# APCA 7 - remove 7/2 - 7/6

Rachel Tao

## 1/23/2021

### Loadings

element	MeanCo	n <b>s</b> ource_	_1 source_	_2 source_	_3 source_	_4 source_	_5 source_	_6 source_	_7r_squar	edPredCor	ndPct_erro
aluminur	m 20.91	-0.25	17.69	1.71	3.02	3.13	-1.17	2.24	0.63	26.37	26.14
arsenic	0.66	0.38	0.04	-0.01	0.03	0.04	0.04	0.01	0.33	0.53	-19.28
barium	6.23	1.63	1.06	-0.59	0.62	-0.43	2.50	-0.15	0.56	4.65	-25.32
${\bf bromine}$	3.31	1.98	0.26	0.20	0.18	0.06	-0.08	0.08	0.58	2.68	-19.08
cadmium	n 1.51	-0.07	0.08	0.09	-0.02	-0.02	-0.05	0.02	0.01	0.03	-98.01
calcium	56.07	7.73	11.07	2.31	1.70	-3.45	-0.16	30.36	0.94	49.56	-11.62
chromiun	m 1.63	-0.35	-0.10	-0.02	-0.16	3.08	-0.01	-0.22	0.21	2.22	36.40
copper	4.48	1.15	0.39	0.30	0.71	1.85	0.01	0.61	0.70	5.01	11.75
iron	111.84	22.41	25.08	0.90	-0.30	42.86	1.61	14.37	0.98	106.94	-4.38
lead	3.29	2.14	0.36	0.29	0.14	0.06	0.57	0.41	0.67	3.96	20.25
magnesiu	m 7.68	-0.15	0.45	-0.42	3.08	-1.12	-0.09	0.39	0.25	2.15	-72.01
mangane	ese $2.37$	0.81	0.35	0.08	0.05	0.46	0.03	1.12	0.73	2.90	22.21
nickel	8.59	4.18	-0.60	0.05	-0.69	0.07	1.91	2.70	0.79	7.61	-11.41
nitrates	1811.74	1386.63	-93.10	69.01	0.58	141.36	-53.25	384.81	0.63	1836.03	1.34
pm25	11855.45	6495.96	1827.40	-	755.00	383.22	-	614.21	0.78	9485.80	-19.99
				315.97			274.03				
potassiui	m47.91	8.82	5.95	0.89	25.78	4.13	3.42	1.10	0.92	50.09	4.54
selenium	0.76	0.88	0.14	-0.07	0.00	-0.09	0.04	0.03	0.76	0.92	21.82
silicon	72.07	12.23	55.15	2.13	0.76	-5.67	1.20	3.93	0.95	69.72	-3.26
sulfate	3008.63	2259.84	787.66	-	163.47	-	-	-	0.73	2405.44	-20.05
				313.20		226.50	131.83	134.01			
titanium	3.44	0.60	1.84	-0.07	0.11	0.20	0.45	0.37	0.72	3.50	1.61
vanadiun	n 4.45	2.98	0.54	-0.30	0.10	0.05	0.37	1.61	0.76	5.34	20.02
zinc	26.88	10.76	-1.08	7.13	0.11	2.01	1.15	5.73	0.99	25.82	-3.93

### Source proportions

element	source_1	source_2	source_3	source_4	source_5	source_6	source_7
aluminum	0.00	63.67	6.14	10.86	11.26	0.00	8.08
arsenic	70.67	7.69	0.00	5.65	6.81	7.14	2.04
barium	28.06	18.24	0.00	10.72	0.00	42.97	0.00
bromine	72.06	9.29	7.16	6.52	2.01	0.00	2.97
$\operatorname{cadmium}$	0.00	41.74	49.98	0.00	0.00	0.00	8.28
calcium	14.55	20.82	4.34	3.20	0.00	0.00	57.10
chromium	0.00	0.00	0.00	0.00	100.00	0.00	0.00
copper	22.99	7.71	5.96	14.06	36.86	0.19	12.24
iron	20.90	23.39	0.84	0.00	39.97	1.50	13.40

element	source_1	source_2	source_3	source_4	source_5	source_6	source_7
lead	53.98	9.03	7.24	3.65	1.42	14.31	10.37
magnesium	0.00	11.36	0.00	78.58	0.00	0.00	10.07
manganese	27.99	12.20	2.66	1.77	15.86	0.98	38.54
nickel	46.93	0.00	0.51	0.00	0.83	21.44	30.29
nitrates	69.95	0.00	3.48	0.03	7.13	0.00	19.41
pm25	64.47	18.14	0.00	7.49	3.80	0.00	6.10
potassium	17.62	11.88	1.78	51.46	8.25	6.82	2.19
selenium	81.02	12.54	0.00	0.00	0.00	3.62	2.83
silicon	16.22	73.14	2.83	1.01	0.00	1.59	5.21
sulfate	70.38	24.53	0.00	5.09	0.00	0.00	0.00
titanium	16.82	51.42	0.00	3.21	5.54	12.64	10.37
vanadium	52.86	9.56	0.00	1.70	0.86	6.52	28.50
zinc	40.00	0.00	26.50	0.40	7.48	4.29	21.32

#### Bar graph of the above proportions

