0.88**		**1,074.09**		**0.16**		**1,077.35**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.02	0.27	0.16	0.00	0.02	0.01	0.03	0.00	0.01	0.01		54.02		0.00		54.04
Worker	0.03	0.04	0.39	0.00	0.10	0.00	0.11	0.00	0.00	0.01		71.62		0.00		71.70
Total	**0.05**	**0.31**	**0.55**	**0.00**	**0.12**	**0.01**	**0.14**	**0.00**	**0.01**	**0.02**		**125.64**		**0.00**		**125.74**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.73	10.73	7.47	0.01		0.88	0.88		0.88	0.88	0.00	1,074.09		0.16		1,077.35
Paving	0.25					0.00	0.00		0.00	0.00						0.00
Total	**1.98**	**10.73**	**7.47**	**0.01**		**0.88**	**0.88**		**0.88**	**0.88**	**0.00**	**1,074.09**		**0.16**		**1,077.35**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.02	0.27	0.16	0.00	0.02	0.01	0.03	0.00	0.01	0.01		54.02		0.00		54.04
Worker	0.03	0.04	0.39	0.00	0.10	0.00	0.11	0.00	0.00	0.01		71.62		0.00		71.70
Total	**0.05**	**0.31**	**0.55**	**0.00**	**0.12**	**0.01**	**0.14**	**0.00**	**0.01**	**0.02**		**125.64**		**0.00**		**125.74**

3.8 Line F Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.06	0.37	0.31	0.00		0.02	0.02		0.02	0.02		50.47		0.01		50.58
Total	**0.06**	**0.37**	**0.31**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**		**50.47**		**0.01**		**50.58**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.02	0.27	0.16	0.00	0.02	0.01	0.03	0.00	0.01	0.01		54.02		0.00		54.04
Worker	0.01	0.02	0.15	0.00	0.04	0.00	0.04	0.00	0.00	0.00		26.86		0.00		26.89
Total	**0.03**	**0.29**	**0.31**	**0.00**	**0.06**	**0.01**	**0.07**	**0.00**	**0.01**	**0.01**		**80.88**		**0.00**		**80.93**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.06	0.37	0.31	0.00		0.02	0.02		0.02	0.02	0.00	50.47		0.01		50.58
Total	**0.06**	**0.37**	**0.31**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**50.47**		**0.01**		**50.58**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.02	0.27	0.16	0.00	0.02	0.01	0.03	0.00	0.01	0.01		54.02		0.00		54.04
Worker	0.01	0.02	0.15	0.00	0.04	0.00	0.04	0.00	0.00	0.00		26.86		0.00		26.89
Total	**0.03**	**0.29**	**0.31**	**0.00**	**0.06**	**0.01**	**0.07**	**0.00**	**0.01**	**0.01**		**80.88**		**0.00**		**80.93**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Unmitigated	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
NaturalGas Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Other Asphalt Surfaces	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Other Non-Asphalt Surfaces	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**	**0.00**	**0.00**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Other Asphalt Surfaces	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Other Non-Asphalt Surfaces	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**	**0.00**	**0.00**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

Moreno MDP

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Other Asphalt Surfaces	0.58	Acre
Other Non-Asphalt Surfaces	26.3	Acre

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Southern California Edison
Climate Zone	10		2.4		
		Precipitation Freq (Days)			
			28		

1.3 User Entered Comments

Project Characteristics -

Land Use - Pipeline Construction disturbance area: Line F = 3.66 ac, Cactus Basin = 25.8 ac
Paved area: Line F-2 = .58 ac
Construction Phase - Cactus Basin Site Prep - 1 Week, Basin Grading - 1.5 Months
Line F Site Prep - 2 weeks during grading, Line F Grading - 2 Months total
Off-road Equipment - Grader -2, Dozers -2, Scrapers -2, Cement & mortar mixer -1, tractor/loader/backhoes -2

Off-road Equipment - Excavator -1, Scraper -1

Off-road Equipment - Grading Drainage Ditch

Off-road Equipment - Dozer -1, Grader -1, Tractor/loader/backhoe -1

Off-road Equipment - Paver -1, Roller -1, Cement & mortar mixer -1

Off-road Equipment - Cement & mortar mixer - 1

Off-road Equipment - Graders -2, Dozers -2, Tractor/loader/backhoe -2

Off-road Equipment - Excavators -2

Trips and VMT - F-2 Grading assumes 2 vendor trips/day
F-2 Repaving assumes 2 trips/day

Grading - Line F=1860CYx40 days=74,400
Line F-2 = 600yd(1800lf)x4yd(12lf)x3.33yd(10ft)=8,000CY
Construction Off-road Equipment Mitigation -

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	1.09	11.41	5.74	0.02	13.31	0.48	13.79	0.32	0.48	0.80	0.00	1,693.38	1,693.38	0.06	0.00	1,694.65
2015	0.29	3.12	1.60	0.01	4.30	0.13	4.42	0.12	0.13	0.25	0.00	537.05	537.05	0.02	0.00	537.37
Total	**1.38**	**14.53**	**7.34**	**0.03**	**17.61**	**0.61**	**18.21**	**0.44**	**0.61**	**1.05**	**0.00**	**2,230.43**	**2,230.43**	**0.08**	**0.00**	**2,232.02**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	0.98	10.19	5.79	0.02	12.93	0.45	13.37	0.16	0.45	0.61	0.00	1,693.38	1,693.38	0.06	0.00	1,694.65
2015	0.28	2.94	1.63	0.01	4.15	0.12	4.27	0.06	0.12	0.18	0.00	537.05	537.05	0.02	0.00	537.37
Total	**1.26**	**13.13**	**7.42**	**0.03**	**17.08**	**0.57**	**17.64**	**0.22**	**0.57**	**0.79**	**0.00**	**2,230.43**	**2,230.43**	**0.08**	**0.00**	**2,232.02**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Waste						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Waste						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Water Exposed Area

3.2 Cactus Basin Site Prep - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.07	0.04	0.00		0.00	0.00		0.00	0.00	0.00	7.85	7.85	0.00	0.00	7.87
Total	**0.01**	**0.07**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**7.85**	**7.85**	**0.00**	**0.00**	**7.87**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.11	0.00	0.00	0.11
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.11**	**0.11**	**0.00**	**0.00**	**0.11**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.04	0.04	0.00		0.00	0.00		0.00	0.00	0.00	7.85	7.85	0.00	0.00	7.87
Total	**0.01**	**0.04**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**7.85**	**7.85**	**0.00**	**0.00**	**7.87**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.11	0.00	0.00	0.11
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.11**	**0.11**	**0.00**	**0.00**	**0.11**

3.3 Line F Site Prep - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00	0.00	4.06	4.06	0.00	0.00	4.07
Total	**0.00**	**0.03**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**4.06**	**4.06**	**0.00**	**0.00**	**4.07**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.13	0.00	0.00	0.13
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.13**	**0.13**	**0.00**	**0.00**	**0.13**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.02	0.03	0.00		0.00	0.00		0.00	0.00	0.00	4.06	4.06	0.00	0.00	4.07
Total	**0.00**	**0.02**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**4.06**	**4.06**	**0.00**	**0.00**	**4.07**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.13	0.00	0.00	0.13
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.13**	**0.13**	**0.00**	**0.00**	**0.13**

3.4 Line F Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.30	0.00	0.30	0.14	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.16	1.29	0.77	0.00		0.06	0.06		0.06	0.06	0.00	127.62	127.62	0.01	0.00	127.89
Total	**0.16**	**1.29**	**0.77**	**0.00**	**0.30**	**0.06**	**0.36**	**0.14**	**0.06**	**0.20**	**0.00**	**127.62**	**127.62**	**0.01**	**0.00**	**127.89**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.15	1.69	0.81	0.00	3.12	0.07	3.19	0.01	0.07	0.08	0.00	274.64	274.64	0.01	0.00	274.77
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.59	2.59	0.00	0.00	2.59
Total	**0.15**	**1.69**	**0.83**	**0.00**	**3.12**	**0.07**	**3.19**	**0.01**	**0.07**	**0.08**	**0.00**	**277.23**	**277.23**	**0.01**	**0.00**	**277.36**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.12	0.00	0.12	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.11	0.70	0.76	0.00		0.05	0.05		0.05	0.05	0.00	127.62	127.62	0.01	0.00	127.89
Total	**0.11**	**0.70**	**0.76**	**0.00**	**0.12**	**0.05**	**0.17**	**0.05**	**0.05**	**0.10**	**0.00**	**127.62**	**127.62**	**0.01**	**0.00**	**127.89**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.15	1.69	0.81	0.00	3.12	0.07	3.19	0.01	0.07	0.08	0.00	274.64	274.64	0.01	0.00	274.77
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.59	2.59	0.00	0.00	2.59
Total	**0.15**	**1.69**	**0.83**	**0.00**	**3.12**	**0.07**	**3.19**	**0.01**	**0.07**	**0.08**	**0.00**	**277.23**	**277.23**	**0.01**	**0.00**	**277.36**

3.5 Line F-2 Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.10	0.00	0.10	0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.02	0.19	0.12	0.00		0.01	0.01		0.01	0.01	0.00	19.14	19.14	0.00	0.00	19.18
Total	**0.02**	**0.19**	**0.12**	**0.00**	**0.10**	**0.01**	**0.11**	**0.03**	**0.01**	**0.04**	**0.00**	**19.14**	**19.14**	**0.00**	**0.00**	**19.18**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.02	0.18	0.09	0.00	0.10	0.01	0.11	0.00	0.01	0.01	0.00	29.53	29.53	0.00	0.00	29.55
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.30	0.00	0.00	0.30
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.41	0.00	0.00	0.42
Total	**0.02**	**0.18**	**0.09**	**0.00**	**0.10**	**0.01**	**0.11**	**0.00**	**0.01**	**0.01**	**0.00**	**30.24**	**30.24**	**0.00**	**0.00**	**30.27**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.04	0.00	0.04	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.02	0.11	0.11	0.00		0.01	0.01		0.01	0.01	0.00	19.14	19.14	0.00	0.00	19.18
Total	**0.02**	**0.11**	**0.11**	**0.00**	**0.04**	**0.01**	**0.05**	**0.01**	**0.01**	**0.02**	**0.00**	**19.14**	**19.14**	**0.00**	**0.00**	**19.18**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.02	0.18	0.09	0.00	0.10	0.01	0.11	0.00	0.01	0.01	0.00	29.53	29.53	0.00	0.00	29.55
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.30	0.00	0.00	0.30
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.41	0.00	0.00	0.42
Total	**0.02**	**0.18**	**0.09**	**0.00**	**0.10**	**0.01**	**0.11**	**0.00**	**0.01**	**0.01**	**0.00**	**30.24**	**30.24**	**0.00**	**0.00**	**30.27**

3.6 Cactus Basin Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.24	0.00	0.24	0.11	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.14	1.12	0.60	0.00		0.05	0.05		0.05	0.05	0.00	116.36	116.36	0.01	0.00	116.60
Total	**0.14**	**1.12**	**0.60**	**0.00**	**0.24**	**0.05**	**0.29**	**0.11**	**0.05**	**0.16**	**0.00**	**116.36**	**116.36**	**0.01**	**0.00**	**116.60**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.59	6.83	3.27	0.01	9.45	0.27	9.72	0.04	0.27	0.31	0.00	1,108.54	1,108.54	0.03	0.00	1,109.09
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.09	2.09	0.00	0.00	2.09
Total	**0.59**	**6.83**	**3.28**	**0.01**	**9.45**	**0.27**	**9.72**	**0.04**	**0.27**	**0.31**	**0.00**	**1,110.63**	**1,110.63**	**0.03**	**0.00**	**1,111.18**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.09	0.00	0.09	0.04	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.10	0.62	0.65	0.00		0.04	0.04		0.04	0.04	0.00	116.36	116.36	0.01	0.00	116.60
Total	**0.10**	**0.62**	**0.65**	**0.00**	**0.09**	**0.04**	**0.13**	**0.04**	**0.04**	**0.08**	**0.00**	**116.36**	**116.36**	**0.01**	**0.00**	**116.60**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.59	6.83	3.27	0.01	9.45	0.27	9.72	0.04	0.27	0.31	0.00	1,108.54	1,108.54	0.03	0.00	1,109.09
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.09	2.09	0.00	0.00	2.09
Total	**0.59**	**6.83**	**3.28**	**0.01**	**9.45**	**0.27**	**9.72**	**0.04**	**0.27**	**0.31**	**0.00**	**1,110.63**	**1,110.63**	**0.03**	**0.00**	**1,111.18**

3.6 Cactus Basin Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.24	0.00	0.24	0.11	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.06	0.44	0.25	0.00		0.02	0.02		0.02	0.02	0.00	49.87	49.87	0.00	0.00	49.96
Total	**0.06**	**0.44**	**0.25**	**0.00**	**0.24**	**0.02**	**0.26**	**0.11**	**0.02**	**0.13**	**0.00**	**49.87**	**49.87**	**0.00**	**0.00**	**49.96**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.23	2.61	1.29	0.01	4.05	0.10	4.15	0.02	0.10	0.12	0.00	475.82	475.82	0.01	0.00	476.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.00	0.00	0.87
Total	**0.23**	**2.61**	**1.30**	**0.01**	**4.05**	**0.10**	**4.15**	**0.02**	**0.10**	**0.12**	**0.00**	**476.69**	**476.69**	**0.01**	**0.00**	**476.89**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.09	0.00	0.09	0.04	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.04	0.26	0.28	0.00		0.02	0.02		0.02	0.02	0.00	49.87	49.87	0.00	0.00	49.96
Total	**0.04**	**0.26**	**0.28**	**0.00**	**0.09**	**0.02**	**0.11**	**0.04**	**0.02**	**0.06**	**0.00**	**49.87**	**49.87**	**0.00**	**0.00**	**49.96**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.23	2.61	1.29	0.01	4.05	0.10	4.15	0.02	0.10	0.12	0.00	475.82	475.82	0.01	0.00	476.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.00	0.00	0.87
Total	**0.23**	**2.61**	**1.30**	**0.01**	**4.05**	**0.10**	**4.15**	**0.02**	**0.10**	**0.12**	**0.00**	**476.69**	**476.69**	**0.01**	**0.00**	**476.89**

3.7 Line F-2 Paving - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.01	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.92	2.92	0.00	0.00	2.93
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.01**	**0.03**	**0.02**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**2.92**	**2.92**	**0.00**	**0.00**	**2.93**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.15	0.00	0.00	0.15
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.20	0.00	0.00	0.20
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.35**	**0.35**	**0.00**	**0.00**	**0.35**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.01	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.92	2.92	0.00	0.00	2.93
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.01**	**0.03**	**0.02**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**2.92**	**2.92**	**0.00**	**0.00**	**2.93**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.15	0.00	0.00	0.15
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.20	0.00	0.00	0.20
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.35**	**0.35**	**0.00**	**0.00**	**0.35**

3.8 Line F Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.00	0.02	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.75	2.75	0.00	0.00	2.75
Total	**0.00**	**0.02**	**0.02**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**2.75**	**2.75**	**0.00**	**0.00**	**2.75**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.96	2.96	0.00	0.00	2.96
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52	1.52	0.00	0.00	1.52
Total	**0.00**	**0.02**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**4.48**	**4.48**	**0.00**	**0.00**	**4.48**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.00	0.02	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.75	2.75	0.00	0.00	2.75
Total	**0.00**	**0.02**	**0.02**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**2.75**	**2.75**	**0.00**	**0.00**	**2.75**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.96	2.96	0.00	0.00	2.96
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52	1.52	0.00	0.00	1.52
Total	**0.00**	**0.02**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**4.48**	**4.48**	**0.00**	**0.00**	**4.48**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unmitigated	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NaturalGas Mitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NaturalGas Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Other Asphalt Surfaces	0					0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Other Asphalt Surfaces	0					0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					0.00	0.00	0.00	0.00
Unmitigated					0.00	0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Other Asphalt Surfaces	0 / 0					0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0 / 0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Other Asphalt Surfaces	0 / 0					0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0 / 0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					0.00	0.00	0.00	0.00
Unmitigated					0.00	0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Other Asphalt Surfaces	0					0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Other Asphalt Surfaces	0					0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

9.0 Vegetation

APPENDIX B

LST ANALYSIS INFORMATION

Cactus Basin

Four Acre Site Example - Site Preparation Phase

Example		**Construction Activity**		
Four Acre Site		Site Preparation	1,123,848	Square Feet[a]
Site Preparation Schedule -	5	**days**[a]		

Equipment Type[a,b]	**No. of Equipment**	**hr/day**	**Crew Size**
Excavators	1	8.0	8
Scrapers	1	8.0	
Tractors/Loaders/Backhoes	0	7.0	

Construction Equipment Emission Factors

	CO	**NOx**	**PM10**
Equipment Type[c]	lb/hr	lb/hr	lb/hr
Excavators	0.529	0.829	0.043
Scrapers	0.989	2.233	0.093
Tractors/Loaders/Backhoes	0.375	0.497	0.034

Fugitive Dust Clearing Parameters

Silt Content[d]	**Moisture Content**[d]
6.9	7.9

Fugitive Dust Stockpiling Parameters

Silt Content[d]	**Precipitation Days**[e]	**Mean Wind Speed Percent**[f]	**TSP Fraction**	**Area**[g] **(acres)**
6.9	10	100	0.5	0.16

Fugitive Dust Material Handling

Aerodynamic Particle Size Multiplier[h]	**Mean Wind Speed**[i]	**Moisture Content**[d]	**Dirt Handled**[a]	**Debris Handled**[a]	**Dirt Handled**[j]
	mph		cy	cy	lb/day
0.35	10	7.9	1,111	140	555,500

Construction Vehicle (Mobile Source) Emission Factors

	CO	**NOx**	**PM10**
	lb/mile	lb/mile	lb/mile
Heavy-Duty Truck[k]	0.012822	0.041846	0.001996

Construction Worker Number of Trips and Trip Length

Vehicle	No. of One-Way Trips/Day	One-WayTrip Length (miles)
Haul Truck[l]	9	0.1
Water Truck[m]	3	35.5

Incremental Increase in Onsite Combustion Emissions from Construction Equipment

Equation: Emission Factor (lb/BHP-hr) x No. of Equipment x Work Day (hr/day) x Equipment rating (hp) x Load Factor (%/100) = Onsite Construction Emissions (lb/day

Equipment Type	CO lb/day	NOx lb/day	PM10 lb/day
Excavators	4.23	6.63	0.34
Scrapers	7.91	17.86	0.74
Tractors/Loaders/Backhoes	0.00	0.00	0.00
Total	**12.1**	**24.5**	**1.1**

Incremental Increase in Fugitive Dust Emissions from Construction Operations

Equations:

Clearing[n]: PM10 Emissions (lb/day) = 0.75 x (silt content$^{1.5}$)/(moisture content$^{1.4}$) x hours operated (hr/day) x (1 - control efficiency)

Storage Piles[o]: PM10 Emissions (lb/day) = 1.7 x (silt content/1.5) x ((365-precipitation days)/235) x wind speed percent/15 x TSP fraction x Area) x (1 - control efficiency)

Material Handling[p]: PM10 Emissions (lb/day) = (0.0032 x aerodynamic particle size multiplier x (wind speed (mph)/5)$^{1.3}$/(moisture content/2)$^{1.4}$ x dirt handled (lb/day)/2,000 (lb/ton) (1 - control efficiency)

Description	Control Efficiency %	PM10[r] lb/day
Clearing	61	2.35
Storage Piles	61	2.46
Material Handling	61	0.04
Total		**4.85**

Cactus Basin

Four Acre Site Example - Site Preparation Phase

Incremental Increase in Onsite Combustion Emissions from Onroad Mobile Vehicles

Equation: Emission Factor (lb/mile) x No. of One-Way Trips/Day x 2 x Trip length (mile) = Mobile Emissions (lb/day)

	CO	NOx	PM10
Vehicle	lb/day	lb/day	lb/day
Haul Truck	0.02	0.08	0.00
Water Truck	2.73	8.91	0.43
Total	**2.75**	**8.99**	**0.43**

Total Incremental Localized Emissions from Construction Activities

	CO	NOx	PM10
Sources	lb/day	lb/day	lb/day
On-site Emissions	**14.9**	**33.5**	**6.4**
Significance Threshold[r]	***350***	***196***	***9***
Exceed Significance?	**NO**	**NO**	**NO**

Combustion and Fugitive Summary	**PM2.5 Fraction[s]**	**PM10**	**PM2.5**
		lb/day	lb/day
Combustion (Offroad)	0.92	1.1	1.0
Combustion (Onroad)	0.96	0.434	0.418
Fugitive	0.21	4.9	1.0
Total		**6.4**	**2.4**
Significance Threshold[n]			**6**
Exceed Significance?			**NO**

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a) SCAQMD, estimated from survey data, Sept 2004

b) Equipment name must match CARB Off-Road Model (see Off-Road Model EF worksheet) equipment name for sheet to look up EFs automatically.

c) SCAB values provided by the ARB, Oct 2006. Assumed equipment is diesel fueled.

d) USEPA, AP-42, July 1998, Table 11.9-3 Typical Values for Correction Factors Applicable to the Predictive Emission Factor Equations

e) Table A9-9-E2, SCAQMD CEQA Air Quality Handbook, 1993

f) Mean wind speed percent - percent of time mean wind speed exceeds 12 mph

g) Assumed storage piles are 0.16 acres in size

h) USEPA, AP-42, Jan 1995, Section 13.2.4 Aggregate Handling and Storage Piles, p 13.2.4-3 Aerodynamic particle size multiplier for < 10 μm

i) Mean wind speed - maximum of daily average wind speeds reported in 1981 meteorological data.

j) Assuming 1,111 cubic yards of dirt handled [(1,111 cyd x 2,500 lb/cyd)/5 days = 555,500 lb/day]

k) 2009 fleet year. http://www.aqmd.gov/ceqa/handbook/onroad/onroad.html.

l) Assumed 30 cubic yd truck capacity for 1,111 cyd of dirt and 140 cyd of debris [(1,251 cy x truck/30 cy)/5 days = 9 one-way truck trips/day]. Assumed haul truck travels 0.1 miles through facility.
m) Assumed six foot wide water truck traverses over 1,123,848 square feet of disturbed area
n) USEPA, AP-42, July 1998, Table 11.9-1, Equation for bulldozer, overburden, ≤ 10 μm
o) USEPA, Fugitive Dust Background Document and Technical Information Document for Best Available Control Measures, Sept 1992, EPA-450/2-92-004, Equation 2-12
p) USEPA, AP-42, Jan 1995, Section 13.2.4 Aggregate Handling and Storage Piles, Equation 1
q) Includes watering at least three times a day per Rule 403 (61% control efficiency).
r) Illustration purpose showing the most stringent LSTs. Please consult App. C of the Methodology Paper for applicable LSTs.
s) ARB's CEIDARS database PM2.5 fractions - construction dust category for fugitive and diesel vehicle exhaust category for combustion.

Cactus Basin

Four Acre Site Example - Grading Phase

Example		**Construction Activity**		
Four Acre Site		Grading	1,123,848	Square Feet[a]
Site Preparation Schedule -	30	**days**[a]		

Equipment Type[a,b]	**No. of Equipment**	**hr/day**	**Crew Size**
Rubber Tired Dozers	2	8.0	7
Graders	2	8.0	
Tractors/Loaders/Backhoes	2	8.0	

Construction Equipment Emission Factors

	CO	**NOx**	**PM10**
Equipment Type[c]	lb/hr	lb/hr	lb/hr
Rubber Tired Dozers	1.106	2.382	0.099
Graders	0.599	1.080	0.054
Tractors/Loaders/Backhoes	0.375	0.497	0.034

Fugitive Dust Grading Parameters

Vehicle Speed (mph)[d]	**Vehicle Miles Traveled**[e]
3	0.65

Fugitive Dust Stockpiling Parameters

Silt Content[f]	**Precipitation Days**[g]	**Mean Wind Speed Percent**[h]	**TSP Fraction**	**Area**[i] **(acres)**
6.9	10	100	0.5	0.16

Fugitive Dust Material Handling

Aerodynamic Particle Size Multiplier[j]	**Mean Wind Speed**[k]	**Moisture Content**[f]	**Dirt Handled**[a]	**Dirt Handled**[l]
	mph		cy	lb/day
0.35	10	7.9	10,725	893,750

Construction Vehicle (Mobile Source) Emission Factors

	CO	**NOx**	**PM10**
	lb/mile	lb/mile	lb/mile
Heavy-Duty Truck[m]	0.012822	0.041846	0.001996

Cactus Basin

Four Acre Site Example - Grading Phase

Construction Worker Number of Trips and Trip Length

Vehicle	No. of One-Way Trips/Day	One-WayTrip Length (miles)
Haul Truck[n]	12	0.1
Water Truck[o]	3	35.5

Incremental Increase in Onsite Combustion Emissions from Construction Equipmen

Equation: Emission Factor (lb/BHP-hr) x No. of Equipment x Work Day (hr/day) x Equipment rating (hp) x Load Factor (%/100) = Onsite Construction Emissions (lb/day)

	CO	NOx	PM10
Equipment Type	lb/day	lb/day	lb/day
Rubber Tired Dozers	17.69	38.12	1.59
Graders	9.58	17.27	0.86
Tractors/Loaders/Backhoes	5.99	7.96	0.55
Total	**33.3**	**63.3**	**3.00**

Incremental Increase in Fugitive Dust Emissions from Construction Operations

Equations:

Grading[p]: PM10 Emissions (lb/day) = 0.60 x 0.051 x mean vehicle speed$^{2.0}$ x VMT x (1 - control efficiency)

Storage Piles[q]: PM10 Emissions (lb/day) = 1.7 x (silt content/1.5) x ((365-precipitation days)/235) x wind speed percent/15 x TSP fraction x Area) x (1 - control efficiency)

Material Handling[r]: PM10 Emissions (lb/day) = (0.0032 x aerodynamic particle size multiplier x (wind speed (mph)/5)$^{1.3}$/(moisture content/2)$^{1.4}$ x dirt handled (lb/day)/2,000 (lb/ton) (1 - control efficiency)

	Control Efficiency	PM10[s]
Description	%	lb/day
Earthmoving	61	0.07
Storage Piles	61	2.46
Material Handling	61	0.07
Total		**2.60**

Cactus Basin

Four Acre Site Example - Grading Phase

Incremental Increase in Onsite Combustion Emissions from Onroad Mobile Vehicle

Equation: Emission Factor (lb/mile) x No. of One-Way Trips/Day x 2 x Trip length (mile) = Mobile Emissions (lb/day)

	CO	NOx	PM10
Vehicle	lb/day	lb/day	lb/day
Haul Truck	0.03	0.10	0.00
Water Truck	2.73	8.91	0.43
Total	**2.76**	**9.01**	**0.43**

Total Incremental Localized Emissions from Construction Activities

	CO	NOx	PM10
Sources	lb/day	lb/day	lb/day
On-site Emissions	**36.0**	**72.4**	**6.0**
Significance Threshold[t]	***350***	***196***	***9***
Exceed Significance?	**NO**	**NO**	**NO**

Combustion and Fugitive Summary	**PM2.5 Fraction[u]**	**PM10**	**PM2.5**
		lb/day	lb/day
Combustion (Offroad)	0.92	3.0	2.8
Combustion (Onroad)	0.96	0.43	0.42
Fugitive	0.21	2.6	0.5
Total		**6.0**	**3.7**
Significance Threshold[n]			**6**
Exceed Significance?			**NO**

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a) SCAQMD, estimated from survey data, Sept 2004

b) Equipment name must match CARB Off-Road Model (see Off-Road Model EF worksheet) equipment name for sheet to look up EFs automatically.

c) SCAB values provided by the ARB, Oct 2006. Assumed equipment is diesel fueled.

d) Caterpillar Performance Handbook, Edition 33, October 2003 Operating Speeds, p 2-3.

e) Assumed 13 foot wide blade with 2 foot overlap (11 foot wide). Vehicle miles traveled (VMT) = (1,123,848 sq ft/11 foot x mile/5,280 ft)/ 30 days = 0.65 miles

f) USEPA, AP-42, July 1998, Table 11.9-3 Typical Values for Correction Factors Applicable to the Predictive Emission Factor Equations

g) Table A9-9-E2, SCAQMD CEQA Air Quality Handbook, 1993

h) Mean wind speed percent - percent of time mean wind speed exceeds 12 mph. At least one meteorological site recorded wind speeds greater than 12 mph over a 24-hour period in 1981.

i) Assumed storage piles are 0.16 acres in size

j) USEPA, AP-42, Jan 1995, Section 13.2.4 Aggregate Handling and Storage Piles, p 13.2.4-3 Aerodynamic particle size multiplier for < 10 µm

k) Mean wind speed - maximum of daily average wind speeds reported in 1981 meteorological data.

l) Assuming 10,725 cubic yards of dirt handled [(10,725 cyd x 2,500 lb/cyd)/30 days = 893,750 lb/day]
m) 2009 fleet year. http://www.aqmd.gov/ceqa/handbook/onroad/onroad.html.
n) Assumed 30 cubic yd truck capacity for 10,725 cyd of dirt [(10,725 cy x truck/30 cy)/30 days = 12 one-way truck trips/day]. Assumed haul truck travels 0.1 miles through facility. Multiple trucks may be used.
o) Assumed six foot wide water truck traverses over 1,123,848 square feet of disturbed area
p) USEPA, AP-42, July 1998, Table 11.9-1, Equation for Site Grading $\leq$ 10 µm
q) USEPA, Fugitive Dust Background Document and Technical Information Document for Best Available Control Measures, Sept 1992, EPA-450/2-92-004, Equation 2-12
r) USEPA, AP-42, Jan 1995, Section 13.2.4 Aggregate Handling and Storage Piles, Equation 1
s) Includes watering at least three times a day per Rule 403 (61% control efficiency).
t) Illustration purpose showing the most stringent LSTs. Please consult App. C of the Methodology Paper for applicable LSTs.
u) ARB's CEIDARS database PM2.5 fractions - construction dust category for fugitive and diesel vehicle exhaust category for combustion.

Cactus Basin

Four Acre Site Example - Grading Phase

Example		**Construction Activity**		
Four Acre Site		Grading	1,123,848	Square Feet[a]
Site Preparation Schedule -	30	**days**[a]		

Equipment Type[a,b]	**No. of Equipment**	**hr/day**	**Crew Size**
Scrapers	2	8.0	7
Cement and Mortar Mixers	1	8.0	
Tractors/Loaders/Backhoes	0	8.0	

Construction Equipment Emission Factors

	CO	**NOx**	**PM10**
Equipment Type[c]	lb/hr	lb/hr	lb/hr
Scrapers	0.989	2.233	0.093
Cement and Mortar Mixers	0.042	0.055	0.002
Tractors/Loaders/Backhoes	0.375	0.497	0.034

Fugitive Dust Grading Parameters

Vehicle Speed (mph)[d]	**Vehicle Miles Traveled**[e]
3	0.65

Fugitive Dust Stockpiling Parameters

Silt Content[f]	**Precipitation Days**[g]	**Mean Wind Speed Percent**[h]	**TSP Fraction**	**Area**[i] **(acres)**
6.9	10	100	0.5	0.16

Fugitive Dust Material Handling

Aerodynamic Particle Size Multiplier[j]	**Mean Wind Speed**[k]	**Moisture Content**[f]	**Dirt Handled**[a]	**Dirt Handled**[l]
	mph		cy	lb/day
0.35	10	7.9	0	0

Construction Vehicle (Mobile Source) Emission Factors

	CO	**NOx**	**PM10**
	lb/mile	lb/mile	lb/mile
Heavy-Duty Truck[m]	0.012822	0.041846	0.001996

Cactus Basin

Four Acre Site Example - Grading Phase

Construction Worker Number of Trips and Trip Length

Vehicle	No. of One-Way Trips/Day	One-WayTrip Length (miles)
Haul Truck[n]	0	0.1
Water Truck[o]	0	35.5

Incremental Increase in Onsite Combustion Emissions from Construction Equipmen

Equation: Emission Factor (lb/BHP-hr) x No. of Equipment x Work Day (hr/day) x Equipment rating (hp) x Load Factor (%/100) = Onsite Construction Emissions (lb/day)

	CO	NOx	PM10
Equipment Type	lb/day	lb/day	lb/day
Scrapers	15.82	35.72	1.48
Cement and Mortar Mixers	0.34	0.44	0.02
Tractors/Loaders/Backhoes	0.00	0.00	0.00
Total	**16.2**	**36.2**	**1.50**

Incremental Increase in Fugitive Dust Emissions from Construction Operations

Equations:

Grading[p]: PM10 Emissions (lb/day) = 0.60 x 0.051 x mean vehicle speed$^{2.0}$ x VMT x (1 - control efficiency)

Storage Piles[q]: PM10 Emissions (lb/day) = 1.7 x (silt content/1.5) x ((365-precipitation days)/235) x wind speed percent/15 x TSP fraction x Area) x (1 - control efficiency)

Material Handling[r]: PM10 Emissions (lb/day) = (0.0032 x aerodynamic particle size multiplier x (wind speed (mph)/5)$^{1.3}$/(moisture content/2)$^{1.4}$ x dirt handled (lb/day)/2,000 (lb/ton) (1 - control efficiency)

	Control Efficiency	PM10[s]
Description	%	lb/day
Earthmoving	61	0.07
Storage Piles	61	2.46
Material Handling	61	0.00
Total		**2.53**

Cactus Basin

Four Acre Site Example - Grading Phase

Incremental Increase in Onsite Combustion Emissions from Onroad Mobile Vehicle

Equation: Emission Factor (lb/mile) x No. of One-Way Trips/Day x 2 x Trip length (mile) = Mobile Emissions (lb/day)

	CO	NOx	PM10
Vehicle	lb/day	lb/day	lb/day
Haul Truck	0.00	0.00	0.00
Water Truck	0	0	0
Total	**0.00**	**0.00**	**0.00**

Total Incremental Localized Emissions from Construction Activities

	CO	NOx	PM10
Sources	lb/day	lb/day	lb/day
On-site Emissions	**16.2**	**36.2**	**4.0**
Significance Threshold[t]	***350***	***196***	***9***
Exceed Significance?	**NO**	**NO**	**NO**

Combustion and Fugitive Summary	**PM2.5 Fraction[u]**	**PM10**	**PM2.5**
		lb/day	lb/day
Combustion (Offroad)	0.92	1.5	1.4
Combustion (Onroad)	0.96	0.00	0.00
Fugitive	0.21	2.5	0.5
Total		**4.0**	**1.9**
Significance Threshold[n]			**6**
Exceed Significance?			**NO**

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c) SCAB values provided by the ARB, Oct 2006. Assumed equipment is diesel fueled.

d) Caterpillar Performance Handbook, Edition 33, October 2003 Operating Speeds, p 2-3.

e) Assumed 13 foot wide blade with 2 foot overlap (11 foot wide). Vehicle miles traveled (VMT) = (1,123,848 sq ft/11 foot x mile/5,280 ft)/ 30 days = 0.65 miles

f) USEPA, AP-42, July 1998, Table 11.9-3 Typical Values for Correction Factors Applicable to the Predictive Emission Factor Equations

g) Table A9-9-E2, SCAQMD CEQA Air Quality Handbook, 1993

h) Mean wind speed percent - percent of time mean wind speed exceeds 12 mph. At least one meteorological site recorded wind speeds greater than 12 mph over a 24-hour period in 1981.

i) Assumed storage piles are 0.16 acres in size

j) USEPA, AP-42, Jan 1995, Section 13.2.4 Aggregate Handling and Storage Piles, p 13.2.4-3 Aerodynamic particle size multiplier for < 10 µm

k) Mean wind speed - maximum of daily average wind speeds reported in 1981 meteorological data.

l) Assuming 0,000 cubic yards of dirt handled [(0,000 cyd x 2,500 lb/cyd)/30 days = 0,000 lb/day]
m) 2009 fleet year. http://www.aqmd.gov/ceqa/handbook/onroad/onroad.html.
n) Assumed 30 cubic yd truck capacity for 0,000 cyd of dirt [(0,000 cy x truck/30 cy)/30 days = 0 one-way truck trips/day]. Assumed haul truck travels 0.1 miles through facility. Multiple trucks may be used.
o) Assumed six foot wide water truck traverses over 1,123,848 square feet of disturbed area
p) USEPA, AP-42, July 1998, Table 11.9-1, Equation for Site Grading $\leq$ 10 µm
q) USEPA, Fugitive Dust Background Document and Technical Information Document for Best Available Control Measures, Sept 1992, EPA-450/2-92-004, Equation 2-12
r) USEPA, AP-42, Jan 1995, Section 13.2.4 Aggregate Handling and Storage Piles, Equation 1
s) Includes watering at least three times a day per Rule 403 (61% control efficiency).
t) Illustration purpose showing the most stringent LSTs. Please consult App. C of the Methodology Paper for applicable LSTs.
u) ARB's CEIDARS database PM2.5 fractions - construction dust category for fugitive and diesel vehicle exhaust category for combustion.

Cactus Basin

Sum of Ems Factor #/hr		Year	Pollutant			
		2014				
Eq Name	Hp	CO	NOx	PM10	SOx	VOC
Aerial Lifts	Composite	0.188	0.287	0.018	0.000	0.048
Air Compressors	Composite	0.331	0.563	0.040	0.001	0.084
Bore/Drill Rigs	Composite	0.503	0.711	0.025	0.002	0.073
Cement and Mortar Mixers	Composite	0.042	0.055	0.002	0.000	0.009
Concrete/Industrial Saws	Composite	0.403	0.527	0.041	0.001	0.092
Cranes	Composite	0.455	1.106	0.047	0.001	0.128
Crawler Tractors	Composite	0.577	1.084	0.064	0.001	0.150
Crushing/Proc. Equipment	Composite	0.665	1.086	0.068	0.001	0.160
Dumpers/Tenders	Composite	0.032	0.059	0.003	0.000	0.009
Excavators	Composite	0.529	0.829	0.043	0.001	0.114
Forklifts	Composite	0.221	0.355	0.018	0.001	0.050
Generator Sets	Composite	0.297	0.508	0.030	0.001	0.070
Graders	Composite	0.599	1.080	0.054	0.001	0.136
Off-Highway Tractors	Composite	0.744	1.611	0.077	0.002	0.199
Off-Highway Trucks	Composite	0.615	1.660	0.058	0.003	0.203
Other Construction Equipment	Composite	0.370	0.715	0.030	0.001	0.082
Other General Industrial Equipment	Composite	0.499	1.235	0.053	0.002	0.145
Other Material Handling Equipment	Composite	0.481	1.206	0.051	0.002	0.138
Pavers	Composite	0.528	0.811	0.056	0.001	0.143
Paving Equipment	Composite	0.427	0.731	0.050	0.001	0.108
Plate Compactors	Composite	0.026	0.031	0.001	0.000	0.005
Pressure Washers	Composite	0.060	0.084	0.005	0.000	0.015
Pumps	Composite	0.287	0.443	0.029	0.001	0.068
Rollers	Composite	0.402	0.616	0.042	0.001	0.091
Rough Terrain Forklifts	Composite	0.461	0.610	0.048	0.001	0.093
Rubber Tired Dozers	Composite	1.106	2.382	0.099	0.002	0.285
Rubber Tired Loaders	Composite	0.468	0.861	0.046	0.001	0.112
Scrapers	Composite	0.989	2.233	0.093	0.003	0.265
Signal Boards	Composite	0.093	0.133	0.007	0.000	0.018
Skid Steer Loaders	Composite	0.226	0.237	0.015	0.000	0.041
Surfacing Equipment	Composite	0.493	1.167	0.043	0.002	0.119
Sweepers/Scrubbers	Composite	0.509	0.635	0.045	0.001	0.103
Tractors/Loaders/Backhoes	Composite	0.375	0.497	0.034	0.001	0.073
Trenchers	Composite	0.461	0.638	0.052	0.001	0.135
Welders	Composite	0.204	0.244	0.021	0.000	0.059

Line F

Three Acre Site Example - Site Preparation Phase

Example	Construction Activity		
Three Acre Site	Site Preparation	159,430	Square Feet[a]

Site Preparation Schedule - 10 **days**[a]

Equipment Type[a,b]	No. of Equipment	hr/day	Crew Size
Excavators	2	8.0	5
Graders	0	7.0	
Tractors/Loaders/Backhoes	0	4.0	

Construction Equipment Emission Factors

	CO	NOx	PM10
Equipment Type[c]	lb/hr	lb/hr	lb/hr
Excavators	0.529	0.829	0.043
Graders	0.599	1.080	0.054
Tractors/Loaders/Backhoes	0.375	0.497	0.034

Fugitive Dust Clearing Parameters - Scraping

Silt Content[d]	Mean Vehicle Weight[e] ton	Vehicle Miles Traveled[f]
6.9	88.73	0.32

Fugitive Dust Stockpiling Parameters

Silt Content[d]	Precipitation Days[g]	Mean Wind Speed Percent[h]	TSP Fraction	Area[i] (acres)
6.9	10	100	0.5	0.11

Fugitive Dust Material Handling

Aerodynamic Particle Size Multiplier[j]	Mean Wind Speed[k] mph	Moisture Content[d]	Dirt Handled[a] cy	Debris Handled[a] cy	Dirt Handled[l] lb/day
0.35	10	7.9	778	96	194,500

Line F

Three Acre Site Example - Site Preparation Phase

Construction Vehicle (Mobile Source) Emission Factors

	CO	NOx	PM10
	lb/mile	lb/mile	lb/mile
Heavy-Duty Truck[m]	0.012822	0.041846	0.001996

Construction Worker Number of Trips and Trip Length

Vehicle	No. of One-Way Trips/Day	One WayTrip Length (miles)
Haul Truck[n]	3	0.1
Water Truck[o]	3	30.2

Incremental Increase in Onsite Combustion Emissions from Construction Equipment

Equation: Emission Factor (lb/hr) x No. of Equipment x Work Day (hr/day) = Onsite Construction Emissions (lb/day

	CO	NOx	PM10
Equipment Type	lb/day	lb/day	lb/day
Excavators	8.46	13.26	0.69
Graders	0.00	0.00	0.00
Tractors/Loaders/Backhoes	0.00	0.00	0.00
Total	**8.5**	**13.3**	**0.7**

Line F

Three Acre Site Example - Site Preparation Phase

Incremental Increase in Fugitive Dust Emissions from Construction Operations

Equations:

Scraping[p]: PM10 Emissions (lb/day) = 1.5 x (silt content/12)$^{0.9}$ x (mean vehicle weight)$^{0.45}$ x VMT x (1 - control efficiency)

Storage Piles[q]: PM10 Emissions (lb/day) = 1.7 x (silt content/1.5) x ((365-precipitation days)/235) x wind speed percent/15 x TSP fraction x Area) x (1 - control efficiency)

Material Handling[r]: PM10 Emissions (lb/day) = (0.0032 x aerodynamic particle size multiplier x (wind speed (mph)/5)$^{1.3}$/(moisture content/2)$^{1.4}$ x dirt handled (lb/day)/2,000 (lb/ton) x (1 - control efficiency)

Description	**Control Efficiency** %	**Unmitigated PM10[t]** lb/day
Scraping	61	0.52
Storage Piles	61	1.69
Material Handling	61	0.02
Total		**2.23**

Incremental Increase in Onsite Combustion Emissions from Onroad Mobile Vehicles

Equation: Emission Factor (lb/mile) x No. of One-Way Trips/Day x 2 x Trip length (mile) = Mobile Emissions (lb/day)

Vehicle	**CO** lb/day	**NOx** lb/day	**PM10** lb/day
Haul Truck	0.01	0.03	0.001
Water Truck	2.32	7.58	0.36
Total	**2.33**	**7.61**	**0.36**

Total Incremental Localized Emissions from Construction Activities

Sources	**CO** lb/day	**NOx** lb/day	**PM10** lb/day
On-site Emissions	**10.8**	**20.9**	**3.3**
Significance Threshold[u]	***288***	***172***	***8***
Exceed Significance?	**NO**	**NO**	**NO**

Combustion and Fugitive Summary	**PM2.5 Fraction[v]**	**PM10** lb/day	**PM2.5** lb/day
Combustion (Offroad)	0.92	0.7	0.6
Combustion (Onroad)	0.96	0.36	0.35
Fugitive	0.21	2.2	0.47
Total		**3.3**	**1.4**
Significance Threshold[u]			**5**
Exceed Significance?			**NO**

Line F

Three Acre Site Example - Site Preparation Phase

Notes:

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a) SCAQMD, estimated from survey data, Sept 2004

b) Equipment name must match CARB Off-Road Model (see Off-Road Model EF worksheet) equipment name for sheet to look up EFs automatically.

c) SCAB values provided by the ARB, Oct 2006. Assumed equipment is diesel fueled.

d) USEPA, AP-42, July 1998, Table 11.9-3 Typical Values for Correction Factors Applicable to the Predictive Emission Factor Equations

e) Mean vehicle weight (120,460 pound empty with a 75,000 pound capacity) estimated from 631G Model Scraper Caterpillar Performance Handbook, Edition 33. Scraper in the same horsepower range (450-490 hp) as the composite ARB emission factors.

f) Caterpiller G31G has a 11.5 foot wide blade, with an assumed 2 foot overlap (9.5 foot wide). Vehicle miles traveled (VMT) = (159,430 sq ft/9.5 foot x mile/5,280 ft)/10 days = 0.32 miles

g) Table A9-9-E2, SCAQMD CEQA Air Quality Handbook, 1993

h) Mean wind speed percent - percent of time mean wind speed exceeds 12 mph

i) Assumed storage piles are 0.11 acres in size

j) USEPA, AP-42, Jan 1995, Section 13.2.4 Aggregate Handling and Storage Piles, p 13.2.4-3 Aerodynamic particle size multiplier for < 10 µm

k) Mean wind speed - maximum of daily average wind speeds reported in 1981 meteorological data.

l) Assuming 778 cubic yards of dirt handled [(778 cyd x 2,500 lb/cyd)/10 days = 194,500 lb/day]

m) 2009 fleet year. http://www.aqmd.gov/ceqa/handbook/onroad/onroad.html.

n) Assumed 30 cubic yd truck capacity for 778 cyd of dirt and 96 cyd of debris [(874 cyd x truck/30 cyd)/10 days = 3 one-way truck trips/day]. Assumed haul truck travels 0.1 miles through facility

o) Assumed six foot wide water truck traverses over 159,430 square feet of disturbed area

p) USEPA, AP-42, July 1998, Equation 1b and Table 13.2.2-2, AP-42, December 2003. Also see comment g of Table 11.9-1

r) USEPA, Fugitive Dust Background Document and Technical Information Document for Best Available Control Measures, Sept 1992, EPA-450/2-92-004, Equation 2-12

s) USEPA, AP-42, Jan 1995, Section 13.2.4 Aggregate Handling and Storage Piles, Equation 1

t) Includes watering at least three times a day per Rule 403 (61% control efficiency).

u) Illustration purpose showing the most stringent LSTs. Please consult App. C of the Methodology Paper for applicable LSTs.

v) ARB's CEIDARS database PM2.5 fractions - construction dust category for fugitive and diesel vehicle exhaust category for combustion.

Line F

Three Acre Site Example - Grading Phase

Example	**Construction Activity**		
Three Acre Site	Grading	159,430	Square Feet[a]
Site Preparation Schedule -	**40**	**days**[a]	

Equipment Type[a,b]	**No. of Equipment**	**hr/day**	**Crew Size**
Rubber Tired Dozers	2	8.0	5
Graders	2	8.0	
Tractors/Loaders/Backhoes	2	8.0	

Construction Equipment Emission Factors

	CO	**NOx**	**PM10**
Equipment Type[c]	lb/hr	lb/hr	lb/hr
Rubber Tired Dozers	1.106	2.382	0.099
Graders	0.599	1.080	0.054
Tractors/Loaders/Backhoes	0.375	0.497	0.034

Fugitive Dust Clearing Parameters - Scraping

Silt Content[d]	**Mean Vehicle Weight**[e] ton	**Vehicle Miles Traveled**[f]
6.9	88.73	0.08

Fugitive Dust Stockpiling Parameters

Silt Content[d]	**Precipitation Days**[g]	**Mean Wind Speed Percent**[h]	**TSP Fraction**	**Area**[i] **(acres)**
6.9	10	100	0.5	0.11

Fugitive Dust Material Handling

Aerodynamic Particle Size Multiplier[j]	**Mean Wind Speed**[k] mph	**Moisture Content**[f]	**Dirt Handled**[a] cy	**Dirt Handled**[l] lb/day
0.35	10	7.9	1,860	116,250

Line F

Three Acre Site Example - Grading Phase

Construction Vehicle (Mobile Source) Emission Factors

	CO	NOx	PM10
	lb/mile	lb/mile	lb/mile
Heavy-Duty Truck[m]	0.012822	0.041846	0.001996

Construction Worker Number of Trips and Trip Length

Vehicle	No. of One-Way Trips/Day	One WayTrip Length (miles)
Haul Truck[n]	2	0.1
Water Truck[o]	3	5.1

Incremental Increase in Onsite Combustion Emissions from Construction Equipmen

Equation: Emission Factor (lb/hr) x No. of Equipment x Work Day (hr/day) = Onsite Construction Emissions (lb/day)

	CO	NOx	PM10
Equipment Type	lb/day	lb/day	lb/day
Rubber Tired Dozers	17.69	38.12	1.59
Graders	9.58	17.27	0.86
Tractors/Loaders/Backhoes	5.99	7.96	0.55
Total	**33.3**	**63.3**	**3.0**

Incremental Increase in Fugitive Dust Emissions from Construction Operations

Equations:

Scraping[p]: PM10 Emissions (lb/day) = 1.5 x (silt content/12)$^{0.9}$ x (mean vehicle weight)$^{0.45}$ x VMT x (1 - control efficiency)

Storage Piles[q]: PM10 Emissions (lb/day) = 1.7 x (silt content/1.5) x ((365-precipitation days)/235) x wind speed percent/15 x TSP fraction x Area) x (1 - control efficiency)

Material Handling[r]: PM10 Emissions (lb/day) = (0.0032 x aerodynamic particle size multiplier x (wind speed (mph)/5)$^{1.3}$/(moisture content/2)$^{1.4}$ x dirt handled (lb/day)/2,000 (lb/ton) (1 - control efficiency)

	Control Efficiency	PM10[s]
Description	%	lb/day
Scraping	61	0.13
Storage Piles	61	1.69
Material Handling	61	0.01
Total		**1.83**

Line F

Three Acre Site Example - Grading Phase

Incremental Increase in Onsite Combustion Emissions from Onroad Mobile Vehicle

Equation: Emission Factor (lb/mile) x No. of One-Way Trips/Day x 2 x Trip length (mile) = Mobile Emissions (lb/day)

	CO	NOx	PM10
Vehicle	lb/day	lb/day	lb/day
Haul Truck	0.01	0.02	0.00
Water Truck	0.39	1.28	0.06
Total	**0.40**	**1.30**	**0.06**

Total Incremental Localized Emissions from Construction Activities

	CO	NOx	PM10
Sources	lb/day	lb/day	lb/day
On-site Emissions	**33.7**	**64.6**	**4.9**
Significance Threshold[t]	***288***	***172***	***8***
Exceed Significance?	**NO**	**NO**	**NO**

Combustion and Fugitive Summary	**PM2.5 Fraction[u]**	**PM10**	**PM2.5**
		lb/day	lb/day
Combustion (Offroad)	0.92	3.0	2.8
Combustion (Onroad)	0.96	0.06	0.06
Fugitive	0.21	2	0.4
Total		**4.9**	**3.2**
Significance Threshold[t]			**5**
Exceed Significance?			**NO**

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a) SCAQMD, estimated from survey data, Sept 2004

b) Equipment name must match CARB Off-Road Model (see Off-Road Model EF worksheet) equipment name for sheet to look up EFs automatically.

c) SCAB values provided by the ARB, Oct 2006. Assumed equipment is diesel fueled.

d) USEPA, AP-42, July 1998, Table 11.9-3 Typical Values for Correction Factors Applicable to the Predictive Emission Factor Equations

e) Mean vehicle weight (120,460 pound empty with a 75,000 pound capacity) estimated from 631G Model Scraper Caterpillar Performance Handbook, Edition 33. Scraper in the same horsepower range (450-490 hp) as the composite ARB emission factors.

f) Caterpiller G31G has a 11.5 foot wide blade, with an assumed 2 foot overlap (9.5 foot wide). Vehicle miles traveled (VMT) = (159,430 sq ft/9.5 foot x mile/5,280 ft)/40 days = 0.08 miles

g) Table A9-9-E2, SCAQMD CEQA Air Quality Handbook, 1993

h) Mean wind speed percent - percent of time mean wind speed exceeds 12 mph. At least one meteorological site recorded wind speeds greater than 12 mph over a 24-hour period in 1981.

i) Assumed storage piles are 0.11 acres in size

j) USEPA, AP-42, Jan 1995, Section 13.2.4 Aggregate Handling and Storage Piles, p 13.2.4-3 Aerodynamic particle size multiplier for < 10 µm

k) Mean wind speed - maximum of daily average wind speeds reported in 1981 meteorological data.
l) Assuming 1860 cubic yards of dirt handled [(1860 cyd x 2,500 lb/cyd)/ days = 116,250 lb/day]
m) 2009 fleet year. http://www.aqmd.gov/ceqa/handbook/onroad/onroad.html.
n) Assumed 30 cubic yd truck capacity for 1860 cyd of dirt [(1860 cy x truck/30 cy)/40 days = 2 one-way truck trips/day]. Assumed haul truck travels 0.1 miles through facility. Multiple trucks may be used.
o) Assumed six foot wide water truck traverses over 159,430 square feet of disturbed area
p) USEPA, AP-42, July 1998, Equation 1b and Table 13.2.2-2, AP-42, December 2003. Also see comment g of Table 11.9-1
q) USEPA, AP-42, Jan 1995, Section 13.2.4 Aggregate Handling and Storage Piles, Equation 1
r) USEPA, Fugitive Dust Background Document and Technical Information Document for Best Available Control Measures, Sept 1992, EPA-450/2-92-004, Equation 2-12
s) Includes watering at least three times a day per Rule 403 (61% control efficiency).
t) Illustration purpose showing the most stringent LSTs. Please consult App. C of the Methodology Paper for applicable LSTs.
u) ARB's CEIDARS database PM2.5 fractions - construction dust category for fugitive and diesel vehicle exhaust category for combustion.

Line F

Three Acre Site Example - Structure Construction

Example	Construction Activity		
Three Acre Site	Building	159,430	Square Foot Structure[a]

Construction Schedule Unknown

Equipment Type[a,b]	No. of Equipment	hr/day	Crew Size
Cement and Mortar Mixers	1	8.0	8
Cranes	0	8.0	
Tractors/Loaders/Backhoes	0	6.0	
Generator Sets	0	8.0	
Electric Welders	0	8.0	

Construction Equipment Combustion Emission Factors

	CO	NOx	PM10
Equipment Type[c]	lb/hr	lb/hr	lb/hr
Cement and Mortar Mixers	0.042	0.055	0.002
Cranes	0.455	1.106	0.047
Tractors/Loaders/Backhoes	0.375	0.497	0.034
Generator Sets	0.297	0.508	0.030
Electric Welders	N/A	N/A	N/A

Construction Vehicle (Mobile Source) Emission Factors

	CO	NOx	PM10
	lb/mile	lb/mile	lb/mile
Heavy-Duty Truck[d]	0.012822	0.041846	0.001996

Construction Worker Number of Trips and Trip Length

Vehicle	No. of One-Way Trips/Day	Trip Length (miles)
Flatbed Truck[e]	30	0.1
Water Truck[f]	3	4.5

Line F

Three Acre Site Example - Structure Construction

Incremental Increase in Onsite Combustion Emissions from Construction Equipment

Equation: Emission Factor (lb/hr) x No. of Equipment x Work Day (hr/day) = Onsite Construction Emissions (lb/day)

	CO	**NOx**	**PM10**
Equipment Type	lb/day	lb/day	lb/day
Fork Lifts	0.34	0.44	0.02
Cranes	0.00	0.00	0.00
Tractors/Loaders/Backhoes	0.00	0.00	0.00
Generator Sets	0.00	0.00	0.00
Electric Welders	N/A	N/A	N/A
Total	**0.3**	**0.4**	**0.0**

Incremental Increase in Onsite Combustion Emissions from Onroad Mobile Vehicles

Equation: Emission Factor (lb/mile) x No. of One-Way Trips/Day x 2 x Trip length (mile) = Mobile Emissions (lb/day)

	CO	**NOx**	**PM10**
Vehicle	lb/day	lb/day	lb/day
Flatbed Truck	0.08	0.25	0.01
Water Truck	0.35	1.13	0.054
Total	**0.43**	**1.38**	**0.07**

Total Incremental Combustion Emissions from Construction Activities

	CO	**NOx**	**PM10**
Sources	lb/day	lb/day	lb/day
On-Site Emissions	**0.8**	**1.8**	**0.1**
Significance Threshold[g]	***288***	***172***	***8***
Exceed Significance?	**NO**	**NO**	**NO**

Combustion and Fugitive Summary	**PM2.5 Fraction**[h]	**PM10**	**PM2.5**
		lb/day	lb/day
Combustion (Offroad)	0.92	0.0	0.0
Combustion (Onroad)	0.96	0.07	0.06
Fugitive	0.21	0	0.0
Total		**0.1**	**0.1**
Significance Threshold[g]			**5**
Exceed Significance?			**NO**

Line F

Three Acre Site Example - Structure Construction

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a) SCAQMD, estimated from survey data, Sept 2004

b) Equipment name must match CARB Off-Road Model (see Off-Road Model EF worksheet) equipment name for sheet to look up EFs automatically.

c) SCAB values provided by the ARB, Oct 2006. Assumed equipment is diesel fueled except the welders which are powered by the generator.

d) 2009 fleet year. http://www.aqmd.gov/ceqa/handbook/onroad/onroad.html.

e) Assumed haul truck travels 0.1 miles through facility

f) Assumed six foot wide water truck traverses over 140,000 square feet of disturbed area

g) Illustration purpose showing the most stringent LSTs. Please consult App. C of the Methodology Paper for applicable LSTs.

h) ARB's CEIDARS database PM2.5 fractions - construction dust category for fugitive and diesel vehicle exhaust category for combustion.

Line F

Sum of Ems Factor #/hr		Year	Pollutant			
		2014				
Eq Name	Hp	CO	NOx	PM10	SOx	VOC
Aerial Lifts	Composite	0.188	0.287	0.018	0.000	0.048
Air Compressors	Composite	0.331	0.563	0.040	0.001	0.084
Bore/Drill Rigs	Composite	0.503	0.711	0.025	0.002	0.073
Cement and Mortar Mixers	Composite	0.042	0.055	0.002	0.000	0.009
Concrete/Industrial Saws	Composite	0.403	0.527	0.041	0.001	0.092
Cranes	Composite	0.455	1.106	0.047	0.001	0.128
Crawler Tractors	Composite	0.577	1.084	0.064	0.001	0.150
Crushing/Proc. Equipment	Composite	0.665	1.086	0.068	0.001	0.160
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Forklifts	Composite	0.221	0.355	0.018	0.001	0.050
Generator Sets	Composite	0.297	0.508	0.030	0.001	0.070
Graders	Composite	0.599	1.080	0.054	0.001	0.136
Off-Highway Tractors	Composite	0.744	1.611	0.077	0.002	0.199
Off-Highway Trucks	Composite	0.615	1.660	0.058	0.003	0.203
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Other General Industrial Equipment	Composite	0.499	1.235	0.053	0.002	0.145
Other Material Handling Equipment	Composite	0.481	1.206	0.051	0.002	0.138
Pavers	Composite	0.528	0.811	0.056	0.001	0.143
Paving Equipment	Composite	0.427	0.731	0.050	0.001	0.108
Plate Compactors	Composite	0.026	0.031	0.001	0.000	0.005
Pressure Washers	Composite	0.060	0.084	0.005	0.000	0.015
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Rollers	Composite	0.402	0.616	0.042	0.001	0.091
Rough Terrain Forklifts	Composite	0.461	0.610	0.048	0.001	0.093
Rubber Tired Dozers	Composite	1.106	2.382	0.099	0.002	0.285
Rubber Tired Loaders	Composite	0.468	0.861	0.046	0.001	0.112
Scrapers	Composite	0.989	2.233	0.093	0.003	0.265
Signal Boards	Composite	0.093	0.133	0.007	0.000	0.018
Skid Steer Loaders	Composite	0.226	0.237	0.015	0.000	0.041
Surfacing Equipment	Composite	0.493	1.167	0.043	0.002	0.119
Sweepers/Scrubbers	Composite	0.509	0.635	0.045	0.001	0.103
Tractors/Loaders/Backhoes	Composite	0.375	0.497	0.034	0.001	0.073
Trenchers	Composite	0.461	0.638	0.052	0.001	0.135
Welders	Composite	0.204	0.244	0.021	0.000	0.059

Line F-2

One Acre Site Example - Grading Phase

Example	**Construction Activity**		
One Acre Site	Grading	21,780	Square Feet[a]
Grading Schedule -	**12**	**days[a]**	

Equipment Type[a,b]	**No. of Equipment**	**hr/day**	**Crew Size**
Rubber Tired Dozers	1	8.0	7
Graders	1	8.0	
Tractors/Loaders/Backhoes	1	8.0	

Construction Equipment Emission Factors

	CO	**NOx**	**PM10**
Equipment Type[c]	lb/hr	lb/hr	lb/hr
Rubber Tired Dozers	1.106	2.382	0.099
Graders	0.599	1.080	0.054
Tractors/Loaders/Backhoes	0.375	0.497	0.034

Fugitive Dust Grading Parameters

Vehicle Speed (mph)[d]	**Vehicle Miles Traveled[e]**
3	0.03

Fugitive Dust Stockpiling Parameters

Silt Content[f]	**Precipitation Days[g]**	**Mean Wind Speed Percent[h]**	**TSP Fraction**	**Area[j] (acres)**
6.9	10	100	0.5	0.02

Fugitive Dust Material Handling

Aerodynamic Particle Size Multiplier[j]	**Mean Wind Speed[k]**	**Moisture Content[f]**	**Dirt Handled[a]**	**Dirt Handled[l]**
	mph		cy	lb/day
0.35	10	7.9	667	138,958

Construction Vehicle (Mobile Source) Emission Factors

	CO	**NOx**	**PM10**
	lb/mile	lb/mile	lb/mile
Heavy-Duty Truck[m]	0.012822365	0.041845907	0.001996

Line F-2

One Acre Site Example - Grading Phase

On-Site Number of Trips and Trip Length

Vehicle	No. of One-Way Trips/Day	One-Way Trip Length (miles)
Haul Truck[n]	2	0.1
Water Truck[o]	3	0.7

Incremental Increase in Onsite Combustion Emissions from Construction Equipmen

Equation: Emission Factor (lb/hr) x No. of Equipment x Work Day (hr/day) = Onsite Construction Emissions (lb/day)

Equipment Type	CO lb/day	NOx lb/day	PM10 lb/day
Rubber Tired Dozers	8.85	19.06	0.79
Graders	4.79	8.64	0.43
Tractors/Loaders/Backhoes	3.00	3.98	0.27
Total	**16.6**	**31.7**	**1.5**

Incremental Increase in Fugitive Dust Emissions from Construction Operation

Equations:

Grading[p]: PM10 Emissions (lb/day) = 0.60 x 0.051 x mean vehicle speed$^{2.0}$ x VMTx (1 - control efficiency)

Storage Piles[q]: PM10 Emissions (lb/day) = 1.7 x (silt content/1.5) x ((365-precipitation days)/235) x wind speed percent/15 x TSP fraction x Area) x (1 - control efficiency)

Material Handling[r] PM10 Emissions (lb/day) = (0.0032 x aerodynamic particle size multiplier x (wind speed (mph)/5)$^{1.3}$/(moisture content/2)$^{1.4}$ x dirt handled (lb/day)/2,000 (lb/ton) (1 - control efficiency)

Description	Control Efficiency %	Unmitigated PM10[s] lb/day
Earthmoving	61	0.00
Storage Piles	61	0.31
Material Handling	61	0.01
Total		**0.32**

Line F-2

One Acre Site Example - Grading Phase

Incremental Increase in Onsite Travel Emissions from Onroad Mobile Equipmen

Equation: Emission Factor (lb/mile) x No. of One-Way Trips/Day x 2 x Trip length (mile) = Mobile Emissions (lb/day)

	CO	NOx	PM10
Vehicle	lb/day	lb/day	lb/day
Haul Truck	0.0051	0.0167	0.0008
Water Truck	0.0539	0.1758	0.0084
	0.059	**0.192**	**0.009**

Total Incremental Localized Emissions from Construction Activitie

	CO	NOx	PM10
Sources	lb/day	lb/day	lb/day
On-site Emissions	**16.7**	**31.9**	**1.8**
Significance Threshold[t]	***151***	***103***	***4***
Exceed Significance?	**NO**	**NO**	**NO**

Combustion and Fugitive Summary	**PM2.5 Fraction**[u]	**PM10**	**PM2.5**
		lb/day	lb/day
Combustion (Offroad)	0.92	1.5	1.4
Combustion (Onroad)	0.96	0.009	0.009
Fugitive	0.21	0.32	0.07
Total		**1.8**	**1.5**
Significance Threshold[t]			**3**
Exceed Significance?			**NO**

Notes:

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Adding lines or entering values with units different than those associated with the shaded cells may alter the integrity of the sheets or produce incorrect results.

a) SCAQMD, estimated from survey data, Sept 2004

b) Equipment name must match CARB Off-Road Model (see Off-Road Model EF worksheet) equipment name for sheet to look up EFs automatically.

c) SCAB values provided by the ARB, Oct 2006. Assumed equipment is diesel fueled.

d) Caterpillar Performance Handbook, Edition 33, October 2003 Operating Speeds, p 2-3.

e) Assumed 13 foot wide blade with 2 foot overlap (11 foot wide). Vehicle miles traveled (VMT) = (21,780 sq ft/11 foot x mile/5,280 ft)/12 days = 0.03 mile

f) USEPA, AP-42, July 1998, Table 11.9-3 Typical Values for Correction Factors Applicable to the Predictive Emission Factor Equations

g) Table A9-9-E2, SCAQMD CEQA Air Quality Handbook, 1993

h) Mean wind speed percent - percent of time mean wind speed exceeds 12 mph. At least one meteorological site recorded wind speeds greater than 12 mph over a 24-hour period in 1981.

i) Assumed storage piles are 0.02 acres in size

j) USEPA, AP-42, Jan 1995, Section 13.2.4 Aggregate Handling and Storage Piles, p 13.2.4-3 Aerodynamic particle size multiplier for < 10 µm

k) Mean wind speed - maximum of daily average wind speeds reported in 1981 meteorological data.

l) Assuming 667 cubic yards of dirt handled [(667 cyd x 2,500 lb/cyd)/12 days = 138,958 lb/day)

m) 2009 fleet year. http://www.aqmd.gov/ceqa/handbook/onroad/onroad.html.

n) Assumed 30 cubic yd truck capacity for 667 cy of dirt [(667 cy x truck/30 cy)/2 days = 2 one-way truck trips/day]. Assumed haul truck travels 0.1 miles through facility

o) Assumed six foot wide water truck traverses over 21,780 square feet of disturbed area

p) USEPA, AP-42, July 1998, Table 11.9-1, Equation for Site Grading $\leq$ 10 µm

q) USEPA, AP-42, Jan 1995, Section 13.2.4 Aggregate Handling and Storage Piles, Equation 1

r) USEPA, Fugitive Dust Background Document and Technical Information Document for Best Available Control Measures, Sept 1992, EPA-450/2-92-004, Equation 2-12

s) Includes watering at least three times a day per Rule 403 (61% control efficiency)

t) For illustration purposes only, this analysis is based on the most stringent LSTs. Please consult App. C of the Methodology Paper for applicable LSTs.

u) ARB's CEIDARS database PM2.5 fractions - construction dust category for fugitive and diesel vehicle exhaust category for combustion.

Line F-2
One Acre Site Example - Architectural Coating and Asphalt Paving

Example	Construction Activity
One Acre Site	Architectural Coating and Asphalt Paving of Parking Lot
Construction Schedule	**6 days**[a]

Equipment Type[a,b]	No. of Equipment	hr/day	Crew Size
Pavers	1	8.0	8
Cement and Mortar Mixers	1	8.0	
Rollers	1	8.0	
Tractors/Loaders/Backhoes	0	7.0	

Construction Equipment Combustion Emission Factors

Equipment Type[c]	CO lb/hr	NOx lb/hr	PM10 lb/hr
Pavers	0.528	0.811	0.056
Cement and Mortar Mixers	0.042	0.055	0.002
Rollers	0.402	0.616	0.042
Tractors/Loaders/Backhoes	0.375	0.497	0.034

Construction Vehicle (Mobile Source) Emission Factors

	CO lb/mile	NOx lb/mile	PM10 lb/mile
Heavy-Duty Truck[d]	0.012822365	0.041845907	0.001996

On-Site Number of Trips and Trip Length

Vehicle	No. of One-Way Trips/Day	One-Way Trip Length (miles)
Delivery Truck[e]	3	0.1
Water Truck[f]	3	1.3

Line F-2

One Acre Site Example - Architectural Coating and Asphalt Paving

Incremental Increase in Onsite Idling Emissions from Onroad Mobile Vehicles

Equation: Emission Factor (lb/hr) x No. of Equipment x Work Day (hr/day) = Onsite Construction Emissions (lb/day)

	CO	**NOx**	**PM10**
Equipment Type	lb/day	lb/day	lb/day
Pavers	4.22	6.49	0.45
Cement and Mortar Mixers	3.21	4.93	0.34
Rollers	0.34	0.44	0.02
Tractors/Loaders/Backhoes	0.00	0.00	0.00
Total	**7.77**	**11.86**	**0.81**

Incremental Increase in Offsite Combustion Emissions from Construction Vehicles

Equation: Emission Factor (lb/mile) x No. of One-Way Trips/Day x 2 x Trip length (mile) = Mobile Emissions (lb/day)

	CO	**NOx**	**PM10**
Vehicle	lb/day	lb/day	lb/day
Flatbed Truck	0.008	0.025	0.0012
Water Truck	0.100	0.326	0.0156
Total	**0.108**	**0.352**	**0.0168**

Total Incremental Combustion Emissions from Construction Activities

	CO	**NOx**	**PM10**
Sources	lb/day	lb/day	lb/day
On-Site Emissions	**7.9**	**12.2**	**0.8**
Significance Threshold[g]	***151***	***103***	***4***
Exceed Significance?	**NO**	**NO**	**NO**

Combustion and Fugitive Summary	**PM2.5 Fraction**[h]	**PM10**	**PM2.5**
		lb/day	lb/day
Combustion (Offroad)	0.92	0.8	0.7
Combustion (Onroad)	0.96	0.017	0.016
Fugitive	0.21	0	0
Total		**0.8**	**0.8**
Significance Threshold[g]			**3**
Exceed Significance?			**NO**

Line F-2
One Acre Site Example - Architectural Coating and Asphalt Paving

Notes:

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a) SCAQMD, estimated from survey data, Sept 2004

b) Equipment name must match CARB Off-Road Model (see Off-Road Model EF worksheet) equipment name for sheet to look up EFs automatically.

c) SCAB values provided by the ARB, Oct 2006. Assumed equipment is diesel fueled.

d) 2009 fleet year. http://www.aqmd.gov/ceqa/handbook/onroad/onroad.html.

e) Assumed haul truck travels 0.1 miles through facility

f) Assumed six foot wide water truck traverses over 40,000 square feet of disturbed area

g) For illustration purposes only, this analysis is based on the most stringent LSTs. Please consult App. C of the Methodology Paper for applicable LSTs.

h) ARB's CEIDARS database PM2.5 fractions - construction dust category for fugitive and diesel vehicle exhaust category for combustion.

Line F-2

Sum of Ems Factor #/hr		Year	Pollutant			
		2014				
Eq Name	Hp	CO	NOx	PM10	SOx	VOC
Aerial Lifts	Composite	0.188	0.287	0.018	0.000	0.048
Air Compressors	Composite	0.331	0.563	0.040	0.001	0.084
Bore/Drill Rigs	Composite	0.503	0.711	0.025	0.002	0.073
Cement and Mortar Mixers	Composite	0.042	0.055	0.002	0.000	0.009
Concrete/Industrial Saws	Composite	0.403	0.527	0.041	0.001	0.092
Cranes	Composite	0.455	1.106	0.047	0.001	0.128
Crawler Tractors	Composite	0.577	1.084	0.064	0.001	0.150
Crushing/Proc. Equipment	Composite	0.665	1.086	0.068	0.001	0.160
Dumpers/Tenders	Composite	0.032	0.059	0.003	0.000	0.009
Excavators	Composite	0.529	0.829	0.043	0.001	0.114
Forklifts	Composite	0.221	0.355	0.018	0.001	0.050
Generator Sets	Composite	0.297	0.508	0.030	0.001	0.070
Graders	Composite	0.599	1.080	0.054	0.001	0.136
Off-Highway Tractors	Composite	0.744	1.611	0.077	0.002	0.199
Off-Highway Trucks	Composite	0.615	1.660	0.058	0.003	0.203
Other Construction Equipment	Composite	0.370	0.715	0.030	0.001	0.082
Other General Industrial Equipment	Composite	0.499	1.235	0.053	0.002	0.145
Other Material Handling Equipment	Composite	0.481	1.206	0.051	0.002	0.138
Pavers	Composite	0.528	0.811	0.056	0.001	0.143
Paving Equipment	Composite	0.427	0.731	0.050	0.001	0.108
Plate Compactors	Composite	0.026	0.031	0.001	0.000	0.005
Pressure Washers	Composite	0.060	0.084	0.005	0.000	0.015
Pumps	Composite	0.287	0.443	0.029	0.001	0.068
Rollers	Composite	0.402	0.616	0.042	0.001	0.091
Rough Terrain Forklifts	Composite	0.461	0.610	0.048	0.001	0.093
Rubber Tired Dozers	Composite	1.106	2.382	0.099	0.002	0.285
Rubber Tired Loaders	Composite	0.468	0.861	0.046	0.001	0.112
Scrapers	Composite	0.989	2.233	0.093	0.003	0.265
Signal Boards	Composite	0.093	0.133	0.007	0.000	0.018
Skid Steer Loaders	Composite	0.226	0.237	0.015	0.000	0.041
Surfacing Equipment	Composite	0.493	1.167	0.043	0.002	0.119
Sweepers/Scrubbers	Composite	0.509	0.635	0.045	0.001	0.103
Tractors/Loaders/Backhoes	Composite	0.375	0.497	0.034	0.001	0.073
Trenchers	Composite	0.461	0.638	0.052	0.001	0.135
Welders	Composite	0.204	0.244	0.021	0.000	0.059

Localized Significance Threshold Calculations

SCAQMD LINEAR REGRESSION METHOD*

Three-Acre Threshold (SRA 24)

CO	
X-value Area of Site (acreage)	y-value LST (mass/day) **
2	883
5	1577
3	**1114**

NO_X	
X-value Area of Site (acreage)	y-value LST (mass/day) **
2	170
5	270
3	**203**

PM-10	
X-value Area of Site (acreage)	y-value LST (mass/day) **
2	7
5	13
3	**9**

PM-2.5	
X-value Area of Site (acreage)	y-value LST (mass/day) **
2	4
5	8
3	**5**

Notes: Value calculated shown in bold

* Excel formula obtained from Appendix K of LST Methodology.
Acreages and corresponding LST values obtained from Appendix C of LST methodology.

** receptor distance is 25 meters

Localized Significance Threshold Calculations

SCAQMD LINEAR REGRESSION METHOD*

Four-Acre Threshold (SRA 24)

CO	
X-value Area of Site (acreage)	y-value LST (mass/day) **
2	883
5	1577
4	**1346**

NO_X	
X-value Area of Site (acreage)	y-value LST (mass/day) **
2	170
5	270
4	**237**

PM-10	
X-value Area of Site (acreage)	y-value LST (mass/day) **
2	7
5	13
4	**11**

PM-2.5	
X-value Area of Site (acreage)	y-value LST (mass/day) **
2	4
5	8
4	**7**

Notes: Value calculated shown in bold

* Excel formula obtained from Appendix K of LST Methodology.
Acreages and corresponding LST values obtained from Appendix C of LST methodology.

** receptor distance is 25 meters