

Table 1. Summary description of the CCRUSH and CDPHE particulate monitoring sites.

Monitoring Site	ALS (CCRUSH)	EDI (CCRUSH)	CAMP (CDPHE)	DMAS (CDPHE)	MAP (CCRUSH)	MCA (CCRUSH)
City	Denver	Denver	Denver	Denver	Greeley	Greeley
Coordinates	39.83N 104.94W	39.76N 105.04W	39.75N 104.99W	39.70N 105.00W	40.42N 104.71W	40.43N 104.77W
Start Date	1/26/2009	1/8/2009	1/1/2009	1/1/2009	1/16/2009	1/1/2009
End Date	9/29/2011	3/1/2012	4/30/2012	4/30/2012	2/2/2012	6/19/2009
Site Description	Industrial- Residential	Urban- Residential	Urban- Roadside	Urban- Roadside	Rural- Residential	Rural- Residential
Instruments	TEOM 1405-DF w FDMS	TEOM 1405-DF w FDMS	TEOM 1400a w FDMS; TEOM 1400ab no FDMS	TEOM 1400a w FDMS; TEOM 1400ab no FDMS	TEOM 1405-DF w FDMS	TEOM 1405-DF w FDMS
Inlet Height (m)	6	9	6	5	9	10.5

Table 2. Summary statistics of particulate matter concentrations during the CCRUSH campaign.

Statistics are for daily averages except where indicated.

Monitoring Site	ALS					EDI				
Particulate Fraction	PM _{2.5}	SVM _{2.5}	PM _{10-2.5}	SVM _{10-2.5}	PM _{10-2.5} /PM ₁₀	PM _{2.5}	SVM _{2.5}	PM _{10-2.5}	SVM _{10-2.5}	PM _{10-2.5} /PM ₁₀
Mean (St. Dev., µg/m ³)	9.02 (4.64)	2.32 (1.50)	15.30 (10.36)	0.20 (0.30)	0.59 (0.18)	7.66 (5.33)	2.05 (1.91)	8.02 (4.85)	0.02 (0.25)	0.51 (0.21)
Median (µg/m ³)	8.07	2.08	13.37	0.16	0.62	6.55	1.81	7.17	0.01	0.53
5 th /95 th Per. (µg/m ³)	3.90/16.90	0.50/5.29	2.02/35.74	-0.20/0.72	0.23/0.81	2.14/16.92	-0.28/5.16	1.61/17.20	-0.35/0.44	0.20/0.77
Daily COV ^a (Hourly COV)	0.51 (0.82)	0.65 (1.56)	0.68 (1.20)	1.53 (5.83)	0.31 (-)	0.70 (1.16)	0.93 (2.37)	0.61 (0.96)	13.18 (37.50)	0.40
N (% Complete)	755 (76%)					747 (65%)				
Monitoring Site	CAMP					DMAS				
Particulate Fraction	PM _{2.5}	SVM _{2.5} ^b	PM _{10-2.5} ^c	SVM _{10-2.5}	PM _{10-2.5} /PM ₁₀	PM _{2.5}	SVM _{2.5} ^b	PM _{10-2.5} ^c	SVM _{10-2.5}	PM _{10-2.5} /PM ₁₀
Mean (St. Dev., µg/m ³)	7.97 (4.40)	1.42 (1.08)	19.71 (10.53)	-	0.70 (0.15)	10.15 (4.51)	2.72 (1.14)	14.60 (8.20)	-	0.56 (0.19)
Median (µg/m ³)	7.14	1.22	18.09	-	0.74	9.30	2.50	13.89	-	0.61
5 th /95 th Per. (µg/m ³)	3.01/16.59	0.20/3.54	5.22/38.88	-	0.38/0.86	4.95/18.18	1.40/4.74	2.62/28.63	-	0.20/0.77
Daily COV (Hourly COV)	0.55 (0.81)	0.76 (-)	0.53 (1.07)	-	0.21	0.44 (0.63)	0.42 (-)	0.56 (1.34)	-	0.34
N (% Complete)	1121 (92%)	1121 (92%)	503 (90%)	-	503 (90%)	1097 (90%)	1097 (90%)	980 (81%)	-	980 (81%)
Monitoring Site	MAP					MCA				
Particulate Fraction	PM _{2.5}	SVM _{2.5}	PM _{10-2.5}	SVM _{10-2.5} ^d	PM _{10-2.5} /PM ₁₀	PM _{2.5}	SVM _{2.5}	PM _{10-2.5}	SVM _{10-2.5}	PM _{10-2.5} /PM ₁₀
Mean (St. Dev., µg/m ³)	8.15 (4.79)	2.39 (1.80)	10.34 (7.11)	0.05 (0.38)	0.53 (0.20)	8.68 (4.29)	2.58 (1.54)	9.87 (7.74)	-0.06 (0.24)	0.49 (0.18)
Median (µg/m ³)	7.13	2.22	9.17	0.05	0.56	7.71	2.22	7.76	-0.05	0.50
5 th /95 th Per. (µg/m ³)	2.60/17.64	0.10/5.41	1.63/22.89	-0.54/0.62	0.19/0.78	4.45/15.43	0.75/4.87	1.69/23.97	-0.39/0.29	0.15/0.76
Daily COV (Hourly COV)	0.59 (0.91)	0.75 (1.89)	0.69 (1.09)	7.68 (36.33)	0.37	0.49 (0.86)	0.60 (1.46)	0.78 (1.28)	4.19 (13.21)	0.37
N (% Complete)	822, SVM _{10-2.5} : 788 (74%, SVM _{10-2.5} : 71%)					168 (99%)				

^a Coefficient of Variation

^b Estimated using the regression models presented in Clements et al. (2013)

^c Corrected subtraction-method errors using the method of Clements et al. (2013)

^d MAP PM_{10-2.5} semi-volatile concentrations were not available from 8/13/2009 to 9/18/2009, PM_{10-2.5} non-volatile concentrations were used to estimate total PM_{10-2.5} for this period