

Sample	U94-R105	MGE794	TPC402	W97-38	H92-29	BB83-10b	Sample
Age, Ma	27.3-27.0	36.8		27.3-27.0	27.1		Age, Ma
Long W	104 03.6	104 20.6		104 04.1	104 03.1	103 16	Long W
Lat N	29 29.5	30 1.8		29 29.2	29 30.8	29 20	Lat N
SiO2	66.25	66.15	65.17	66.80	66.24	65.35	SiO2
TiO2	0.56	0.82	0.46	0.58	0.46	0.24	TiO2
Al2O3	15.73	15.67	14.91	16.61	16.43	13.99	Al2O3
Fe2O3		2.02	7.25			5.38	Fe2O3
FeO		1.80	0.10				FeO
FeO*	4.04			4.16	3.62		FeO*
MnO	0.10	0.11	0.12	0.08	0.13	0.19	MnO
MgO	0.69	1.13	0.02	0.67	0.24	0.16	MgO
CaO	2.10	2.36	0.23	0.82	0.87	2.45	CaO
Na2O	4.84	4.96	4.64	5.18	6.15	4.49	Na2O
K2O	5.68	4.70	5.58	5.80	5.76	6.28	K2O
P2O5	0.18	0.28	0.02	0.17	0.1	0.03	P2O5
H2O+		0.27	1.08				H2O+
H2O-			0.28				H2O-
CO2		0.30					CO2
Total	100.17	100.56	99.86	100.92	100.23	98.56	Total
SiO2'	66.13	66.16	66.16	66.20	66.24	66.30	SiO2'
(Na2O+K2O)'	10.51	9.65	10.38	10.88	11.91	10.93	(Na2O+K2O)'
Sc					3	2.69	Sc
V		28			30		V
Cr		3				2.86	Cr
Ni		5			10		Ni
Cu		4			4		Cu
Zn		65	125		119	151	Zn
Ga					28		Ga
Rb	121	127	183	113	197	141	Rb
Sr	93	371	25	112	111	58	Sr
Y	60	33	58	47	76	80	Y
Zr	781	411	738	812	746	830	Zr
Nb	78	45	67	79	195.7	77	Nb
Cs						1.37	Cs
Ba		1010			526	343	Ba
La		65			111	161	La
Ce		128			243	309	Ce
Pr		15					Pr
Nd		52				157	Nd
Sm		11				21.83	Sm
Eu		2.4				0.9	Eu
Gd		9.8					Gd
Tb		1.7				2.67	Tb
Dy		7.9					Dy
Ho		2					Ho
Er		4.3					Er
Tm		0.9					Tm
Yb		4.2				7.7	Yb
Lu		0.9				1.13	Lu

Hf						21.76	Hf
Ta						6.04	Ta
Pb					16		Pb
Th		20			25	22.2	Th
U		4				3.84	U
Li		16					Li
F		460					F
Rb/Sr	1.30	0.34	7.32	1.01	1.77	2.43	Rb/Sr
Cen/Ybn		8.24				10.85	Cen/Ybn
Eu*		0.69				0.13	Eu*
Zr/Hf						38.1	Zr/Hf
Ba/Rb		7.95			2.67	2.43	Ba/Rb
Rb/Th		6.35			7.88	6.35	Rb/Th
87Sr/86Sr,l							87Sr/86Sr,l
143Nd/144Nd							143Nd/144Nd
206Pb/204Pb							206Pb/204Pb
207Pb/204Pb							207Pb/204Pb
208Pb/204Pb							208Pb/204Pb

H92-31	H91-125	H92-33	3H-2	H92-5	TPC-418	Sample	PP-208	H88-12
27.3-27.0	27.13	27.3-27.0		27.3-27.0		Age, Ma		27.26
103 59.9	103 57.8	103 57.7	103 12	103 59.5	103 13	Long W	103 41	103 58.5
29 28.6	29 23.6	29 28.6	29 57	29 28.2	29 19	Lat N	30 25	29 28.5
66.32	66.39	66.44	65.74	66.47	65.39	SiO2	66.55	66.52
0.59	0.43	0.54	0.10	0.55	0.37	TiO2	0.30	0.29
16.32	15.76	16.31	16.74	16.71	15.18	Al2O3	16.44	15.90
			1.58		4.11	Fe2O3	3.10	3.41
			1.26		1.37	FeO	0.38	1.01
4.00	4.10	3.64		3.53		FeO*		
0.10	0.16	0.09	0.16	0.10	0.11	MnO	0.23	0.14
0.04	0.06	0.23	0.14	0.07	0.02	MgO	0.21	0.10
1.84	0.67	1.27	0.70	1.26	1.45	CaO	0.25	0.58
5.17	6.64	5.60	6.88	5.54	4.58	Na2O	6.56	6.73
5.51	5.74	5.78	5.54	5.61	5.63	K2O	5.45	5.26
0.12	0.05	0.10	0.09	0.12	0.14	P2O5	0.10	0.05
			0.76		0.44	H2O+	0.65	0.30
			0.30		0.72	H2O-	0.15	
			0.38		0.01	CO2	0.01	0.07
99.12	99.91	99.82	100.37	100.1	99.52	Total	100.88	99.66
66.32	66.39	66.44	66.45	66.47	66.49	SiO2'	66.50	66.52
10.68	12.38	11.38	12.55	11.15	10.38	(Na2O+K2O)'	12.00	11.71
15	9	7		8		Sc		
5		6		14		V		
						Cr		
6	10	6		8		Ni		
1		2				Cu		
108	152	99	119	106	117	Zn	93	
25	30	25		29		Ga		
113	174	123	302	117	153	Rb	114	
147	8	94	27	161	52	Sr		12
51	64	54	42	50	64	Y	76	85
738	1104	806	660	759	720	Zr	914	1170
94.5	184	102.2	238	96.7	66	Nb	164	
	1.22					Cs		
999	41	733		991		Ba		33
69	121	73		62		La		117
161	209	190		181		Ce		223
	23.2					Pr		25.3
	84.8					Nd		96
	16.7					Sm		17.7
	1.11					Eu		1.13
	13.3					Gd		16.7
	2.12					Tb		2.6
	12.08					Dy		16.4
	2.23					Ho		3.2
	6.22					Er		9.6
	0.84					Tm		1.5
	5.43					Yb		9.3
	0.86					Lu		1.4

	15.9					Hf		
	8.6					Ta		
11	19	17		14		Pb		
11	14.4	10		12		Th		
	2.9					U		
						Li		
						F		1100
0.77	21.8	1.31	11.2	0.73	2.94	Rb/Sr		
	10.41					Cen/Ybn		6.48
	0.22					Eu*		0.2
	69.4					Zr/Hf		
8.84	0.24	5.96		9.35		Ba/Rb		
10.3	12.1	12.3		9.75		Rb/Th		
						87Sr/86Sr,l		
						143Nd/144Nd		
						206Pb/204Pb		
						207Pb/204Pb		
						208Pb/204Pb		

W97-37	DP-140	MN30	MGE768	Sample	BB83-19	J85-64A	GSL-45	U94-R108
27.3-27.0	36.8	36.3	36	Age, Ma		36.8		27.3-27.0
104 03.3	103 57	103 50.4		Long W	103 12	104 40	103 17	104 03
29 29.1	30 49	30 18.7		Lat N	29 17	30 32.5	29 19.8	29 29.2
67.46	65.49	66.57	66.58	SiO2	65.76	67.02	65.21	67.75
0.48	0.71	0.26	0.74	TiO2	0.26	0.58	0.39	0.58
16.17	15.09	15.62	16.60	Al2O3	14.65	13.08	14.60	16.41
	4.48	5.06	1.65	Fe2O3	5.55	1.76	1.05	
	0.40		1.15	FeO		4.03	4.32	
4.08				FeO*				4.12
0.13	0.12	0.21	0.07	MnO	0.15	0.24	0.18	0.06
0.50	0.28	0.32	0.51	MgO	0.55	0.24	0.17	0.80
0.51	0.74	0.69	1.26	CaO	1.26	1.70	1.72	0.94
6.21	5.06	5.87	5.23	Na2O	4.62	4.85	4.41	5.12
5.67	5.90	5.32	6.00	K2O	5.80	4.51	5.68	5.67
0.21	0.23	0.09	0.20	P2O5	0.13	0.06	0.12	0.17
	0.56			H2O+		2.50		
	0.26			H2O-				
	0.02			CO2				
101.42	99.22	100	100	Total	98.73	100.57	97.85	101.62
66.67	66.57	66.57	66.58	SiO2'	66.61	66.64	66.64	66.67
10.62	11.14	11.19	11.23	(Na2O+K2O)'	10.55	9.31	10.31	10.62
		7.79		Sc	5.88		7.7	
		29		V				
				Cr	2.68		2.27	
				Ni			3	
				Cu				
	91	186		Zn	129		154	
				Ga				
143	85	186		Rb	139		145	115
25	26	46		Sr	65		63	103
71	44	108		Y	23		35	58
965	349	1293		Zr	706		725	789
136	33*	181		Nb	53*		22*	87
				Cs	1.66		5.14	
	730			Ba	379		460	
		208		La	80.14		132	
		356		Ce	165		162	
				Pr				
		168		Nd	86.85		66.9	
		25.5		Sm	14.07		13.2	
		0.94		Eu	1.3		1.51	
				Gd				
		3.31		Tb	1.94		2.07	
				Dy				
				Ho				
				Er				
				Tm				
		12.7		Yb	5.79		6.22	
		1.84		Lu	0.85		0.87	

		33.9		Hf	18.45		17.55	
		9.6		Ta	4.77		4.64	
				Pb				
		29.7		Th	16.93		15.34	
				U	3.43		7.18	
				Li				
				F				
5.72	3.27	4.04		Rb/Sr	2.14		2.3	1.12
		7.58		Cen/Ybn	7.7		7.04	
		0.11		Eu*	0.28		0.34	
		38.1		Zr/Hf	38.3		41.3	
	8.59			Ba/Rb	2.73		3.17	
		6.26		Rb/Th	8.2		9.45	
				87Sr/86Sr,l				
				143Nd/144Nd				
				206Pb/204Pb				
				207Pb/204Pb				
				208Pb/204Pb				

J81-205	H91-224	Sample	ST-198	MH220	H91-212	MGF047	MN27	U94-R100
	27.3-27.0	Age, Ma			27.04	36.5	36.3	27.3-27.0
104 54	104 03.6	Long W	104 13	103 05	104 01.8	104 19	103 50.4	104 03.5
31 26	29 29.1	Lat N	30 38	29 17	29 29.3	29 59.7	30 18.7	29 29.5
65.69	66.70	SiO2	67.13	65.87	66.76	66.78	66.81	67.43
0.56	0.39	TiO2	0.84	0.27	0.49	0.72	0.24	0.39
15.60	15.48	Al2O3	16.00	15.17	16.31	15.71	14.01	15.42
2.73		Fe2O3	1.26	0.90		1.98	5.31	
1.60		FeO	1.47	3.72		1.94		
	4.04	FeO*			3.71			4.15
0.09	0.15	MnO	0.17	0.13	0.08	0.15	0.21	0.17
0.37	0.08	MgO	0.53		0.13	0.72	0.41	0.64
1.73	0.51	CaO	0.69	1.83	0.64	1.96	1.03	0.25
4.97	6.71	Na2O	6.35	5.30	5.92	4.68	6.64	6.59
5.04	5.90	K2O	5.70	5.50	5.90	5.17	5.28	5.51
0.14	0.04	P2O5	0.08	0.07	0.07	0.19	0.07	0.12
0.50		H2O+	0.28			0.50		
		H2O-	0.15					
0.50		CO2				0.25		
99.52	99.19	Total	100.65	98.76	99.84	100.75	100	100.67
66.68	66.70	SiO2'	66.70	66.70	66.76	66.78	66.81	66.98
10.16	12.61	(Na2O+K2O)'	11.97	10.94	11.82	9.85	11.92	12.01
	1	Sc	5	5.64	8		7.69	4.68
6		V			4	15	23	
		Cr	5.1	0.88		3		
3	9	Ni	7		8	22		
9	2	Cu				2		
230	168	Zn	185	169	141	176	172	117
	32	Ga			28			
215	160	Rb	217	168	143	133	188	155
270	19	Sr		61	38	207	42	17
78	77	Y		65	60	48	108	74
780	986	Zr	1100	1004	911	612	1325	964
94	159.4	Nb	62.1*	65*	129	58	181	146
		Cs	2.43	7.79				0.507
520	114	Ba	75	313	363	1040	616	
	133	La	134		103	86	237	117
	271	Ce	268.23		234	172	370	252
		Pr				21		
		Nd	81			71	246	133
		Sm	16.8			14	27.9	14.9
		Eu	1.61			2.8	1.29	0.831
		Gd				13		
		Tb	2.11			2.5	3.79	2.4
		Dy				11		
		Ho				2.8		
		Er				5.8		
		Tm	3.38			1.3		
		Yb	9.52			5.5	13.5	8.43
		Lu	1.3			1.5	2.1	1.13

		Hf	31.7	26.9			34.4	27.9
		Ta	11.2	6.48			9.4	7.46
	20	Pb			16			
29	21	Th	39.9	20.52	17	10	34	17.8
		U	11.91	6.76		4		
		Li				51		
2100		F				720		
0.80	8.42	Rb/Sr		2.75	3.76	0.64	4.48	9.12
		Cen/Ybn	7.62			8.45	7.41	8.08
		Eu*	0.3			0.62	0.14	0.17
		Zr/Hf	34.7	37.3			38.5	34.6
2.42	0.71	Ba/Rb	0.35	1.86	2.54	7.82	3.28	
7.41	7.62	Rb/Th	5.44	8.19	8.41	13.3	5.53	8.71
		<sup>87</sup> Sr/ <sup>86</sup> Sr <sub>I</sub>						
		<sup>143</sup> Nd/ <sup>144</sup> Nd						
		<sup>206</sup> Pb/ <sup>204</sup> Pb						
		<sup>207</sup> Pb/ <sup>204</sup> Pb						
		<sup>208</sup> Pb/ <sup>204</sup> Pb						



Sample	DML-3	H88-56	MN29	Tr-66	W95-5	U94-R106	Sample	3H-1
Age, Ma	36.5	36.8	36.3	27.3-27.6	27.3-27.6	27.3-27.0	Age, Ma	
Long W	103 46	103 33.7	103 50.4	104 02.0	104 03.8	104 03.5	Long W	103 12
Lat N	30 32	30 04.1	30 18.7	29 26.3	29 24.5	29.25	Lat N	29 57
SiO2	65.39	67.04	67.08	67.07	67.84	66.49	SiO2	66.04
TiO2	0.78	0.72	0.27	0.59	0.33	0.48	TiO2	0.09
Al2O3	14.28	14.59	14.78	17.00	14.98	16.14	Al2O3	16.50
Fe2O3	0.80	1.86	3.30				Fe2O3	1.96
FeO	4.02	2.76					FeO	1.35
FeO*				2.22	3.48	3.59	FeO*	
MnO	0.16	0.30	0.06	0.03	0.16	0.11	MnO	0.18
MgO	0.32	0.19	0.29	0.14	0.58	0.37	MgO	0.09
CaO	1.71	2.17	0.73	2.07	2.40	0.97	CaO	0.35
Na2O	4.75	4.04	5.75	5.01	5.45	5.12	Na2O	7.15
K2O	5.12	5.99	5.27	5.71	5.77	5.70	K2O	5.10
P2O5	0.26	0.12	0.09	0.15	0.16	0.15	P2O5	0.09
H2O+		0.61					H2O+	0.56
H2O-							H2O-	0.28
CO2		1.47					CO2	0.02
Total	97.59	99.67	100	99.99	101.15	99.99	Total	99.76
SiO2'	67.00	67.04	67.08	67.08	67.08	67.09	SiO2'	67.11
(Na2O+K2O)'	10.11	10.03	11.02	10.72	11.09	10.91	(Na2O+K2O)'	12.45
Sc			7.72	6.28		5.21	Sc	
V			31	28.6			V	
Cr				2.68			Cr	
Ni				13.1			Ni	
Cu							Cu	
Zn			197	116		147	Zn	123
Ga		24					Ga	
Rb		107	174	100	167	144	Rb	271
Sr		40	48	223	15	47	Sr	34
Y		62	120	52	79	66	Y	58
Zr		436	1373	645	908	984	Zr	760
Nb		35*	206	75	134	113	Nb	237
Cs				1.08		1.8	Cs	
Ba		876	589	1280			Ba	
La			200	101		106	La	
Ce			313	135		190	Ce	
Pr							Pr	
Nd			163	64		79.4	Nd	
Sm			26.2	10.4		14.1	Sm	
Eu			1.03	2.3		1.32	Eu	
Gd							Gd	
Tb			3.46	2.39		1.66	Tb	
Dy							Dy	
Ho							Ho	
Er							Er	
Tm							Tm	
Yb			13.2	4.7		6.15	Yb	
Lu			1.97	0.64		1.2	Lu	



DM133	81737	U94-R116B	MN24	J94-R114E	Sample	H91-197	DAV-3	72-159
36.5		27.3-27.0	36.3	27.3-27.0	Age, Ma	27.1		32.9
103 51	103 45	104 01.1	103 50.4	104 01	Long W	103 58.4	104 14	103 17
30 38.1	30 34	29 30.2	30 18.7	29 29.3	Lat N	29 25.8	30 41	29 16
67.13	65.50	67.34	67.26	68.30	SiO2	67.31	66.60	65.50
0.82	0.61	0.40	0.26	0.43	TiO2	0.36	0.67	0.29
15.91	14.50	15.69	13.79	16.33	Al2O3	15.59	14.15	13.81
0.79			5.47		Fe2O3		5.66	5.49
3.27					FeO		1.00	0.08
	4.00	3.63		3.85	FeO*	3.64		
0.11	0.06	0.15	0.12	0.09	MnO	0.14	0.06	0.08
0.12	0.75	0.55	0.17	0.37	MgO	0.07	0.13	0.01
2.11	1.10	1.03	0.49	0.38	CaO	0.58	0.38	0.52
4.72	4.89	5.46	6.97	5.71	Na2O	6.59	3.48	6.49
4.64	5.81	5.79	5.38	5.92	K2O	5.68	6.56	4.90
0.26	0.22	0.13	0.10	0.16	P2O5	0.04	0.18	0.02
					H2O+		0.98	
					H2O-		0.34	
					CO2		0.05	
99.88	97.44	100.17	100	101.54	Total	100.74	100.24	97.19
67.21	67.22	67.22	67.26	67.27	SiO2'	67.31	67.36	67.39
9.37	10.98	11.23	12.35	11.46	(Na2O+K2O)'	12.27	10.15	11.72
10.88			10.07		Sc	2		
			31		V	8		
1.5					Cr			
					Ni	9		
					Cu	2		
4.03			117		Zn	157		
					Ga	28		
120	134	154	186	152	Rb	158		365
340	163	20	48	20	Sr	13		6
71		61	106	66	Y	74		142
743	542	1003	1341	1043	Zr	953		
40.4*	47*	122	181	127	Nb	151		243
0.97					Cs			
1360	1088		657		Ba	120		
72.1			270		La	115		
155			378		Ce	257		
					Pr			
69.3			204		Nd			
11.9			31.6		Sm			
2.55			1.08		Eu			
					Gd			
2.67			3.36		Tb			
					Dy			
					Ho			
					Er			
					Tm			
6.43			13.9		Yb			
0.89			1.6		Lu			

17.44			38.1		Hf			
13.69			9.7		Ta			
					Pb	20		
10.54			41.9		Th	20		52
4.91					U			
					Li			
					F			
0.35	0.82	7.70	3.88	7.60	Rb/Sr	12.2		60.8
6.52			7.35		Cen/Ybn			
0.58			0.11		Eu*			
42.6			35.2		Zr/Hf			
11.3	8.12		3.53		Ba/Rb	0.76		
11.4			4.44		Rb/Th	7.90		7.02
					<sup>87</sup> Sr/ <sup>86</sup> Sr,l			
					<sup>143</sup> Nd/ <sup>144</sup> Nd			
17.65					<sup>206</sup> Pb/ <sup>204</sup> Pb			
15.45					<sup>207</sup> Pb/ <sup>204</sup> Pb			
37.5					<sup>208</sup> Pb/ <sup>204</sup> Pb			

87513	MGE782	DM109	Sample	J84-14	H92-26	J81-215	Alto-1	MGE569
35.4	36	36.8	Age, Ma				34	36
104 04	104 21	103 47.6	Long W	104 54	104 01.8	104 54	105 58	
30 32.4	30 01	30 40.2	Lat N	31 26	29 31.6	31 26	31 56	
67.40	67.45	66.34	SiO2	67.12	67.53	67.09	66.60	65.60
0.66	0.75	0.44	TiO2	0.47	0.25	0.48	0.74	0.77
16.55	15.32	15.37	Al2O3	15.16	15.26	15.50	16.65	15.40
	2.99	0.97	Fe2O3	2.69		1.33	1.62	1.89
	1.07	4.02	FeO	1.60		2.66	0.52	1.65
2.43			FeO*		4.05			
0.08	0.13	0.07	MnO	0.08	0.19	0.09	0.15	0.09
0.34	0.87	0.16	MgO	0.31	0.06	0.32	0.26	0.69
1.09	2.07	0.50	CaO	1.96	0.43	1.47	0.73	2.01
5.58	4.12	4.82	Na2O	4.86	7.05	5.01	6.28	3.64
5.72	4.97	5.57	K2O	5.07	5.18	5.05	5.31	5.11
0.15	0.23	0.05	P2O5	0.10	0.01	0.12	0.11	0.23
			H2O+	0.33		0.22	0.33	3.42
			H2O-				0.11	
			CO2	0.62		0.20	0.05	
100	100	98.31	Total	100.37	99.86	99.74	99.06	100.50
67.40	67.45	67.48	SiO2'	67.51	67.53	67.55	67.57	67.57
11.30	9.11	10.57	(Na2O+K2O)'	9.99	12.23	10.13	11.76	9.01
		5.33	Sc		2			
			V	5		9		
		1.98	Cr					
			Ni	6	13	3		
			Cu	8	5	5		
			Zn	120	207	120	72	
			Ga		39			
207			Rb	214	241	251	150	291
150		49	Sr	240	10	160	129	294
61		125	Y	82	113	86	29	41
890		821	Zr	567	1642	730	547	498
110		57*	Nb	77	263.6	95	118	46
		1.85	Cs					
454		155	Ba	500	16	370		1090
		80.7	La		182			
		193	Ce		438			
			Pr					
77.2		74.8	Nd					
14		16.88	Sm					
		1.73	Eu					
			Gd					
		2.7	Tb					
			Dy					
			Ho					
			Er					
			Tm					
		12.06	Yb					
		1.56	Lu					

		21.06	Hf					
		4.97	Ta					
21.2			Pb		22			
40.9		15.88	Th	30	34	36		
8.96		1.74	U					
			Li					
			F	2000		2800		
1.38			Rb/Sr	0.89	24.1	1.57	1.16	0.97
		4.33	Cen/Ybn					
		0.3	Eu*					
		39	Zr/Hf					
2.19			Ba/Rb	2.34	0.07	1.47		3.71
5.06			Rb/Th	7.13	7.09	6.97		
0.70587			87Sr/86Sr,I			0.7078		
0.512676			143Nd/144Nd					
17.74		17.88	206Pb/204Pb					
15.472		15.47	207Pb/204Pb					
37.648		37.79	208Pb/204Pb					

U94-R101	Sample	Alp2	U94-R123	W96-29	MGE751	J84-15	H87-168	Sample
27.3-27.0	Age, Ma		27.3-27.0	27.3-27.0	36		36.8	Age, Ma
104 03.3	Long W	103 40	103 58	104 02.2	104 28	104 54	103 36.2	Long W
29 29.5	Lat N	30 25	29 26	29 27.3	30 02	31 26	30 00.1	Lat N
67.79	SiO2	67.00	68.57	67.33	65.78	66.93	67.76	SiO2
0.38	TiO2	0.22	0.39	0.39	0.73	0.40	0.60	TiO2
15.72	Al2O3	15.29	16.00	15.38	15.18	15.07	14.26	Al2O3
	Fe2O3	1.34			1.98	2.28	1.03	Fe2O3
	FeO	2.63			1.47	1.65	3.62	FeO
4.27	FeO*		3.98	3.57				FeO*
0.13	MnO	0.27	0.08	0.11	0.08	0.09	0.16	MnO
0.42	MgO	0.07	0.57	0.47	0.84	0.28	0.31	MgO
0.46	CaO	0.46	0.40	1.03	2.20	1.69	1.71	CaO
5.21	Na2O	6.98	5.46	5.54	3.73	5.31	5.29	Na2O
5.64	K2O	4.69	5.76	5.51	4.95	5.03	4.52	K2O
0.18	P2O5	0.06	0.14	0.14	0.22	0.09	0.06	P2O5
	H2O+	0.29			3.23	0.20	1.59	H2O+
	H2O-	0.11						H2O-
	CO2					0.60	0.55	CO2
100.20	Total	99.41	101.35	99.47	100.39	99.62	99.34	Total
67.66	SiO2'	67.67	67.68	67.70	67.70	67.73	67.76	SiO2'
10.83	(Na2O+K2O)'	11.79	11.07	11.11	8.93	10.46	9.81	(Na2O+K2O)'
	Sc		4.74	7.65				Sc
	V					3		V
	Cr							Cr
	Ni					8		Ni
	Cu					8		Cu
	Zn			139		110		Zn
	Ga						25	Ga
161	Rb		157	143		251	119	Rb
7	Sr		12	12	295	176	62	Sr
83	Y		73	78		86	91	Y
1287	Zr		1134	977	499	650	853	Zr
151	Nb		145	120		79	60*	Nb
	Cs		1.62	0.681				Cs
	Ba				1050	360	839	Ba
	La		110	108			78	La
	Ce		170	229			160	Ce
	Pr						21	Pr
	Nd		118	82.3			72	Nd
	Sm		14.8	13.8			15	Sm
	Eu		0.799	1.11			2.6	Eu
	Gd						16	Gd
	Tb		2.28	2.23			2.4	Tb
	Dy						14	Dy
	Ho						2.6	Ho
	Er						7.9	Er
	Tm						1.2	Tm
	Yb		7.00	6.85			8.3	Yb
	Lu		0.986	1.05			1.2	Lu

	Hf		27	23.7				Hf
	Ta		7.68	6.49				Ta
	Pb							Pb
	Th		19.3	19.7		40		Th
	U							U
	Li							Li
	F					2000		F
23	Rb/Sr		13.1	11.9		1.43	1.92	Rb/Sr
	Cen/Ybn		6.57	9.03			5.21	Cen/Ybn
	Eu*		0.16	0.24			0.51	Eu*
	Zr/Hf		42	41.2				Zr/Hf
	Ba/Rb					1.43	7.05	Ba/Rb
	Rb/Th		8.13	8.56		6.28		Rb/Th
	87Sr/86Sr,l							87Sr/86Sr,l
	143Nd/144Nd							143Nd/144Nd
	206Pb/204Pb							206Pb/204Pb
	207Pb/204Pb							207Pb/204Pb
	208Pb/204Pb							208Pb/204Pb



DM137	U94-R102	Gor2a	H87-202	QM32	F-1	Sample	TPC325	H87-169
35.6-35.3	27.3-27.0	34.6	36.8	35	27.2	Age, Ma	32.9	36.8
104 01	104 03.3	103 51.4	104 40	105 30	104 05.3	Long W	103 18	103 36.2
30 40.5	29 29.5	30 26.4	30 32.5	31 08	29 24.8	Lat N	29 14	30 00.1
66.77	67.09	66.83	67.06	67.94	67.98	SiO2	66.77	68.14
0.56	0.39	0.41	0.53	0.44	0.25	TiO2	0.32	0.61
16.08	15.47	15.66	12.60	16.56	15.06	Al2O3	14.58	14.19
0.56		2.10	4.74	1.66		Fe2O3	5.21	1.66
2.32		1.04	0.90	1.52		FeO	0.17	2.92
	4.10				4.00	FeO*		
0.06	0.16	0.10	0.13	0.10	0.22	MnO	0.05	0.15
0.15	0.50	0.32	0.30	0.51	0.43	MgO	0.05	0.32
1.01	0.36	0.49	0.39	1.69	0.86	CaO	1.35	1.99
4.95	4.95	5.52	4.23	4.26	5.63	Na2O	4.45	5.26
5.83	5.68	5.76	5.99	5.23	5.44	K2O	5.06	4.16
0.14	0.16	0.23		0.07	0.13	P2O5	0.09	0.06
		0.73	0.54			H2O+	0.44	1.94
		0.37				H2O-	0.34	
		0.06				CO2	0.78	0.18
98.43	98.86	99.62	99.29	100	100	Total	99.66	99.43
67.84	67.87	67.88	67.91	67.94	67.98	SiO2'	68.06	68.14
10.95	10.76	11.46	10.35	9.49	11.07	(Na2O+K2O)'	9.69	9.42
1.32	4.96			1.5	5.18	Sc		
				9	32.5	V		
				2.9	1.86	Cr		
				1	19.4	Ni	7	
				12		Cu		
96.5		90		56	170	Zn	126	
						Ga		
190	161	151		134	240	Rb	210	
131	24	5		285	50	Sr	19	122
125	83	77	84	44	146	Y	57	93
830	1344	967		547	1079	Zr	1005	797
92.6*	146	136		46*		Nb	84*	
2.24	2.74			2.61	1.95	Cs		
553				1264	400	Ba		996
107	121		77	52.3	153	La		83
199	252		177	90	313	Ce		170
			21			Pr		22
74.3	94.2		74	41.9	108	Nd		77
13.32	16.2		16	6.5	20.1	Sm		16
1.34	1.2		2.5	1.77		Eu		2.8
			15			Gd		17
2.61	2.06		2.4	0.89	3.7	Tb		2.5
			15			Dy		14
			2.9	0.76		Ho		2.8
			8.7			Er		8.9
			1.2			Tm		1.2
8.3	7.75		9.1	3.8	11.1	Yb		8.8
1.15	0.986		1.4	0.55	1.51	Lu		1.3

24.36	28			23.5	32.7	Hf		
6.4	8.02			1.8	15.3	Ta		
				12		Pb		
32.47	23.7			11.3	36.5	Th		
9.98	16.2			1.52	11.1	U		
				6		Li		
			700	190		F		
1.45	6.71	30.2		0.47	4.8	Rb/Sr	11.1	
6.48	8.79		5.26	6.4	7.62	Cen/Ybn		5.22
0.28	0.23		0.48	0.84		Eu*		0.51
34.1	48			23.3	33	Zr/Hf		
2.91				9.43	1.67	Ba/Rb		
5.85	6.79			11.9	6.58	Rb/Th		
						87Sr/86Sr,l		
						143Nd/144Nd		
17.86						206Pb/204Pb		
15.47						207Pb/204Pb		
37.75						208Pb/204Pb		

85602	Locke	U94-R113	Tr-38	Sample	H81-166	MN32	MN28	MH33
36.8	35.6-35.3	27.3-27.0	27.2	Age, Ma	36	36.3	36.3	
103 42.5	104 01		104 05.3	Long W		103 50.4	103 50.4	103 05
30 53.0	30 40		29 24.9	Lat N		30 18.7	30 18.7	29 17
68.10	67.58	68.69	68.24	SiO2	68.24	68.32	68.32	68.19
0.65	0.55	0.30	0.29	TiO2	0.70	0.24	0.28	0.28
15.20	15.72	15.31	14.85	Al2O3	16.18	14.11	14.49	15.04
	2.77			Fe2O3	2.26	4.84	4.20	0.96
	0.50			FeO	0.24			3.98
4.29		3.78	4.06	FeO*				
0.03	0.02	0.18	0.17	MnO	0.04	0.04	0.09	0.08
0.22	0.28	0.56	0.16	MgO	0.26	0.21	0.16	0.19
0.50	0.62	0.49	0.73	CaO	0.88	0.54	0.86	1.68
4.78	5.33	5.92	5.66	Na2O	4.86	6.20	6.26	3.93
5.99	5.64	5.40	5.50	K2O	6.16	5.41	5.31	5.38
0.14	0.10	0.15	0.34	P2O5	0.17	0.09	0.04	0.06
	0.34			H2O+				
	0.14			H2O-				
	0.05			CO2				
99.90	99.64	100.78	100	Total	100	100	100	99.77
68.17	68.19	68.23	68.24	SiO2'	68.24	68.32	68.32	68.35
10.78	11.07	11.21	11.16	(Na2O+K2O)'	11.02	11.61	11.57	9.33
			5.7	Sc		7.76	7.94	4.16
			17	V		40	17	
				Cr				2.11
			6.3	Ni				
				Cu				
	82		178	Zn		173	210	190
				Ga				
	248	183	166	Rb		180	182	141
	103	22	69	Sr		46	46	66
	85	88	78	Y		93	114	88
	948	1054	1137	Zr		1303	1349	944
	149	150	256	Nb		184	178	57*
			3.53	Cs				1.66
			461	Ba			537	348
			165	La		192	225	
			280	Ce		317	381	
				Pr				
			116	Nd		147	216	
			19.2	Sm		23.1	26.6	
			0.48	Eu		0.94	1.17	
				Gd				
			3.79	Tb		2.8	3.5	
				Dy				
				Ho				
				Er				
				Tm				
			10.4	Yb		11.6	13.4	
			1.47	Lu		1.76	2.08	

			34	Hf		33.6	34.7	24.93
			12.4	Ta		9.4	9.4	5.18
				Pb				
			31	Th		29.5	34.5	17.72
			8.61	U				9.14
				Li				
				F				
	2.41	8.32	2.41	Rb/Sr		3.91	3.96	2.14
			7.28	Cen/Ybn		7.39	7.69	
			0.07	Eu*		0.13	0.14	
			33.4	Zr/Hf		38.8	38.9	37.9
			2.78	Ba/Rb			2.95	2.47
			5.36	Rb/Th		6.1	5.27	7.96
				87Sr/86Sr,l				
				143Nd/144Nd				
				206Pb/204Pb				
				207Pb/204Pb				
				208Pb/204Pb				

MN13	W95-3	Sample	DM129	DM162	87114	U94-R110	CG	H92-28
36.3	27.3-27.0	Age, Ma			36.8	27.3-27.0	32.7	26.91
103 50.4	104 03.8	Long W	103 51	103 50.3	103 47		103 17	104 03.5
30 18.7	29 24.3	Lat N	30 32.2	30 47.7	30 42.6		29 16	29 30.6
68.36	68.52	SiO2	67.46	67.00	68.10	69.48	68.50	68.52
0.14	0.31	TiO2	0.11	0.48	0.77	0.31	0.28	0.43
16.12	14.83	Al2O3	15.56	14.06	15.70	14.94	10.81	14.84
4.49		Fe2O3	0.99	0.89			5.49	
		FeO	4.08	3.42				
	3.72	FeO*			2.16	3.83		3.91
0.07	0.17	MnO	0.20	0.25	0.11	0.18	0.08	0.13
0.35	0.34	MgO	0.16	0.10	0.10	0.60	0.01	0.09
0.73	1.42	CaO	0.65	1.25	0.63	0.75	0.52	0.67
4.40	5.46	Na2O	6.13	5.01	5.60	5.92	6.49	5.65
5.12	5.33	K2O	3.14	5.37	6.07	5.34	4.80	5.70
0.22	0.11	P2O5	0.13	0.05	0.23	0.13	0.02	0.05
		H2O+						
		H2O-						
		CO2						
100	100.21	Total	98.61	97.88	99.47	101.48	100	99.97
68.36	68.38	SiO2'	68.41	68.45	68.46	68.47	68.50	68.52
9.52	10.76	(Na2O+K2O)'	9.40	10.60	11.73	11.09	11.29	11.35
1.79	6.97	Sc	4.77	14.86		7.15		5
22		V						10
		Cr	0.9	2.11				
		Ni						9
		Cu						7
209	147	Zn	124	129		145		138
		Ga						31
224	170	Rb	198	101		178	365	205
41	13	Sr	55			7	6	34
139	70	Y	86			76	142	77
1347	1059	Zr	693	503		1070		966
249	150	Nb	62.6*			148	248	192.4
	1.21	Cs	2.09	1.12		1.94		
849		Ba	20	78.5				175
	161	La	83.8	63.9		170		112
415	320	Ce	165			319	327.2	278
		Pr						
126	132	Nd	65.2	60.2		133	182.9	
	18	Sm	10.9	12.56		18.9	33	
0.98	0.768	Eu	0.58	0.8		0.794	1.709	
		Gd					26.41	
	2.13	Tb	1.88	2.84		2.16		
		Dy					26.72	
		Ho						
		Er					14.38	
		Tm						
	7.6	Yb	7.48	7.02		8.38	10.86	
	0.971	Lu	1.06	0.98		1.18		

32.9	24.8	Hf	19.24	13.43		26		
10.8	8.37	Ta	5.08	3.21		8.56		
		Pb						16
29.9	22.5	Th	14.38	9.06		22.8		23
	1.86	U	5.1	3.01		2.53		
		Li						
		F						
5.46	13.1	Rb/Sr	3.6			25.4	60.8	6.03
	11.4	Cen/Ybn	5.96			10.3	8.14	
	0.14	Eu*	0.16	0.17		0.13	0.17	
40.9	42.7	Zr/Hf	36	37.5		41.2		
3.79		Ba/Rb	0.1	0.78				0.85
7.49	7.56	Rb/Th	13.8	11.1		7.81		8.91
		87Sr/86Sr,l						
		143Nd/144Nd						
		206Pb/204Pb						
		207Pb/204Pb						
		208Pb/204Pb						

Sample	U94-R111	Tr-39	PP87	MN26	PP-27	H91-195	Sample	W95-2
Age, Ma	27.3-27.0	27.2	36.3	36.3	36.3	27.09	Age, Ma	27.3-27.0
Long W	104 01.8	104 05.3	103 45	103 50.4		103 58.6	Long W	104 03.6
Lat N	29 25.1	29 24.7	30 18	30 18.7		29 25.5	Lat N	29 24.3
SiO2	69.06	68.56	67.62	68.63	67.58	68.67	SiO2	69.72
TiO2	0.31	0.26	0.28	0.24	0.31	0.33	TiO2	0.31
Al2O3	14.41	14.98	15.65	13.79	14.76	15.36	Al2O3	15.08
Fe2O3			3.05	5.14	2.60		Fe2O3	
FeO			0.75		1.52		FeO	
FeO*	3.31	3.94				3.82	FeO*	3.79
MnO	0.14	0.19	0.06	0.15	0.14	0.13	MnO	0.18
MgO	0.35	0.15	0.08	0.13	0.13	0.07	MgO	0.47
CaO	1.92	0.83	0.39	0.77	0.74	0.40	CaO	0.66
Na2O	5.34	5.55	5.60	5.80	5.52	5.76	Na2O	5.72
K2O	5.41	5.48	5.10	5.28	5.09	5.44	K2O	5.48
P2O5	0.51	0.07	0.05	0.08	0.04	0.03	P2O5	0.14
H2O+			1.00		0.67		H2O+	
H2O-			0.22		0.19		H2O-	
CO2					0.03		CO2	
Total	100.76	100.01	99.85	100	99.32	99.98	Total	101.55
SiO2'	68.54	68.55	68.56	68.63	68.66	68.67	SiO2'	68.67
(Na2O+K2O)'	10.67	11.03	10.85	11.08	10.78	11.20	(Na2O+K2O)'	11.03
Sc	7.63	4.29		7.11		7	Sc	6.86
V		19.5		15		1	V	
Cr		2.43					Cr	
Ni		6.5				10	Ni	
Cu						3	Cu	
Zn	108			110		158	Zn	115
Ga						29	Ga	
Rb	150	171		178		181	Rb	132
Sr	32			126		15	Sr	12
Y	71	104		102		84	Y	80
Zr	852	1080		1334		955	Zr	1036
Nb	126	245		189		170	Nb	162
Cs	0.876	2.05					Cs	
Ba		549		721		27	Ba	
La	203	222		234		176	La	169
Ce	389	316		370		346	Ce	330
Pr							Pr	
Nd	164	123		219			Nd	141
Sm	23.1	19		25			Sm	18
Eu	0.404	0.53		1.17			Eu	0.774
Gd							Gd	
Tb	2.47	3.97		3.34			Tb	2.22
Dy							Dy	
Ho							Ho	
Er							Er	
Tm							Tm	
Yb	8.65	12.5		12.8			Yb	8.82
Lu	1.11	1.46		1.95			Lu	1.1

Hf	22.1	32.3	33.6			Hf	25.6
Ta	6.72	10.1	8.9			Ta	8.52
Pb					22	Pb	
Th	24.4	34.2	34.3		25	Th	23.3
U	1.96	7.79				U	
Li						Li	
F						F	
Rb/Sr	4.69		1.41		12.1	Rb/Sr	11.0
Cen/Ybn	12.2	6.83	7.81			Cen/Ybn	10.1
Eu*	0.06	0.08	0.14			Eu*	0.14
Zr/Hf	38.6	33.4	39.7			Zr/Hf	40.5
Ba/Rb		3.21	4.05		0.15	Ba/Rb	
Rb/Th	6.15	5.00	5.19		7.24	Rb/Th	5.67
87Sr/86Sr,l						87Sr/86Sr,l	
143Nd/144Nd						143Nd/144Nd	
206Pb/204Pb						206Pb/204Pb	
207Pb/204Pb						207Pb/204Pb	
208Pb/204Pb						208Pb/204Pb	



TPC329	TPC313	Aguja-1	H88-33	H87-195	Sample	H87-200	MGE752	TPC317
32.7		36.8	36.8	36.8	Age, Ma	36.8	36	
103 17	103 17.5	103 51	104 40*	104 40*	Long W	104 40*	104 28	103 18
29 16	29 16	30 48	30 32.5*	30 32.5*	Lat N	30 32.5*	30 02	29 15
67.90	67.61	68.77	67.00	67.85	SiO2	67.15	68.61	68.32
0.16	0.27	0.5	0.53	0.52	TiO2	0.54	0.76	0.27
13.87	14.12	14.55	13.14	13.04	Al2O3	12.87	15.12	13.98
3.61	4.44		1.21	3.89	Fe2O3	2.89	3.15	4.37
1.57	0.84		4.37	1.86	FeO	2.75	0.55	0.85
		4.00			FeO*			
0.10	0.11	0.18	0.23	0.19	MnO	0.21	0.05	0.09
0.09	0.02	0.10	0.25	0.20	MgO	0.20	0.38	0.02
0.53	0.16	0.83	1.55	0.83	CaO	1.40	1.44	0.39
6.21	5.99	5.26	4.78	4.72	Na2O	4.16	4.35	6.23
4.68	4.78	5.75	4.27	5.46	K2O	5.43	5.06	4.74
0.09	0.01	0.06			P2O5		0.22	0.02
0.22	0.48		2.24	0.40	H2O+	2.08	0.30	0.21
0.14	0.21				H2O-			0.14
0.01			0.11		CO2			
99.18	99.04	100	99.76	99.04	Total	99.68	99.99	99.63
68.72	68.74	68.77	68.78	68.79	SiO2'	68.80	68.82	68.82
11.02	10.95	11.01	9.29	10.32	(Na2O+K2O)'	9.83	9.44	11.05
					Sc			
					V			
					Cr			
					Ni			
					Cu			
183	180				Zn			183
					Ga			
362	339	103			Rb		131	362
20	15	42			Sr		255	18
119	126	53	84	86	Y	82	39	130
1614	1913	500			Zr		493	1593
185	179	54			Nb		55	188
					Cs			
		8			Ba		1020	
			74	79	La	77		
			171	166	Ce	166		
					Pr	24		
		58.4	71	76	Nd	74		
		11.9			Sm	16		
			2.2	2.4	Eu	2.3		
			16	16	Gd	16		
					Tb	2.5		
			15	15	Dy	15		
					Ho	2.9		
			9.9	10.1	Er	9.8		
					Tm	1.2		
			9	9	Yb	8.7		
			1.4	1.4	Lu	1.3		

					Hf			
					Ta			
		14.5			Pb			
		10.7			Th			
		1.95			U			
					Li			
			800	800	F			
18.1	22.6	2.45			Rb/Sr		0.51	20.1
			5.14	4.99	Cen/Ybn	5.16		
					Eu*	0.43		
					Zr/Hf			
		0.08			Ba/Rb		7.79	
		9.63			Rb/Th			
					87Sr/86Sr,l			
		0.512573			143Nd/144Nd			
		17.902			206Pb/204Pb			
		15.464			207Pb/204Pb			
		37.895			208Pb/204Pb			

TPC315	MN36	PP273	Sample	PP-156	H87-198	H87-196	MH22	Tr-44
32.7	36.3	36.3	Age, Ma	36.3	36.8	36.8		27.2
103 17	103 50.4		Long W	103 44	104 40*	104 40*	103 05	104 05.
29 16	30 18.7		Lat N	30 17	30 32.5*	30 32.5*	29 17	29 24.6
67.38	68.85	68.45	SiO2	67.27	68.03	68.24	67.20	68.93
0.28	0.29	0.69	TiO2	0.33	0.52	0.53	0.24	0.25
14.00	14.40	14.43	Al2O3	15.50	13.17	13.06	14.17	14.28
3.95	4.48		Fe2O3	3.56	5.23	4.85	0.87	
1.19			FeO	0.24	0.71	1.21	3.60	
		4.68	FeO*					4.12
0.04	0.06	0.08	MnO	0.14	0.12	0.22	0.12	0.17
0.03	0.14	0.30	MgO	0.22	0.34	0.19		0.19
0.39	0.54	0.76	CaO	0.36	0.56	0.82	1.59	0.97
5.61	5.69	4.76	Na2O	4.95	4.58	4.58	3.98	5.68
4.94	5.52	4.99	K2O	5.50	5.34	5.19	5.63	5.13
0.09	0.03	0.28	P2O5	0.05			0.08	0.26
0.65			H2O+	1.35	0.72	0.64		
0.13			H2O-	0.31				
0.04			CO2	0.03				
98.72	100	99.42	Total	99.31	99.41	99.63	97.48	99.98
68.83	68.85	68.85	SiO2'	68.91	68.93	68.94	68.94	68.94
10.78	11.21	9.81	(Na2O+K2O)'	10.70	10.05	9.87	9.86	10.81
	8.71		Sc				2.79	3.32
	35		V					
			Cr				1.6	2.32
17			Ni					6.49
			Cu					
180	121		Zn	75			194	
			Ga					
407	146	124	Rb	173			164	135
21	45	125	Sr	14			66	68
131	92		Y	51	80	88	80	114
1797	1010		Zr	820			826	1192
188	110		Nb	158			77*	298
			Cs				2.59	3.79
	623		Ba				373	580
	111		La		76	88		251
	174		Ce		162	182		430
			Pr					
	109	80	Nd		74	82		141
	17.6	14.5	Sm					21.4
	1.11		Eu		2.4	2.5		0.53
			Gd		16	18		
	2.41		Tb					4.62
			Dy		15	16		
			Ho					
			Er		9.8	10.4		
			Tm					
	9.2		Yb		8.8	8.9		15.0
	1.31		Lu		1.3	1.3		1.73

	24.8		Hf				24.3	37.3
	5.3		Ta				6.76	11.2
		12.4	Pb					
	20.3	18.5	Th				24.11	43.3
		4.05	U				9.81	9.84
			Li					
			F					
19.4	3.24	0.99	Rb/Sr	12.4			2.48	1.99
	5.11		Cen/Ybn		4.98	5.53		7.75
	0.19		Eu*					0.07
	40.7		Zr/Hf				34	32
	4.27		Ba/Rb				2.27	4.3
	7.19	6.7	Rb/Th				6.8	3.12
		0.70624	87Sr/86Sr,l					
		0.512536	143Nd/144Nd					
		18.021	206Pb/204Pb					
		15.509	207Pb/204Pb					
		38.242	208Pb/204Pb					



38.7
11.4
48.6
4.4
8
0.09
33.4
4.43
4.34