APCA 8

Rachel Tao

1/23/2021

Loadings

element	MeanConc	source_1	source_2	source_3	source_4	source_5	source_6	source_7	source_8	r_squared	PredConc	Pct_error
aluminum	22.18	0.60	0.17	13.89	4.83	2.43	2.09	0.03	3.45	0.54	27.49	23.93
ammonium	1120.78	240.76	9.17	135.40	564.73	-6.12	-145.76	224.84	-18.87	0.87	1004.16	-10.40
arsenic	0.49	0.10	0.01	0.03	0.13	0.02	0.05	0.03	0.06	0.18	0.42	-13.56
barium	1.87	-0.03	0.20	0.40	0.07	0.03	1.60	0.76	-0.35	0.31	2.66	42.47
bromine	3.06	0.76	0.33	0.17	0.88	0.07	0.67	-0.41	0.36	0.48	2.83	-7.68
cadmium	1.68	0.13	-0.08	0.08	-0.06	-0.11	0.06	0.06	-0.06	0.01	0.01	-99.19
calcium	51.85	16.81	2.91	11.61	2.24	-3.12	-2.25	17.44	-5.22	0.62	40.41	-22.05
chlorine	37.07	13.30	46.45	-4.04	3.35	1.61	9.93	-5.40	-8.13	0.69	57.06	53.93
chromium	2.13	0.44	-0.11	0.42	-0.14	3.46	-0.08	-0.87	-0.41	0.78	2.70	26.48
copper	4.55	1.15	-0.05	0.47	0.81	0.31	0.83	1.93	0.25	0.67	5.71	25.35
EC	707.73	120.84	2.06	56.46	56.00	-41.70	82.02	494.04	-60.38	0.82	709.35	0.23
iron	105.50	8.20	0.18	19.22	8.77	9.72	11.35	47.37	-1.84	0.95	102.96	-2.40
lead	2.02	1.13	0.04	0.08	0.57	-0.05	0.61	-0.13	0.18	0.55	2.43	20.39
magnesium	7.12	-0.83	6.78	0.42	0.14	0.17	1.98	-0.98	-0.12	0.85	7.56	6.23
manganese	2.10	0.75	0.02	0.33	0.30	0.12	-0.06	0.90	-0.05	0.74	2.31	9.88
nickel	4.94	2.72	0.12	0.31	0.54	0.72	-1.73	1.42	-0.17	0.91	3.93	-20.54
nitrate	1613.47	685.27	112.77	-23.57	411.85	30.51	152.82	359.49	-353.65	0.59	1375.47	-14.75
OC	2693.20	118.30	-42.38	289.37	656.61	2.28	312.63	492.58	369.44	0.86	2198.84	-18.36
pm25	10322.11	1262.62	207.59	1189.35	3246.52	-5.60	345.87	1825.04	1157.97	0.84	9229.35	-10.59
potassium	36.15	9.88	4.25	3.15	12.96	1.07	14.04	-5.14	3.79	0.39	44.00	21.72
selenium	0.40	0.08	0.01	0.05	0.17	0.00	-0.02	0.01	0.05	0.29	0.35	-11.03
silicon	61.01	2.91	1.30	41.54	6.36	-1.81	4.48	9.10	-2.79	0.95	61.08	0.12
sodium	95.65	4.82	66.21	6.50	3.24	-2.28	-14.66	15.01	5.06	0.95	83.91	-12.27
sulfur	788.05	11.67	2.88	142.54	370.01	-10.33	-119.14	105.47	200.73	0.86	703.83	-10.69
titanium	2.37	-0.08	0.00	1.04	0.28	-0.08	0.30	1.10	0.05	0.51	2.61	10.26
vanadium	2.86	0.93	0.14	0.61	1.14	-0.20	-1.05	1.78	1.04	0.71	4.39	53.77
zinc	26.09	18.00	0.60	-1.32	3.03	-1.28	3.17	1.91	-1.59	0.92	22.52	-13.68

Source proportions

element	source_1	source_2	source_3	source_4	source_5	source_6	source_7	source_8
aluminum	2.19	0.60	50.52	17.56	8.86	7.60	0.12	12.55
ammonium	20.49	0.78	11.52	48.07	0.00	0.00	19.14	0.00
arsenic	23.92	2.28	6.73	30.32	3.86	12.87	6.84	13.16
barium	0.00	6.55	13.00	2.34	0.92	52.34	24.85	0.00
bromine	23.49	10.30	5.27	27.14	2.19	20.58	0.00	11.02
cadmium	38.27	0.00	22.97	0.00	0.00	19.73	19.03	0.00
calcium	32.95	5.70	22.76	4.39	0.00	0.00	34.19	0.00
chlorine	17.82	62.24	0.00	4.48	2.16	13.30	0.00	0.00
chromium	10.17	0.00	9.62	0.00	80.21	0.00	0.00	0.00
copper	19.99	0.00	8.19	14.04	5.46	14.44	33.45	4.42
EC	14.89	0.25	6.96	6.90	0.00	10.11	60.89	0.00
iron	7.82	0.18	18.34	8.37	9.27	10.83	45.20	0.00
lead	43.43	1.61	3.08	21.82	0.00	23.27	0.00	6.78
magnesium	0.00	71.38	4.47	1.52	1.78	20.86	0.00	0.00
manganese	30.84	0.92	13.56	12.46	4.92	0.00	37.31	0.00
nickel	46.57	2.06	5.36	9.27	12.32	0.00	24.41	0.00
nitrate	39.10	6.43	0.00	23.50	1.74	8.72	20.51	0.00
OC	5.28	0.00	12.91	29.30	0.10	13.95	21.98	16.48
pm25	13.67	2.25	12.88	35.15	0.00	3.75	19.76	12.54
potassium	20.11	8.65	6.41	26.38	2.17	28.58	0.00	7.70
selenium	21.21	3.06	14.23	46.19	0.20	0.00	2.40	12.71
silicon	4.42	1.97	63.25	9.68	0.00	6.82	13.86	0.00
sodium	4.78	65.66	6.45	3.22	0.00	0.00	14.88	5.02
sulfur	1.40	0.35	17.11	44.40	0.00	0.00	12.66	24.09
titanium	0.00	0.04	37.51	10.14	0.00	10.81	39.58	1.92
vanadium	16.51	2.46	10.86	20.20	0.00	0.00	31.48	18.49
zinc	67.40	2.23	0.00	11.35	0.00	11.88	7.14	0.00

Bar graph of the above proportions