

UNNORMALIZED												NORMALIZED TO 100wt% ON A WATER-FREE BASIS													
Sample	SiO ₂	TiO ₂	Al ₂ O ₃	FeOt	MgO	CaO	Na ₂ O	K ₂ O	Cl	Total	n	H ₂ Odiff	SiO ₂	TiO ₂	Al ₂ O ₃	FeOt	MgO	CaO	Na ₂ O	K ₂ O	Cl	Total	Na2O+K2O		
Unknown sample geochemistry from Baker Island (core BBL4)																									
475.5 cm																									
BBL28-1	45.54	4.53	13.99	13.33	4.13	9.90	4.26	1.79	0.10	97.58		2.42	46.67	4.64	14.34	13.66	4.24	10.14	4.37	1.84	0.10	100.00	6.21		
BBL28-2	45.17	3.82	14.02	11.93	5.85	10.26	3.54	1.48	0.12	96.18		3.82	46.96	3.98	14.57	12.41	6.08	10.67	3.68	1.54	0.12	100.00	5.21		
BBL28-5b	45.81	4.07	14.56	13.00	5.19	10.40	3.48	1.46	0.10	98.07		1.93	46.71	4.15	14.85	13.25	5.29	10.61	3.55	1.49	0.10	100.00	5.04		
BBL28-6b	46.15	4.24	14.31	13.08	4.63	10.53	3.74	1.57	0.09	98.34		1.66	46.93	4.31	14.55	13.30	4.71	10.71	3.80	1.60	0.09	100.00	5.40		
BBL28-7b	45.65	4.32	14.30	13.17	4.72	10.73	4.05	1.54	0.10	98.58		1.42	46.31	4.38	14.50	13.36	4.79	10.88	4.11	1.56	0.10	100.00	5.67		
BBL28-8b	44.74	3.79	14.95	11.47	4.13	10.81	3.95	1.53	0.18	95.56		4.44	46.82	3.96	15.65	12.01	4.32	11.31	4.13	1.61	0.19	100.00	5.74		
BBL28-9b	45.43	4.29	14.27	12.91	4.61	10.79	3.79	1.58	0.13	97.80		2.20	46.45	4.38	14.60	13.20	4.71	11.03	3.88	1.61	0.14	100.00	5.49		
BBL28-12b	45.34	4.40	13.85	12.84	3.98	10.32	3.47	1.50	0.09	95.78		4.22	47.34	4.59	14.46	13.40	4.16	10.77	3.62	1.56	0.10	100.00	5.18		
BBL28-16b	46.01	4.54	13.84	13.36	4.00	10.08	3.69	1.74	0.12	97.38		2.62	47.24	4.66	14.22	13.71	4.11	10.35	3.79	1.79	0.12	100.00	5.58		
BBL28-17b	46.21	4.42	14.46	13.49	4.48	10.42	4.24	1.66	0.14	99.51		0.49	46.43	4.44	14.53	13.56	4.50	10.48	4.26	1.67	0.14	100.00	5.93		
BBL28-18b	46.42	3.91	14.76	11.88	4.53	10.73	3.74	1.67	0.08	97.73		2.27	47.50	4.00	15.10	12.16	4.63	10.98	3.83	1.71	0.08	100.00	5.54		
BBL28-20b	46.39	3.33	11.77	16.61	12.07	8.01	2.80	1.20	0.07	102.24		-2.24	45.37	3.25	11.51	16.24	11.81	7.84	2.74	1.17	0.06	100.00	3.92		
BBL28-21b	46.80	4.05	14.66	13.02	4.99	10.60	3.07	2.04	0.08	99.31		0.69	47.13	4.08	14.77	13.11	5.02	10.68	3.09	2.05	0.08	100.00	5.14		
BBL28-22b	46.70	4.56	13.93	13.58	3.81	9.68	3.97	1.84	0.12	98.20		1.80	47.55	4.64	14.18	13.83	3.88	9.86	4.05	1.87	0.13	100.00	5.92		
BBL28-25b	46.64	4.14	14.75	12.66	4.81	10.29	3.41	1.50	0.07	98.25		1.75	47.47	4.21	15.01	12.88	4.90	10.47	3.47	1.52	0.07	100.00	4.99		
BBL28-26b	46.29	4.53	14.51	12.83	4.05	10.73	4.26	1.69	0.11	98.98		1.02	46.76	4.58	14.66	12.96	4.09	10.84	4.30	1.70	0.11	100.00	6.01		
BBL28-29b	47.26	4.53	14.63	13.37	3.81	9.76	3.70	1.65	0.08	98.79		1.21	47.84	4.59	14.81	13.53	3.86	9.88	3.75	1.67	0.08	100.00	5.41		
BBL28-30b	45.53	4.64	13.65	14.10	4.25	10.20	3.44	1.65	0.10	97.54		2.46	46.67	4.75	13.99	14.45	4.36	10.45	3.53	1.69	0.10	100.00	5.21		
BBL28-31b	46.53	3.99	14.45	12.59	4.83	10.76	3.77	1.32	0.08	98.31		1.69	47.33	4.06	14.70	12.80	4.92	10.94	3.83	1.34	0.08	100.00	5.18		
BBL28-32b	45.80	4.24	14.30	13.11	4.54	10.46	3.71	1.45	0.11	97.73		2.27	46.87	4.34	14.64	13.42	4.65	10.70	3.80	1.48	0.11	100.00	5.28		
Mean	46.02	4.22	14.20	13.12	4.87	10.27	3.70	1.59	0.10	98.09	20	1.91	46.92	4.30	14.48	13.36	4.95	10.48	3.78	1.62	0.10				
StDev	0.63	0.33	0.67	1.03	1.77	0.63	0.38	0.19	0.03	1.44		1.44	0.55	0.36	0.79	0.89	1.70	0.72	0.40	0.19	0.03				

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Sample	SiO ₂	TiO ₂	Al ₂ O ₃	FeOt	MgO	CaO	Na ₂ O	K ₂ O	Cl	Total	n	H ₂ Odiff	SiO ₂	TiO ₂	Al ₂ O ₃	FeOt	MgO	CaO	Na ₂ O	K ₂ O	Cl	Total	Na2O+K2O		
Unknown sample geochemistry from Baker Island (core BBL4) (cont.)																									
480.5 cm																									
BBL33-2	46.08	4.34	14.37	13.06	4.62	10.79	3.70	1.54	0.07	98.58		1.42	46.74	4.40	14.58	13.25	4.69	10.95	3.75	1.56	0.08	100.00	5.32		
BBL33-4	45.23	4.16	13.79	12.90	4.93	10.99	3.39	1.43	0.04	96.85		3.15	46.70	4.30	14.23	13.32	5.09	11.35	3.50	1.47	0.05	100.00	4.97		
BBL33-20	44.68	4.53	15.35	13.10	5.39	9.66	4.28	1.40	0.07	98.47		1.53	45.37	4.60	15.59	13.31	5.48	9.81	4.35	1.42	0.08	100.00	5.77		
BBL33-6b	47.72	4.57	14.13	13.07	4.31	10.39	3.83	1.72	0.08	99.82		0.18	47.80	4.58	14.15	13.09	4.32	10.41	3.84	1.72	0.08	100.00	5.55		
BBL33-8b	46.12	4.29	14.39	12.95	4.55	10.55	3.84	1.45	0.07	98.19		1.81	46.97	4.37	14.65	13.19	4.63	10.74	3.91	1.48	0.07	100.00	5.38		
BBL33-9b	46.65	4.35	14.30	12.82	4.45	10.33	3.24	1.37	0.06	97.57		2.43	47.81	4.46	14.66	13.14	4.56	10.59	3.32	1.40	0.06	100.00	4.72		
BBL33-10b	46.80	4.26	14.89	12.46	4.24	10.24	3.11	1.42	0.06	97.49		2.51	48.01	4.37	15.27	12.78	4.35	10.51	3.19	1.46	0.07	100.00	4.65		
BBL33-12b	46.88	4.48	13.59	12.94	3.85	9.80	3.87	1.97	0.11	97.48		2.52	48.09	4.59	13.94	13.28	3.95	10.06	3.97	2.02	0.11	100.00	5.99		
BBL33-13b	46.84	4.02	14.38	12.76	4.51	10.62	3.17	1.42	0.07	97.79		2.21	47.90	4.11	14.71	13.05	4.62	10.85	3.24	1.46	0.07	100.00	4.70		
BBL33-18b	46.19	4.72	13.96	13.65	4.65	10.76	3.00	1.59	0.07	98.57		1.43	46.86	4.79	14.16	13.85	4.72	10.91	3.04	1.61	0.07	100.00	4.65		
BBL33-24b	47.22	4.62	14.49	13.46	4.02	9.72	4.00	1.75	0.07	99.35		0.65	47.53	4.65	14.58	13.55	4.04	9.78	4.03	1.76	0.07	100.00	5.79		
BBL33-28b	46.71	4.25	14.30	12.89	4.81	10.54	3.94	1.47	0.09	98.99		1.01	47.18	4.29	14.44	13.02	4.86	10.64	3.98	1.49	0.09	100.00	5.47		
BBL33-4c	46.70	4.41	14.76	13.14	4.58	10.25	3.18	1.47	0.10	98.59		1.41	47.37	4.47	14.97	13.33	4.64	10.40	3.22	1.49	0.10	100.00	4.72		
BBL33-7c	46.02	3.93	14.65	12.10	4.72	10.51	3.25	1.32	0.08	96.58		3.42	47.64	4.07	15.17	12.53	4.89	10.88	3.37	1.37	0.08	100.00	4.74		
BBL33-8c	45.51	4.30	14.03	13.06	4.32	10.32	3.52	1.61	0.08	96.76		3.24	47.03	4.44	14.50	13.50	4.46	10.67	3.64	1.67	0.09	100.00	5.31		
BBL33-1d	46.95	4.20	14.82	12.90	4.92	10.62	3.21	1.38	0.08	99.09		0.91	47.38	4.24	14.96	13.02	4.97	10.72	3.24	1.39	0.08	100.00	4.63		
BBL33-1d	46.17	3.92	14.33	12.87	6.15	9.95	2.56	1.30	0.08	97.33		2.67	47.44	4.03	14.72	13.22	6.32	10.22	2.64	1.34	0.08	100.00	3.97		
Mean	46.38	4.31	14.38	12.95	4.65	10.36	3.48	1.51	0.08	98.09	17	1.91	47.28	4.40	14.66	13.20	4.74	10.56	3.54	1.54	0.08				
StDev	0.75	0.23	0.43	0.34	0.53	0.39	0.44	0.17	0.01	0.95		0.95	0.66	0.21	0.43	0.30	0.55	0.41	0.44	0.17	0.01				

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Sample	SiO ₂	TiO ₂	Al ₂ O ₃	FeOt	MgO	CaO	Na ₂ O	K ₂ O	Cl	Total	n	H ₂ Odiff	SiO ₂	TiO ₂	Al ₂ O ₃	FeOt	MgO	CaO	Na ₂ O	K ₂ O	Cl	Total	Na2O+K2O		
Unknown sample geochemistry from Baker Island (core BBL4) (cont.)																									
481 cm																									
BBL34-13	48.64	3.57	16.57	10.58	3.46	10.46	4.35	1.14	0.07	98.85		1.15	49.21	3.61	16.76	10.71	3.50	10.59	4.40	1.15	0.07	100.00	5.55		
BBL34-14	47.88	3.53	15.34	11.75	4.96	11.45	3.63	1.20	0.03	99.77		0.23	47.99	3.54	15.37	11.77	4.97	11.48	3.64	1.20	0.03	100.00	4.84		
BBL34-20	47.00	4.06	14.59	9.57	5.81	14.76	2.67	0.87	0.05	99.38		0.62	47.29	4.09	14.68	9.63	5.85	14.86	2.69	0.88	0.05	100.00	3.56		
BBL34-22	47.93	3.99	14.50	12.34	6.82	9.53	2.20	1.14	0.07	98.51		1.49	48.65	4.05	14.72	12.53	6.93	9.67	2.24	1.15	0.07	100.00	3.39		
BBL34-4b	46.92	4.04	14.68	12.18	4.85	10.64	3.71	1.42	0.04	98.48		1.52	47.64	4.10	14.91	12.37	4.92	10.81	3.76	1.45	0.04	100.00	5.21		
BBL34-5b	47.17	4.54	14.19	13.40	4.00	9.46	3.89	1.91	0.08	98.63		1.37	47.83	4.60	14.39	13.58	4.05	9.59	3.94	1.94	0.08	100.00	5.88		
BBL34-6b	46.41	4.20	14.35	12.77	4.55	10.36	3.57	1.47	0.06	97.75		2.25	47.48	4.30	14.68	13.06	4.65	10.60	3.66	1.51	0.07	100.00	5.16		
BBL34-9b	47.02	4.02	14.60	12.44	4.83	10.39	3.85	1.41	0.06	98.62		1.38	47.68	4.07	14.80	12.62	4.89	10.53	3.91	1.43	0.06	100.00	5.34		
BBL34-16b	47.17	4.25	14.85	11.50	4.48	11.51	3.39	1.92	0.07	99.14		0.86	47.58	4.29	14.98	11.60	4.52	11.61	3.42	1.94	0.07	100.00	5.35		
BBL34-18b	47.61	3.68	15.17	11.53	4.65	11.17	3.49	1.09	0.06	98.44		1.56	48.36	3.74	15.41	11.71	4.72	11.34	3.54	1.11	0.06	100.00	4.65		
BBL34-21b	47.20	4.27	14.43	12.69	4.49	10.83	3.59	1.53	0.05	99.07		0.93	47.64	4.31	14.56	12.81	4.53	10.93	3.62	1.54	0.05	100.00	5.17		
BBL34-25b	47.41	4.50	13.96	14.39	4.88	11.01	2.88	1.29	0.08	100.40		-0.40	47.22	4.49	13.90	14.34	4.86	10.97	2.86	1.28	0.08	100.00	4.15		
BBL34-26b	46.91	4.00	14.90	12.34	4.82	10.70	3.52	1.40	0.05	98.65		1.35	47.55	4.05	15.11	12.51	4.89	10.85	3.57	1.42	0.05	100.00	4.99		
BBL34-27b	45.77	4.19	13.79	12.50	4.51	10.55	3.25	1.47	0.09	96.14		3.86	47.61	4.36	14.35	13.01	4.69	10.98	3.38	1.53	0.09	100.00	4.91		
BBL34-28b	46.42	4.12	14.89	12.59	4.79	10.73	3.50	1.47	0.08	98.58		1.42	47.09	4.18	15.10	12.77	4.86	10.88	3.55	1.49	0.08	100.00	5.04		
BBL34-2c	45.04	3.91	13.94	12.30	4.70	10.70	3.28	1.43	0.06	95.36		4.64	47.23	4.10	14.62	12.89	4.93	11.23	3.44	1.50	0.06	100.00	4.94		
BBL34-3c	47.04	4.11	14.14	12.59	3.70	11.48	3.98	1.45	0.08	98.57		1.43	47.72	4.17	14.34	12.77	3.75	11.65	4.04	1.48	0.08	100.00	5.51		
BBL34-1d	47.43	4.19	14.81	12.96	4.67	10.49	3.48	1.43	0.08	99.52		0.48	47.65	4.21	14.88	13.02	4.69	10.55	3.49	1.43	0.08	100.01	4.92		
BBL34-31b	46.90	4.40	14.61	13.09	4.46	10.43	3.61	1.48	0.04	99.01		0.99	47.36	4.44	14.75	13.22	4.50	10.54	3.64	1.49	0.04	100.00	5.14		
Mean	47.05	4.08	14.65	12.29	4.71	10.88	3.46	1.40	0.06	98.57	20	1.57	47.64	4.22	14.72	12.80	4.78	10.79	3.50	1.48	0.07				
StDev	0.79	0.28	0.62	1.03	0.71	1.09	0.48	0.25	0.02	1.16		1.20	0.40	0.21	0.37	0.65	0.66	0.57	0.43	0.22	0.01				

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Sample	SiO ₂	TiO ₂	Al ₂ O ₃	FeOt	MgO	CaO	Na ₂ O	K ₂ O	Cl	Total	n	H ₂ Odiff	SiO ₂	TiO ₂	Al ₂ O ₃	FeOt	MgO	CaO	Na ₂ O	K ₂ O	Cl	Total	Na ₂ O+K ₂ O		
Analyzed on Cameca SX-50 microprobe																									
Internal Standard																									
Old Crow accepted values (Kuehn et al., 2011)***																									
72.50		0.31	12.50	1.63	0.28	1.40	3.63	3.61	0.28																
Un 16 OldCrow_Jason_begin_v3																									
368	73.01	0.45	13.02	1.65	0.29	1.52	3.53	3.80	0.21	97.47		2.53	74.91	0.46	13.36	1.69	0.30	1.56	3.62	3.90	0.21	100.00			
370	73.62	0.28	12.34	1.55	0.23	1.39	3.53	3.92	0.18	97.04		2.96	75.87	0.29	12.72	1.59	0.24	1.43	3.64	4.04	0.18	100.00			
371	73.38	0.13	13.21	1.72	0.30	1.47	3.63	3.81	0.27	97.93		2.07	74.93	0.13	13.49	1.76	0.31	1.51	3.70	3.89	0.27	100.00			
372	73.49	0.11	12.73	1.53	0.29	1.36	3.54	3.96	0.12	97.13		2.87	75.66	0.11	13.11	1.58	0.30	1.40	3.64	4.08	0.12	100.00			
Mean	73.38	0.24	12.83	1.61	0.28	1.43	3.56	3.87	0.19	97.39	4	2.61	75.34	0.25	13.17	1.65	0.29	1.47	3.65	3.98	0.20				
StDev	0.26	0.16	0.38	0.09	0.03	0.07	0.05	0.08	0.06	0.40		0.40	0.50	0.16	0.34	0.09	0.03	0.07	0.04	0.10	0.06				
Un 28 OldCrow_Jason_end_v3																									
869	73.11	0.23	12.37	1.50	0.27	1.44	3.38	4.01	0.26	96.58		3.42	75.70	0.24	12.81	1.55	0.28	1.49	3.50	4.15	0.27	100.00			
870	74.29	0.08	12.05	1.27	0.16	1.16	3.46	4.13	0.17	96.77		3.23	76.77	0.08	12.46	1.31	0.17	1.20	3.57	4.26	0.18	100.00			
871	73.05	0.04	12.49	1.61	0.28	1.35	3.51	4.04	0.69	97.05		2.95	75.26	0.04	12.87	1.65	0.29	1.39	3.62	4.17	0.71	100.00			
872	73.21	3.24	13.01	1.46	0.30	1.09	3.52	3.74	0.28	99.86		0.14	73.31	3.24	13.03	1.46	0.31	1.09	3.53	3.75	0.28	100.00			
873	73.37	0.71	12.84	1.44	0.29	1.48	3.52	3.92	0.32	97.89		2.11	74.95	0.73	13.12	1.48	0.29	1.51	3.60	4.00	0.32	100.00			
874	73.21	0.54	12.46	1.59	0.31	1.06	3.25	3.43	0.44	96.30		3.70	76.03	0.56	12.94	1.65	0.32	1.11	3.37	3.56	0.46	100.00			
875	72.82	0.25	12.39	1.59	0.30	1.22	3.23	3.71	0.33	95.85		4.15	75.98	0.26	12.93	1.66	0.32	1.27	3.37	3.87	0.34	100.00			
876	73.32	0.06	12.66	1.50	0.28	1.15	3.06	3.66	0.28	95.98		4.02	76.39	0.07	13.19	1.56	0.29	1.20	3.19	3.82	0.29	100.00			
877	72.62	0.00	11.77	1.86	0.30	1.23	3.35	3.70	0.24	95.06		4.94	76.39	0.00	12.38	1.95	0.31	1.29	3.53	3.89	0.26	100.00			
878	73.69	0.06	13.08	1.73	0.29	1.28	3.40	3.82	0.17	97.51		2.49	75.57	0.06	13.42	1.78	0.30	1.31	3.49	3.91	0.17	100.00			
879	72.84	0.54	11.90	1.53	0.29	1.54	3.58	3.72	0.20	96.13		3.87	75.77	0.56	12.37	1.59	0.30	1.60	3.73	3.87	0.21	100.00			
881	73.36	0.06	12.68	1.57	0.22	1.38	3.45	3.73	0.18	96.64		3.36	75.91	0.06	13.12	1.62	0.23	1.43	3.57	3.86	0.19	100.00			
882	73.26	1.31	12.44	1.47	0.31	1.59	3.14	3.86	0.25	97.63		2.37	75.04	1.35	12.74	1.50	0.32	1.63	3.22	3.95	0.26	100.00			
883	73.11	0.23	12.67	1.63	0.27	1.47	3.51	3.81	0.24	96.94		3.06	75.42	0.23	13.07	1.68	0.28	1.52	3.62	3.93	0.24	100.00			
884	72.75	0.12	12.59	1.70	0.29	1.46	3.21	3.77	0.24	96.12		3.88	75.69	0.13	13.09	1.77	0.30	1.52	3.34	3.92	0.25	100.00			
885	73.55	0.10	12.93	1.52	0.27	1.39	3.50	3.89	0.49	97.63		2.37	75.34	0.10	13.24	1.56	0.27	1.42	3.58	3.98	0.50	100.00			
Mean	73.22	0.47	12.52	1.56	0.28	1.33	3.38	3.81	0.30	96.87	16	3.13	75.60	0.48	12.92	1.61	0.29	1.37	3.49	3.93	0.31				
StDev	0.40	0.81	0.38	0.13	0.04	0.16	0.16	0.17	0.14	1.10		1.10	0.79	0.82	0.31	0.15	0.04	0.17	0.15	0.17	0.14				

UNNORMALIZED													NORMALIZED TO 100wt% ON A WATER-FREE BASIS												
Sample	SiO ₂	TiO ₂	Al ₂ O ₃	FeOt	MgO	CaO	Na ₂ O	K ₂ O	Cl	Total	n	H ₂ Odiff	SiO ₂	TiO ₂	Al ₂ O ₃	FeOt	MgO	CaO	Na ₂ O	K ₂ O	Cl	Total	Na2O+K2O		
Unkown sample geochemistry from Leech Lake																									
Un 25 Jason_Leech																									
739	47.39	6.46	14.69	12.91	4.01	8.78	5.17	1.91	0.18	101.50		-1.50	46.69	6.36	14.48	12.72	3.95	8.65	5.09	1.88	0.17	100.00	6.97		
747	47.21	2.79	14.77	13.12	4.03	9.07	5.05	2.09	0.07	98.18		1.82	48.08	2.84	15.04	13.36	4.10	9.24	5.14	2.12	0.07	100.00	7.27		
754	46.43	3.51	14.99	12.45	4.59	10.37	4.89	1.77	0.17	99.17		0.83	46.82	3.54	15.12	12.55	4.62	10.46	4.93	1.78	0.17	100.00	6.71		
755	45.79	3.56	14.07	13.90	4.41	9.90	4.93	2.01	0.17	98.73		1.27	46.37	3.60	14.25	14.08	4.47	10.03	4.99	2.03	0.17	100.00	7.03		
757	45.86	4.29	14.43	13.31	4.30	9.97	4.83	1.94	0.10	99.02		0.98	46.31	4.33	14.57	13.44	4.34	10.07	4.88	1.96	0.10	100.00	6.83		
761	46.31	5.80	14.43	13.51	4.49	10.55	4.63	1.75	0.06	101.53		-1.53	45.62	5.71	14.21	13.31	4.42	10.39	4.56	1.72	0.06	100.00	6.28		
767	46.10	4.08	15.02	12.24	5.19	9.88	4.69	1.63	0.15	98.98		1.02	46.57	4.13	15.18	12.36	5.24	9.98	4.73	1.65	0.15	100.00	6.38		
768	46.23	4.70	14.87	13.33	3.82	9.14	5.36	1.78	0.08	99.31		0.69	46.55	4.73	14.97	13.42	3.84	9.20	5.40	1.79	0.08	100.00	7.20		
770	46.37	5.02	14.57	12.90	4.11	8.59	4.92	1.79	0.24	98.52		1.48	47.07	5.10	14.79	13.10	4.17	8.72	5.00	1.82	0.24	100.00	6.81		
775	46.57	5.98	14.68	13.12	4.22	8.91	4.67	1.95	0.03	100.13		-0.13	46.51	5.97	14.66	13.11	4.21	8.90	4.66	1.95	0.03	100.00	6.61		
Mean	46.43	4.62	14.65	13.08	4.32	9.52	4.91	1.86	0.12	99.51	10	0.49	46.66	4.63	14.73	13.15	4.34	9.56	4.94	1.87	0.13				
StDev	0.52	1.20	0.29	0.49	0.39	0.70	0.23	0.14	0.07	1.18		1.18	0.63	1.15	0.35	0.50	0.40	0.70	0.25	0.15	0.07				
Unkown sample geochemistry from Gulf of Esquibel																									
Un 67 Jason_11JC_1295																									
2028	45.96	5.72	14.67	13.38	4.25	8.11	4.41	1.85	0.04	98.39		1.61	46.71	5.82	14.91	13.60	4.32	8.24	4.48	1.88	0.04	100.00	6.36		
2030	44.27	7.31	14.86	14.06	4.65	10.15	4.40	1.46	0.07	101.22		-1.22	43.73	7.22	14.68	13.89	4.59	10.02	4.34	1.44	0.07	100.00	5.79		
2034	45.55	5.69	13.82	13.05	4.64	9.59	5.15	1.66	0.44	99.59		0.41	45.74	5.72	13.88	13.10	4.66	9.63	5.17	1.67	0.44	100.00	6.83		
2042	46.06	4.59	15.17	13.52	4.30	9.35	4.89	1.89	0.13	99.90		0.10	46.11	4.60	15.19	13.54	4.30	9.35	4.89	1.89	0.13	100.00	6.78		
2045	46.81	5.42	14.91	12.98	3.96	9.92	6.12	3.12	0.20	103.46		-3.46	45.25	5.24	14.42	12.55	3.83	9.59	5.92	3.02	0.20	100.00	8.93		
2048	45.68	3.65	14.63	13.31	4.16	10.56	4.95	1.94	0.07	98.96		1.04	46.16	3.69	14.78	13.45	4.21	10.68	5.00	1.96	0.07	100.00	6.96		
2062	45.42	7.06	14.15	14.37	4.57	9.66	5.03	1.91	0.09	102.27		-2.27	44.41	6.90	13.84	14.05	4.47	9.45	4.92	1.87	0.09	100.00	6.79		
2066	45.78	4.35	13.73	12.84	4.09	8.58	4.69	1.74	0.11	95.90		4.10	47.73	4.53	14.32	13.38	4.26	8.94	4.89	1.82	0.12	100.00	6.71		
2068	45.94	5.09	14.15	13.46	4.29	8.89	6.22	1.83	0.16	100.02		-0.02	45.93	5.09	14.14	13.45	4.29	8.89	6.21	1.83	0.16	100.00	8.04		
2072	45.94	5.11	15.10	13.14	4.45	10.48	4.16	1.68	0.16	100.23		-0.23	45.83	5.10	15.06	13.11	4.44	10.46	4.15	1.68	0.16	100.00	5.83		
2073	46.06	6.19	15.27	12.50	4.13	8.31	4.79	1.68	0.30	99.21		0.79	46.42	6.23	15.39	12.60	4.16	8.37	4.83	1.69	0.31	100.00	6.52		
Mean	45.77	5.47	14.59	13.33	4.32	9.42	4.98	1.89	0.16	99.92	11	0.08	45.82	5.47	14.60	13.34	4.32	9.42	4.98	1.88	0.16				
StDev	0.61	1.10	0.54	0.53	0.23	0.85	0.66	0.43	0.12	2.00		2.00	1.08	1.05	0.52	0.47	0.22	0.78	0.62	0.40	0.12				

UNNORMALIZED												NORMALIZED TO 100wt% ON A WATER-FREE BASIS												
Sample	SiO ₂	TiO ₂	Al ₂ O ₃	FeOt	MgO	CaO	Na ₂ O	K ₂ O	Cl	Total	n	H ₂ Odiff	SiO ₂	TiO ₂	Al ₂ O ₃	FeOt	MgO	CaO	Na ₂ O	K ₂ O	Cl	Total	Na2O+K2O	
Un 26 Jason_11JC_1296																								
781	46.06	3.14	15.51	12.83	5.65	11.27	4.52	1.02	0.10	100.09		-0.09	46.02	3.13	15.50	12.82	5.65	11.26	4.51	1.02	0.10	100.00	5.53	
788	45.82	3.96	14.00	12.94	4.20	10.33	4.80	1.84	0.06	97.94		2.06	46.78	4.04	14.30	13.21	4.29	10.54	4.91	1.87	0.06	100.00	6.78	
789	46.34	3.33	13.48	10.99	7.55	15.96	3.08	0.86	0.03	101.62		-1.62	45.60	3.28	13.27	10.82	7.43	15.71	3.03	0.84	0.03	100.00	3.87	
793	46.60	1.78	15.26	12.30	5.88	11.57	4.36	1.05	0.03	98.84		1.16	47.15	1.80	15.44	12.45	5.94	11.71	4.41	1.07	0.04	100.00	5.48	
794	46.40	4.42	16.17	12.51	5.87	11.07	4.57	0.99	0.03	102.03		-2.03	45.48	4.33	15.84	12.27	5.75	10.85	4.48	0.97	0.03	100.00	5.45	
798	45.70	4.71	14.65	13.27	6.46	11.51	4.19	1.02	0.05	101.57		-1.57	45.00	4.64	14.42	13.06	6.36	11.33	4.13	1.01	0.05	100.00	5.14	
799	46.10	4.39	14.75	12.70	5.66	11.29	4.65	1.10	0.07	100.71		-0.71	45.78	4.36	14.65	12.61	5.62	11.21	4.62	1.09	0.07	100.00	5.71	
801	47.54	3.33	18.51	10.47	3.93	12.68	3.08	0.97	0.04	100.55		-0.55	47.28	3.31	18.41	10.41	3.91	12.61	3.06	0.96	0.04	100.00	4.03	
804	47.34	1.77	16.78	11.47	6.35	10.99	4.28	0.99	0.05	100.00		0.00	47.34	1.77	16.77	11.47	6.35	10.99	4.28	0.99	0.05	100.00	5.27	
805	47.01	2.08	16.14	11.78	6.21	11.37	4.21	1.02	0.04	99.86		0.14	47.08	2.09	16.16	11.80	6.22	11.38	4.22	1.02	0.04	100.00	5.24	
806	46.56	5.04	15.89	11.57	6.59	10.78	4.17	1.13	0.08	101.80		-1.80	45.73	4.95	15.61	11.36	6.47	10.59	4.10	1.11	0.08	100.00	5.20	
808	46.39	2.00	16.26	11.48	6.21	9.46	4.24	0.96	0.00	97.00		3.00	47.83	2.06	16.76	11.84	6.40	9.76	4.37	0.99	0.00	100.00	5.36	
810	46.23	4.79	17.51	10.25	5.91	10.09	4.53	0.81	0.06	100.17		-0.17	46.15	4.78	17.48	10.23	5.90	10.07	4.53	0.81	0.06	100.00	5.33	
811	45.85	1.46	15.60	11.98	5.19	11.03	4.28	0.99	0.03	96.42		3.58	47.56	1.51	16.17	12.43	5.39	11.44	4.44	1.03	0.03	100.00	5.47	
815	44.90	5.46	13.86	11.65	5.89	10.53	3.98	1.27	0.07	97.60		2.40	46.00	5.60	14.20	11.93	6.04	10.78	4.08	1.30	0.07	100.00	5.37	
816	44.97	4.56	14.47	12.47	4.88	8.47	4.73	1.68	0.07	96.30		3.70	46.70	4.73	15.03	12.95	5.06	8.79	4.91	1.75	0.07	100.00	6.66	
817	46.94	2.48	14.75	13.67	7.68	7.80	4.59	1.82	0.09	99.81		0.19	47.02	2.48	14.78	13.70	7.69	7.81	4.60	1.82	0.09	100.00	6.42	
821	45.75	2.66	14.45	12.28	5.18	11.53	5.01	1.49	0.05	98.41		1.59	46.49	2.71	14.68	12.48	5.26	11.72	5.09	1.52	0.05	100.00	6.61	
822	45.02	5.31	14.27	12.71	5.07	9.39	5.09	1.63	0.16	98.65		1.35	45.64	5.39	14.46	12.88	5.14	9.52	5.16	1.65	0.16	100.00	6.81	
Mean	46.19	3.51	15.38	12.07	5.81	10.90	4.33	1.19	0.06	99.44	19	0.56	46.45	3.52	15.47	12.14	5.84	10.95	4.36	1.20	0.06			
StDev	0.75	1.33	1.31	0.91	0.96	1.69	0.53	0.33	0.03	1.80		1.80	0.81	1.33	1.27	0.95	0.92	1.61	0.56	0.34	0.03			

UNNORMALIZED												NORMALIZED TO 100wt% ON A WATER-FREE BASIS												
Sample	SiO ₂	TiO ₂	Al ₂ O ₃	FeOt	MgO	CaO	Na ₂ O	K ₂ O	Cl	Total	n	H ₂ Odiff	SiO ₂	TiO ₂	Al ₂ O ₃	FeOt	MgO	CaO	Na ₂ O	K ₂ O	Cl	Total	Na2O+K2O	
Unkown sample geochemistry from Gulf of Esquibel (cont.)																								
Un 24 Jason_11JC_1297																								
691	46.72	3.29	15.82	12.61	6.54	11.56	4.27	0.94	0.04	101.79		-1.79	45.89	3.24	15.55	12.39	6.42	11.36	4.19	0.92	0.04	100.00	5.11	
692	47.29	1.82	16.93	11.37	5.82	11.76	4.21	0.81	0.04	100.04		-0.04	47.27	1.82	16.93	11.36	5.81	11.76	4.20	0.81	0.04	100.00	5.01	
693	46.60	5.05	15.05	12.07	6.37	10.51	4.78	0.95	0.01	101.40		-1.40	45.96	4.98	14.84	11.90	6.28	10.36	4.72	0.94	0.01	100.00	5.66	
694	47.99	2.06	16.98	11.35	5.44	10.76	3.49	0.98	0.02	99.08		0.92	48.44	2.08	17.14	11.45	5.49	10.86	3.53	0.99	0.02	100.00	4.51	
700	47.24	2.32	14.15	14.12	6.46	10.69	4.54	1.44	0.07	101.03		-1.03	46.75	2.30	14.01	13.97	6.40	10.58	4.49	1.43	0.07	100.00	5.92	
702	46.32	2.75	15.37	12.23	5.99	11.22	4.33	1.12	0.05	99.37		0.63	46.61	2.76	15.46	12.31	6.03	11.29	4.35	1.12	0.05	100.00	5.48	
703	46.29	2.83	14.94	12.07	6.27	11.65	4.42	0.99	0.10	99.55		0.45	46.50	2.84	15.01	12.12	6.30	11.70	4.44	1.00	0.10	100.00	5.44	
704	46.91	1.81	15.46	11.90	5.97	11.43	4.33	0.97	0.14	98.92		1.08	47.42	1.83	15.63	12.03	6.03	11.56	4.38	0.98	0.15	100.00	5.36	
706	47.10	2.33	16.32	11.68	6.16	11.33	4.05	1.03	0.08	100.09		-0.09	47.05	2.33	16.31	11.67	6.16	11.32	4.05	1.03	0.08	100.00	5.08	
709	45.72	6.10	16.49	11.73	7.69	10.78	4.60	1.01	0.01	104.15		-4.15	43.90	5.85	15.84	11.27	7.38	10.35	4.42	0.97	0.01	100.00	5.39	
710	46.59	5.49	16.20	11.75	5.06	11.85	4.50	1.09	0.00	102.53		-2.53	45.45	5.36	15.80	11.46	4.93	11.56	4.39	1.06	0.00	100.00	5.45	
711	46.60	3.75	16.02	12.27	5.88	11.90	4.19	0.95	0.12	101.68		-1.68	45.83	3.69	15.75	12.07	5.78	11.71	4.12	0.93	0.12	100.00	5.05	
715	46.06	4.60	15.56	12.61	5.74	11.62	4.60	1.10	0.19	102.07		-2.07	45.12	4.50	15.25	12.35	5.63	11.38	4.50	1.07	0.19	100.00	5.58	
718	46.60	3.55	15.58	11.01	6.25	11.39	4.02	1.01	0.05	99.45		0.55	46.86	3.57	15.66	11.07	6.29	11.46	4.04	1.01	0.05	100.00	5.05	
721	46.60	4.40	16.00	11.90	6.46	11.44	4.28	1.00	0.05	102.13		-2.13	45.63	4.31	15.67	11.65	6.32	11.21	4.19	0.98	0.05	100.00	5.17	
723	46.03	3.37	15.81	11.50	6.13	11.53	4.21	0.95	0.03	99.56		0.44	46.23	3.39	15.88	11.55	6.16	11.58	4.23	0.95	0.03	100.00	5.18	
724	46.43	5.16	15.76	12.27	6.29	11.73	4.18	0.95	0.00	102.75		-2.75	45.18	5.02	15.33	11.94	6.12	11.41	4.06	0.92	0.00	100.00	4.99	
725	46.95	2.08	16.05	11.52	6.48	10.12	3.70	0.83	0.14	97.86		2.14	47.97	2.13	16.40	11.77	6.62	10.34	3.78	0.84	0.14	100.00	4.63	
726	46.28	1.73	15.50	11.75	6.50	10.31	4.31	0.87	0.02	97.25		2.75	47.59	1.77	15.94	12.08	6.68	10.60	4.43	0.89	0.02	100.00	5.32	
728	46.43	4.30	15.43	11.57	7.86	9.86	4.03	0.86	0.09	100.44		-0.44	46.23	4.28	15.37	11.52	7.82	9.81	4.01	0.85	0.09	100.00	4.87	
729	46.89	3.83	15.46	11.40	6.08	10.46	4.05	0.84	0.05	99.07		0.93	47.33	3.86	15.61	11.51	6.14	10.56	4.09	0.85	0.05	100.00	4.94	
730	46.38	3.55	15.31	12.28	6.64	10.44	4.17	1.08	0.07	99.92		0.08	46.41	3.56	15.33	12.29	6.65	10.45	4.17	1.08	0.07	100.00	5.25	
731	46.50	3.42	15.08	12.63	6.46	11.58	4.04	1.00	0.04	100.73		-0.73	46.16	3.40	14.97	12.53	6.41	11.49	4.01	0.99	0.04	100.00	5.00	
732	45.95	2.50	16.18	11.81	6.37	10.27	4.41	0.89	0.05	98.44		1.56	46.68	2.54	16.44	12.00	6.47	10.43	4.48	0.90	0.05	100.00	5.38	
735	46.68	2.61	16.57	11.73	6.09	10.95	4.05	0.80	0.06	99.53		0.47	46.90	2.62	16.64	11.78	6.12	11.01	4.07	0.80	0.06	100.00	4.87	
Mean	46.61	3.39	15.76	11.96	6.28	11.09	4.23	0.98	0.06	100.35	25	-0.35	46.45	3.36	15.71	11.92	6.26	11.05	4.21	0.97	0.06			
StDev	0.48	1.24	0.64	0.62	0.58	0.61	0.28	0.13	0.05	1.65		1.65	0.99	1.18	0.69	0.57	0.56	0.56	0.26	0.13	0.05			

UNNORMALIZED												NORMALIZED TO 100wt% ON A WATER-FREE BASIS												
Sample	SiO ₂	TiO ₂	Al ₂ O ₃	FeOt	MgO	CaO	Na ₂ O	K ₂ O	Cl	Total	n	H ₂ Odiff	SiO ₂	TiO ₂	Al ₂ O ₃	FeOt	MgO	CaO	Na ₂ O	K ₂ O	Cl	Total	Na2O+K2O	
Unkown sample geochemistry from Gulf of Esquibel (cont.)																								
Un 17 Jason_11JC_1298																								
377	47.05	2.84	16.01	12.27	6.21	11.09	4.30	1.04	0.05	100.86		-0.86	46.65	2.82	15.87	12.16	6.16	10.99	4.27	1.03	0.05	100.00	5.30	
381	46.02	4.05	15.10	12.23	6.17	11.73	4.57	0.95	0.10	100.91		-0.91	45.60	4.01	14.96	12.12	6.12	11.62	4.53	0.94	0.09	100.00	5.47	
382	45.91	3.19	15.63	12.37	6.21	11.51	4.39	0.99	0.00	100.20		-0.20	45.82	3.18	15.60	12.34	6.20	11.49	4.38	0.99	0.00	100.00	5.38	
383	45.84	1.69	16.21	12.25	6.26	10.91	4.24	0.90	0.04	98.35		1.65	46.61	1.72	16.49	12.46	6.36	11.09	4.31	0.92	0.04	100.00	5.23	
385	45.56	4.07	15.62	13.03	6.12	11.52	4.32	0.96	0.22	101.42		-1.42	44.92	4.01	15.40	12.84	6.03	11.36	4.26	0.95	0.22	100.00	5.21	
386	45.87	2.98	16.18	11.66	5.72	11.26	4.50	1.10	0.14	99.41		0.59	46.14	2.99	16.28	11.73	5.75	11.33	4.52	1.11	0.14	100.00	5.63	
388	45.59	5.37	14.06	13.41	6.15	11.32	4.23	1.03	0.07	101.22		-1.22	45.04	5.30	13.89	13.25	6.07	11.19	4.18	1.01	0.07	100.00	5.20	
389	47.28	1.50	16.06	11.65	5.12	11.71	4.34	0.97	0.03	98.65		1.35	47.93	1.52	16.28	11.81	5.19	11.87	4.40	0.99	0.03	100.00	5.39	
391	46.47	3.79	16.17	11.93	5.94	10.42	4.78	1.22	0.01	100.74		-0.74	46.13	3.76	16.05	11.85	5.90	10.34	4.74	1.21	0.01	100.00	5.96	
393	45.93	4.32	14.55	14.04	5.39	11.98	4.10	1.05	0.11	101.48		-1.48	45.26	4.26	14.34	13.84	5.31	11.81	4.04	1.03	0.11	100.00	5.07	
394	46.25	5.18	16.24	12.85	5.70	11.50	4.37	1.08	0.02	103.21		-3.21	44.81	5.02	15.74	12.45	5.52	11.15	4.24	1.05	0.02	100.00	5.29	
398	46.66	2.76	17.54	11.38	4.87	12.71	3.96	0.75	0.12	100.75		-0.75	46.31	2.73	17.41	11.30	4.83	12.61	3.93	0.74	0.12	100.00	4.68	
406	45.72	3.08	15.03	12.83	5.81	10.82	4.82	1.26	0.02	99.39		0.61	46.00	3.10	15.12	12.91	5.84	10.89	4.85	1.27	0.02	100.00	6.12	
407	45.43	3.52	14.91	12.26	6.53	11.18	4.83	1.11	0.05	99.82		0.18	45.52	3.52	14.93	12.28	6.54	11.20	4.84	1.12	0.05	100.00	5.95	
409	47.10	2.23	16.14	12.12	6.38	10.86	4.12	0.95	0.02	99.93		0.07	47.13	2.23	16.15	12.13	6.38	10.87	4.12	0.95	0.02	100.00	5.08	
412	46.48	5.42	16.29	11.18	6.05	11.40	4.34	0.93	0.09	102.18		-2.18	45.49	5.30	15.95	10.94	5.92	11.16	4.25	0.91	0.08	100.00	5.16	
413	45.76	3.71	15.94	11.97	6.39	10.59	4.21	0.95	0.05	99.57		0.43	45.96	3.73	16.00	12.02	6.42	10.63	4.23	0.95	0.05	100.00	5.18	
414	46.86	4.28	16.98	11.54	5.61	11.51	4.32	1.02	0.01	102.13		-2.13	45.88	4.19	16.62	11.30	5.49	11.27	4.23	1.00	0.01	100.00	5.23	
415	47.75	1.99	16.67	11.59	7.02	11.02	4.05	0.90	0.05	101.05		-1.05	47.26	1.97	16.50	11.47	6.95	10.91	4.00	0.89	0.05	100.00	4.89	
416	46.37	2.79	15.80	11.66	6.92	10.55	4.31	0.94	0.13	99.48		0.52	46.61	2.81	15.88	11.72	6.96	10.61	4.33	0.95	0.13	100.00	5.28	
417	47.14	2.29	16.28	11.98	6.26	11.22	3.87	1.07	0.02	100.13		-0.13	47.07	2.28	16.26	11.97	6.25	11.21	3.87	1.06	0.02	100.00	4.93	
418	46.47	3.24	16.68	11.80	6.18	11.15	4.15	0.96	0.01	100.65		-0.65	46.17	3.22	16.57	11.73	6.14	11.07	4.13	0.96	0.01	100.00	5.08	
825	46.37	2.86	17.67	11.24	5.19	11.76	4.53	0.95	0.03	100.59		-0.59	46.10	2.85	17.57	11.17	5.15	11.69	4.51	0.94	0.03	100.00	5.45	
828	46.60	2.16	16.26	12.11	6.37	10.58	4.37	0.94	0.04	99.44		0.56	46.86	2.18	16.36	12.18	6.41	10.64	4.40	0.95	0.04	100.00	5.35	
829	46.64	3.81	16.54	11.67	6.21	8.91	4.33	0.96	0.02	99.09		0.91	47.06	3.85	16.69	11.78	6.26	8.99	4.37	0.97	0.02	100.00	5.34	
832	46.52	4.09	14.57	12.21	6.17	10.80	4.31	1.00	0.01	99.68		0.32	46.67	4.10	14.62	12.25	6.19	10.84	4.33	1.00	0.01	100.00	5.32	
834	47.03	2.90	15.56	12.35	6.06	11.21	4.10	1.01	0.02	100.26		-0.26	46.91	2.90	15.52	12.32	6.05	11.18	4.09	1.01	0.02	100.00	5.10	
835	38.71	1.23	12.50	10.20	5.97	9.66	4.08	0.90	0.17	83.41		16.59	46.40	1.48	14.98	12.23	7.16	11.58	4.89	1.07	0.21	100.00	5.97	
836	46.11	2.40	15.33	12.64	5.86	11.56	4.41	1.08	0.06	99.45		0.55	46.37	2.41	15.42	12.71	5.89	11.63	4.43	1.08	0.06	100.00	5.52	
837	46.91	2.61	15.51	12.71	5.30	11.78	4.28	1.17	0.09	100.35		-0.35	46.74	2.60	15.46	12.66	5.28	11.74	4.26	1.16	0.08	100.00	5.43	

