

Table S5: Summary of z test, 2-sample *t* test, *F* test, Wilcoxon rank sum test and flow duration analysis.

Monitoring Station			Wilcoxon Rank Sum Result	z and 2-sample <i>t</i> tests				<i>F</i> test Result	Flow Duration (%)		
ID	DA (acres)	DA (hectares)		Result	Pre-Mine Log ₁₀ <i>M</i>	Post-Mine Log ₁₀ <i>M</i>	MPC (%)		Pre-Mine	Post-Mine	Difference
1	790	319	1 (<i>z</i> = -1.99, <i>p</i> < .05)	1; <i>z</i> (61) = -1.90, <i>p</i> > .05	2.16	2.42	12%	1 (<i>F</i> _{61,89} = 1.13, <i>p</i> > .05)	0.0	0.0	0
2	556	225	2 (<i>z</i> = -0.22, <i>p</i> > .05)	2; <i>z</i> (72) = 0.05, <i>p</i> > .05	1.74	1.73	-1%	2 (<i>F</i> _{78,72} = 1.10, <i>p</i> > .05)	5.6	7.5	-2
3	458	185	3 (<i>z</i> = -0.88, <i>p</i> > .05)	3; <i>z</i> (39) = -0.95, <i>p</i> > .05	1.80	1.99	11%	3 (<i>F</i> _{39,79} = 1.10, <i>p</i> > .05)	5.6	4.3	1
4	400	162	4 (<i>z</i> = -6.23, <i>p</i> < .01)	4; <i>z</i> (70) = -7.56, <i>p</i> < .01	0.90	2.11	134%	4 (<i>F</i> _{70,92} = 3.42, <i>p</i> < .01)	4.0	1.1	3
5	206	83	5 (<i>z</i> = 3.22, <i>p</i> < .01)	5; <i>z</i> (66) = 3.53, <i>p</i> < .01	1.48	0.75	-49%	5 (<i>F</i> _{93,66} = 1.54, <i>p</i> > .05)	18.2	33.0	-15
6	61	25	6 (<i>z</i> = 0.52, <i>p</i> > .05)	6; <i>z</i> (115) = 0.40, <i>p</i> > .05	0.75	0.70	-7%	6 (<i>F</i> _{116,115} = 1.23, <i>p</i> > .05)	15.0	5.7	9
7	122	49	7 (<i>z</i> = -1.75, <i>p</i> > .05)	7; <i>z</i> (34) = 2.01, <i>p</i> < .05	0.83	0.26	-69%	7 (<i>F</i> _{34,42} = 1.73, <i>p</i> > .05)	9.0	51.0	-42
8	71	29	8 (<i>z</i> = 1.44, <i>p</i> > .05)	8; <i>z</i> (37) = -1.07, <i>p</i> > .05	0.83	1.03	24%	8 (<i>F</i> _{37,43} = 1.50, <i>p</i> > .05)	2.0	3.0	-1
9	32	13	9 (<i>z</i> = -2.25, <i>p</i> < .05)	9; <i>t</i> (23) = -2.23, <i>p</i> < .01	0.98	1.33	36%	9 (<i>F</i> _{14,9} = 1.23, <i>p</i> > .05)	14.0	0.0	14
10	170	69	10 (<i>z</i> = 3.47, <i>p</i> < .01)	10; <i>z</i> (50) = 3.66, <i>p</i> < .01	0.93	0.10	-89%	10 (<i>F</i> _{108,50} = 1.18, <i>p</i> > .05)	21.0	55.0	-34
11	152	61	11 (<i>z</i> = 2.01, <i>p</i> < .05)	11; <i>z</i> (61) = 2.31, <i>p</i> < .05	0.95	0.52	-45%	11 (<i>F</i> _{113,61} = 1.54, <i>p</i> > .05)	15.0	39.0	-24
12	100	40	12 (<i>z</i> = 1.74, <i>p</i> > .05)	12; <i>z</i> (47) = 1.80, <i>p</i> > .05	0.74	0.41	-45%	12 (<i>F</i> _{114,47} = 1.12, <i>p</i> > .05)	21.0	26.0	-5
13	31	13	13 (<i>z</i> = 3.67, <i>p</i> < .01)	13; <i>z</i> (44) = 4.03, <i>p</i> < .01	0.47	(0.16)	-134%	13 (<i>F</i> _{110,44} = 1.48, <i>p</i> > .05)	8.0	50.0	-42
14	1839	743	14 (<i>z</i> = -5.45, <i>p</i> < .01)	14; <i>z</i> (81) = -5.81, <i>p</i> < .01	1.42	2.87	102%	14 (<i>F</i> _{81,90} = 2.42, <i>p</i> < .01)	35.1	8.0	27
15	1442	583	15 (<i>z</i> = -6.58, <i>p</i> < .01)	15; <i>z</i> (81) = -6.47, <i>p</i> < .01	1.76	2.94	67%	15 (<i>F</i> _{81,104} = 1.89, <i>p</i> < .05)	1.0	0.0	1
16	1150	465	16 (<i>z</i> = 3.49, <i>p</i> < .01)	16; <i>z</i> (30) = -5.49, <i>p</i> < .01	1.87	2.60	39%	16 (<i>F</i> _{146,30} = 3.86, <i>p</i> < .01)	2.0	0.0	2
17	1065	430	17 (<i>z</i> = 4.44, <i>p</i> < .01)	17; <i>z</i> (38) = -5.84, <i>p</i> < .01	1.63	2.45	50%	17 (<i>F</i> _{100,38} = 2.42, <i>p</i> < .01)	0.0	0.0	0
18	418	169	18 (<i>z</i> = 1.16, <i>p</i> > .05)	18; <i>z</i> (35) = -3.48, <i>p</i> < .01	1.48	2.08	41%	18 (<i>F</i> _{130,35} = 5.01, <i>p</i> < .01)	21.0	0.0	21
19	153	62	19 (<i>z</i> = 5.53, <i>p</i> < .01)	19; <i>z</i> (70) = -7.23, <i>p</i> < .01	0.08	1.35	>200%	19 (<i>F</i> _{113,70} = 1.84, <i>p</i> < .05)	56.1	8.5	48
20	136	55	20 (<i>z</i> = 1.75, <i>p</i> > .05)	20; <i>z</i> (65) = -3.41, <i>p</i> < .01	1.05	1.54	47%	20 (<i>F</i> _{88,65} = 3.27, <i>p</i> < .01)	10.5	4.2	6
21	101	41	21 (<i>z</i> = -4.40, <i>p</i> < .01)	21; <i>z</i> (61) = -8.66, <i>p</i> < .01	0.76	1.59	109%	21 (<i>F</i> _{61,67} = 1.56, <i>p</i> > .05)	1.6	0.0	2
22	36	15	22 (<i>z</i> = 4.33, <i>p</i> < .01)	22; <i>z</i> (47) = 5.10, <i>p</i> < .01	0.14	(0.75)	<-200%	22 (<i>F</i> _{47,66} = 3.09, <i>p</i> < .01)	13.8	83.5	-70
23	242	98	23 (<i>z</i> = 7.42, <i>p</i> < .01)	23; <i>z</i> (71) = -11.26, <i>p</i> < .01	1.15	2.27	97%	23 (<i>F</i> _{256,71} = 6.20, <i>p</i> < .01)	13.0	0.0	13
24	216	87	24 (<i>z</i> = 1.12, <i>p</i> > .05)	24; <i>z</i> (75) = -1.51, <i>p</i> > .05	1.31	1.54	18%	24 (<i>F</i> _{117,75} = 1.31, <i>p</i> > .05)	14.2	5.6	9
25	164	66	25 (<i>z</i> = 0.41, <i>p</i> > .05)	25; <i>z</i> (57) = -0.59, <i>p</i> > .05	1.28	1.37	7%	25 (<i>F</i> _{82,57} = 1.22, <i>p</i> > .05)	0.7	5.3	-5
26	74	30	26 (<i>z</i> = 1.27, <i>p</i> > .05)	26; <i>z</i> (56) = -0.32, <i>p</i> > .05	0.97	1.01	4%	26 (<i>F</i> _{56,111} = 1.50, <i>p</i> > .05)	0.0	11.1	-11
27	539	218	27 (<i>z</i> = 1.83, <i>p</i> > .05)	27; <i>z</i> (31) = -2.00, <i>p</i> < .05	0.92	1.49	62%	27 (<i>F</i> _{84,31} = 1.20, <i>p</i> > .05)	30.0	20.0	10
28	169	68	28 (<i>z</i> = 4.46, <i>p</i> < .01)	28; <i>z</i> (31) = -4.93, <i>p</i> < .01	1.05	1.87	78%	28 (<i>F</i> _{87,31} = 1.47, <i>p</i> > .05)	0.0	10.0	-10
29	135	55	29 (<i>z</i> = -4.28, <i>p</i> < .01)	29; <i>z</i> (55) = -4.08, <i>p</i> < .01	1.26	1.85	47%	29 (<i>F</i> _{55,61} = 1.55, <i>p</i> > .05)	2.0	3.0	-1
30	59	24	30 (<i>z</i> = 4.25, <i>p</i> < .01)	30; <i>z</i> (35) = -5.14, <i>p</i> < .01	1.19	1.75	47%	30 (<i>F</i> _{110,35} = 2.64, <i>p</i> < .01)	7.0	0.0	7
31	71	29	31 (<i>z</i> = 4.55, <i>p</i> < .01)	31; <i>z</i> (34) = 5.90, <i>p</i> < .01	1.18	0.14	-88%	31 (<i>F</i> _{99,34} = 1.88, <i>p</i> > .05)	3.0	37.0	-34
32	15	6	32 (<i>z</i> = 6.82, <i>p</i> < .01)	32; <i>z</i> (39) = 8.79, <i>p</i> < .01	0.46	(0.63)	<-200%	32 (<i>F</i> _{39,103} = 1.32, <i>p</i> > .05)	9.0	64.0	-55
33	58	23	33 (<i>z</i> = 0.91, <i>p</i> > .05)	33; <i>z</i> (63) = -0.68, <i>p</i> > .05	0.45	0.54	20%	33 (<i>F</i> _{63,96} = 1.16, <i>p</i> > .05)	10.0	10.0	0
34	48	19	34 (<i>z</i> = -8.75, <i>p</i> < .01)	34; <i>z</i> (63) = 12.25, <i>p</i> < .01	0.45	(0.83)	<-200%	34 (<i>F</i> _{129,63} = 1.91, <i>p</i> < .01)	10.0	90.0	-80
35	282	114	35 (<i>z</i> = 0.14, <i>p</i> > .05)	35; <i>z</i> (84) = 0.08, <i>p</i> > .05	1.79	1.78	-1%	35 (<i>F</i> _{84,187} = 1.09, <i>p</i> > .05)	5.3	6.2	-1
36	213	86	36 (<i>z</i> = -3.46, <i>p</i> < .01)	36; <i>z</i> (48) = -3.94, <i>p</i> < .01	1.13	1.79	58%	36 (<i>F</i> _{48,78} = 3.08, <i>p</i> < .01)	3.5	0.0	4
37	92	37	37 (<i>z</i> = -0.58, <i>p</i> > .05)	37; <i>z</i> (60) = -0.63, <i>p</i> > .05	0.74	0.84	14%	37 (<i>F</i> _{60,71} = 1.22, <i>p</i> > .05)	4.2	6.9	-3
38	56	23	38 (<i>z</i> = -5.88, <i>p</i> < .01)	38; <i>z</i> (69) = 6.51, <i>p</i> < .01	0.73	(0.35)	-148%	38 (<i>F</i> _{69,98} = 1.04, <i>p</i> > .05)	14.4	68.7	-54
39	42	17	39 (<i>z</i> = 1.38, <i>p</i> > .05)	39; <i>z</i> (55) = 1.73, <i>p</i> > .05	0.07	(0.21)	<-200%	39 (<i>F</i> _{55,58} = 1.60, <i>p</i> > .05)	23.3	35.8	-12
40	4537	1833	40 (<i>z</i> = -0.72, <i>p</i> > .05)	40; <i>z</i> (47) = -0.07, <i>p</i> > .05	3.02	3.03	0%	40 (<i>F</i> _{54,47} = 2.13, <i>p</i> < .05)	2.0	0.0	2
41	4456	1800	41 (<i>z</i> = -0.19, <i>p</i> > .05)	41; <i>z</i> (33) = 0.07, <i>p</i> > .05	3.10	3.09	0%	41 (<i>F</i> _{102,33} = 1.24, <i>p</i> > .05)	2.0	0.0	2
42	4436	1792	42 (<i>z</i> = -1.87, <i>p</i> > .05)	42; <i>z</i> (30) = 0.92, <i>p</i> > .05	3.19	3.01	-6%	42 (<i>F</i> _{38,30} = 2.52, <i>p</i> < .05)	9.0	0.0	9
43	142	57	43 (<i>z</i> = 2.03, <i>p</i> < .05)	43; <i>z</i> (47) = -2.73, <i>p</i> < .01	1.01	1.44	43%	43 (<i>F</i> _{108,47} = 2.17, <i>p</i> < .05)	10.0	0.0	10

44	109	44	44 ($z = -0.24, p > .05$)	44; $z(55) = 0.34, p > .05$	0.90	0.84	-7%	44 ($F_{55,107} = 1.16, p > .05$)	10.0	20.0	-10
45	60	24	45 ($z = -1.35, p > .05$)	45; $z(54) = 0.95, p > .05$	0.55	0.38	-31%	45 ($F_{127,54} = 1.17, p > .05$)	30.0	40.0	-10
46	344	139	46 ($z = 0.50, p > .05$)	46; $z(38) = 0.65, p > .05$	1.81	1.68	-7%	46 ($F_{39,38} = 1.14, p > .05$)	3.0	3.0	0
47	310	125	47 ($z = -0.76, p > .05$)	47; $z(36) = 1.32, p > .05$	1.84	1.54	-16%	47 ($F_{36,38} = 1.78, p > .05$)	3.0	8.0	-5
48	155	63	48 ($z = -0.58, p > .05$)	48; $z(30) = -0.79, p > .05$	1.52	1.66	9%	48 ($F_{30,33} = 2.07, p < .05$)	3.0	0.0	3
49	93	38	49 ($z = -1.28, p > .05$)	49; $z(29) = -1.41, p > .05$	1.28	1.51	18%	49 ($F_{29,37} = 1.86, p > .05$)	3.0	0.0	3
50	360	145	50 ($z = 0.65, p > .05$)	50; $z(51) = -0.83, p > .05$	1.31	1.51	15%	50 ($F_{103,51} = 1.20, p > .05$)	27.0	21.0	6
51	351	142	51 ($z = -1.43, p > .05$)	51; $z(80) = 3.31, p < .01$	1.78	1.21	-32%	51 ($F_{80,145} = 4.48, p < .01$)	3.0	14.0	-11
52	256	103	52 ($z = 1.45, p > .05$)	52; $z(80) = -0.43, p > .05$	1.64	1.70	4%	52 ($F_{80,113} = 1.50, p > .05$)	2.0	9.0	-7
53	179	72	53 ($z = -1.38, p > .05$)	53; $z(46) = -0.75, p > .05$	1.33	1.45	9%	53 ($F_{73,46} = 1.70, p > .05$)	0.0	0.0	0
54	78	32	54 ($z = -2.84, p < .01$)	54; $z(51) = -2.62, p < .01$	0.55	0.91	65%	54 ($F_{51,71} = 1.17, p > .05$)	0.0	1.0	-1
55	486	196	55 ($z = -1.94, p > .05$)	55; $z(60) = -1.85, p > .05$	1.80	2.12	18%	55 ($F_{60,65} = 1.23, p > .05$)	2.0	3.0	-1
56	449	181	56 ($z = -1.51, p > .05$)	56; $z(60) = -0.73, p > .05$	1.76	1.89	7%	56 ($F_{73,60} = 1.60, p > .05$)	0.0	3.0	-3
57	97	39	57 ($z = 1.85, p > .05$)	57; $z(47) = 2.93, p < .01$	1.75	1.31	-25%	57 ($F_{76,47} = 2.92, p < .01$)	0.0	6.0	-6
58	200	81	58 ($z = -1.17, p > .05$)	58; $t(60) = -1.51, p > .05$	1.33	1.72	30%	58 ($F_{22,38} = 1.89, p > .05$)	9.0	0.0	9
59	133	54	59 ($z = 3.37, p < .01$)	59; $z(39) = -4.61, p < .01$	0.62	1.64	165%	59 ($F_{40,39} = 5.39, p < .01$)	9.0	0.0	9
60	57	23	60 ($z = -0.24, p > .05$)	60; $z(29) = -0.04, p > .05$	0.18	0.19	6%	60 ($F_{44,29} = 1.67, p > .05$)	13.0	49.0	-36
61	125	51	61 ($z = 0.59, p > .05$)	61; $z(74) = 0.40, p > .05$	0.46	0.38	-17%	61 ($F_{74,141} = 1.11, p > .05$)	46.6	47.8	-1
62	113	46	62 ($z = 2.08, p < .05$)	62; $z(48) = 1.79, p > .05$	1.50	1.21	-19%	62 ($F_{80,48} = 1.22, p > .05$)	0.0	4.6	-5
63	63	25	63 ($z = 1.68, p > .05$)	63; $z(44) = 0.41, p > .05$	1.38	1.33	-4%	63 ($F_{44,105} = 1.81, p < .05$)	1.4	0.0	1
64	27	11	64 ($z = 2.90, p < .01$)	64; $t(28) = 3.64, p < .01$	0.86	0.19	-78%	64 ($F_{69,28} = 2.42, p < .05$)	0.0	48.6	-49
65	69	28	65 ($z = -0.81, p > .05$)	65; $z(31) = -1.23, p > .05$	0.41	0.71	73%	65 ($F_{31,62} = 2.68, p < .01$)	40.0	0.0	40
66	19	8	66 ($z = 2.61, p < .01$)	66; $z(38) = 3.93, p < .01$	(0.49)	(1.00)	-104%				
67	69	28	67 ($z = -4.79, p < .01$)	67; $z(94) = -5.27, p < .01$	(0.09)	0.76	>200%	67 ($F_{126,94} = 1.03, p > .05$)	59.1	25.4	34
68	56	23	68 ($z = 5.52, p < .01$)	68; $t(84) = 8.28, p < .01$	1.25	(0.59)	-147%	68 ($F_{28,56} = 1.43, p > .05$)	89.0	93.0	-4
69	43	17	69 ($z = 3.39, p < .01$)	69; $t(68) = 3.43, p < .01$	1.26	0.56	-56%	69 ($F_{50,18} = 1.00, p > .05$)	11.0	69.0	-58
70	17262	6974	70 ($z = 0.85, p > .05$)	70; $z(45) = -1.62, p > .05$	3.22	3.48	8%	70 ($F_{59,45} = 2.49, p < .01$)	0.0	0.0	0
71	16850	6807	71 ($z = -0.80, p > .05$)	71; $z(60) = 0.23, p > .05$	3.41	3.38	-1%	71 ($F_{99,60} = 1.45, p > .05$)	0.0	0.0	0
72	16597	6705	72 ($z = -0.67, p > .05$)	72; $z(61) = 0.14, p > .05$	3.42	3.40	-1%	72 ($F_{76,61} = 1.60, p > .05$)	0.0	0.0	0
73	16477	6657	73 ($z = 0.40, p > .05$)	73; $z(52) = -0.31, p > .05$	3.22	3.27	2%	73 ($F_{52,53} = 2.57, p < .01$)	0.0	0.0	0
74	14422	5826	74 ($z = 3.23, p < .01$)	74; $z(44) = -4.95, p < .01$	2.76	3.39	23%	74 ($F_{113,44} = 3.58, p < .01$)	0.0	0.0	0
75	14314	5783	75 ($z = -0.52, p > .05$)	75; $z(59) = -0.25, p > .05$	3.32	3.35	1%	75 ($F_{136,59} = 1.91, p < .05$)	0.0	0.0	0
76	13604	5496	76 ($z = -1.18, p > .05$)	76; $z(59) = 0.62, p > .05$	3.44	3.37	-2%	76 ($F_{117,54} = 1.36, p > .05$)	0.0	0.0	0
77	13522	5463	77 ($z = -0.90, p > .05$)	77; $z(54) = -0.09, p > .05$	3.31	3.32	0%	77 ($F_{116,54} = 2.35, p < .01$)			
78	13486	5448	78 ($z = 1.54, p > .05$)	78; $z(52) = 0.68, p > .05$	3.36	3.26	-3%	78 ($F_{52,58} = 2.43, p < .01$)			
79	8290	3349	79 ($z = -4.17, p < .01$)	79; $z(64) = 4.09, p < .01$	3.59	3.11	-13%	79 ($F_{64,83} = 1.22, p > .05$)			
80	78	32	80 ($z = -1.48, p > .05$)	80; $z(87) = -1.53, p > .05$	(0.04)	0.23	>200%	80 ($F_{87,98} = 1.26, p > .05$)	72.9	60.4	13
81	54	22	81 ($z = -5.92, p < .01$)	81; $z(93) = -7.34, p < .01$	0.27	1.19	>200%	81 ($F_{93,123} = 3.79, p < .01$)	14.4	0.0	14
82	85	34	82 ($z = -4.06, p < .01$)	82; $t(21) = 6.71, p < .01$	1.47	(0.33)	-122%	82 ($F_{21,26} = 4.61, p < .01$)	0.0	47.0	-47
83	68	27	83 ($z = 3.26, p < .01$)	83; $t(26) = 4.40, p < .01$	1.27	0.33	-74%	83 ($F_{35,26} = 3.72, p < .01$)	0.0	22.0	-22
84	40	16	84 ($z = 0.53, p > .05$)	84; $z(35) = -0.32, p > .05$	0.71	0.75	6%	84 ($F_{50,35} = 1.15, p > .05$)	0.0	0.0	0
85	4	2	85 ($z = 2.23, p < .05$)	85; $t(51) = 2.50, p < .01$	(0.45)	(0.86)	-91%	85 ($F_{15,36} = 1.87, p > .05$)	12.0	78.0	-66
86	349	141	86 ($z = 1.97, p < .05$)	86; $z(42) = -0.94, p > .05$	1.31	1.55	18%	86 ($F_{42,85} = 1.64, p > .05$)	6.6	23.8	-17
87	285	115	87 ($z = -0.28, p > .05$)	87; $z(40) = 0.94, p > .05$	1.58	1.36	-14%	87 ($F_{40,152} = 1.81, p < .05$)	0.0	23.8	-24
88	153	62	88 ($z = 0.56, p > .05$)	88; $z(69) = -0.63, p > .05$	0.54	0.67	24%	88 ($F_{69,83} = 1.07, p > .05$)	24.6	52.6	-28