

sample_number	modal_lithology	lithology	ign_form	alteration	longitude
I	Granodiorite		Pluton		-112.01
II	Granodiorite		Pluton		-111.91
III	Granogabbro				-112.12
IV	Granodiorite		Pluton		-112.014
V	Granodiorite		Pluton		-112.23
VI	Adamellite		Pluton		-112.03
VII	Adamellite		Pluton		-112.09
VIII	Syenodiorite		Pluton		-112.09
IX	Leucomonzonite		Pluton		-112.307
X	Nepheline shonkinita				-111.91
4R14C	Quartz monzonite		Pluton		-112.360
4R6C	Quartz monzonite		Pluton		-112.271
4R10C	Quartz monzonite		Pluton		-112.271
4R2C	Quartz monzonite		Pluton		-112.311
4R4C	Quartz monzonite		Pluton		-112.276
4R8C	Quartz monzonite		Pluton		-112.283
4R5C	Quartz monzonite		Pluton		-112.251
2T-1058	Granodiorite		Pluton		-112.391
2T-1061	Granodiorite		Pluton		-112.366
2T-1088	Monzogranite		Pluton		-112.313
2T-1093	Quartz monzonite		Pluton		-112.253
2T-1065	Granodiorite		Pluton		-112.322
1K661	Quartz monzodiorite		Pluton		-112.317
2T-1069	Monzogranite		Pluton		-112.283
3T-15	Quartz monzonite		Pluton		-112.262
3T-20	Monzogranite		Pluton		-112.248
3T-32	Quartz monzonite		Pluton		-112.239
4T-489	Quartz monzonite		Pluton		-112.256
10501-7		Alaskite			-112.417
10501-9	Alaskite				-112.375
10661-1	Alaskite				-112.648
10483		Granodiorite	Pluton		-112.523
10696-16	Granodiorite		Pluton		-112.515
10696-17		Granodiorite	Pluton		-112.521
10697-9	Granodiorite		Pluton		-112.615
10529-2	Monzogranite		Pluton		-112.537
10648-5		Quartz monzonite	Pluton		-112.420
10670-4	Granodiorite		Pluton		-112.434
10677-11		Quartz monzonite	Pluton		-112.369
10680-17	Granodiorite		Pluton		-112.342
10680-20		Quartz monzonite	Pluton		-112.345
10682-8		Quartz monzonite	Pluton		-112.25
10682-9		Quartz monzonite	Pluton		-112.251
10693-10		Quartz monzonite	Pluton		-112.376
10694-15		Quartz monzonite	Pluton		
10701-8		Quartz monzonite	Pluton		-112.536
10694-4		Quartz monzonite	Pluton		-112.495

10701-1	Monzogranite		Pluton		-112.517
10701-2	Monzogranite		Pluton		-112.553
10701-6	Monzogranite		Pluton		-112.550
10505-3	Monzogranite		Pluton		-112.418
10696-9	Monzogranite		Pluton		-112.407
10696-10	Monzogranite		Pluton		-112.400
10643-1	Monzogranite		Pluton		-112.351
10643-2	Granodiorite		Pluton		-112.382
10686-1	Monzogranite		Pluton		-112.410
10693-4	Monzogranite		Pluton		-112.405
10682-6	Quartz monzonite		Pluton		-112.237
10682-7	Monzogranite		Pluton		-112.231
10697-2		Quartz monzonite	Laccolith		-112.606
10702	Monzogranite		Laccolith		-112.674
10696-15	Monzogranite		Pluton		-112.527
10697-1	Monzogranite		Pluton		-112.512
10510-7	Monzogranite		Pluton		-112.284
10703-6		Granodiorite	Pluton		-112.288
10703-10	Monzogranite		Pluton		-112.295
10703-11	Quartz monzonite		Pluton		-112.255
10703-12	Quartz monzonite		Pluton		-112.261
10510-5a		Granodiorite	Pluton		-112.342
10510-6	Quartz monzodiorite		Pluton		-112.318
10703-3		Granodiorite	Pluton		-112.328
10703-5		Granodiorite	Pluton		-112.305
10510-2	Granodiorite		Pluton		-112.396
10510-3	Granodiorite		Pluton		-112.384
10510-5	Granodiorite		Pluton		-112.342
10696-11	Granodiorite		Pluton		-112.394
526					-112.23
525					-112.22
130		Diorite			-112.37
311		Quartz monzonite	Pluton		-112.537
625	Granodiorite		Pluton		-112.542
6		Quartz monzonite	Pluton		-112.539
989		Quartz monzonite	Pluton		-112.492
98		Quartz monzonite	Pluton		-112.213
518		Quartz monzonite	Pluton		-112.12
640		Aplite	Dike/sill		-112.582
951		Aplite	Dike/sill		-112.584
Page 41		Rhyolite porphyry	Dike	Yes	-112.514
Page 88 no. 2		Quartz monzonite	Pluton	Yes	-112.526
Page 88 no. 3		Quartz monzonite	Pluton	Yes	-112.509
Page 88 no. 4		Quartz monzonite	Pluton	Yes	-112.529
Page 88 no. 5		Quartz monzonite	Pluton	Yes	-112.559
Page 88 no. 6		Quartz monzonite	Pluton	Yes	-112.538
Page 90		Aplite	Dike/sill	Yes	-112.524
Page 514-A.	Gabbro		Pluton		-111.96
112	Monzogranite		Pluton		-111.99
109		Aplite	Dike/sill		-111.96
142		Aplite	Dike/sill		-111.95

53-BC-1 (also 53-C-202)	Granodiorite		Pluton		-112.203
53-BC-4	Monzogranite		Pluton		-112.004
53-BC-8 (also 53-C-204)	Granodiorite		Pluton		-112.103
52-C-37	Granodiorite		Pluton		-112.072
53-BC-6 (also 53-C-207)	Monzogranite		Pluton		-112.190
53-BC-7 (also 53-C-206)	Monzogranite		Pluton		-112.234
53-BC-14 (also 53-C-209)	Monzogranite		Pluton		-112.249
53-BC-13 (also 53-C-205)	Quartz monzodiorite		Pluton		-112.225
53-BC-16a	Monzogranite		Pluton		-112.206
3SR251b		Quartz monzonite	Pluton		-112.036
53-BC-3 (also 53-C-203)	Monzogranite		Pluton		-112.213
52-C-113a	Monzogranite		Pluton		-112.078
53-BC-5	Aplite		Dike/sill		-112.072
53-BC-9	Aplite		Dike/sill		-112.049
B249	Monzogranite		Pluton	Yes	-112.252
B248	Monzogranite		Pluton	Yes	-112.252
B247		Quartz monzonite	Pluton	Yes	-112.252
B246		Quartz monzonite	Pluton	Yes	-112.252
B256	Granodiorite		Pluton	Yes	-112.007
B255	Monzogranite		Pluton	Yes	-112.007
B254	Granodiorite		Pluton	Yes	-112.007
B253	Granodiorite		Pluton	Yes	-112.007
B252		Granodiorite	Pluton	Yes	-112.007
B251		Granodiorite	Pluton	Yes	-112.007
B250		Granodiorite	Pluton	Yes	-112.007
133		Microdiorite	Pluton		-112.320
Page 45- B.		Diorite	Pluton		-112.346
Page 55- A.	Granodiorite		Pluton		-112.310
50-KC-24		Gabbro	Stock		-111.962
50-KC-25		Diorite	Stock		-111.958
50-KC-21		Diorite	Stock		-111.937
50-KC-22		Diorite	Stock		-111.937
50-KC-23		Granodiorite	Stock		-111.956
50-KC-18		Quartz monzonite	Pluton		-111.999
50-KC-17		Quartz monzonite	Pluton		-111.957
50-KC-19		Aplite	Dike/sill		-111.931
50-KC-20 (also 52-C-8)	Aplite		Dike/sill		-111.930
49-KC-2	Granodiorite		Stock		-111.874
49-KC-3		Granodiorite	Stock		-111.871
49-KC-11	Quartz monzonite		Stock		-111.750
49-KC-5	Quartz monzonite		Stock		-111.810
49-KC-6	Quartz monzonite		Stock		-111.812
S1419	Monzonite		Pluton		-111.858
11	Quartz monzodiorite		Pluton		-111.743
52-C-13	Granodiorite		Pluton		-111.961
3S288	Quartz monzodiorite		Pluton		-111.824
52-C-15	Aplite		Dike/sill		-111.980
Page 20-A		Diorite			-111.95
Page 30-A		Quartz monzonite	Pluton		-112.237
Page 30-B		Quartz monzonite	Pluton		-112.031

Page 49 no. 2		Quartz monzonite	Pluton	Yes	-112.237
Page 49 no. 3		Quartz monzonite	Pluton	Yes	-112.237
Page 58 no. 2		Quartz monzonite	Pluton	Yes	-112.031
211		Quartz monzonite	Stock		-111.602
216		Quartz monzonite	Stock		-111.590
224		Quartz monzonite	Stock		-111.558
49-KC-9	Quartz monzodiorite		Stock		-111.725
60S599	Monzodiorite		Stock		-111.728
49-KC-10	Quartz monzodiorite		Stock		-111.726
49-KC-8	Quartz monzodiorite		Stock		-111.727
61K6600	Quartz monzonite		Stock		-111.647
49-KC-7	Quartz monzodiorite		Stock		-111.728
51-KC-1a	Quartz monzonite		Stock		-111.709
HL01		Granodiorite	Stock		-111.7567
HL42		Quartz monzonite	Stock		-111.7883
04KL057	Granodiorite		Pluton		-112.5203
04KL058	Granodiorite		Pluton		-112.3435
04KL059	Monzogranite		Laccolith		-112.6740
03KL066	Monzogranite		Pluton		-112.4209
03KL067	Monzogranite		Pluton		-112.417
03KL068	Monzogranite		Pluton		-112.532
03KL069	Monzogranite		Pluton		-112.4277
03KL071		Granophyre	Pluton		-112.4647
03KL072	Monzogranite		Pluton		-112.5519
98KL002	Quartz monzodiorite		Pluton		-112.3139
98KL004	Monzogranite		Pluton		-112.3444
98KL005	Granodiorite		Pluton		-112.2597
98KL007	Monzogranite		Pluton		-112.133
98KL001a	Monzogranite		Pluton		-112.416
98KL001b		Granite	Pluton		-112.417
98KL003	Monzogranite		Pluton		-112.357
26-B-2	Granophyre		Sill		-112.2625
Macdonald	Monzogranite		Pluton		-112.268
02HW-08		Diorite	Dike		-112.3393
02HW-13		Diorite	Dike		-112.3393
02HW-26		Aplite	Dike		-111.9644
02HW-27			Pluton		-111.9611
02HW-28			Pluton		-111.8436
02HW-30		Granite	Pluton		-112.4147
02HW-31a		Alaskite	Dike		-112.4076
02HW-31b		Granodiorite	Pluton		-112.4076
02HW-32		Granite	Pluton		-112.4382
60-S-C1		Quartz monzonite	Pluton		-112.53
60-S-C2		Quartz monzonite	Pluton		-112.523
60-S-C3		Quartz monzonite	Pluton		-112.542
60-S-C4		Granodiorite	Pluton		-112.301
60-S-C5		Leuco-quartz monzonite	Pluton		-112.427
7-11B		Granodiorite	Pluton		-112.258
7-18A		Quartz monzonite	Pluton		-112.138
7-38B		Quartz monzonite	Pluton		-112.419

7-49B		Quartz monzonite	Pluton		-112.142
7-53B		Quartz monzonite	Pluton		-112.458
7-55B		Quartz monzonite	Pluton	Yes	-112.458
7-56B		Quartz monzonite	Pluton	Yes	-112.463
7-58A		Quartz monzonite	Pluton		-112.348
7-70A		Quartz monzonite	Pluton		-112.650
7-96B		Quartz monzonite	Pluton		-112.383
7-99B		Quartz monzonite	Pluton		-112.538
7-100A		Quartz monzonite	Pluton	Yes	-112.567
7-102A		Quartz monzonite	Pluton	Yes	-112.521
7-103A		Quartz monzonite	Pluton	Yes	-112.471
7-54A		Quartz monzonite	Pluton	Yes	-112.475
7T-8		Quartz monzonite	Pluton		-111.8
7T-23		Granodiorite	Pluton		-111.8
7T-26		Granodiorite	Pluton		-111.8
7T-38		Quartz monzonite	Pluton		-111.8
7T-58		Quartz monzonite	Pluton		-111.8
7T151		Granodiorite	Laccolith		-112.553
7T152		Quartz monzonite	Pluton		-112.629
7T153		Quartz monzonite	Pluton		-112.642
1K-337		Quartz monzonite	Pluton		-112.283
4T-334		Quartz monzonite	Pluton		-111.897
4T-485		Quartz monzonite	Pluton		-112.461
4T-339		Quartz monzonite	Pluton		-112.326
5T-207	Granodiorite		Pluton		-112.613
5T-208		Quartz monzonite	Pluton		-112.608
5T-214		Quartz monzonite	Pluton		-112.344
5T-215		Quartz monzonite	Pluton		-112.232
4T-225		Granodiorite	Pluton		-112.113
4T-399		Granodiorite	Pluton		-112.166
5T-205		Granodiorite	Pluton		-112.217
4T-396		Granodiorite	Pluton		-112.172
4T-159		Granodiorite	Pluton		-112.329
3T-33		Granodiorite	Pluton		-112.239
4T-354		Granophyre	Pluton		-112.056
K-6603		Quartz monzonite	Pluton		-112.37
4T-344		Quartz monzonite	Pluton		-112.374
4T-360		Syenodiorite	Pluton		-112.056
63K-350	Monzonite		Pluton		-112.232
1K-647	Quartz monzonite		Pluton		-112.268
4T-282		Granodiorite	Pluton		-112.524
5T-60		Granodiorite	Pluton		-112.606
63K-253		Granodiorite	Pluton		-112.4
S1753		Quartz monzonite	Pluton		-112.613
2T-1057	Granodiorite		Pluton		-112.403
2T-1059	Granodiorite		Pluton		-112.384
2T-1063	Granodiorite		Pluton		-112.337
2T-1067	Granodiorite		Pluton		-112.302
2T-1071	Granodiorite		Pluton		-112.328
2T-1073	Granodiorite		Pluton		-112.317

2T-1075	Quartz monzodiorite		Pluton	-112.310
2T-1077	Granodiorite		Pluton	-112.294
2T-1080	Granodiorite		Pluton	-112.285
2T-1082	Granodiorite		Pluton	-112.304
2T-1084	Granodiorite		Pluton	-112.308
2T-1086	Granodiorite		Pluton	-112.312
2T-1090	Monzogranite		Pluton	-112.295
2T-1091	Quartz monzonite		Pluton	-112.284
2T-1092	Monzogranite		Pluton	-112.274
53-C-128c		Aplite	Dike	-112.405
53-C-140	Quartz monzonite		Pluton	-112.262
53-C-149	Monzogranite		Pluton	-112.465
53-C-150	Quartz monzonite		Pluton	-112.451
53-C-154a	Granodiorite		Pluton	-112.427
53-C-163	Granodiorite		Pluton	-112.353
53-C-166	Quartz monzodiorite		Pluton	-112.344
53-C-168	Quartz monzodiorite		Pluton	-112.316
53-C-171	Granodiorite		Pluton	-112.344
53-C-191	Quartz monzodiorite		Pluton	-112.604
52-C-116	Quartz monzonite		Pluton	-112.306
52-C-10a	Quartz monzonite		Pluton	-111.946
52-C-52b	Monzogranite		Pluton	-112.286
52-C-60	Monzogranite		Pluton	-112.345
52-C-65	Quartz monzonite		Pluton	-112.431
52-C-114	Granodiorite		Pluton	-112.262
1K-241	Monzogranite		Pluton	-112.415
2T-1060	Granodiorite		Pluton	-112.375
2T-1062	Granodiorite		Pluton	-112.351
2T-1064	Granodiorite		Pluton	-112.329
2T-1066	Granodiorite		Pluton	-112.309
2T-1068	Granodiorite		Pluton	-112.296
2T-1070	Monzogranite		Pluton	-112.330
2T-1072	Granodiorite		Pluton	-112.328
2T-1074	Granodiorite		Pluton	-112.305
2T-1076	Quartz monzodiorite		Pluton	-112.295
2T-1078	Quartz monzodiorite		Pluton	-112.290
2T-1081	Granodiorite		Pluton	-112.310
2T-1083	Granodiorite		Pluton	-112.306
2T-1085	Granodiorite		Pluton	-112.312
2T-1087	Quartz monzodiorite		Pluton	-112.322
2T-1089	Monzogranite		Pluton	-112.304
2T-1094		Granodiorite	Pluton	-112.253
2T-1095		Granodiorite	Pluton	-112.316
2T-84		Granodiorite	Pluton	-112.370
2T-89		Granodiorite	Pluton	-112.349
2T-96		Granodiorite	Pluton	-112.349
2T-275		Granodiorite	Pluton	-112.367
2T-534		Granite	Pluton	-112.295
2T-797		Granodiorite	Pluton	-112.433
59P12-1		Quartz monzonite	Pluton	-112.260

59P12-2		Quartz monzonite	Pluton		-112.260
59P12-3		Quartz monzonite	Pluton	Argillic	-112.260
59P12-4		Quartz monzonite	Pluton	Argillic	-112.260
59P12-5		Quartz monzonite	Pluton	Argillic	-112.260
59P12-6		Quartz monzonite	Pluton	Sericitic	-112.260
59P13-2		Quartz monzonite	Pluton	Propylitic	-112.290
59P13-4		Quartz monzonite	Pluton	Argillic	-112.290
59P13-8		Quartz monzonite	Pluton	Sericitic	-112.290
59P23-4	Quartz monzonite		Pluton	Propylitic	-112.246
59P23-6	Quartz monzonite		Pluton	Argillic	-112.246
59P23-8	Quartz monzonite		Pluton	Sericitic	-112.246
59P21-1	Quartz monzonite		Pluton		-112.136
59P21-2	Quartz monzonite		Pluton	Argillic	-112.136
59P21-4	Quartz monzonite		Pluton	Argillic	-112.136
62K00	Aplite		Sill		-112.464
60S-1	Quartz monzonite		Pluton		-112.535
56K-420	Quartz monzonite		Pluton		-112.330
56K-445a	Alaskite-aplite		Sill		-112.270
56K-494	Quartz monzonite		Pluton		-112.436
56K-O	Quartz monzonite		Pluton		-112.417
56K-14a	Quartz monzonite		Pluton		-112.418
56K-207	Quartz monzonite		Pluton		-112.419
56K-A81	Alaskite-aplite		Dike		-112.061
56K-A82	Alaskite-aplite		Dike		-112.061
56K-A83	Alaskite-aplite		Dike		-112.061
55K67	Alaskite-aplite		Pluton		-112.007
7W-21	Monzogranite		Pluton		-112.415
54-C-248	Quartz monzodiorite		Pluton		-112.512
54-C-249	Aplite		Dike		-112.071
52-FC-190D	Quartz monzonite		Pluton		-112.091
49-LC-60	Granodiorite		Stock		-111.790
52-C-45	Monzogranite		Pluton		-112.148
53-C-230	Granodiorite		Stock		-112.293
28622	Granodiorite		Pluton		-112.3897
28623	Quartz monzodiorite		Pluton		-112.3532
28624	Tonalite		Pluton		-112.3532
28625	Granodiorite		Pluton		-112.3532
28626	Granodiorite		Pluton		-112.3532
28627	Granodiorite		Pluton		-112.3248
28628	Granodiorite		Pluton		-112.3461
28629	Granodiorite		Pluton		-112.3719
28634	Granodiorite		Pluton		-112.3333
28639	Granodiorite		Pluton		-112.3371
28640	Granodiorite		Pluton		-112.3335
28641	Granodiorite		Pluton		-112.3335
28642	Granodiorite		Pluton		-112.3335
28643	Granodiorite		Pluton		-112.3335
28644	Granodiorite		Pluton		-112.3047
28645	Granodiorite		Pluton		-112.3047
28646	Quartz monzodiorite		Pluton		-112.3047

28647	Quartz monzodiorite	Pluton	-112.3047
28648	Granodiorite	Pluton	-112.2917
28649	Quartz monzodiorite	Pluton	-112.2892
28650	Granodiorite	Pluton	-112.3832
28651	Granodiorite	Pluton	-112.3832
28652	Granodiorite	Pluton	-112.3832
28653	Granodiorite	Pluton	-112.3832
28654	Quartz monzodiorite	Pluton	-112.3634
28655	Quartz monzodiorite	Pluton	-112.3221
28656	Quartz monzodiorite	Pluton	-112.3221
28657	Quartz monzodiorite	Pluton	-112.3221
28658	Monzogranite	Pluton	-112.3221
28659	Granodiorite	Pluton	-112.3045
28660	Quartz monzodiorite	Pluton	-112.3013
28665	Granodiorite	Pluton	-112.2983
28666	Granodiorite	Pluton	-112.3283
28667	Monzogranite	Pluton	-112.2791
28668	Monzogranite	Pluton	-112.2661
28630	Granodiorite	Pluton	-112.3470
28631	Granodiorite	Pluton	-112.3470
28632	Granodiorite	Pluton	-112.3470
28633	Granodiorite	Pluton	-112.3470
28635	Granodiorite	Pluton	-112.3655
28636	Granodiorite	Pluton	-112.3655
28637	Granodiorite	Pluton	-112.3655
28638	Granodiorite	Pluton	-112.3655
28661	Granodiorite	Pluton	-112.4312
28662	Granodiorite	Pluton	-112.4312
28663	Monzogranite	Pluton	-112.4312
28664	Monzogranite	Pluton	-112.4312
28669	Granodiorite	Pluton	-112.4027
28670	Granodiorite	Pluton	-112.4027
28671	Monzogranite	Pluton	-112.4027
28672	Granodiorite	Pluton	-112.4027
28701	Granodiorite	Pluton	-112.4073
28702	Monzogranite	Pluton	-112.4073
28703	Monzogranite	Pluton	-112.4073
28704	Granodiorite	Pluton	-112.4073
28673	Granodiorite	Pluton	-112.5182
28674	Syenogranite	Pluton	-112.5723
28675	Granodiorite	Pluton	-112.5723
28676	Granodiorite	Pluton	-112.5723
28677	Granodiorite	Pluton	-112.5723
28678	Granodiorite	Pluton	-112.5859
28679	Granodiorite	Pluton	-112.5860
28680	Granodiorite	Pluton	-112.5860
28681	Granodiorite	Pluton	-112.5860
28682	Monzogranite	Pluton	-112.5860
28683	Monzogranite	Pluton	-112.4737
28684	Granodiorite	Pluton	-112.5378
28685	Monzogranite	Pluton	-112.7402

28686	Granodiorite		Pluton	
28687	Monzogranite		Pluton	
28688	Monzogranite		Pluton	
28689	Granodiorite		Pluton	
28690	Granodiorite		Pluton	
28691	Granodiorite		Pluton	
28692	Granodiorite		Pluton	
28693	Monzogranite		Pluton	
28694	Monzogranite		Pluton	-112.7255
28695	Granodiorite		Pluton	-112.7410
28696	Monzogranite		Pluton	-112.6223
28697	Monzogranite		Pluton	-112.6309
28698	Monzogranite		Pluton	-112.6400
28699	Granodiorite		Pluton	-112.6026
28700	Granodiorite		Pluton	-112.6054
28705	Granodiorite		Pluton	-112.4864
28706	Monzogranite		Pluton	-112.4864
28707	Granodiorite		Pluton	-112.4864
28708	Granodiorite		Pluton	-112.4864
28709	Tonalite		Pluton	-112.4892
28710	Granodiorite		Pluton	-112.4995
28711	Monzogranite		Pluton	-112.5509
28712	Monzogranite		Laccolith	-112.6050
28713	Granodiorite		Laccolith	-112.6441
28714	Monzogranite		Laccolith	-112.6441
28715	Monzogranite		Laccolith	-112.6715
29122	Aplite		Dike	-112.3386
29123	Granodiorite		Pluton	-112.3547
29124		Aplite	Sill	-112.4404
29125	Granodiorite		Pluton	-112.3909
29126	Quartz monzonite		Pluton	-112.4277
29127		Monzogranite	Pluton	-112.4250
29128	Monzogranite		Pluton	-112.4345
29129	Monzogranite		Pluton	-112.4326
29130	Monzogranite		Pluton	-112.3874
29131	Granodiorite		Pluton	-112.4620

latitude	SiO2	TiO2	Al2O3	Fe2O3	FeTO ₃	FeO	MnO	MgO
46.54	61.14	0.82	15.28	1.90		4.52	0.12	3.41
46.54	61.40	0.80	15.41	2.26		3.76	0.09	2.99
46.55	54.63	0.89	16.60	3.32		5.62	0.16	4.65
46.465	65.49	0.65	14.49	2.11		2.90	0.10	2.45
46.58	66.14	0.43	15.69	1.93		2.06	0.10	1.60
46.50	71.28	0.26	14.50	1.04		1.19	0.06	0.98
46.61	68.48	0.39	14.93	1.32		2.07	0.07	1.37
46.69	56.01	0.65	17.84	3.56		3.05	0.19	2.57
46.622	64.13	0.52	16.77	1.96		1.69	0.05	1.29
46.53	51.95	0.55	12.58	3.12		3.91	0.14	5.62
46.318	62.00	0.70	15.30	2.50		3.50	0.08	2.90
46.390	63.20	0.64	15.10	1.60		4.00	0.10	2.50
46.284	62.20	0.60	15.80	3.30		2.10	0.08	2.70
46.480	63.60	0.61	15.10	1.50		3.80	0.10	2.30
46.489	66.90	0.52	14.40	2.00		2.40	0.07	1.70
46.265	67.20	0.40	14.90	2.50		1.00	0.08	1.60
46.439	67.60	0.46	14.30	2.60		1.80	0.08	1.20
45.829	67.80	0.34	16.20	2.50		1.40	0.12	1.10
45.832	68.10	0.34	15.60	2.10		1.60	0.08	1.10
45.878	67.20	0.47	14.80	2.00		2.20	0.08	1.90
45.882	66.10	0.43	15.90	2.60		1.50	0.11	1.60
45.839	64.80	0.40	16.50	2.40		2.50	0.12	1.60
45.838	62.30	0.51	16.80	2.70		2.80	0.14	2.30
45.839	66.30	0.49	14.60	2.50		2.30	0.11	2.10
45.902	65.20	0.47	16.00	2.40		1.60	0.09	2.10
45.839	65.70	0.51	15.10	2.30		1.60	0.08	2.20
45.844	66.20	0.49	15.20	1.70		2.00	0.07	2.60
45.811	65.40	0.54	15.30	2.20		2.30	0.08	2.30
45.924	77.18	0.12	12.78	0.35		0.16	0.01	0.05
45.915	77.33	0.21	12.44	0.55		0.26	0.03	0.55
46.014	80.67	0.12	11.52			0.20	0.04	0.12
45.820	61.82	0.74	15.50	3.53		3.02	0.12	3.07
45.799	65.75	0.60	15.32			4.75	0.09	2.17
45.816	60.34	0.72	16.23			6.38	0.13	3.16
45.822	60.65	0.72	15.67	3.72		3.19	0.14	3.15
45.900	65.27	0.55	15.84		4.16		0.11	2.51
46.004	64.85	0.64	15.84		5.56		0.09	2.42
46.029	65.95	0.52	14.83		4.65		0.09	1.89
46.096	64.00	0.63	15.09	1.84		2.98	0.10	2.59
46.187	64.20	0.66	15.40	2.49		3.06	0.10	2.37
46.164	64.02	0.67	15.44	2.50		3.10	0.09	2.26
45.95	61.80	0.69	16.20			5.94	0.12	3.33
45.945	69.44	0.44	14.93			3.41	0.07	1.53
45.893	67.28	0.62	15.26	1.89		2.22	0.08	1.68
	69.04	0.40	14.94			2.95	0.07	1.13
45.962	66.99	0.56	15.12	2.10		2.18	0.09	1.91
45.853	67.80	0.48	14.95	1.55		2.11	0.09	1.59

45.886	65.20	0.48	15.86	1.51	2.36	0.10	2.37
45.863	68.07	0.43	15.61		3.48	0.09	2.15
45.902	67.51	0.46	15.58		3.51	0.10	1.72
45.838	70.88	0.37	15.48	1.65	1.12	0.05	1.02
45.803	72.52	0.27	14.80		2.03	0.07	0.69
45.807	73.11	0.25	13.95		2.03	0.07	0.65
45.644	68.99	0.37	14.15		3.44	0.09	1.23
45.679	69.85	0.35	15.21	1.81	1.26	0.08	1.10
45.900	71.30	0.31	14.72	0.95	1.10	0.07	1.70
45.917	69.93	0.39	14.48	1.20	1.40	0.08	1.96
45.944	55.26	0.67	13.40	0.97	6.56	0.13	10.26
45.950	64.90	0.53	14.51		4.16	0.08	4.27
45.760	68.74	0.45	15.50		2.62	0.04	1.31
45.741	73.82	0.21	14.56		1.84	0.11	0.43
45.767	71.01	0.34	15.09		1.98	0.05	1.04
45.788	56.58	0.87	16.00		7.59	0.16	4.84
45.845	66.38	0.51	14.51	2.54	2.36	0.11	2.05
45.805	65.24	0.77	15.48	2.77	2.36	0.14	2.08
45.780	64.01	0.59	15.52	2.69	2.30	0.09	2.17
45.835	65.28	0.37	16.02	2.47	1.73	0.08	2.18
45.832	65.29	0.49	16.17	1.94	2.01	0.09	2.34
45.837	64.56	0.37	16.46	2.44	2.65	0.12	1.67
45.838	63.20	0.48	16.68	1.97	2.05	0.16	2.13
45.806	67.15	0.38	15.50	2.08	1.75	0.11	1.58
45.813	61.99	1.36	15.13	3.17	2.73	0.16	2.37
45.831	67.64	0.32	16.13	2.44	1.37	0.13	1.19
45.831	67.75	0.34	16.25	1.37	1.03	0.11	1.11
45.837	64.59	0.48	16.00	2.50	2.15	0.10	1.99
45.827	67.22	0.31	16.03	1.80	1.54	0.10	1.10
46.46	49.22	0.95	12.02	2.77	8.80	< 0.01	9.29
46.46	56.41	0.68	17.62	1.24	3.55	0.08	3.97
46.31	61.64	0.71	15.63	3.39	2.69	0.04	2.82
46.035	63.87	0.65	15.39	1.93	3.08	0.11	2.23
46.031	63.88	0.65	15.84	2.11	2.59	0.07	2.13
46.019	64.05	0.60	15.38	2.20	2.74	0.11	2.08
46.026	64.34	0.53	15.72	1.62	2.94	0.12	2.17
46.441	64.17	0.67	15.25	2.16	2.98	0.04	2.60
46.24	67.12	0.48	15.00	1.62	2.23	0.06	1.74
46.014	76.87	0.11	12.52	0.67			0.09
46.016	77.05	0.12	12.84	0.56	0.14		
46.025	69.95	0.24	15.14	0.38	0.83	0.08	0.56
46.026	64.81	0.73	19.44	1.82	0.16		0.19
46.024	56.80	0.60	21.02	3.06	0.90		1.21
46.019	62.09	0.51	15.49	8.52			0.42
46.023	66.90	0.68	15.83	6.25			
46.019	54.30	0.61	13.63	1.89	2.22	0.71	2.13
46.020	71.01	0.24	14.37	0.18	0.26		0.58
46.28	47.44	1.38	18.21	5.37	6.05	0.06	5.53
46.28	64.31	0.71	15.44	2.43	2.58		2.21
46.29	76.26	0.11	12.94	0.69	0.13		0.17
46.30	74.61	0.11	13.36	0.83	0.36		0.35

46.279	63.80	0.59	15.90	2.20	3.10	0.08	2.50
46.464	64.60	0.56	15.50	2.40	2.50	0.10	2.00
46.434	70.80	0.21	15.50	1.00	0.93	0.03	0.76
46.311	71.20	0.24	15.40	1.00	0.87	0.04	0.65
46.451	71.10	0.23	15.30	1.20	1.00	0.06	0.72
46.314	70.90	0.24	14.40	1.50	0.68	0.08	0.72
46.484	64.30	0.62	14.80	2.20	3.00	0.10	2.60
46.318	63.50	0.56	15.40	2.80	2.40	0.10	2.60
46.499	68.80	0.42	14.80	1.70	2.00	0.06	1.60
46.365	68.80	0.25	16.20	1.80	0.89	0.08	0.74
46.313	67.30	0.51	14.90	2.10	1.50	0.06	1.60
46.431	68.00	0.36	15.60	1.60	1.60	0.12	1.20
46.464	77.80	0.06	12.90	0.35	0.17	0.01	0.14
46.425	77.90	0.05	12.70	0.34	0.15	0.01	0.18
46.466	66.05	0.52	14.80	1.52	2.71	0.30	1.58
46.466	66.13	0.52	15.22	1.84	2.37	0.32	0.74
46.466	68.42	0.62	16.88	1.68	0.50	0.02	0.55
46.466	64.44	0.40	14.37	0.14	8.16	0.03	0.46
46.450	68.01	0.48	15.52	0.29	2.95	0.04	1.42
46.450	68.11	0.47	15.39	0.26	2.60	0.04	1.42
46.450	65.62	0.51	15.61	1.24	3.22	0.05	1.53
46.450	66.24	0.48	15.48	3.57	0.79	0.04	1.43
46.450	68.44	0.55	18.10	1.70	0.00	0.00	0.43
46.450	68.93	0.56	17.11	3.21	0.00	0.01	0.16
46.450	65.30	0.47	15.06	8.85	0.18	0.02	0.07
46.746	52.07	1.08	15.99	4.77	5.59		4.54
46.727	56.88	0.49	15.61	2.95	2.34		6.35
46.736	63.55	0.42	16.57	2.36	1.98	0.13	1.53
46.279	48.70	1.60	16.60	4.40	8.00	0.26	6.70
46.276	55.20	1.20	17.80	3.20	5.80	0.18	4.20
46.271	60.00	1.00	17.40	2.60	4.60	0.16	2.80
46.271	55.20	1.40	17.60	3.30	5.40	0.20	4.70
46.257	70.30	0.28	17.60	0.64	0.60	0.02	0.71
46.321	67.00	0.73	15.30	2.00	2.40	0.09	2.20
46.340	60.20	0.70	15.60	2.30	3.90	0.12	4.60
46.303	75.80	0.39	12.70	0.90	0.82	0.07	0.84
46.310	79.20	0.14	12.00	0.36	0.00	0.01	0.71
46.195	68.00	0.39	17.10	2.10	1.20	0.08	0.86
46.181	56.80	0.99	18.60	4.00	3.80	0.16	3.40
46.256	60.50	0.62	17.20	3.40	2.50	0.14	2.40
46.225	55.80	0.89	14.60	1.90	6.60	0.16	7.80
46.227	53.80	0.57	8.40	2.00	4.40	0.12	10.80
46.527	54.50	0.59	12.40	1.00	6.80	0.12	11.40
46.489	61.60	0.53	16.50	2.50	3.20	0.14	2.60
46.490	64.80	0.60	15.70	1.90	2.80	0.08	2.20
46.451	62.00	0.51	17.20	3.10	2.20	0.15	1.60
46.465	76.70	0.13	12.40	0.60	0.77	0.02	0.14
46.28	60.84		16.36	2.40	3.23		3.85
46.494	65.91	0.59	15.32	2.28	2.02		1.52
46.467	64.49	0.56	15.49	1.19	2.71	0.07	1.89

46.494	66.70	0.20	13.25	1.34		0.51		0.30
46.494	66.02	0.56	14.14	1.53		0.37		0.67
46.467	71.22	0.31	15.05			1.54	0.05	0.33
45.980	58.40	0.66	16.30	3.80		3.90	0.20	2.80
45.986	59.70	0.53	16.90	3.40		3.50	0.18	2.70
45.984	65.10	0.36	15.80	2.90		1.30	0.11	1.40
46.193	55.20	1.10	16.40	4.10		5.00	0.18	4.10
46.484	55.46	0.81	16.93	2.12		5.63	0.16	4.01
46.196	56.20	0.76	18.90	4.60		3.00	0.13	2.70
46.190	61.30	0.58	18.10	3.00		2.90	0.14	2.10
46.131	63.50	0.55	15.60	3.90		1.40	0.14	2.20
46.206	65.80	0.50	16.20	3.20		1.00	0.07	1.40
46.401	66.40	0.29	16.40	1.60		1.30	0.11	0.76
46.2600	60.90	0.61	16.40	3.07		3.20	0.15	2.55
46.2767	67.20	0.34	16.30	0.74		2.19	0.10	0.94
45.8193	61.30	0.69	16.40		6.30		0.11	2.67
45.6353	70.90	0.17	15.80		1.63		0.04	0.43
45.7394	74.30	0.13	13.70		1.82		0.10	0.31
45.9211	71.00	0.41	13.90		2.55		0.06	0.84
45.923	64.20	0.63	15.30		5.53		0.10	2.35
46.039	62.60	0.68	15.70		5.70		0.11	2.59
45.8493	69.70	0.31	15.70		2.73		0.10	0.73
45.8595	77.10	0.09	13.00		0.21		0.01	<0.10
45.8702	69.20	0.35	14.90		3.18		0.06	1.06
45.8389	61.70	0.57	16.90		5.71		0.12	2.12
46.1917	63.60	0.62	15.50		5.17		0.09	2.38
46.5125	61.30	0.64	14.90		6.53		0.12	3.50
46.196	69.40	0.32	14.60		2.58		0.06	1.03
45.923	65.80	0.51	14.90		4.78		0.09	1.96
45.922	71.00	0.31	14.00		2.44		0.06	0.90
46.170	64.70	0.63	15.60		5.31		0.09	2.29
46.3417	77.30	0.17	11.90		0.94		0.01	0.13
46.584	65.50	0.45	15.60		3.86		0.08	1.46
46.7207	66.20	0.43	16.00		2.72		0.04	1.72
46.7207	66.60	0.42	16.30		2.32		0.03	1.62
46.2519	62.40	0.73	18.20		1.19		0.07	1.98
46.2551	62.50	0.70	17.70		4.29		0.07	1.48
46.4825	62.90	0.63	15.80		5.31		0.10	2.40
45.9224	64.80	0.56	15.20		4.93		0.09	2.02
45.8348	77.20	0.11	12.70		0.53		0.02	<0.10
45.8348	67.20	0.35	15.80		3.52		0.07	1.22
45.8570	71.10	0.29	14.90		2.18		0.07	0.62
45.96	64.90	0.50	15.22	1.82		2.98	0.10	2.30
46.030	63.57	0.63	15.48	1.71		3.38	0.10	2.54
45.851	65.18	0.54	15.60	1.77		2.66	0.10	2.20
45.845	64.10	0.47	16.72	2.06		2.34	0.11	1.75
45.845	71.40	0.33	14.31	1.27		1.44	0.11	0.92
46.579	65.70	0.49	16.30	1.90		2.20	0.10	1.60
46.472	66.10	0.43	16.60	1.90		1.20	0.09	1.00
45.918	64.30	0.58	15.60	2.30		2.80	0.11	2.20

46.238	68.10	0.39	15.00	2.20	1.80	0.10	1.30
46.038	66.50	0.46	15.80	1.50	2.20	0.05	1.70
46.021	63.70	0.56	17.00	2.20	2.20	0.10	2.00
46.004	63.70	0.61	16.20	2.00	2.70	0.11	2.20
45.910	65.40	0.57	15.40	1.90	2.80	0.11	2.10
46.008	61.60	0.67	16.60	2.50	3.40	0.11	2.30
45.830	66.80	0.38	17.00	1.20	2.00	0.06	1.20
45.971	65.20	0.49	15.50	2.00	2.60	0.10	2.00
46.004	64.10	0.57	15.30	2.40	3.00	0.11	2.10
46.033	64.40	0.51	15.40	1.90	3.00	0.10	2.10
46.021	61.30	0.60	16.60	2.50	2.80	0.08	1.90
46.017	62.80	0.70	15.60	2.70	3.20	0.05	2.40
46.3	63.60	0.62	15.20	2.10	3.50	0.11	2.70
46.3	61.20	0.72	15.00	2.10	3.80	0.12	3.80
46.3	68.60	0.41	13.60	1.50	2.10	0.08	1.70
46.3	66.10	0.58	14.10	1.50	2.70	0.08	2.30
46.3	68.40	0.37	13.90	1.60	2.10	0.07	1.70
45.787	71.70	0.15	15.20	0.84	0.96	0.05	0.62
45.746	72.20	0.12	14.40	1.20	1.10	0.11	0.50
45.868	70.30	0.31	13.80	1.70	1.80	0.07	1.20
45.917	63.00	0.67	15.90	1.80	3.40	0.07	2.40
46.477	58.30	0.58	16.80	3.90	3.70	0.14	2.70
46.034	65.60	0.58	15.80	1.90	2.40	0.11	1.70
46.142	63.70	0.72	15.80	2.00	3.30	0.12	2.50
45.862	72.50	0.29	14.80	0.89	0.92	0.06	0.51
45.860	69.20	0.44	14.90	1.30	1.50	0.08	1.10
46.190	64.60	0.68	16.00	1.70	3.00	0.12	2.10
45.987	65.50	0.64	15.50	1.60	2.90	0.09	2.00
46.525	60.00	0.89	16.00	2.10	4.90	0.15	3.50
46.526	56.50	0.83	17.80	3.10	4.70	0.12	3.30
46.583	68.50	0.44	15.30	1.80	1.60	0.06	1.20
46.564	67.30	0.45	15.50	2.00	1.80	0.12	1.10
46.559	58.90	0.84	18.20	2.80	2.90	0.14	2.20
45.844	67.90	0.57	16.00	1.90	0.56	0.09	0.40
46.530	67.90	0.41	15.30	1.80	1.90	0.09	1.40
45.87	65.20	0.60	15.50	1.90	2.70	0.07	2.00
46.162	64.20	0.71	16.20	1.80	3.20	0.07	2.10
46.684	57.20	0.64	17.10	3.80	3.00	0.17	2.30
45.942	56.50	0.68	13.30	1.70	5.50	0.13	9.20
45.835	63.80	0.52	16.00	2.40	2.90	0.09	2.60
45.814	62.60	0.58	15.80	2.00	4.00	0.13	2.90
45.823	62.10	0.60	16.00	2.10	4.00	0.12	2.70
45.8	64.20	0.47	15.70	2.60	2.30	0.12	2.60
45.865	70.00	0.35	14.60	2.00	1.40	0.07	1.10
45.833	68.60	0.31	15.60	2.10	1.50	0.09	1.00
45.829	67.40	0.36	16.00	2.20	1.60	0.07	1.10
45.838	65.10	0.42	15.70	2.30	2.40	0.11	2.10
45.840	64.10	0.52	15.10	2.80	3.00	0.13	2.40
45.830	63.10	0.51	16.50	2.90	2.70	0.14	1.90
45.832	66.50	0.42	15.90	2.20	2.20	0.12	1.50

45.821	62.40	0.47	16.60	2.50	2.80	0.15	2.20
45.808	63.90	0.48	15.90	2.60	2.90	0.14	2.10
45.800	63.60	0.51	15.90	3.00	2.40	0.13	2.10
45.806	64.30	0.46	16.30	2.60	2.50	0.13	1.90
45.802	66.40	0.37	16.20	2.50	1.70	0.10	1.30
45.809	66.80	0.41	16.30	2.10	1.90	0.10	1.40
45.878	66.40	0.49	14.70	2.20	2.40	0.09	2.20
45.881	66.40	0.45	14.90	2.00	2.10	0.10	2.50
45.883	67.50	0.40	14.50	1.80	1.90	0.08	2.40
46.480	73.80	0.28	13.80	0.38	0.51	0.08	0.16
46.513	63.20	0.66	14.20	2.30	3.60	0.11	3.40
45.900	65.00	0.56	15.20	2.40	2.50	0.10	2.00
45.868	66.60	0.50	15.20	2.20	2.30	0.10	1.60
45.849	70.40	0.33	15.50	1.90	1.20	0.10	0.76
45.834	69.60	0.30	16.20	1.70	1.20	0.04	0.80
45.834	66.00	0.47	15.40	2.70	2.10	0.11	2.00
45.836	62.40	0.58	15.60	3.20	2.90	0.20	2.20
45.638	68.00	0.39	15.30	2.40	1.70	0.09	1.00
45.823	61.00	0.76	15.80	2.70	4.40	0.14	2.90
46.571	65.20	0.49	16.20	2.00	2.20	0.10	1.70
46.510	59.80	0.72	16.00	2.20	4.00	0.09	3.40
46.264	65.30	0.56	15.20	2.60	2.00	0.08	2.60
46.184	64.00	0.60	16.00	1.80	3.20	0.08	2.40
46.288	62.50	0.70	15.40	3.30	2.70	0.10	2.70
46.433	63.00	0.62	15.00	2.80	2.20	0.08	2.10
45.923	71.50	0.26	14.20	1.20	1.40	0.08	0.93
45.829	67.80	0.35	15.60	2.10	1.60	0.08	1.10
45.835	67.50	0.38	14.70	1.80	2.20	0.09	1.90
45.838	66.20	0.41	15.00	2.40	2.20	0.11	2.00
45.837	63.80	0.45	16.20	3.20	2.20	0.12	1.90
45.841	65.40	0.43	15.50	2.30	2.40	0.11	1.70
45.825	66.60	0.36	15.20	2.10	2.10	0.11	1.90
45.827	64.60	0.47	15.60	2.80	2.40	0.13	1.80
45.817	62.80	0.48	16.30	2.70	2.80	0.13	2.20
45.824	62.60	0.47	15.40	2.80	3.00	0.13	2.70
45.806	62.20	0.49	15.90	2.90	3.20	0.13	2.50
45.808	63.80	0.45	16.40	2.80	2.20	0.12	1.70
45.808	63.40	0.46	16.30	2.50	2.80	0.13	2.00
45.800	67.00	0.34	16.20	2.30	1.40	0.09	1.20
45.876	60.10	0.52	15.60	2.80	3.60	0.14	3.80
45.879	67.30	0.46	14.20	1.90	2.20	0.08	2.10
45.882	65.10	0.43	15.90	2.50	1.60	0.12	1.60
45.839	64.60	0.42	16.20	2.30	2.60	0.12	1.80
45.764	65.30	0.32	17.40	2.20	1.60	0.12	1.10
45.749	62.00	0.51	16.10	3.30	3.20	0.14	2.10
45.734	66.60	0.37	15.60	2.30	2.20	0.08	1.30
45.776	70.10	0.22	15.20	1.20	1.20	0.05	0.71
45.955	72.30	0.17	14.40	0.90	0.72	0.04	0.72
45.680	67.40	0.34	15.80	2.10	1.50	0.09	1.00
46.348	67.30	0.42	14.90	1.90	1.80	0.10	1.20

46.348	67.40	0.40	15.30	1.70	1.60	0.09	1.20
46.348	66.20	0.37	16.80	2.40	1.00	0.04	0.72
46.348	66.00	0.45	15.80	1.60	1.50	0.20	0.86
46.348	62.20	0.38	14.40	0.20	5.10	1.70	1.00
46.348	65.00	0.44	15.60	0.40	1.80	0.16	0.54
46.279	64.70	0.55	16.10	3.30	1.60	0.05	1.30
46.279	62.50	0.60	17.10	3.30	0.52	0.10	1.00
46.279	62.00	0.54	16.40	0.50	4.20	0.88	2.00
46.422	62.10	0.45	17.30	2.40	2.90	0.23	1.30
46.422	63.60	0.53	19.20	0.90	2.20	0.04	1.20
46.422	70.60	0.47	16.00	0.30	1.90	0.14	0.70
46.260	65.40	0.45	15.70	1.20	1.40	0.10	1.50
46.260	69.40	0.48	15.40	2.10	0.24	0.62	0.45
46.260	70.00	0.64	17.40	1.30	0.21	0.17	0.26
46.131	75.40	0.18	12.80	0.56	0.49	0.02	0.26
45.965	64.00	0.44	15.90	2.40	2.50	0.14	2.10
46.008	65.80	0.58	15.70	2.50	2.40	0.10	2.30
46.001	78.00	0.12	12.80	0.58	0.22	0.02	0.13
46.007	65.30	0.60	15.00	2.20	2.50	0.08	2.20
45.924	65.00	0.58	15.60	2.60	2.40	0.09	2.20
45.924	65.40	0.54	15.50	2.30	2.50	0.08	2.00
45.924	65.20	0.62	15.40	2.10	2.60	0.09	2.00
46.210	76.90	0.12	13.00	0.73	0.02	0.01	0.09
46.210	77.80	0.12	13.00	0.49	0.06	0.01	0.11
46.210	75.60	0.14	13.20	1.10	0.08	0.01	0.30
46.229	73.90	0.28	13.90	1.80	0.34	0.05	0.45
45.840	70.40	0.26	15.30	1.60	1.10	0.08	0.66
45.833	50.60	1.20	14.30	5.20	7.70	0.24	6.00
46.464	76.20	0.14	12.30	0.60	0.81	0.02	0.21
46.401	65.00	0.51	14.60	1.90	2.80	0.10	2.20
46.276	66.80	0.31	16.40	0.80	2.40	0.12	1.00
46.234	68.40	0.40	15.20	1.60	1.80	0.06	1.20
46.751	63.40	0.52	17.00	2.80	2.40	0.13	1.60
45.7316	62.59	0.38	16.87	4.29	2.04	0.09	2.74
45.7179	57.42	0.61	16.62	6.01	2.06	0.12	3.57
45.7179	57.85	0.46	16.21	5.56	2.10	0.10	3.09
45.7179	60.29	0.47	15.99	4.81	2.44	0.11	3.34
45.7179	58.47	0.50	15.26	6.04	2.37	0.11	3.24
45.7316	65.64	0.25	16.49	2.37	0.82	0.05	0.71
45.7383	59.27	0.50	16.10	4.97	2.43	0.11	1.88
45.7576	63.01	0.43	16.42	3.95	1.92	0.09	1.68
45.7819	68.10	0.35	12.91	3.52	1.30	0.07	1.28
45.7974	67.67	0.30	15.59	3.43	1.24	0.08	1.27
45.8343	50.10	0.47	16.22	3.78	1.75	0.11	1.90
45.8343	64.23	0.49	16.64	3.70	2.38	0.12	2.00
45.8343	62.03	0.47	15.93	3.17	2.24	0.12	1.92
45.8343	60.19	0.46	15.35	2.93	2.39	0.12	1.87
45.8123	58.72	0.55	16.45	3.42	2.67	0.12	2.35
45.8123	61.15	0.56	16.22	2.74	2.77	0.13	2.61
45.8123	60.43	0.48	15.68	2.75	2.76	0.12	2.25

45.8123	59.97	0.52	15.99	4.56	2.66	0.12	2.14
45.8004	64.75	0.45	16.73	1.65	2.07	0.13	1.80
45.8305	59.76	0.48	16.04	3.09	2.82	0.12	3.11
45.8152	64.18	0.32	16.99	2.11	1.45	0.05	1.03
45.8152	65.76	0.30	16.45	1.98	1.44	0.05	0.94
45.8152	69.05	0.32	17.04	2.15	1.51	0.06	0.93
45.8152	68.00	0.30	16.79	1.83	1.41	0.06	0.93
45.8503	58.86	0.56	18.32	3.34	2.39	0.12	2.26
45.8719	58.09	0.63	15.87	4.96	3.11	0.14	3.73
45.8719	57.26	0.56	16.17	4.53	3.01	0.12	3.76
45.8719	57.95	0.55	14.65	5.13	2.92	0.11	3.26
45.8719	61.50	0.50	15.34	2.62	2.69	0.11	3.07
45.8588	61.55	0.49	16.24	2.71	2.58	0.10	2.34
45.8841	62.32	0.53	15.86	1.45	2.76	0.10	0.31
45.7735	63.82	0.48	16.64	1.99	2.10	0.11	1.37
45.7575	61.39	0.58	17.02	2.41	2.66	0.09	2.00
45.9066	63.56	0.38	16.92	1.42	2.09	0.09	2.30
45.8738	65.63	0.54	14.97	2.11	2.18	0.11	2.43
45.7658	77.10	0.26	12.48	2.13	0.92	0.04	0.66
45.7658	75.50	0.26	12.51	2.15	1.12	0.04	0.72
45.7658	69.10	0.27	12.70	2.45	1.20	0.04	0.73
45.7658	69.40	0.26	12.67	2.15	1.00	0.03	0.70
45.7845	70.66	0.33	15.07	3.11	1.32	0.08	1.03
45.7845	65.83	0.35	14.84	3.51	1.36	0.08	1.18
45.7845	67.20	0.31	14.67	3.11	1.30	0.08	1.01
45.7845	70.41	0.26	14.73	2.85	1.10	0.02	0.96
45.8472	70.32	0.27	14.88	0.82	0.82	0.05	0.50
45.8472	70.93	0.25	14.87	0.85	0.82	0.05	0.57
45.8472	74.05	0.22	14.71	0.81	0.79	0.05	0.90
45.8472	72.36	0.20	14.98	0.77	1.02	0.07	0.53
45.7992	71.37	0.27	15.06	0.93	1.22	0.08	0.63
45.7992	71.64	0.27	14.49	0.53	1.52	0.08	0.70
45.7992	70.61	0.29	14.60	0.93	1.42	0.07	0.70
45.7992	73.39	0.26	14.46	0.36	1.66	0.08	0.60
45.8257	72.21	0.25	13.77	1.13	1.42	0.06	0.64
45.8257	69.91	0.28	15.63	0.90	1.86	0.08	0.85
45.8257	72.17	0.15	13.62	0.41	0.92	0.04	0.40
45.8257	70.62	0.28	14.97	0.65	1.74	0.09	0.79
45.8840	67.70	0.49	11.88	1.16	2.45	0.08	1.47
45.8636	65.56	0.48	15.27	0.95	2.35	0.08	1.37
45.8636	67.85	0.37	15.75	0.91	2.19	0.08	1.30
45.8636	65.16	0.43	15.52	1.00	2.59	0.07	1.37
45.8636	69.60	0.35	15.10	0.95	2.06	0.07	1.30
45.8797	68.95	0.42	15.69	1.23	2.27	0.07	1.40
45.8997	63.30	0.40	15.43	1.19	2.36	0.09	1.50
45.8997	65.81	0.43	15.12	1.30	1.98	0.08	1.53
45.8997	66.35	0.42	15.64	1.36	2.35	0.09	1.57
45.8997	67.94	0.41	15.00	1.22	2.34	0.08	1.60
45.8683	65.33	0.44	15.81	0.94	2.47	0.08	1.53
45.8721	66.93	0.36	15.09	1.01	2.12	0.07	1.27
45.9249	70.31	0.34	15.32	1.04	1.84	0.06	1.03

	66.40	0.48	15.99	1.24	2.90	0.08	1.90
	66.15	0.48	16.00	1.15	3.12	0.08	1.86
	63.76	0.49	15.75	1.16	2.99	0.08	1.86
	65.73	0.52	16.13	1.03	3.19	0.08	1.93
	66.60	0.48	15.50	0.57	3.05	0.08	1.73
	64.97	0.51	16.18	1.92	2.83	0.09	1.97
	64.84	0.50	15.31	1.62	2.44	0.08	1.83
	63.76	0.49	15.75	1.54	2.55	0.08	1.74
45.8809	67.07	0.45	15.44	0.55	2.52	0.09	1.66
45.8967	69.21	0.38	15.06	0.87	2.14	0.07	1.24
45.8899	70.91	0.33	15.00	0.75	1.75	0.07	1.03
45.8684	72.16	0.32	14.81	0.55	1.71	0.07	0.90
45.8323	64.58	0.48	15.80	1.12	2.94	0.06	1.83
45.9451	67.81	0.35	15.24	0.47	2.53	0.07	1.27
45.9161	69.68	0.31	13.97	1.13	1.75	0.06	0.97
45.8535	69.43	0.36	15.13	0.90	2.11	0.07	1.16
45.8535	67.52	0.37	14.66	0.72	2.14	0.07	1.19
45.8535	74.25	0.37	15.08	0.84	2.31	0.07	1.29
45.8535	66.34		15.85	1.45	1.49	0.07	1.21
45.8744	65.99	0.35	15.88	1.53	2.16	0.10	1.67
45.8485	64.80	0.53	15.88	1.89	2.25	0.09	2.07
45.7843	70.94	0.21	15.45	0.54	1.05	0.04	0.55
45.7583	71.90	0.11	14.33	1.34	0.23	0.09	0.28
45.7374	72.71	0.16	14.75	1.38	0.48	0.09	0.36
45.7374	72.30	0.17	15.05	0.43	1.29	0.11	0.36
45.7416	71.77	0.17	15.14	0.20	1.46	0.10	0.36
45.6336	69.14	0.36	15.36	0.94	1.77	0.09	1.13
45.6498	67.54	0.41	15.43	1.02	2.18	0.10	1.23
45.7044	71.43	0.24	14.14	0.65	1.09	0.05	0.63
45.6820	69.61	0.27	15.24	0.64	1.50	0.08	0.79
45.6819	66.41	0.36	16.74	1.06	1.86	0.10	0.97
45.7111	71.27	0.24	15.23	0.78	1.35	0.08	0.64
45.7314	66.75	0.41	15.34	1.33	2.22	0.12	1.35
45.6681	66.77	0.29	15.84	0.90	1.36	0.07	0.66
45.6586	67.62	0.31	15.83	0.99	1.47	0.08	0.94
45.7171	69.40	0.30	15.82	0.62	1.59	0.09	0.82

CaO	Na2O	K2O	P2O5	LOI	H2O+	H2O-	Tot_H2O	CO2
5.51	2.78	3.34	0.26		0.65	0.09		0.08
4.86	2.69	4.12	0.26		0.55	0.18		0.07
7.93	2.48	2.10	0.42		0.85	0.14		0.02
4.29	2.80	3.66	0.21		0.56	0.05		0.05
3.71	3.50	3.54	0.24		0.47	0.05		0.08
2.45	3.16	4.29	0.09		0.43	0.13		0.10
2.61	3.01	4.59	0.17		0.60	0.12		0.31
7.39	4.01	3.33	0.42		0.61	0.24		
2.72	3.92	5.77	0.23		0.39	0.19		0.02
13.00	2.85	4.61	0.46		0.76	0.03		
4.80	2.80	3.90	0.23				0.83	<0.05
4.20	3.00	4.10	0.24				0.75	0.20
4.40	3.10	3.60	0.29				1.40	0.48
4.10	2.90	4.20	0.28				0.75	0.10
2.70	2.80	5.20	0.23				0.58	<0.05
2.90	3.20	4.30	0.16				1.30	0.21
2.90	2.80	4.60	0.20				0.96	0.80
4.40	3.70	2.40	0.24		0.49	0.22		<0.05
3.70	3.50	3.20	0.22		0.65	0.12		<0.05
3.20	3.00	4.60	0.20		0.64	0.14		<0.05
3.30	3.50	4.10	0.22		0.78	0.30		<0.05
4.80	3.60	2.70	0.23		0.67	0.16		<0.05
5.30	3.40	2.60	0.23		0.71	0.22		<0.05
4.00	3.20	3.70	0.21		0.73	0.15		<0.05
3.20	4.00	3.50	0.19		0.83	0.27		<0.05
3.00	3.90	4.00	0.18		1.00	0.24		<0.05
3.00	3.40	4.00	0.17		1.00	0.09		<0.05
3.70	3.40	3.50	0.16		0.91	0.04		0.09
0.41	3.14	4.80	0.02					
0.99	2.49	4.84	0.06					
0.31	2.89	4.82	0.03					
4.97	2.83	3.85	0.21					
4.15	2.18	4.18	0.15					
5.67	2.92	3.56	0.19					
5.59	2.96	3.59	0.18					
4.22	3.33	3.70	0.16					
3.56	2.70	3.76	0.19					
3.98	2.76	4.29	0.16					
4.33	3.19	4.34	0.18					
4.35	3.90	2.95	0.20					
3.53	3.32	4.36	0.20					
5.02	2.74	3.74	0.22					
2.79	3.02	4.06	0.11					
3.49	3.11	4.13	0.17					
2.75	3.45	4.53	0.10					
3.61	2.84	4.05	0.15					
3.25	3.59	4.13	0.15					

3.92	3.42	4.09	0.30			
3.56	3.28	4.06	0.12			
3.34	3.11	4.08	0.14			
2.62	3.51	3.34	0.40			
2.11	3.54	4.23	0.13			
1.95	3.75	4.07	0.08			
3.20	4.09	3.58	0.15			
3.31	3.70	3.31	0.13			
2.68	3.02	4.75	0.08			
3.39	3.05	4.09	0.08			
6.00	2.61	3.71	0.37			
3.28	2.91	4.75	0.23			
2.55	3.53	4.47	0.16			
1.10	3.95	3.92	0.13			
2.15	3.22	4.82	0.14			
8.43	2.63	2.87	0.14			
3.98	3.21	3.66	0.19	0.50	0.15	
4.13	2.99	4.32	0.17			
4.50	3.02	4.14	0.17			
3.08	3.67	4.13	0.16	0.66	0.15	
4.01	3.39	3.46	0.09	0.51	0.11	
4.77	3.61	2.55	0.22	0.57	0.17	
4.89	3.61	3.43	0.22	0.53	0.12	
4.33	4.18	2.88	0.15			
5.47	3.77	3.06	0.24			
4.32	3.50	2.26	0.22	0.54	0.14	
4.37	3.66	2.43	0.21	0.52	0.31	
4.75	3.65	2.95	0.16	0.48	0.11	
4.58	4.36	2.81	0.11			
10.56	1.90	1.70	0.43	1.63	0.27	
8.66	3.35	2.61	0.49	0.76	0.14	
4.90	2.64	3.72	0.21	0.91	0.28	
4.30	2.76	4.18	0.17	0.69	0.19	0.15
3.97	2.81	4.23	0.21	0.66	0.22	
4.30	2.74	4.00	0.21	0.83	0.27	0.35
4.24	2.76	4.04	0.14	0.76	0.25	0.03
4.24	2.62	4.34	0.16	0.65	0.16	
3.43	2.76	4.52	0.15	0.58	0.09	
0.49	2.47	5.78	0.05	0.52	0.25	
0.57	2.81	5.52		0.48	0.22	
1.45	2.70	6.36	0.10	0.91	0.40	0.37
0.18	0.21	5.30	0.10	5.25	1.41	
0.35	0.50	4.78	0.05	7.68	2.88	
0.20	0.37	4.34	0.13	3.01	1.20	
0.05	0.08	0.03		3.88	0.87	
7.36	0.16	4.41	0.20	4.09	2.19	5.50
0.10	1.56	4.53				
9.98	2.58	1.17	0.68	1.08	0.13	
4.22	2.71	4.09	0.22	0.79	0.19	
1.10	2.73	5.26	0.06	0.43	0.17	
1.35	2.49	5.70	0.06	0.42	0.19	

4.20	3.00	4.00	0.19			0.62	<0.05
4.00	3.10	4.00	0.19			0.38	<0.05
2.40	4.20	3.40	0.08			0.26	0.12
2.40	4.20	3.40	0.10			0.51	
2.10	3.80	3.90	0.08			0.68	0.18
2.30	3.40	4.40	0.08			0.57	0.22
4.10	2.90	4.10	0.20			0.63	<0.05
4.40	3.00	4.00	0.22			0.63	0.19
2.90	2.70	4.70	0.12			0.59	<0.05
3.30	3.10	4.30	0.14			0.75	0.07
2.90	2.90	4.90	0.17			0.57	0.31
3.20	3.10	4.20	0.16			0.38	
0.68	3.10	4.80	0.01			0.20	
0.37	3.50	4.80	0.01			0.14	
2.68	2.57	5.00	0.13	0.83	0.28		0.74
2.16	2.57	4.93	0.14	0.89	0.50		1.43
0.30	0.29	5.89	0.17	3.46	0.71		0.04
0.03	0.07	3.61	0.00	1.75	0.04		0.02
2.69	3.10	3.24	0.10	0.72	0.22		0.02
2.46	2.73	4.57	0.12	0.72	0.17		0.02
2.80	2.99	3.44	0.17	1.22	0.27		0.03
2.62	2.81	3.59	0.16	1.28	0.50		0.02
0.37	0.38	2.71	0.05	5.10	1.92		0.01
0.11	0.18	3.69	0.12	4.91	0.77		0.00
0.07	0.18	3.16	0.23	5.21	0.60		0.01
7.50	2.97	2.79	0.40	1.60	0.34		
5.23	3.59	2.39	0.13	3.03	0.67		
4.69	3.78	2.78	0.21	1.11	0.31		0.69
10.10	2.30	0.81	0.49	0.44			
7.00	3.20	1.80	0.36	0.81			
5.50	3.10	2.70	0.30	0.65			
7.20	3.10	1.60	0.34	0.68			
1.70	3.50	4.70	0.05	1.20			
3.60	2.80	4.30	0.14	0.47			
4.90	2.80	4.00	0.34	0.77			
1.00	2.90	5.10	0.03	0.47			
0.36	3.00	5.40		0.26			
4.30	3.70	2.00	0.14	0.55			
7.50	3.30	1.60	0.25	0.66			
5.80	3.40	2.60	0.30	1.20			
7.40	2.40	2.80	0.40	0.02			
15.50	1.30	1.40	0.12	1.00			
6.80	2.20	3.20	0.42			0.68	<0.05
5.20	3.40	3.00	0.22	0.88			
4.40	3.10	3.90	0.19	0.57			
4.70	4.10	3.30	0.40	0.56			0.05
0.81	2.20	5.80	0.09			0.42	0.05
4.96	2.90	4.10		1.03	0.48		
3.28	3.08	4.80	0.18	0.60	0.60		
4.32	3.53	4.04	0.19	0.48	0.16		

0.05	0.39	4.03	0.12		0.37	0.08	0.21
0.26	0.39	4.63	0.17		0.48	0.10	0.25
	0.42	6.99	0.08		1.52	0.32	1.50
6.20	3.20	2.80	0.31			0.88	<0.05
5.80	3.40	2.80	0.31			0.78	<0.05
3.20	4.10	4.80	0.16			0.42	<0.05
7.30	3.00	2.30	0.31	0.66			
7.22	3.01	3.18	0.36			1.13	<0.05
7.00	3.70	2.40	0.42	1.00			
5.80	3.60	1.70	0.28	1.20			
3.90	4.20	3.60	0.38			0.84	<0.05
4.40	3.30	3.40	0.20	1.00			
4.20	4.20	3.60	0.12	1.00			
4.89	3.29	2.53	0.28		1.19	0.23	0.16
3.85	3.36	3.24	0.17		0.59	0.15	0.06
4.50	3.28	3.54	0.26	0.69			
3.04	3.94	3.20	0.07	0.56			
1.43	4.10	3.42	0.07	0.66			
2.35	2.54	4.95	0.18	0.70			
4.20	2.70	4.18	0.27	0.57			
4.57	2.65	3.86	0.29	0.65			
2.46	4.12	3.11	0.22	0.49			
0.42	2.87	5.60	0.16	0.38			
2.94	3.13	3.86	0.23	0.56			
5.37	3.57	2.61	0.38	0.51			
4.49	2.89	3.99	0.30	0.34			
5.49	2.80	3.29	0.33	0.37			
2.79	2.98	4.79	0.24	0.86			
3.61	2.76	4.25	0.15	0.83			
2.42	2.71	4.80	0.10	0.50			
4.17	2.95	4.21	0.18	0.55			
0.41	2.59	5.43	0.14	0.61			
3.01	3.58	4.66	0.18	0.82			
1.64	2.59	6.21	0.14	1.60			
2.03	3.99	4.22	0.14	1.50			
3.07	6.62	3.71	0.44	0.71			
4.93	3.27	3.47	0.20	0.65			
4.39	3.19	3.94	0.32	0.32			
4.07	2.89	3.92	0.21	0.51			
0.94	3.21	4.85	<0.05	0.13			
4.03	3.72	2.65	0.17	0.27			
1.94	4.16	3.28	0.13	0.54			
4.21	2.95	3.71	0.21		0.66	0.17	0.01
4.62	2.89	3.70	0.20		0.71	0.23	0.08
4.14	3.09	3.75	0.19		0.57	0.13	0.02
4.88	3.72	2.84	0.20		0.48	0.11	0.01
2.36	3.71	3.03	0.12		0.41	0.19	0.01
3.70	3.40	3.60	0.23		0.64	0.08	<0.05
3.50	3.90	3.70	0.24		0.73	0.26	<0.05
4.40	2.80	3.80	0.28		0.80	0.10	<0.05

3.40	3.20	3.60	0.24	0.58	0.07	<0.05
3.40	2.80	4.30	0.16	0.82	0.15	<0.05
3.60	2.50	4.40	0.20	1.10	0.17	<0.05
3.90	2.70	4.20	0.22	1.00	0.09	<0.05
3.60	2.80	3.70	0.16	1.10	0.07	0.30
4.10	3.10	3.60	0.25	1.10	0.09	<0.05
3.80	3.70	2.50	0.16	0.90	0.10	<0.05
4.50	3.00	3.20	0.27	0.90	0.15	<0.05
4.20	2.70	3.50	0.29	1.20	0.20	0.25
4.40	2.70	3.80	0.26	0.91	0.11	0.35
3.80	2.30	4.00	0.28	1.90	0.26	0.82
2.50	1.70	4.40	0.23	1.70	0.68	0.19
4.70	2.80	3.70	0.21	0.62	0.09	<0.05
4.80	2.90	4.50	0.29	0.56	0.11	<0.05
3.00	3.10	4.80	0.15	0.59	0.11	<0.05
3.30	2.80	5.60	0.19	0.58	0.10	<0.05
3.40	2.90	4.60	0.13	0.64	0.10	<0.05
2.40	4.00	3.40	0.11	0.37	0.11	<0.05
1.90	4.00	3.40	0.09	0.56	0.11	<0.05
2.30	3.10	4.40	0.11	0.61	0.08	0.05
4.80	2.80	3.70	0.23	1.10	0.13	<0.05
5.00	3.40	3.40	0.50	1.10	0.21	0.28
3.80	2.90	3.80	0.18	0.87	0.13	<0.05
4.40	2.80	3.70	0.21	0.64	0.09	<0.05
1.80	3.60	3.70	0.09	0.80	0.07	<0.05
2.60	3.30	4.00	0.16	0.72	0.21	<0.05
3.80	2.80	3.80	0.20	0.93	0.17	0.05
3.60	2.90	4.10	0.18	0.79	0.12	<0.05
5.70	2.70	2.50	0.31	0.97	0.13	<0.05
6.00	3.30	2.50	0.46	1.10	0.22	<0.05
2.80	3.20	4.00	0.20	0.61	0.12	0.11
3.60	3.40	3.50	0.22	0.63	0.13	0.24
5.20	3.60	2.50	0.46	0.95	0.15	<0.05
1.20	4.20	5.50	0.13	1.40	0.24	<0.05
3.00	3.20	3.70	0.16	0.90	0.20	<0.05
4.20	2.90	3.70	0.20	0.94	0.03	<0.05
4.30	2.80	3.40	0.20	0.89	0.05	<0.05
6.40	3.90	3.70	0.47	0.53	0.04	<0.05
6.00	2.70	2.80	0.42	0.93	0.04	<0.05
4.60	2.80	2.80	0.22	0.88	0.08	<0.05
5.70	2.90	2.30	0.26	0.70	0.02	<0.05
6.00	2.90	2.40	0.21	0.77		<0.05
4.50	3.30	3.40	0.24	0.53	0.15	0.11
2.90	3.10	4.10	0.14	0.56	0.15	<0.05
3.80	3.60	2.80	0.21	0.56	0.14	<0.05
4.10	3.80	2.80	0.27	0.62	0.13	<0.05
4.80	3.60	2.50	0.25	0.68	0.18	<0.05
5.40	3.30	2.40	0.34	0.76	0.13	<0.05
5.30	3.60	2.50	0.28	0.52	0.09	<0.05
4.60	3.40	2.50	0.24	0.64	0.13	<0.05

5.50	4.00	2.40	0.32		0.75	0.16	<0.05
5.40	3.40	2.40	0.27		0.75	0.14	<0.05
4.50	3.40	3.10	0.24		1.00	0.17	<0.05
5.00	3.50	2.50	0.29		0.74	0.17	<0.05
4.50	3.80	2.40	0.23		0.68	0.21	<0.05
4.50	3.50	2.40	0.22		0.64	0.16	<0.05
4.00	3.30	3.60	0.20		0.67	0.15	<0.05
3.60	3.40	3.70	0.19		0.87	0.26	<0.05
3.10	3.20	4.50	0.18		0.67	0.13	<0.05
0.99	3.20	6.00	0.04	0.30			
4.60	2.50	4.00	0.20	0.24			
4.30	2.80	4.00	0.22	0.40			
3.80	3.00	4.00	0.22	0.50			
2.30	3.90	2.90	0.17	0.78			
3.40	3.60	2.50	0.15	0.52			
4.60	3.30	3.10	0.20	0.12			
5.70	3.30	2.60	0.26	0.48			
3.20	3.20	3.60	0.17	0.66			
5.80	2.60	3.00	0.25	0.60			
3.60	3.20	4.20	0.20	0.60			
5.10	3.00	4.20	0.32	0.62			
3.20	3.00	4.20	0.19	1.30			
4.20	2.90	3.90	0.18	0.44			
4.60	2.80	4.00	0.22	0.75			
4.30	2.90	4.20	0.20	2.20			
2.90	2.90	4.20	0.16			0.42	0.06
4.00	3.90	2.80	0.22		0.32	0.11	<0.05
3.80	3.50	2.80	0.23		0.63	0.22	<0.05
4.30	3.40	2.60	0.25		0.46	0.06	<0.05
5.10	3.40	2.40	0.29		0.56	0.39	<0.05
4.40	3.30	3.20	0.24		0.58	0.23	<0.05
4.30	3.30	3.00	0.23		0.48	0.08	<0.05
4.70	3.60	2.80	0.26		0.52	0.18	<0.05
5.60	3.80	2.20	0.30		0.55	0.18	<0.05
5.30	3.50	2.70	0.26		0.72	0.20	<0.05
5.70	3.30	2.40	0.29		0.68	0.25	<0.05
5.10	3.70	2.40	0.29		0.53	0.18	<0.05
5.20	4.00	2.40	0.26		0.63	0.12	<0.05
4.10	3.80	2.40	0.21		0.59	0.20	<0.05
6.10	4.00	2.30	0.29		0.55	0.11	<0.05
3.40	3.10	4.00	0.19		0.85	0.20	<0.05
3.30	3.60	4.30	0.22		1.00	0.34	<0.05
4.70	3.60	2.40	0.24		0.63	0.23	<0.05
4.90	4.00	2.10	0.29		0.76	0.12	<0.05
5.90	3.70	1.90	0.35		0.68	0.18	0.14
4.00	3.50	2.90	0.23		0.64	0.12	<0.05
2.90	3.60	3.60	0.16		0.66	0.14	<0.05
2.40	3.00	4.60	0.10		0.54	0.10	<0.05
3.70	3.70	3.20	0.22		0.68	0.11	<0.05
3.40	3.20	4.10	0.17			1.20	0.34

3.20	3.20	4.20	0.15			1.20	0.40
2.20	2.90	3.40	0.16			3.80	<0.05
0.71	0.28	6.40	0.17			4.60	1.10
0.54	0.08	4.70	0.11			2.00	1.00
0.18	0.09	4.80	0.11			2.50	0.34
2.80	3.00	4.60	0.25			2.20	<0.05
1.40	2.60	4.70	0.27			4.10	<0.05
0.48	0.11	4.20	0.23			3.80	3.40
3.60	3.20	3.20	0.26			2.20	0.34
0.59	0.22	4.80	0.32			6.30	<0.05
0.14	0.11	4.40	0.16			3.00	<0.05
3.70	3.20	4.10	0.30			1.50	0.05
0.40	5.00	5.60	0.04			0.24	<0.05
0.29	4.60	5.00	0.01			0.18	<0.05
0.93	2.30	5.90	0.04	0.70	0.22		<0.05
4.60	3.20	3.70	0.27	0.56	0.16		<0.05
4.20	3.00	4.30	0.12			0.76	0.08
0.85	3.20	4.70	0.00			0.24	0.05
3.80	2.70	4.50	0.10			0.83	0.09
4.00	3.00	4.10	0.10			0.76	0.11
4.00	2.90	4.10	0.12			0.68	0.14
4.10	3.00	3.80	0.11			0.86	0.16
0.65	2.70	5.70	0.00			0.52	<0.05
0.29	2.80	5.30	0.00			0.66	0.06
1.10	2.50	5.60	0.00			0.44	<0.05
0.63	2.80	5.60	0.06	0.78			0.07
2.60	4.00	3.40	0.12	0.52			0.06
7.20	3.10	2.20	0.54			1.00	<0.05
0.80	3.00	5.00	0.11			0.41	0.05
4.20	2.70	4.20	0.18	1.10			
4.10	3.30	3.00	0.12	1.00			
3.20	3.40	4.00	0.18	0.31			
5.20	3.60	2.60	0.26	0.58			
4.56	3.96	3.77	0.22	0.563			
5.46	3.82	2.78	0.40	0.322			
5.13	3.68	3.42	0.10	0.425			
4.54	4.06	3.83	0.21	0.306			
5.04	3.75	3.10	0.22	0.353			
4.13	3.83	2.28	0.15	0.412			
4.89	3.83	2.92	0.40	0.189			
4.74	3.78	2.53	0.17	0.401			
4.03	3.60	2.80	0.17	0.414			
3.88	3.54	3.00	0.16	0.365			
5.35	3.50	2.77	0.23	0.203			
5.34	3.59	2.88	0.22	0.188			
5.21	3.81	2.84	0.23	0.183			
5.49	3.64	2.90	0.22	0.223			
5.63	3.62	2.69	0.26	0.413			
5.47	3.49	2.60	0.27	0.406			
5.62	3.60	2.79	0.24	0.351			

5.65	3.55	2.81	0.28	0.347
5.48	3.77	2.46	0.21	0.486
5.48	3.60	2.81	0.23	0.535
4.56	4.13	2.50	0.18	0.273
4.09	3.97	2.86	0.18	0.231
4.59	3.77	2.53	0.17	0.284
4.25	4.05	2.67	0.17	0.224
5.19	4.16	3.78	0.25	0.205
5.77	3.44	2.63	0.31	0.279
5.78	3.53	2.87	0.24	0.205
5.60	3.54	3.15	0.23	0.258
4.56	3.17	2.74	0.23	0.349
4.55	3.26	2.79	0.23	0.289
5.06	3.71	3.37	0.22	0.296
4.00	3.48	2.36	0.20	0.419
4.20	3.76	2.22	0.30	0.647
3.11	3.58	3.03	0.17	0.517
3.55	3.44	2.37	0.19	0.521
2.37	3.79	3.72	0.15	0.539
2.51	3.81	3.50	0.11	0.297
2.48	3.83	4.02	0.12	0.489
2.61	3.81	3.55	0.11	0.506
3.13	3.58	3.54	0.16	0.415
3.07	3.48	3.43	0.18	0.423
3.18	3.52	3.69	0.16	0.577
2.93	3.35	3.73	0.15	0.564
1.63	3.26	3.38	0.13	0.425
1.75	3.62	4.22	0.25	0.475
1.62	3.43	2.87	0.13	0.361
1.72	3.48	2.36	0.11	0.300
2.03	3.51	3.55	0.11	0.417
2.09	3.44	3.34	0.11	0.511
2.12	3.29	3.51	<0.05	0.450
2.29	3.38	2.75	0.12	0.536
2.29	3.71	3.36	0.11	0.244
2.57	3.67	3.11	0.11	0.241
1.70	3.58	2.92	0.05	0.222
2.00	3.92	2.67	0.13	0.229
3.66	3.14	3.63	0.17	0.340
3.17	3.28	3.80	0.17	0.680
3.07	3.06	3.92	0.17	0.608
3.11	3.20	3.70	0.11	0.577
3.10	3.11	2.27	0.16	0.380
3.33	3.19	1.40	0.18	0.421
3.21	2.76	3.82	0.17	0.363
3.34	3.03	4.11	0.16	0.412
3.23	2.82	3.95	0.17	0.576
3.43	2.81	4.16	0.17	0.431
3.41	3.20	3.88	0.19	0.289
2.73	2.82	4.05	0.15	0.499
2.90	3.25	4.14	0.16	0.300

3.84	2.71	2.98	0.19	0.326
3.87	2.79	3.26	0.20	0.252
3.73	3.06	3.72	0.16	0.218
4.00	2.98	3.68	0.13	0.170
3.85	3.04	4.00	0.16	0.321
4.12	3.07	3.20	<0.05	0.217
4.12	3.00	3.87	0.17	0.427
3.80	2.96	4.12	0.17	0.314
3.66	3.00	3.72	0.18	0.430
3.01	2.99	4.12	0.13	0.302
2.39	3.04	3.66	<0.05	0.304
2.31	3.06	4.22	0.11	0.225
4.18	2.14	3.36	0.20	0.200
2.87	3.15	4.10	0.13	0.124
2.81	2.98	4.11	0.12	0.342
3.00	3.02	3.36	0.16	0.386
2.94	4.46	3.12	0.18	0.630
3.25	3.57	4.70	0.17	0.456
3.04	3.54	4.72	0.17	0.327
3.82	3.38	3.17	0.19	0.456
4.22	3.46	4.06	0.17	0.465
2.19	3.74	2.97	0.07	0.488
1.07	4.05	3.16	0.05	0.440
1.39	3.94	2.48	0.09	0.509
1.43	4.06	3.36	0.08	0.436
1.44	4.03	3.46	0.08	0.508
2.72	3.26	2.40	0.14	1.095
3.45	3.42	2.76	0.19	0.736
2.20	3.41	2.62	0.10	0.625
2.32	3.20	3.26	0.12	0.547
3.83	3.83	2.72	0.15	0.930
2.55	3.33	3.19	0.10	0.826
3.42	3.43	2.93	0.18	0.494
2.34	3.09	4.90	0.13	0.534
3.00	3.76	3.41	0.16	0.448
3.10	3.58	3.20	0.13	0.388

Cl	F	S	SO3	FeS2	Tot_oth_sulf	total	vol_sum	Ba
		0.01				100.03	0.83	717
		0.02				99.65	0.82	1075
		0.04				99.94	1.05	448
		0.01				99.91	0.67	448
		0.03				99.78	0.63	1164
		0.01				100.10	0.67	985
						100.17	1.03	985
						100.09	0.85	1075
		0.01				99.78	0.61	896
		0.01				99.70	0.8	448
						99.54	0.83	
						99.63	0.95	
						100.05	1.88	
						99.34	0.85	
						99.50	0.58	
						99.75	1.51	
						100.30	1.76	
						100.91	0.71	
						100.31	0.77	
						100.43	0.78	
						100.44	1.08	
						100.48	0.83	
						100.01	0.93	
						100.39	0.88	
						99.85	1.10	
						99.81	1.24	
						97.92	1.09	
						99.92	1.04	
						99.02		70
						99.75		
						100.72		133
						99.66		846
						99.34		910
						99.30		875
						99.56		
						99.85		
						99.61		881
						99.12		
						99.27		897
						99.68		
						99.49		913
						99.80		1011
						99.80		
						99.93		870
						99.36		
						99.60		804
						99.69		

				99.61		1112
				100.85		961
				99.55		987
				100.44		
				100.39		1513
				99.91		1175
				99.29		1268
				100.11		919
				100.68		703
				100.05		697
				99.94		848
				99.62		
				99.37		
				100.07		1350
				99.84		1001
				100.11		907
				100.15	0.65	
				100.45		981
				99.20		
				99.98	0.81	
				99.90	0.62	
				100.16	0.74	
				99.47	0.65	
				100.09		1256
				99.45		
				100.20	0.68	
				99.46	0.83	
				99.91	0.59	1235
				99.96		1184
0.08	0.05	0.04		99.77	2.07	269
0.07				99.80	0.97	806
				99.70	1.19	717
	0.07			99.86	1.10	627
				99.72	0.88	806
	0.07			100.04	1.52	717
	0.03			99.75	1.07	537
		0.07		100.18	0.88	627
				99.88	0.67	627
				99.82	0.77	
				100.31	0.70	
			0.39	100.06	2.07	1164
		0.31		100.01	6.97	0.10
	0.17			100.15	10.73	0.05
	5.47			102.00	9.68	
	5.46			98.15	10.21	
			0.49	99.89	12.27	
			4.37	97.20	4.37	
	0.03			99.69	1.24	717
				99.97	0.98	627
	0.01			100.13	0.61	627
				99.93	0.61	896

			100.18	0.62	
			99.33	0.38	
			99.69	0.38	
			100.01	0.51	
			100.35	0.86	
			99.49	0.79	
			99.55	0.63	
			99.80	0.82	
			100.39	0.59	
			100.42	0.82	
			99.72	0.88	
			99.52	0.38	
			100.22	0.20	
			100.15	0.14	
			99.75	1.85	358
			99.82	2.82	537
			99.53	4.21	
7.05	0.24		100.82	9.10	90
0.99			99.80	1.95	90
0.71			99.84	1.62	448
1.14			99.88	2.66	358
0.70			99.77	2.50	537
0.01			99.81	7.04	358
0.02			99.82	5.70	358
0.02			99.47	5.84	358
			99.64	1.94	
			99.66	3.70	
	0.06		100.36	2.17	1343
			101.20	0.44	
			101.35	0.81	
			101.81	0.65	
			101.72	0.68	
			101.30	1.20	
			101.03	0.47	
			100.23	0.77	
			101.02	0.47	
			101.44	0.26	
			100.42	0.55	
			101.06	0.66	
			100.06	1.20	
			100.77	0.02	
			99.41	1.00	
			100.11	0.68	
			99.77	0.88	
			100.24	0.57	
			99.87	0.61	
			100.13	0.47	
			100.15	1.51	
0.02			100.30	1.22	896
		0.13	99.31	0.77	537

			4.75	7.54	99.84	12.95	
	0.02		6.73	3.48	99.84	11.06	358
			0.45		99.78	3.79	
					99.45	0.88	
					100.00	0.78	
					99.65	0.42	
					99.65	0.66	
					100.02	1.13	
					100.81	1.00	
					100.70	1.20	
					100.21	0.84	
					100.47	1.00	
					99.98	1.00	
0.03	0.05				100.69	1.66	970
0.04	0.05				100.00	0.89	1000
					99.74	0.69	940
					99.78	0.56	590
					100.04	0.66	1210
					99.48	0.70	426
					100.03	0.57	864
					99.40	0.65	800
					99.67	0.49	1320
					99.84	0.38	118
					99.47	0.56	1100
					99.56	0.51	1020
					99.37	0.34	699
					99.27	0.37	601
					99.65	0.86	800
					99.64	0.83	764
					99.24	0.50	257
					100.68	0.55	776
					99.63	0.61	350
					99.20	0.82	912
					99.29	1.60	1670
					99.17	1.50	947
					99.12	0.71	916
					99.26	0.65	1160
					99.30	0.32	908
					99.20	0.51	748
					99.69	0.13	40.4
					99.00	0.27	1230
					99.21	0.54	1360
					99.74	0.84	
					99.84	1.02	
					99.76	0.72	
					99.79	0.60	
					99.61	0.61	
					99.94	0.72	
		0.28			99.93	1.27	
					100.07	0.90	

	99.98	0.65
	99.84	0.97
0.79	100.52	2.06
0.47	100.10	1.56
0.05	100.06	1.52
	99.42	1.19
0.38	100.18	1.38
	99.91	1.05
	99.92	1.65
	99.94	1.37
0.78	99.92	3.76
0.48	99.33	3.05
	99.95	0.71
	99.90	0.67
	99.74	0.70
	99.93	0.68
	99.91	0.74
	99.91	0.48
	99.69	0.67
	99.83	0.74
	100.00	1.23
	100.01	1.59
	99.77	1.00
	99.98	0.73
	100.03	0.87
	99.51	0.93
	99.95	1.15
	99.92	0.91
	99.85	1.10
	99.93	1.32
	99.94	0.84
	99.99	1.00
	98.84	1.10
	100.09	1.64
	99.96	1.10
	99.94	0.97
	99.92	0.94
	99.25	0.57
	99.90	0.97
	99.69	0.96
	99.89	0.72
	99.90	0.77
	100.22	0.79
	100.52	0.71
	100.31	0.70
	100.45	0.75
	100.14	0.86
	100.38	0.89
	100.04	0.61
	100.35	0.77

		100.25	0.91
		100.38	0.89
		100.05	1.17
		100.39	0.91
		100.39	0.89
		100.43	0.80
		100.40	0.82
		100.47	1.13
		100.36	0.80
		99.54	0.30
		99.01	0.24
		99.48	0.40
		100.02	0.50
		100.24	0.78
		100.01	0.52
		100.10	0.12
		99.42	0.48
		99.71	0.66
		99.95	0.60
		99.69	0.60
		99.45	0.62
		100.23	1.30
		99.70	0.44
		99.77	0.75
		99.60	2.20
		100.21	0.48
		99.98	0.43
		99.75	0.85
		99.39	0.52
		100.01	0.95
		99.79	0.81
		99.76	0.56
		99.86	0.70
		100.04	0.73
		99.78	0.92
		99.94	0.93
		99.67	0.71
		100.20	0.75
		99.83	0.79
		99.91	0.66
		99.98	1.05
		100.01	1.34
		99.84	0.86
		100.21	0.88
		100.20	1.00
		99.84	0.76
		99.74	0.80
		99.99	0.64
		99.84	0.79
<0.10	<0.10	100.03	1.54

		<0.10	<0.10	100.04	1.60	
		<0.10	<0.10	99.99	3.80	
		<0.10	<0.10	99.67	5.70	
		<0.10	1.50	94.91	4.50	
		<0.10	6.80	98.76	9.64	
		<0.10	<0.10	100.45	2.20	
		<0.10	<0.10	98.19	4.10	
		<0.10	0.70	99.44	7.90	
		<0.10	<0.10	99.48	2.54	
		<0.10	0.15	100.05	6.45	
		<0.10	1.40	99.32	4.40	
		<0.10	<0.10	98.60	1.55	
		<0.10	<0.10	99.97	0.24	
		<0.10	<0.10	100.06	0.18	
				99.80	0.92	
				99.97	0.72	
				101.84	0.84	
				100.91	0.29	
				99.90	0.92	
				100.54	0.87	
				100.26	0.82	
				100.04	1.02	
				100.45	0.52	
				100.70	0.72	
				100.07	0.44	
				100.66	0.85	
				100.10	0.58	
				99.28	1.00	
				99.65	0.46	
				99.49	1.10	
				99.35	1.00	
				99.75	0.31	
				100.09	0.58	
0.0225	0.0715			102.07	0.563	996
0.0230	0.0549			99.19	0.322	1062
0.0050	0.0537			98.13	0.425	1189
0.0200	0.0544			100.40	0.306	1076
0.0300	0.0546			98.45	0.353	1111
0.0475	0.0547			97.13	0.412	1291
0.0115	0.0605			97.49	0.189	1438
0.0020	0.0525			99.12	0.401	1079
0.0118	0.0651			98.54	0.414	1078
0.0098	0.0641			100.53	0.365	1177
0.0171	0.0603			86.38	0.203	1277
0.0177	0.0589			101.78	0.188	1044
0.0219	0.0605			98.15	0.183	1100
0.0182	0.0566			95.78	0.223	1147
0.0139	0.0527			96.89	0.413	956
0.0177	0.0535			98.42	0.406	1030
0.0241	0.0540			97.07	0.351	1028

0.0177	0.0542	98.60	0.347	994
0.0278	0.0488	99.99	0.486	1016
0.0118	0.0554	98.08	0.535	1025
0.0123	0.0419	97.77	0.273	1226
0.0342	0.0486	98.25	0.231	1172
0.0465	0.0384	102.40	0.284	1182
0.0161	0.0383	100.68	0.224	1248
0.0193	0.0615	99.44	0.205	1252
0.0177	0.0586	98.96	0.279	836
0.0193	0.0556	98.04	0.205	946
0.0321	0.0547	97.35	0.258	1044
0.0161	0.0569	96.88	0.349	978
0.0182	0.0597	97.13	0.289	998
0.0198	0.0564	95.99	0.296	1040
0.0174	0.0727	96.97	0.419	1165
0.0450	0.0767	97.28	0.647	1290
0.0397	0.0797	97.17	0.517	1053
0.0053	0.0940	98.04	0.521	867
0.0390	0.0398	104.16	0.539	1189
0.0150	0.0480	102.53	0.297	1191
0.0360	0.0424	97.43	0.489	1389
0.0030	0.0429	96.80	0.506	1229
0.0102	0.0493	102.43	0.415	966
0.0096	0.0455	97.73	0.423	1106
0.0070	0.0496	98.81	0.577	984
0.0070	0.0522	101.05	0.564	1140
0.0465	0.0338	96.49	0.425	1637
0.0046	0.0366	98.66	0.475	1537
0.0016	0.0326	99.94	0.361	1637
0.0502	0.0310	97.90	0.300	1501
0.0073	0.0618	99.18	0.417	1092
0.0073	0.0596	98.72	0.511	1132
0.0032	0.0576	97.99	0.450	1093
0.0042	0.0608	99.89	0.536	1123
0.0132	0.0398	99.19	0.244	1045
0.0208	0.0469	99.21	0.241	1417
0.0272	0.0349	96.18	0.222	259
0.0076	0.0490	98.09	0.229	839
0.0069	0.0926	96.17	0.340	726
0.0138	0.0947	97.16	0.680	788
0.0211	0.0913	99.28	0.608	809
0.0049	0.0941	96.84	0.577	929
0.0069	0.0926	98.45	0.380	805
0.0122	0.0965	98.55	0.421	886
0.0049	0.1082	94.59	0.363	786
0.0049	0.1040	97.30	0.412	786
0.0065	0.1173	98.53	0.576	768
0.0109	0.1142	99.59	0.431	907
0.0292	0.1075	97.57	0.289	930
0.0085	0.0977	97.10	0.499	950
0.0049	0.1022	100.69	0.300	809

0.0109	0.1278	99.04	0.326	889
0.0178	0.1367	99.21	0.252	867
0.0097	0.1400	96.98	0.218	847
0.0223	0.1393	99.57	0.170	808
0.0158	0.1429	99.38	0.321	788
0.0160	0.1670	99.08	0.217	789
0.1091	0.1490	98.21	0.427	867
0.0222	0.1382	97.27	0.314	829
0.0111	0.0828	98.77	0.430	849
0.0076	0.0678	99.52	0.302	790
0.0076	0.0578	99.23	0.304	648
0.0083	0.0530	100.45	0.225	608
0.0083	0.0719	96.89	0.200	726
0.0097	0.0679	98.11	0.124	789
0.0070	0.0498	98.23	0.342	
0.0063	0.0490	99.09	0.386	835
0.0243	0.0490	98.00	0.630	772
0.0070	0.0500	106.36	0.456	759
0.0403	0.0480	98.21	0.327	805
0.0076	0.0678	98.70	0.456	918
0.0083	0.0600	99.89	0.465	904
0.0097	0.0370	98.24	0.488	1250
0.0243	0.0458	97.05	0.440	1007
0.0090	0.0430	98.34	0.509	1053
0.0535	0.0430	99.08	0.436	1242
0.0146	0.0389	98.72	0.508	1142
0.0083	0.0638	98.41	1.095	1243
0.0229	0.0629	98.47	0.736	993
0.0076	0.0529	97.19	0.625	1169
0.0104	0.0408	97.58	0.547	1387
0.0042	0.0630	98.96	0.930	1553
0.0063	0.0598	99.59	0.826	912
0.0056	0.0729	97.97	0.494	975
0.0076	0.0439	96.88	0.534	2379
0.0242	0.0422	98.02	0.448	1494
0.0153	0.0506	99.04	0.388	867

Be	Cs	Rb	Sr	Y	Zr	Hf	Nb	Th
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338
592
338
338
676
169
169
846
169
507

8.0
8.1

		203	36	8.6	101		20.7	29.5
	7.53	181	64	33.7	85	68.8	41.1	67.9
	2.93	112	538	27.5	210		14.9	11.9
	7.87	169	457	25.3	205	4.7	24.0	21.7
		109	572	23.8	191		13.2	11.6
	8.74	172	458	25.8	204	96.3	26.1	22.5
	4.58	153	469	24.7	216		23.4	14.0
		161	488	27.6	195		22.8	16.8
		117	641	22.1	159		19.1	11.6
	3.32	132	515	25.1	162	140	17.4	18.1
	5.57					28.2		13.9

4.15	127	590	22.6	152	64.3	28.1	16.0
	135	543	21.4	171		21.7	21.1
	143	530	25.2	161		27.8	20.0
2.68	149	462	19.2	164	174	28.7	13.5
	138	650	19.0	160		27.0	17.3
	127	610	21.4	175		37.9	13.5
	107	473	21.6	174		28.3	14.6
4.09	158	442	19.8	147	217	25.1	21.4
	158	416	24.0	155		24.7	20.0
	101	577	19.6	179		16.3	9.1
2.60	106	617	25.7	167	4.7	46.8	14.3
5.60	174	754	19.4	180		26.1	20.0
	69	394	22.7	135		13.4	3.7
2.10	128	603	26.1	198		28.5	18.7
2.21							
1.39	71	750	22.6	157		31.1	9.7
	69	833	20.2	175		15.0	6.7
	67	840	16.5	159		26.0	
		254					
		676					
		338					
		169					
		338					
		254					
		254					
		169		148			
		676					

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9.8

2		61	670	17	134		14	8
2		124	700	16	158		21	8
<5	7.9	134	653	18	186	3	14	9.8
<6	1.4	107	587	8.4	77.2	2	12	12
<5	3.1	113	235	11.4	127	4	22	13.8
<5	5	197	256	22.8	103	4	19	27.9
<5	4.1	152	530	22.7	154	4	13	17.5
<5	7.2	151	467	19	133	3	12	14.9
<5	4.2	112	561	10.1	134	4	14	10.7
<5	3	187	28.6	8.8	40.3	2	27	15.9
<5	4.5	146	494	14.8	124	3	16	14.8
<5	2	67.2	703	17.4	134	4	10	6.7
<5	7.7	169	431	18.9	178	5	12	17.4
<5	7.8	153	481	21.3	278	8	13	24.2
<5	6.7	171	430	14.3	110	4	14	25.9
<5	5.9	139	447	19.6	165	5	12	27.5
	5.43	179	313	18.2	73.5	3.71	11.8	30.3
<5	7.3	146	454	21.0	235	7	14	16.7
	8.29	233	67		139	4.96		30.7
<5	5.2	122	530	16.3	178	5	13	13.2
	5.48	338	376	7.6	428	3.33	< 10	7.98
	5.06	300	387	7.2	126	3.27	< 10	7.10
	1.34	77.8	384	20	98.5	4.87	< 10	7.22
	3.78	95.6	725	24	170	7.33	10	10.5
	5.70	119	689	23	187	6.59	20	16.6
	6.09	130	504	23	299	4.29	10	20.1
	3.19	163	36.7	5.6	266	3.75	< 10	26.7
	1.86	58	798	17	176	3.97	< 10	6.56
	3.44	101	451	15	64.1	4.28	10	12.9

19.5

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286	652	32
190	700	39
223	651	17
227	605	16
210	751	12
135	600	17
189	653	16
183	654	23
193	753	22
220	679	38
209	752	33
213	703	38
193	805	33
207	706	34
206	804	37
190	852	34
201	753	39

222	759	39
163	654	34
196	777	26
170	901	19
179	904	32
160	951	31
175	902	16
212	852	28
216	754	14
199	805	22
245	701	11
241	745	32
264	765	30
239	734	19
192	656	14
153	823	39
237	725	23
179	552	22
268	500	20
251	502	38
241	501	17
271	501	15
286	552	56
286	602	51
291	552	61
303	552	44
313	504	16
306	512	27
245	471	36
217	514	18
318	503	32
342	503	32
334	523	55
279	541	60
180	581	54
138	555	47
214	339	76
186	606	56
279	593	64
357	583	57
344	563	35
332	593	64
220	551	75
341	561	30
389	511	43
406	521	92
392	493	75
421	492	63
370	563	63
377	473	54
394	543	60

294	594	60
311	622	63
321	562	51
336	613	51
332	573	60
300	564	60
326	572	52
342	554	58
329	551	70
395	493	56
388	393	86
363	403	78
316	592	58
405	453	78
214	531	85
207	507	55
151	484	58
214	458	66
241	532	66
172	544	75
172	558	74
179	408	44
165	144	25
186	241	20
172	239	20
172	240	51
193	508	60
200	603	68
145	556	44
186	482	48
165	506	64
193	412	72
214	508	54
228	675	42
177	704	60
204	409	66

U	Ga	La	Ce	Pr	Nd	Sm	Eu	Gd
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1.7
1.2

	15.4							
12.3	15.2	18.0	35.5			4.00	0.28	
	16.4	34.3	51.0			6.10	1.06	
3.9	20.9	25.8	38.0			5.66	0.95	
	17.0							
4.8	17.8	35.8	46.3			6.25	1.09	
	16.3	35.6	90.0			5.31	1.04	
	17.3							
	20.2							
	16.2	57.4	75.0			6.34	1.11	
	15.9	39.8	48.0			5.82	1.10	

	19.1	39.6	47.0	4.73	0.93
	17.5				
	16.6				
	18.6	42.3	76.0	5.07	0.92
	17.1				
	19.6				
	19.6				
3.3	13.6	57.8	55.0	4.39	0.78
	19.0				
	14.6				
	18.7	25.1	104	6.68	1.02
	22.9	40.3	130	4.34	0.82
	17.0				
	19.1	29.7	75.0	3.72	1.20
		22.0	49.0	5.44	1.12
	19.0	76.4	212	6.11	1.45
	19.6	34.7	104	4.18	0.99
	17.8	24.5	59.0	4.16	0.93

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200	18	30	48		23		4	
100	21	42	66		27		2	
3.21	18	33.2	67.2	7.44	28.4	4.6	1.5	4.5
2.11	16	19.8	36.2	3.85	13.5	2.2	0.89	2
2.39	14	36.5	62.3	6.54	21.4	3.7	1	3.15
7.28	13	22.4	48.6	5.8	22.2	4.1	0.95	3.99
3.63	16	43.2	78.3	8.84	31.7	5.3	1.41	4.53
1.86	16	51.3	89.1	9.05	29.8	4.6	1.3	4.32
2.06	16	45.4	72.2	6.39	20.3	2.7	0.97	2.23
3.72	13	8.4	16.6	1.85	5.90	1.4	0.27	1.28
3.71	15	35.3	61.3	6.1	21.5	3.4	0.98	2.91
0.74	17	38	64.5	6.56	23.9	4.5	1.52	3.86
5.58	16	43.8	79.7	8.56	30.0	4.6	1.27	3.9
4.38	16	38.2	73.9	8.23	29.6	5.2	1.22	4.91
4.73	15	49.2	82.5	8.01	26.2	3.9	0.94	3.21
5.30	16	57.8	96.4	9.79	31.4	5.0	1.11	4.63
7.82		15.6	38.0	3.63	15.8	3.07	0.422	2.86
5.20	17	38.6	73.6	8.39	29.5	5.2	1.19	4.91
6.19		31.7	62.5		19.3	3.55	0.24	2.78
2.25	18	38.5	71.6	7.93	27.8	4.6	1.10	4.29
3.39		23.7	41.8	5.5	81.5	3.77	0.888	2.80
2.77		19.6	33.6	5.4	18.8	2.94	0.678	1.95
1.52		35.5	70.2	9.6	26.7	5.44	1.22	4.48
2.34		38.1	69.9	9.2	29.8	5.94	1.59	5.51
2.04		43.2	76.8	12	29.5	5.64	1.21	4.74
3.42		47.7	81.7	9.3	30.1	5.75	1.12	4.68
3.12		16.6	24.8	2.5	31.5	0.907	0.172	0.751
1.13		28.8	48.8	8.0	30.4	3.58	0.962	3.18
0.968		48.7	75.6	12	5.39	4.05	0.932	3.21

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Tb

Dy

Ho

Er

Tm

Yb

Lu

Ag

Au

1.3

4.9
6.5

1.24
0.37

0.49

0.50

0.25

1.1

0.45

0.24

0.32

0.30

4.9 0.58
 0.40

0.66
0.57

3.8 0.51

0.50
0.42

					2		0.08	
					1		0.08	
0.61	3.2	0.66	2.4	0.32	2	0.3	<1	
0.28	1.52	0.28	1.11	0.16	1	0.18	<1	
0.42	2.11	0.39	1.31	0.16	1.2	0.23	<1	
0.6	3.52	0.75	2.92	0.41	2.8	0.47	<1	
0.71	3.84	0.81	2.94	0.38	2.4	0.35	<1	
0.6	3.56	0.68	2.31	0.31	2	0.31	<1	
0.31	1.73	0.32	1.34	0.19	1.3	0.26	<1	
0.22	1.49	0.31	1.18	0.15	1.3	0.2	<1	
0.44	2.44	0.49	1.82	0.23	1.6	0.27	<1	
0.57	3.17	0.59	2.21	0.3	1.7	0.31	<1	
0.65	3.42	0.72	2.58	0.3	2.1	0.34	<1	
0.71	4.1	0.79	2.95	0.4	2.6	0.4	<1	
0.46	2.38	0.51	1.95	0.25	1.7	0.32	<1	
0.67	3.52	0.75	2.19	0.33	2.4	0.36	<1	
0.442	2.86	0.606	1.82	0.324	2.38	0.43		0.824
0.74	3.82	0.81	2.24	0.34	2.4	0.38	<1	
0.35		0.48		0.22	1.37	0.22		1.34
0.60	3.12	0.63	1.93	0.27	2.0	0.30	<1	
0.357	1.6	1.96	0.76	0.144	0.856	0.122		0.752
0.249	1.5	0.392	0.73	0.108	0.58	0.0851		6.31
0.665	4.1	0.360	2.5	0.395	2.39	0.337		2.82
0.755	4.7	0.875	2.8	0.415	2.66	0.4		1.09
0.643	4.6	0.948	2.7	0.377	2.20	0.315		0.261
0.698	4.5	1.02	2.8	0.421	2.50	0.367		0.854
0.138	0.85	0.875	0.78	0.181	1.47	0.301		0.329
0.411	3.3	1.03	2.0	0.257	1.64	0.251		0.772
0.413	3.1	0.287	1.7	0.258	1.62	0.254		1.35

Co	Cr	Ni	Sc	V	Cu	Mo	Pb	Zn
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		0.0			0.0		36.1	29.7
40.5		11.4	1.88		6.1		31.5	31.3
46.8		57.4	17.1		42.2		26.2	62.3
49.3		50.6	11.9		26.1		23.0	61.1
		63.0			28.3		22.7	67.3
39.2		54.1	13.2		25.5		23.0	58.0
31.4		48.6	13.8		24.7		17.0	56.2
		53.9			43.5		21.2	52.0
		57.3			43.2			65.7
							21.2	
47.8		40.0	10.4		12.0		28.7	52.3
33.3		42.8	10.8		8.0			56.2

45.8	31.0	6.9	2.2	22.7	54.9
	35.8		0.0	23.4	54.4
	39.4		3.6	25.2	56.6
118	29.8	3.0	0.0	26.9	53.8
	16.6		0.0	30.3	56.7
	36.2		0.0	19.1	48.8
	25.0		0.0	19.8	45.2
53.8	25.6	4.8	1.7	26.5	47.3
	29.0		13.5	23.0	46.8
	308		74.8	22.7	68.0
28.5	14.7	3.0	0.0	25.8	52.1
53.4	28.8	4.6	12.5	30.1	50.3
	94.0		14.0	15.2	69.4
35.8	41.3	10.2	18.3	23.4	59.2
22.4		13.2			
56.0	35.8	8.6	3.4	19.5	63.9
29.5	60.3	8.8	15.2	23.0	56.7
42.0	14.7	4.4	3.6	16.3	56.4

300

1000

2500

16	10	4	13	110	13	0.43	7	42
4	6	3	4	30	15	0.34	4.2	46
12	30	7	11	113	11	<2	11	63
2.3	<10	<5	<5	15	<5	<2	12	16
0.8	<10	<5	<5	<5	7	<2	22	16
5.2	<10	<5	<5	46	10	<2	24	30
11.8	20	<5	11	104	11	<2	17	51
13.2	20	8	12	121	36	<2	18	64
3.9	<10	<5	<5	23	<5	<2	20	43
<0.5	<10	<5	<5	<5	15	156	33	<5
5.6	<10	<5	<5	49	7	<2	16	35
10.2	10	<5	8	78	22	<2	12	61
11.9	20	5	11	100	32	<2	16	53
16.7	60	12	15	134	35	<2	16	67
4.4	10	<5	<5	48	14	<2	17	28
11.5	10	42	11	96	24	3	19	53
5.3	6.99	10.5	5.33					40.4
14.2	20	21	12	110	33	<2	20	56
0.50	6.27	0.00	2.51					13.6
7.3	20	14	7	73	10	<2	22	64
5.65	57.3	21.0	5.61					419
3.55	55.3	16.0	5.69					270
1.44	4.55	6.38	12.3					47.1
6.62	10.3	7.93	11.5					57.4
12.6	45.7	18.3	12.3					54.1
11.0	15.0	6.32	11.4					53.9
0.305	1.17	6.39	0.855					7.48
7.00	11.8	10.4	5.93					25.9
2.31	2.50	13.1	2.76					21.8

34	49	50	12
37	48	80	<1
32	48	82	5
37	46	88	2
34	46	110	9
26	15	29	10
37	37	61	4
31	21	58	15
29	20	85	<1
28	20	122	<1
36	18	139	<1
36	18	58	14
34	20	100	5
26	20	128	4
31	26	49	7
26	23	76	11
29	23	93	7

29	25	55	11
27	26	29	<1
32	35	77	3
21	20	40	5
22	20	33	7
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25	30	119	6
25	30	143	2
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20	30	86	2
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20	30	75	2
20	30	115	2
20	30	94	1
20	11	88	2
23	11	75	4
25	9	80	2
25	17	71	2
25	11	82	<1
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27	22	120	5
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134	9	48	20
140	9	83	12
148	13	41	24
89	13	70	18
64	13	90	9
53	11	74	11
87	11	82	5
133	11	61	9
150	15	85	5
183	12	64	10

Sn	W	Ta	As	Sb	B	data_src	rad_age	uncert
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9	22
17	22
16	22

intrs_name	Plag	Kspar	Qtz	Hb	Pyx	Opx
Unionville						
Unionville						
Butte						
granodiorite, undivided, of Knopf						
Butte						
Broadwater						
Scratchgravel						
porphyritic granodiorite of Knopf						
Unionville						
Butte						
Butte						
Butte						
Unionville						
Unionville						
Butte						
Butte						
Rader Creek	49.6	16.2	24.8	3.7		
Rader Creek	47.2	19.4	25.2	4.4		
Rader Creek	40.0	23.5	20.3	9.0		
Rader Creek	43.7	32.5	12.8	6.0		
Rader Creek	48.8	18.2	20.6	5.8		
Rader Creek	54.3	15.2	14.7	8.2		
Rader Creek	42.7	24.4	18.9	8.3		
Rader Creek	39.1	35.1	12.5	6.4	0.1	
Rader Creek	33.1	35.0	17.1	9.7		
Rader Creek	27.5	39.7	15.8	11.4	0.1	
Rader Creek	38.1	29.7	16.8	11.2	0.1	
Alaskite-aplite						
Alaskite-aplite	15.0	37.8	45.3	0.5		
Alaskite-aplite	2.2	60.0	37.7	0.0		
Burton Park						
Burton Park	37.3	17.0	17.9	12.9		
Burton Park						
Burton Park	39.8	15.9	18.6	11.7		
Butte	36.9	25.6	28.3	1.5		
Butte						
Butte	49.3	15.4	21.1	6.2		
Butte						
Butte	40.6	17.6	22.5	10.0		
Butte						
Butte						
Butte						
Butte						
Butte						
Butte						
Butte						
Climax Gulch						

Climax Gulch	35.9	25.5	27.0	1.4	
Climax Gulch	30.1	27.1	34.2	2.6	
Climax Gulch	29.7	35.8	29.2	1.5	
Donald	35.5	31.9	24.8	<0.01	
Donald	35.9	30.9	25.8	0.1	
Donald	38.0	30.2	24.3	1.3	
Hell Canyon	35.4	24.2	33.8	2.4	
Hell Canyon	43.5	21.9	23.8	5.5	
Homestake	30.0	24.9	34.5	1.8	
Homestake	37.1	30.7	20.2	1.1	
Ringing Rocks	28.2	23.1	3.0	11.3	13.8
Ringing Rocks	30.1	28.4	23.1	12.1	0.0
Moose Creek					
Moose Creek	38.8	21.3	31.3	0.0	
Moosetown	36.2	32.1	22.0	0.1	
Moosetown	34.8	26.5	27.5	0.4	
Rader Creek	40.3	26.4	17.9	8.8	
Rader Creek					
Rader Creek	38.6	27.2	19.6	9.2	
Rader Creek	37.8	31.2	15.3	10.2	
Rader Creek	39.1	30.7	14.9	10.7	
Rader Creek					
Rader Creek	51.7	17.3	16.4	7.5	
Rader Creek					
Rader Creek	47.8	20.2	24.1	3.8	
Rader Creek	48.4	17.8	24.8	4.1	
Rader Creek	52.8	16.7	18.1	6.5	
Rader Creek	48.0	19.4	19.6	4.7	
Satellitic					
Butte					
Butte	42.47	17.57	22.55	4.44	2.37
Butte					
Butte					
Butte					
Alaskite-aplite					
Alaskite-aplite					
Modoc					
Butte					
Butte					
Butte					
Butte					
Black Butte	63		1	2	
Butte	34	22	25	9	
Alaskite-aplite					
Alaskite-aplite					

Butte	43.5	22.7	19.8	5.2	0.2
Butte	35	32	18	7	
unnamed plutons	44.6	16.5	32.6		0.1
unnamed plutons	47.8	20.4	26.5		
unnamed plutons	37.4	24.7	30.3		
Butte	26.5	39.7	28.5	0.6	
Butte	36.6	28.0	22.9	4.9	
Butte	45.9	23.2	14.9		5.4
Butte	31	28	33	3	
Butte					
Butte	30.0	37.5	20.8	1.2	
Butte	39.9	30.6	19.9	2.2	
Alaskite-aplite	29.8	28.4	40		0.3
Alaskite-aplite	31	28.4	38.4		0.4
Butte	30	31	23	3	
Butte	28	29	19		
Butte		32	26		
Butte			48		
Butte	41	20	28		
Butte	37	21	22		
Butte	39	15	26		
Butte	39	13	27		
Butte		13	24		
Butte		22	33		
Butte		21	29		
Marysville					
Marysville					
Marysville	47.5	15.6	22.2	5.5	
Black Butte					
Black Butte					
Cemetery Ridge					
Cemetery Ridge					
Turnley Ridge					
Butte					
Butte					
Alaskite-aplite					
	14.0	45.4	39.2		
Sagebrush Park	58	8	27	2	
Sagebrush Park					
Slim Sam	41	32	17	7	
Spar	35	29	4	7	7
Spar	13	18	5	63	
Kokoruda Ranch	26	24			
Antelope Creek	56	18	10	8	
Butte	41.1	13.6	26.7	3.1	0.5
Butte	52	24	14	7	
Alaskite-aplite	19.4	47.6	31.5		
Black Butte					
Butte					
Butte					

Butte				
Butte				
Butte				
10N				
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Satellitic				
Rattlesnake	51	9	8	9
Orphan Boy	49	20	3	7
Rattlesnake	53	18	7	16
Rattlesnake	55	12	13	13
Lone Mountain	45	30	12	8
Rattlesnake	51	22	16	9
Vosburg	50	28	15	6
Slim Sam				
Swamp Creek				
Burton Park	42.8	20.7	17.7	12.0
Hell Canyon	49.8	25.3	20.5	4.5
Moose Creek	33.6	29.8	31.5	
Homestake	30.7	35.8	28.5	0.5
Butte	35.4	25.0	22.3	8.0
Butte	36.2	25.5	19.5	8.0
Donald	35.8	29.5	26.3	tr
Deer Creek				
Climax Gulch	42.0	27.7	21.6	tr
Rader Creek	48.3	21.1	14.9	13.0
Butte	34.8	30.7	22.5	5.0
Unionville	40.5	19.2	25.0	8.0
Pulpit Rock	31.1	32.9	28.1	
Butte	34.7	28.5	23.4	8.0
Butte				
Butte	37.2	24.5	20.0	7.0
	13.9	51.6	34.0	
granodiorite, undivided, of Knopf	27.3	44.8	19.6	4.0

Alaskite-aplite
 Turnley Ridge
 Butte
 Butte
 Alaskite-aplite
 Rader Creek
 Deer Creek
 Butte
 Butte
 Climax Gulch
 Rader Creek
 Donald
 granodiorite, undivided, of Knopf
 Butte
 Homestake

Pulpit Rock							
Butte							
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Butte							
Rader Creek							
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Butte							
Butte							
Moose Creek							
Moosetown							
Climax Gulch							
Butte							
Butte							
Butte							
Butte							
Climax Gulch	45.4	20.3	29.4				4.0
Climax Gulch							
Butte							
Butte							
Unionville							
Unionville							
porphyritic granodiorite of Knopf							
porphyritic granodiorite of Knopf							
granodiorite, undivided, of Knopf							
Rader Creek							
Satellitic							
Butte							
Butte							
Scratchgravel							
Ringing Rocks	32.5	27.6	2.7	1.5	18.7		2.1
Rader Creek	42.0	25.9	13.0	12.4	1.0		
Burton Park							
Burton Park							
Climax Gulch							
Climax Gulch							
Rader Creek	50.4	17.4	19.6	3.8			
Rader Creek	52.2	16.4	23.0	3.8			
Rader Creek	51.0	13.9	19.6	6.9			
Rader Creek	51.0	14.2	17.0	9.9			
Rader Creek	51.2	12.9	17.8	9.1		0.5	
Rader Creek	50.0	12.9	21.3	6.2		0.1	

Rader Creek	50.9	17.8	15.0	10.2	0.1
Rader Creek	49.2	14.6	18.6	9.8	1.2
Rader Creek	47.4	19.3	20.2	5.6	0.1
Rader Creek	49.5	13.8	19.6	8.6	
Rader Creek	52.3	10.7	23.6	5.0	
Rader Creek	47.7	13.6	24.7	4.9	
Rader Creek	40.5	23.2	17.0	11.6	0.2
Rader Creek	40.4	25.8	15.3	12.3	
Rader Creek	30.0	35.6	17.6	8.7	0.6
Alaskite-aplite					
Unionville	39.9	22.8	12.5	12.6	1.1
Butte	32.8	30.5	22.6	3.8	
Donald	45.1	29.6	16.5	3.3	
Donald	47.6	18.5	25.6	0.2	
Rader Creek	48.4	14.4	28.6		
Rader Creek	45.0	21.4	15.9	7.2	1.0
Rader Creek	53.8	14.7	14.8	7.4	
Hell Canyon	41.0	20.6	23.0		
Burton Park	45.9	16.9	13.9	6.3	2.3
granodiorite, undivided, of Knopf	39.8	32.3	14.5	3.9	
Butte	37.0	24.2	13.5	12.4	0.7
Butte	35.3	31.7	18.0	2.0	2.0
Butte	35.7	29.2	20.1	5.0	0.4
Butte	43.1	24.2	13.9	8.3	
Butte	45.4	22.6	21.6	2.2	
Butte	34.1	24.9	31.5		
Rader Creek	44.8	18.7	25.8	4.0	
Rader Creek	48.0	14.2	23.4	7.0	
Rader Creek	38.6	19.5	28.4	7.0	0.1
Rader Creek	51.7	14.8	18.4	5.8	
Rader Creek	43.6	21.0	19.8	7.2	
Rader Creek	42.2	23.9	20.4	6.2	
Rader Creek	47.6	17.1	19.8	9.7	
Rader Creek	51.3	12.8	17.1	11.1	0.3
Rader Creek	51.2	13.7	15.8	9.5	0.3
Rader Creek	50.3	15.6	16.1	9.9	0.3
Rader Creek	45.6	18.6	19.0	7.6	
Rader Creek	53.4	13.0	19.2	5.9	
Rader Creek	51.6	15.6	22.4	4.2	
Rader Creek	48.1	15.2	10.0	14.4	1.7
Rader Creek	41.0	25.1	17.0	15.2	
Rader Creek					
Rader Creek					
Rader Creek					
Donald					
Rader Creek					
Donald					
Butte					
Hell Canyon					
Butte					

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Alaskite-aplite	18.0	44.0	35.0		
Butte					
Butte					
Alaskite-aplite					
Butte					
Butte					
Butte					
Butte					
Alaskite-aplite					
Alaskite-aplite					
Alaskite-aplite					
Granite porphyry					
Donald	34.8	33.5	23.8	1.3	
Burton Park	49.7	12.6	5.8	12.4	3.3
Alaskite-aplite	15.6	37.4	45.7		
Butte					
Swamp Creek					
Butte	35.3	27.3	27.4	2.8	0.2
Marysville	53.0	14.0	17.5	8.5	
Rader Creek	42	18	16	12	
Rader Creek	44	14	14	16	
Rader Creek	48	5	20	13	
Rader Creek	46	8	19	10	
Rader Creek	45	12	15	15	
Rader Creek	55	7	30		
Rader Creek	49	12	21	7	
Rader Creek	47	10	23	9	
Rader Creek	41	21	23	4	
Rader Creek	46	16	28	2	
Rader Creek	47	21	17	8	
Rader Creek	43	22	18	12	
Rader Creek	44	16	22	11	
Rader Creek	53	14	18	7	
Rader Creek	45	16	20	12	
Rader Creek	49	8	18	14	
Rader Creek	51	12	15	8	

Rader Creek	47	20	15	11
Rader Creek	57	7	22	9
Rader Creek	50	17	13	13
Rader Creek	52	8	30	2
Rader Creek	51	13	25	1
Rader Creek	61	8	19	3
Rader Creek	50	10	29	3
Rader Creek	43	21	13	12
Rader Creek	44	19	10	16
Rader Creek	46	15	9	19
Rader Creek	40	18	14	19
Rader Creek	32	20	21	16
Rader Creek	49	7	21	9
Rader Creek	43	16	14	17
Rader Creek	51	14	20	5
Rader Creek	47	15	17	9
Rader Creek	33	20	21	17
Rader Creek	34	28	18	14
Donald	45	18	31	
Donald	43	15	32	
Donald	41	16	37	
Donald	49	22	23	
Donald	53	9	25	3
Donald	38	16	39	1
Donald	41	16	33	3
Donald	40	14	38	1
Donald	45	17	32	
Donald	50	17	27	
Donald	32	27	36	
Donald	29	25	38	
Donald	44	22	26	1
Donald	38	16	36	1
Donald	43	24	28	tr
Donald	41	21	29	tr
Donald	50	17	26	tr
Donald	36	23	33	2
Donald	43	24	26	
Donald	49	15	28	
Climax Gulch	46	14	27	5
Climax Gulch	21	48	21	2
Climax Gulch	50	17	21	5
Climax Gulch	44	21	28	3
Climax Gulch	48	17	21	4
Climax Gulch	51	15	26	2
Climax Gulch	36	15	29	3
Climax Gulch	39	14	26	6
Climax Gulch	50	10	30	3
Climax Gulch	39	21	23	6
Climax Gulch	35	25	27	5
Climax Gulch	38	12	41	2
Climax Gulch	40	25	26	2

Climax Gulch	33	15	33	9
Climax Gulch	36	20	32	6
Climax Gulch	41	24	22	5
Climax Gulch	45	13	27	6
Climax Gulch	34	16	38	5
Climax Gulch	49	8	21	3
Climax Gulch	50	12	22	5
Climax Gulch	42	24	22	5
Climax Gulch	32	37	22	5
Climax Gulch	41	14	32	3
Climax Gulch	24	27	35	3
Climax Gulch	37	25	29	2
Climax Gulch	30	19	32	7
Climax Gulch	40	15	24	4
Climax Gulch	38	20	37	3
Climax Gulch	48	8	32	3
Climax Gulch	37	27	24	2
Climax Gulch	53	8	29	3
Climax Gulch	40	11	38	2
Climax Gulch	44	4	33	10
Climax Gulch	48	10	22	4
Moosetown	36	23	33	
Moose Creek	44	27	24	
Moose Creek	45	20	29	
Moose Creek	39	27	26	
Moose Creek	42	24	27	
Alaskite-aplite	46	25	24	3
Hell Canyon	50	17	30	1
Alaskite-aplite				
Hell Canyon	46	21	24	5
Hell Canyon	34	43	19	2
Hell Canyon				
Hell Canyon	43	26	23	4
Hell Canyon	46	26	20	4
Hell Canyon	45	25	22	5
Hell Canyon	51	19	24	3

Cpx	OI	Bi	Opq	Acc	Acces(incl opq)	Alt
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4.0 1.1 0.6
 2.4 0.8 0.6
 5.7 1.0 0.5
 3.2 1.3 0.7
 4.8 1.4 0.4
 5.0 2.0 0.6
 3.9 1.4 0.4
 3.9 1.9 1.0
 2.8 1.9 0.4
 3.4 1.6 0.5
 2.7 1.2 0.2

0.7 1.7
 0.0 0.1

12.9 1.1

11.4 2.6
 6.1 1.6

5.6 2.4

7.3 1.5

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	4.2		1.8
	3.2		0.6
	5.8		1.7
	6.2		1.1
	4.8		1.4
	2.7		1.5
	3.2		2.1
	6.3		2.5
	6.8		1.1
5.2	11.4		4.0
0.0	10.6		2.5

	6.3		1.0
	8.3		0.1
	9.3		1.5
	4.7		1.7

	5.0		1.3
	3.7		1.8
	3.4		1.1

	5.6		2.5
--	-----	--	-----

	2.7		1.4
	3.6		1.3
	5.0		1.9
	5.2		3.0

	9.77	0.76	0.07
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20	10	4	0.1
2	7	1	0.8

7.2			1.4	
6			2	
5.2			1.0	
2.5	0.9	0.6		1.3
5.0			2.6	
3.5			1.2	
5.3			2.3	
7.1			3.5	
5			<1	

8.6			1.9	
6.1			1.3	
	0.5	0.9		
	0.5	1.2		
4	1	<1		9
4	1	<1		19
3	2	<1		38
	1	<1		51
11		<1		<1
10		<1		1
16		<1		4
8		<1		13
		<1		63
		<1		45
		<1		50

7.2	1.7	0.3		
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5	<1			

	1	1		
4	12	2		

13	2	5	2	1
		6		2
		13.0		2.0
		1		2
		1.1		0.4

8
11
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13
8
5
1

2
2
4
2
3
2
1

6.0	0.8
tr	tr
4.5	0.6
4.0	0.5
8.0	1.3
10.0	0.8
7.0	1.4
8.0	0.7
1.0	1.8
6.5	0.5
6.0	1.4
7.0	0.8
5.0	0.5
10.0	1.3
0.2	0.3
3.0	1.3

0.4

0.5

9.4	2.3	1.7
3.2	1.8	0.7

1.5

7.1	1.1	0.7
3.4	1.0	0.2
6.6	1.4	0.7
5.9	1.3	0.9
5.7	2.3	0.6
7.8	1.5	0.3

		4.0	1.8	0.4		
		5.0	1.4	0.3		
		5.2	1.6	0.6		
		6.4	1.7	0.4		
		6.7	1.2	0.4		
		7.2	1.6	0.4		
		5.9	1.2	0.2		
		4.4	1.3	0.4		
		6.5	0.8	0.3		
		9.6			1.5	
		7.9			2.4	
		4.4			1.1	
		6.3			1.8	
		7.5			1.1	
		7.8			1.7	
		5.9	0.9		2.5	
		12.9			2.5	
		12.1			2.6	
		7.7	1.1	0.6		0.1
		9.9	1.4	0.8		0.1
		6.3	2.0	0.8		1.9
		8.5	0.8	0.3		
		3.0			7.5	
		5.9			2.3	
3.7	4.1		0.7	1.0		
		5.4	0.9	0.4		
		5.8	1.0	0.6		
		6.8	1.2	0.4		
		6.9	2.1	0.4		
		6.6	1.3	0.6		
		5.8	1.1	0.4		
		3.5	1.9	0.4		
		4.7	2.2	0.4		
		7.5	1.5	0.4		
		5.4	1.8	0.6		
		6.3	2.1	0.6		
		6.9	1.2	0.3		
		5.1	0.6	0.4		
		9.1	1.2	0.2		
		0.7	0.6	0.4		

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5.7 0.6 0.3
12.6 3.6
0.5 0.8

5.4 1.0 0.4 0.2
4.8 2.2
9 0
9 2
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12 4
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7 3
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3 1
2 4
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3 2
6 2
11 2

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3	0
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5	1
10	1
15	1
1	0
6	3
7	2
4	2
8	1
3	6
12	3
6	1
4	0
4	2
5	2
5	1
1	1
2	0
3	1
1	1
2	2
3	1
2	1
2	1

sample_number	modal_lithology	lithology	ign_form	alteration	longitude
I	Granodiorite		Pluton		-112.01
II	Granodiorite		Pluton		-111.91
III	Granogabbro				-112.12
IV	Granodiorite		Pluton		-112.014
V	Granodiorite		Pluton		-112.23
VI	Adamellite		Pluton		-112.03
VII	Adamellite		Pluton		-112.09
VIII	Syenodiorite		Pluton		-112.09
IX	Leucomonzonite		Pluton		-112.307
X	Nepheline shonkinitite				-111.91
4R14C	Quartz monzonite		Pluton		-112.360
4R6C	Quartz monzonite		Pluton		-112.271
4R2C	Quartz monzonite		Pluton		-112.311
4R4C	Quartz monzonite		Pluton		-112.276
4R8C	Quartz monzonite		Pluton		-112.283
2T-1058	Granodiorite		Pluton		-112.391
2T-1061	Granodiorite		Pluton		-112.366
2T-1088	Monzogranite		Pluton		-112.313
2T-1093	Quartz monzonite		Pluton		-112.253
2T-1065	Granodiorite		Pluton		-112.322
1K661	Quartz monzodiorite		Pluton		-112.317
2T-1069	Monzogranite		Pluton		-112.283
3T-15	Quartz monzonite		Pluton		-112.262
3T-20	Monzogranite		Pluton		-112.248
3T-32	Quartz monzonite		Pluton		-112.239
4T-489	Quartz monzonite		Pluton		-112.256
10501-7		Alaskite			-112.417
10501-9	Alaskite				-112.375
10483		Granodiorite	Pluton		-112.523
10696-16	Granodiorite		Pluton		-112.515
10696-17		Granodiorite	Pluton		-112.521
10697-9	Granodiorite		Pluton		-112.615
10529-2	Monzogranite		Pluton		-112.537
10648-5		Quartz monzonite	Pluton		-112.420
10670-4	Granodiorite		Pluton		-112.434
10677-11		Quartz monzonite	Pluton		-112.369
10680-17	Granodiorite		Pluton		-112.342
10680-20		Quartz monzonite	Pluton		-112.345
10682-8		Quartz monzonite	Pluton		-112.25
10682-9		Quartz monzonite	Pluton		-112.251
10693-10		Quartz monzonite	Pluton		-112.376
10694-15		Quartz monzonite	Pluton		
10701-8		Quartz monzonite	Pluton		-112.536
10694-4		Quartz monzonite	Pluton		-112.495
10701-1	Monzogranite		Pluton		-112.517
10701-2	Monzogranite		Pluton		-112.553
10701-6	Monzogranite		Pluton		-112.550

10505-3	Monzogranite		Pluton	-112.418
10696-9	Monzogranite		Pluton	-112.407
10696-10	Monzogranite		Pluton	-112.400
10643-1	Monzogranite		Pluton	-112.351
10643-2	Granodiorite		Pluton	-112.382
10686-1	Monzogranite		Pluton	-112.410
10693-4	Monzogranite		Pluton	-112.405
10682-6	Quartz monzonite		Pluton	-112.237
10682-7	Monzogranite		Pluton	-112.231
10697-2		Quartz monzonite	Laccolith	-112.606
10702	Monzogranite		Laccolith	-112.674
10696-15	Monzogranite		Pluton	-112.527
10697-1	Monzogranite		Pluton	-112.512
10510-7	Monzogranite		Pluton	-112.284
10703-6		Granodiorite	Pluton	-112.288
10703-10	Monzogranite		Pluton	-112.295
10703-11	Quartz monzonite		Pluton	-112.255
10703-12	Quartz monzonite		Pluton	-112.261
10510-5a		Granodiorite	Pluton	-112.342
10510-6	Quartz monzodiorite		Pluton	-112.318
10703-3		Granodiorite	Pluton	-112.328
10703-5		Granodiorite	Pluton	-112.305
10510-2	Granodiorite		Pluton	-112.396
10510-3	Granodiorite		Pluton	-112.384
10510-5	Granodiorite		Pluton	-112.342
10696-11	Granodiorite		Pluton	-112.394
526				-112.23
525				-112.22
130		Diorite		-112.37
311		Quartz monzonite	Pluton	-112.537
625	Granodiorite		Pluton	-112.542
989		Quartz monzonite	Pluton	-112.492
98		Quartz monzonite	Pluton	-112.213
518		Quartz monzonite	Pluton	-112.12
640		Aplite	Dike/sill	-112.582
951		Aplite	Dike/sill	-112.584
Page 514-A.	Gabbro		Pluton	-111.96
112	Monzogranite		Pluton	-111.99
109		Aplite	Dike/sill	-111.96
142		Aplite	Dike/sill	-111.95
53-BC-1 (also 53-C-202)	Granodiorite		Pluton	-112.203
53-BC-4	Monzogranite		Pluton	-112.004
53-BC-8 (also 53-C-204)	Granodiorite		Pluton	-112.103
52-C-37	Granodiorite		Pluton	-112.072
53-BC-6 (also 53-C-207)	Monzogranite		Pluton	-112.190
53-BC-7 (also 53-C-206)	Monzogranite		Pluton	-112.234
53-BC-14 (also 53-C-209)	Monzogranite		Pluton	-112.249
53-BC-13 (also 53-C-205)	Quartz monzodiorite		Pluton	-112.225
53-BC-16a	Monzogranite		Pluton	-112.206
3SR251b		Quartz monzonite	Pluton	-112.036
53-BC-3 (also 53-C-203)	Monzogranite		Pluton	-112.213

52-C-113a	Monzogranite		Pluton	-112.078
53-BC-5	Aplite		Dike/sill	-112.072
53-BC-9	Aplite		Dike/sill	-112.049
133		Microdiorite	Pluton	-112.320
50-KC-24		Gabbro	Stock	-111.962
50-KC-25		Diorite	Stock	-111.958
50-KC-21		Diorite	Stock	-111.937
50-KC-22		Diorite	Stock	-111.937
50-KC-23		Granodiorite	Stock	-111.956
50-KC-18		Quartz monzonite	Pluton	-111.999
50-KC-17		Quartz monzonite	Pluton	-111.957
50-KC-19		Aplite	Dike/sill	-111.931
49-KC-2	Granodiorite		Stock	-111.874
49-KC-3		Granodiorite	Stock	-111.871
49-KC-11	Quartz monzonite		Stock	-111.750
49-KC-5	Quartz monzonite		Stock	-111.810
S1419	Monzonite		Pluton	-111.858
11	Quartz monzodiorite		Pluton	-111.743
52-C-13	Granodiorite		Pluton	-111.961
3S288	Quartz monzodiorite		Pluton	-111.824
52-C-15	Aplite		Dike/sill	-111.980
Page 20-A		Diorite		-111.95
Page 30-A		Quartz monzonite	Pluton	-112.237
Page 30-B		Quartz monzonite	Pluton	-112.031
211		Quartz monzonite	Stock	-111.602
216		Quartz monzonite	Stock	-111.590
224		Quartz monzonite	Stock	-111.558
49-KC-9	Quartz monzodiorite		Stock	-111.725
60S599	Monzodiorite		Stock	-111.728
49-KC-10	Quartz monzodiorite		Stock	-111.726
49-KC-8	Quartz monzodiorite		Stock	-111.727
61K6600	Quartz monzonite		Stock	-111.647
49-KC-7	Quartz monzodiorite		Stock	-111.728
51-KC-1a	Quartz monzonite		Stock	-111.709
HL01		Granodiorite	Stock	-111.7567
HL42		Quartz monzonite	Stock	-111.7883
04KL057	Granodiorite		Pluton	-112.5203
04KL058	Granodiorite		Pluton	-112.3435
04KL059	Monzogranite		Laccolith	-112.6740
03KL066	Monzogranite		Pluton	-112.4209
03KL067	Monzogranite		Pluton	-112.417
03KL068	Monzogranite		Pluton	-112.532
03KL069	Monzogranite		Pluton	-112.4277
03KL071		Granophyre	Pluton	-112.4647
03KL072	Monzogranite		Pluton	-112.5519
98KL002	Quartz monzodiorite		Pluton	-112.3139
98KL004	Monzogranite		Pluton	-112.3444
98KL005	Granodiorite		Pluton	-112.2597
98KL007	Monzogranite		Pluton	-112.133
98KL001a	Monzogranite		Pluton	-112.416

98KL001b		Granite	Pluton		-112.416
98KL003	Monzogranite		Pluton		-112.357
Macdonald	Monzogranite		Pluton		-112.268
02HW-08		Diorite	Dike		-112.3393
02HW-13		Diorite	Dike		-112.3393
02HW-26		Aplite	Dike		-111.9644
02HW-27			Pluton		-111.9611
02HW-28			Pluton		-111.8436
02HW-30		Granite	Pluton		-112.4147
02HW-31a		Alaskite	Dike		-112.4076
02HW-31b		Granodiorite	Pluton		-112.4076
02HW-32		Granite	Pluton		-112.4382
60-S-C1		Quartz monzonite	Pluton		-112.53
60-S-C2		Quartz monzonite	Pluton		-112.523
60-S-C3		Quartz monzonite	Pluton		-112.542
60-S-C4		Granodiorite	Pluton		-112.301
60-S-C5		Leuco-quartz monzonite	Pluton		-112.427
7-11B		Granodiorite	Pluton		-112.258
7-38B		Quartz monzonite	Pluton		-112.419
7-49B		Quartz monzonite	Pluton		-112.142
7-53B		Quartz monzonite	Pluton		-112.458
7-58A		Quartz monzonite	Pluton		-112.348
7-70A		Quartz monzonite	Pluton		-112.650
7-99B		Quartz monzonite	Pluton		-112.538
7-100A		Quartz monzonite	Pluton	Yes	-112.567
7T-8		Quartz monzonite	Pluton		-111.8
7T-23		Granodiorite	Pluton		-111.8
7T-26		Granodiorite	Pluton		-111.8
7T-38		Quartz monzonite	Pluton		-111.8
7T-58		Quartz monzonite	Pluton		-111.8
7T151		Granodiorite	Laccolith		-112.553
7T152		Quartz monzonite	Pluton		-112.629
7T153		Quartz monzonite	Pluton		-112.642
1K-337		Quartz monzonite	Pluton		-112.283
4T-334		Quartz monzonite	Pluton		-111.897
4T-485		Quartz monzonite	Pluton		-112.461
4T-339		Quartz monzonite	Pluton		-112.326
5T-207	Granodiorite		Pluton		-112.613
5T-208		Quartz monzonite	Pluton		-112.608
5T-214		Quartz monzonite	Pluton		-112.344
5T-215		Quartz monzonite	Pluton		-112.232
4T-225		Granodiorite	Pluton		-112.113
4T-399		Granodiorite	Pluton		-112.166
5T-205		Granodiorite	Pluton		-112.217
4T-396		Granodiorite	Pluton		-112.172
4T-159		Granodiorite	Pluton		-112.329
3T-33		Granodiorite	Pluton		-112.239
4T-354		Granophyre	Pluton		-112.056
K-6603		Quartz monzonite	Pluton		-112.37
4T-344		Quartz monzonite	Pluton		-112.374

4T-360		Syenodiorite	Pluton	-112.056
63K-350	Monzonite		Pluton	-112.232
1K-647	Quartz monzonite		Pluton	-112.268
4T-282		Granodiorite	Pluton	-112.524
5T-60		Granodiorite	Pluton	-112.606
63K-253		Granodiorite	Pluton	-112.4
S1753		Quartz monzonite	Pluton	-112.613
2T-1057	Granodiorite		Pluton	-112.403
2T-1059	Granodiorite		Pluton	-112.384
2T-1063	Granodiorite		Pluton	-112.337
2T-1067	Granodiorite		Pluton	-112.302
2T-1071	Granodiorite		Pluton	-112.328
2T-1073	Granodiorite		Pluton	-112.317
2T-1075	Quartz monzodiorite		Pluton	-112.310
2T-1077	Granodiorite		Pluton	-112.294
2T-1080	Granodiorite		Pluton	-112.285
2T-1082	Granodiorite		Pluton	-112.304
2T-1084	Granodiorite		Pluton	-112.308
2T-1086	Granodiorite		Pluton	-112.312
2T-1090	Monzogranite		Pluton	-112.295
2T-1091	Quartz monzonite		Pluton	-112.284
2T-1092	Monzogranite		Pluton	-112.274
53-C-128c		Aplite	Dike	-112.405
53-C-140	Quartz monzonite		Pluton	-112.262
53-C-149	Monzogranite		Pluton	-112.465
53-C-150	Quartz monzonite		Pluton	-112.451
53-C-154a	Granodiorite		Pluton	-112.427
53-C-163	Granodiorite		Pluton	-112.353
53-C-166	Quartz monzodiorite		Pluton	-112.344
53-C-168	Quartz monzodiorite		Pluton	-112.316
53-C-171	Granodiorite		Pluton	-112.344
53-C-191	Quartz monzodiorite		Pluton	-112.604
52-C-116	Quartz monzonite		Pluton	-112.306
52-C-10a	Quartz monzonite		Pluton	-111.946
52-C-52b	Monzogranite		Pluton	-112.286
52-C-60	Monzogranite		Pluton	-112.345
52-C-65	Quartz monzonite		Pluton	-112.431
52-C-114	Granodiorite		Pluton	-112.262
1K-241	Monzogranite		Pluton	-112.415
2T-1060	Granodiorite		Pluton	-112.375
2T-1062	Granodiorite		Pluton	-112.351
2T-1064	Granodiorite		Pluton	-112.329
2T-1066	Granodiorite		Pluton	-112.309
2T-1068	Granodiorite		Pluton	-112.296
2T-1070	Monzogranite		Pluton	-112.330
2T-1072	Granodiorite		Pluton	-112.328
2T-1074	Granodiorite		Pluton	-112.305
2T-1076	Quartz monzodiorite		Pluton	-112.295
2T-1078	Quartz monzodiorite		Pluton	-112.290
2T-1081	Granodiorite		Pluton	-112.310

2T-1083	Granodiorite	Pluton		-112.306
2T-1085	Granodiorite	Pluton		-112.312
2T-1087	Quartz monzodiorite	Pluton		-112.322
2T-1089	Monzogranite	Pluton		-112.304
2T-1094		Granodiorite	Pluton	-112.253
2T-1095		Granodiorite	Pluton	-112.316
2T-84		Granodiorite	Pluton	-112.370
2T-89		Granodiorite	Pluton	-112.349
2T-96		Granodiorite	Pluton	-112.349
2T-275		Granodiorite	Pluton	-112.367
2T-534		Granite	Pluton	-112.295
2T-797		Granodiorite	Pluton	-112.433
59P12-1		Quartz monzonite	Pluton	-112.260
59P13-2		Quartz monzonite	Pluton	Propylitic -112.290
59P13-4		Quartz monzonite	Pluton	Argillic -112.290
59P21-1	Quartz monzonite	Pluton		-112.136
59P21-2	Quartz monzonite	Pluton	Argillic	-112.136
59P21-4	Quartz monzonite	Pluton	Argillic	-112.136
62K00	Aplite	Sill		-112.464
60S-1	Quartz monzonite	Pluton		-112.535
56K-420	Quartz monzonite	Pluton		-112.330
56K-445a	Alaskite-aplite	Sill		-112.270
56K-494	Quartz monzonite	Pluton		-112.436
56K-O	Quartz monzonite	Pluton		-112.417
56K-14a	Quartz monzonite	Pluton		-112.418
56K-207	Quartz monzonite	Pluton		-112.419
56K-A81	Alaskite-aplite	Dike		-112.061
56K-A82	Alaskite-aplite	Dike		-112.061
56K-A83	Alaskite-aplite	Dike		-112.061
55K67	Alaskite-aplite	Pluton		-112.007
7W-21	Monzogranite	Pluton		-112.415
54-C-248	Quartz monzodiorite	Pluton		-112.512
54-C-249	Aplite	Dike		-112.071
52-FC-190D	Quartz monzonite	Pluton		-112.091
49-LC-60	Granodiorite	Stock		-111.790
52-C-45	Monzogranite	Pluton		-112.148
53-C-230	Granodiorite	Stock		-112.293
28622	Granodiorite	Pluton		-112.3897
28623	Quartz monzodiorite	Pluton		-112.3532
28624	Tonalite	Pluton		-112.3532
28625	Granodiorite	Pluton		-112.3532
28626	Granodiorite	Pluton		-112.3532
28627	Granodiorite	Pluton		-112.3248
28628	Granodiorite	Pluton		-112.3461
28629	Granodiorite	Pluton		-112.3719
28634	Granodiorite	Pluton		-112.3333
28639	Granodiorite	Pluton		-112.3371
28641	Granodiorite	Pluton		-112.3335
28642	Granodiorite	Pluton		-112.3335
28643	Granodiorite	Pluton		-112.3335

28644	Granodiorite	Pluton	-112.3047
28645	Granodiorite	Pluton	-112.3047
28646	Quartz monzodiorite	Pluton	-112.3047
28647	Quartz monzodiorite	Pluton	-112.3047
28648	Granodiorite	Pluton	-112.2917
28649	Quartz monzodiorite	Pluton	-112.2892
28650	Granodiorite	Pluton	-112.3832
28651	Granodiorite	Pluton	-112.3832
28652	Granodiorite	Pluton	-112.3832
28653	Granodiorite	Pluton	-112.3832
28654	Quartz monzodiorite	Pluton	-112.3634
28655	Quartz monzodiorite	Pluton	-112.3221
28656	Quartz monzodiorite	Pluton	-112.3221
28657	Quartz monzodiorite	Pluton	-112.3221
28658	Monzogranite	Pluton	-112.3221
28659	Granodiorite	Pluton	-112.3045
28660	Quartz monzodiorite	Pluton	-112.3013
28665	Granodiorite	Pluton	-112.2983
28666	Granodiorite	Pluton	-112.3283
28667	Monzogranite	Pluton	-112.2791
28668	Monzogranite	Pluton	-112.2661
28631	Granodiorite	Pluton	-112.3470
28632	Granodiorite	Pluton	-112.3470
28633	Granodiorite	Pluton	-112.3470
28635	Granodiorite	Pluton	-112.3655
28636	Granodiorite	Pluton	-112.3655
28637	Granodiorite	Pluton	-112.3655
28638	Granodiorite	Pluton	-112.3655
28661	Granodiorite	Pluton	-112.4312
28662	Granodiorite	Pluton	-112.4312
28663	Monzogranite	Pluton	-112.4312
28664	Monzogranite	Pluton	-112.4312
28669	Granodiorite	Pluton	-112.4027
28670	Granodiorite	Pluton	-112.4027
28671	Monzogranite	Pluton	-112.4027
28672	Granodiorite	Pluton	-112.4027
28701	Granodiorite	Pluton	-112.4073
28702	Monzogranite	Pluton	-112.4073
28703	Monzogranite	Pluton	-112.4073
28704	Granodiorite	Pluton	-112.4073
28673	Granodiorite	Pluton	-112.5182
28674	Syenogranite	Pluton	-112.5723
28675	Granodiorite	Pluton	-112.5723
28676	Granodiorite	Pluton	-112.5723
28677	Granodiorite	Pluton	-112.5723
28678	Granodiorite	Pluton	-112.5859
28680	Granodiorite	Pluton	-112.5860
28681	Granodiorite	Pluton	-112.5860
28682	Monzogranite	Pluton	-112.5860
28683	Monzogranite	Pluton	-112.4737

28684	Granodiorite		Pluton	-112.5378
28685	Monzogranite		Pluton	-112.7402
28686	Granodiorite		Pluton	
28687	Monzogranite		Pluton	
28688	Monzogranite		Pluton	
28689	Granodiorite		Pluton	
28690	Granodiorite		Pluton	
28691	Granodiorite		Pluton	
28692	Granodiorite		Pluton	
28693	Monzogranite		Pluton	
28694	Monzogranite		Pluton	-112.7255
28695	Granodiorite		Pluton	-112.7410
28696	Monzogranite		Pluton	-112.6223
28697	Monzogranite		Pluton	-112.6309
28698	Monzogranite		Pluton	-112.6400
28699	Granodiorite		Pluton	-112.6026
28700	Granodiorite		Pluton	-112.6054
28705	Granodiorite		Pluton	-112.4864
28706	Monzogranite		Pluton	-112.4864
28708	Granodiorite		Pluton	-112.4864
28709	Tonalite		Pluton	-112.4892
28710	Granodiorite		Pluton	-112.4995
28711	Monzogranite		Pluton	-112.5509
28712	Monzogranite		Laccolith	-112.6050
28713	Granodiorite		Laccolith	-112.6441
28714	Monzogranite		Laccolith	-112.6441
28715	Monzogranite		Laccolith	-112.6715
29122	Aplite		Dike	-112.3386
29123	Granodiorite		Pluton	-112.3547
29124		Aplite	Sill	-112.4404
29125	Granodiorite		Pluton	-112.3909
29126	Quartz monzonite		Pluton	-112.4277
29127		Monzogranite	Pluton	-112.4250
29128	Monzogranite		Pluton	-112.4345
29129	Monzogranite		Pluton	-112.4326
29130	Monzogranite		Pluton	-112.3874
29131	Granodiorite		Pluton	-112.4620

latitude	SiO2	TiO2	Al2O3	FeO*	MnO	MgO	CaO	Na2O
46.54	61.14	0.82	15.28	6.23	0.12	3.41	5.51	2.78
46.54	61.40	0.80	15.41	5.79	0.09	2.99	4.86	2.69
46.55	54.63	0.89	16.60	8.61	0.16	4.65	7.93	2.48
46.465	65.49	0.65	14.49	4.80	0.10	2.45	4.29	2.80
46.58	66.14	0.43	15.69	3.80	0.10	1.60	3.71	3.50
46.50	71.28	0.26	14.50	2.13	0.06	0.98	2.45	3.16
46.61	68.48	0.39	14.93	3.26	0.07	1.37	2.61	3.01
46.69	56.01	0.65	17.84	6.25	0.19	2.57	7.39	4.01
46.622	64.13	0.52	16.77	3.45	0.05	1.29	2.72	3.92
46.53	51.95	0.55	12.58	6.72	0.14	5.62	13.00	2.85
46.318	62.00	0.70	15.30	5.75	0.08	2.90	4.80	2.80
46.390	63.20	0.64	15.10	5.44	0.10	2.50	4.20	3.00
46.480	63.60	0.61	15.10	5.15	0.10	2.30	4.10	2.90
46.489	66.90	0.52	14.40	4.20	0.07	1.70	2.70	2.80
46.265	67.20	0.40	14.90	3.25	0.08	1.60	2.90	3.20
45.829	67.80	0.34	16.20	3.65	0.12	1.10	4.40	3.70
45.832	68.10	0.34	15.60	3.49	0.08	1.10	3.70	3.50
45.878	67.20	0.47	14.80	4.00	0.08	1.90	3.20	3.00
45.882	66.10	0.43	15.90	3.84	0.11	1.60	3.30	3.50
45.839	64.80	0.40	16.50	4.66	0.12	1.60	4.80	3.60
45.838	62.30	0.51	16.80	5.23	0.14	2.30	5.30	3.40
45.839	66.30	0.49	14.60	4.55	0.11	2.10	4.00	3.20
45.902	65.20	0.47	16.00	3.76	0.09	2.10	3.20	4.00
45.839	65.70	0.51	15.10	3.67	0.08	2.20	3.00	3.90
45.844	66.20	0.49	15.20	3.53	0.07	2.60	3.00	3.40
45.811	65.40	0.54	15.30	4.28	0.08	2.30	3.70	3.40
45.924	77.18	0.12	12.78	0.47	0.01	0.05	0.41	3.14
45.915	77.33	0.21	12.44	0.75	0.03	0.55	0.99	2.49
45.820	61.82	0.74	15.50	6.20	0.12	3.07	4.97	2.83
45.799	65.75	0.60	15.32	4.75	0.09	2.17	4.15	2.18
45.816	60.34	0.72	16.23	6.38	0.13	3.16	5.67	2.92
45.822	60.65	0.72	15.67	6.54	0.14	3.15	5.59	2.96
45.900	65.27	0.55	15.84	4.16	0.11	2.51	4.22	3.33
46.004	64.85	0.64	15.84	5.56	0.09	2.42	3.56	2.70
46.029	65.95	0.52	14.83	4.65	0.09	1.89	3.98	2.76
46.096	64.00	0.63	15.09	4.64	0.10	2.59	4.33	3.19
46.187	64.20	0.66	15.40	5.30	0.10	2.37	4.35	3.90
46.164	64.02	0.67	15.44	5.35	0.09	2.26	3.53	3.32
45.95	61.80	0.69	16.20	5.94	0.12	3.33	5.02	2.74
45.945	69.44	0.44	14.93	3.41	0.07	1.53	2.79	3.02
45.893	67.28	0.62	15.26	3.92	0.08	1.68	3.49	3.11
	69.04	0.40	14.94	2.95	0.07	1.13	2.75	3.45
45.962	66.99	0.56	15.12	4.07	0.09	1.91	3.61	2.84
45.853	67.80	0.48	14.95	3.50	0.09	1.59	3.25	3.59
45.886	65.20	0.48	15.86	3.72	0.10	2.37	3.92	3.42
45.863	68.07	0.43	15.61	3.48	0.09	2.15	3.56	3.28
45.902	67.51	0.46	15.58	3.51	0.10	1.72	3.34	3.11

45.838	70.88	0.37	15.48	2.60	0.05	1.02	2.62	3.51
45.803	72.52	0.27	14.80	2.03	0.07	0.69	2.11	3.54
45.807	73.11	0.25	13.95	2.03	0.07	0.65	1.95	3.75
45.644	68.99	0.37	14.15	3.44	0.09	1.23	3.20	4.09
45.679	69.85	0.35	15.21	2.89	0.08	1.10	3.31	3.70
45.900	71.30	0.31	14.72	1.95	0.07	1.70	2.68	3.02
45.917	69.93	0.39	14.48	2.48	0.08	1.96	3.39	3.05
45.944	55.26	0.67	13.40	7.43	0.13	10.26	6.00	2.61
45.950	64.90	0.53	14.51	4.16	0.08	4.27	3.28	2.91
45.760	68.74	0.45	15.50	2.62	0.04	1.31	2.55	3.53
45.741	73.82	0.21	14.56	1.84	0.11	0.43	1.10	3.95
45.767	71.01	0.34	15.09	1.98	0.05	1.04	2.15	3.22
45.788	56.58	0.87	16.00	7.59	0.16	4.84	8.43	2.63
45.845	66.38	0.51	14.51	4.65	0.11	2.05	3.98	3.21
45.805	65.24	0.77	15.48	4.85	0.14	2.08	4.13	2.99
45.780	64.01	0.59	15.52	4.72	0.09	2.17	4.50	3.02
45.835	65.28	0.37	16.02	3.95	0.08	2.18	3.08	3.67
45.832	65.29	0.49	16.17	3.76	0.09	2.34	4.01	3.39
45.837	64.56	0.37	16.46	4.85	0.12	1.67	4.77	3.61
45.838	63.20	0.48	16.68	3.82	0.16	2.13	4.89	3.61
45.806	67.15	0.38	15.50	3.62	0.11	1.58	4.33	4.18
45.813	61.99	1.36	15.13	5.58	0.16	2.37	5.47	3.77
45.831	67.64	0.32	16.13	3.57	0.13	1.19	4.32	3.50
45.831	67.75	0.34	16.25	2.26	0.11	1.11	4.37	3.66
45.837	64.59	0.48	16.00	4.40	0.10	1.99	4.75	3.65
45.827	67.22	0.31	16.03	3.16	0.10	1.10	4.58	4.36
46.46	49.22	0.95	12.02	11.29		9.29	10.56	1.90
46.46	56.41	0.68	17.62	4.67	0.08	3.97	8.66	3.35
46.31	61.64	0.71	15.63	5.74	0.04	2.82	4.90	2.64
46.035	63.87	0.65	15.39	4.82	0.11	2.23	4.30	2.76
46.031	63.88	0.65	15.84	4.49	0.07	2.13	3.97	2.81
46.026	64.34	0.53	15.72	4.40	0.12	2.17	4.24	2.76
46.441	64.17	0.67	15.25	4.92	0.04	2.60	4.24	2.62
46.24	67.12	0.48	15.00	3.69	0.06	1.74	3.43	2.76
46.014	76.87	0.11	12.52	0.60		0.09	0.49	2.47
46.016	77.05	0.12	12.84	0.64			0.57	2.81
46.28	47.44	1.38	18.21	10.88	0.06	5.53	9.98	2.58
46.28	64.31	0.71	15.44	4.77		2.21	4.22	2.71
46.29	76.26	0.11	12.94	0.75		0.17	1.10	2.73
46.30	74.61	0.11	13.36	1.11		0.35	1.35	2.49
46.279	63.80	0.59	15.90	5.08	0.08	2.50	4.20	3.00
46.464	64.60	0.56	15.50	4.66	0.10	2.00	4.00	3.10
46.434	70.80	0.21	15.50	1.83	0.03	0.76	2.40	4.20
46.311	71.20	0.24	15.40	1.77	0.04	0.65	2.40	4.20
46.451	71.10	0.23	15.30	2.08	0.06	0.72	2.10	3.80
46.314	70.90	0.24	14.40	2.03	0.08	0.72	2.30	3.40
46.484	64.30	0.62	14.80	4.98	0.10	2.60	4.10	2.90
46.318	63.50	0.56	15.40	4.92	0.10	2.60	4.40	3.00
46.499	68.80	0.42	14.80	3.53	0.06	1.60	2.90	2.70
46.365	68.80	0.25	16.20	2.51	0.08	0.74	3.30	3.10
46.313	67.30	0.51	14.90	3.39	0.06	1.60	2.90	2.90

46.431	68.00	0.36	15.60	3.04	0.12	1.20	3.20	3.10
46.464	77.80	0.06	12.90	0.48	0.01	0.14	0.68	3.10
46.425	77.90	0.05	12.70	0.46	0.01	0.18	0.37	3.50
46.746	52.07	1.08	15.99	9.88		4.54	7.50	2.97
46.279	48.70	1.60	16.60	11.96	0.26	6.70	10.10	2.30
46.276	55.20	1.20	17.80	8.68	0.18	4.20	7.00	3.20
46.271	60.00	1.00	17.40	6.94	0.16	2.80	5.50	3.10
46.271	55.20	1.40	17.60	8.37	0.20	4.70	7.20	3.10
46.257	70.30	0.28	17.60	1.18	0.02	0.71	1.70	3.50
46.321	67.00	0.73	15.30	4.20	0.09	2.20	3.60	2.80
46.340	60.20	0.70	15.60	5.97	0.12	4.60	4.90	2.80
46.303	75.80	0.39	12.70	1.63	0.07	0.84	1.00	2.90
46.195	68.00	0.39	17.10	3.09	0.08	0.86	4.30	3.70
46.181	56.80	0.99	18.60	7.40	0.16	3.40	7.50	3.30
46.256	60.50	0.62	17.20	5.56	0.14	2.40	5.80	3.40
46.225	55.80	0.89	14.60	8.31	0.16	7.80	7.40	2.40
46.527	54.50	0.59	12.40	7.70	0.12	11.40	6.80	2.20
46.489	61.60	0.53	16.50	5.45	0.14	2.60	5.20	3.40
46.490	64.80	0.60	15.70	4.51	0.08	2.20	4.40	3.10
46.451	62.00	0.51	17.20	4.99	0.15	1.60	4.70	4.10
46.465	76.70	0.13	12.40	1.31	0.02	0.14	0.81	2.20
46.28	60.84		16.36	5.39		3.85	4.96	2.90
46.494	65.91	0.59	15.32	4.07		1.52	3.28	3.08
46.467	64.49	0.56	15.49	3.78	0.07	1.89	4.32	3.53
45.980	58.40	0.66	16.30	7.32	0.20	2.80	6.20	3.20
45.986	59.70	0.53	16.90	6.56	0.18	2.70	5.80	3.40
45.984	65.10	0.36	15.80	3.91	0.11	1.40	3.20	4.10
46.193	55.20	1.10	16.40	8.69	0.18	4.10	7.30	3.00
46.484	55.46	0.81	16.93	7.54	0.16	4.01	7.22	3.01
46.196	56.20	0.76	18.90	7.14	0.13	2.70	7.00	3.70
46.190	61.30	0.58	18.10	5.60	0.14	2.10	5.80	3.60
46.131	63.50	0.55	15.60	4.91	0.14	2.20	3.90	4.20
46.206	65.80	0.50	16.20	3.88	0.07	1.40	4.40	3.30
46.401	66.40	0.29	16.40	2.74	0.11	0.76	4.20	4.20
46.2600	60.90	0.61	16.40	5.96	0.15	2.55	4.89	3.29
46.2767	67.20	0.34	16.30	2.86	0.10	0.94	3.85	3.36
45.8193	61.30	0.69	16.40	5.67	0.11	2.67	4.50	3.28
45.6353	70.90	0.17	15.80	1.47	0.04	0.43	3.04	3.94
45.7394	74.30	0.13	13.70	1.64	0.10	0.31	1.43	4.10
45.9211	71.00	0.41	13.90	2.29	0.06	0.84	2.35	2.54
45.923	64.20	0.63	15.30	4.98	0.10	2.35	4.20	2.70
46.039	62.60	0.68	15.70	5.13	0.11	2.59	4.57	2.65
45.8493	69.70	0.31	15.70	2.46	0.10	0.73	2.46	4.12
45.8595	77.10	0.09	13.00	0.19	0.01		0.42	2.87
45.8702	69.20	0.35	14.90	2.86	0.06	1.06	2.94	3.13
45.8389	61.70	0.57	16.90	5.14	0.12	2.12	5.37	3.57
46.1917	63.60	0.62	15.50	4.65	0.09	2.38	4.49	2.89
46.5125	61.30	0.64	14.90	5.88	0.12	3.50	5.49	2.80
46.196	69.40	0.32	14.60	2.32	0.06	1.03	2.79	2.98
45.923	66.92	0.52	15.15	4.37	0.09	1.99	3.67	2.81

45.923	71.00	0.31	14.00	2.20	0.06	0.90	2.42	2.71
46.170	64.96	0.63	15.66	4.80	0.09	2.30	4.19	2.96
46.584	66.84	0.46	15.92	3.54	0.08	1.49	3.07	3.65
46.7207	66.20	0.43	16.00	2.45	0.04	1.72	1.64	2.59
46.7207	66.60	0.42	16.30	2.09	0.03	1.62	2.03	3.99
46.2519	62.40	0.73	18.20	1.07	0.07	1.98	3.07	6.62
46.2551	62.50	0.70	17.70	3.86	0.07	1.48	4.93	3.27
46.4825	62.90	0.63	15.80	4.78	0.10	2.40	4.39	3.19
45.9224	64.80	0.56	15.20	4.44	0.09	2.02	4.07	2.89
45.8348	77.20	0.11	12.70	0.48	0.02		0.94	3.21
45.8348	67.20	0.35	15.80	3.17	0.07	1.22	4.03	3.72
45.8570	71.10	0.29	14.90	1.96	0.07	0.62	1.94	4.16
45.96	64.90	0.50	15.22	4.62	0.10	2.30	4.21	2.95
46.030	63.57	0.63	15.48	4.92	0.10	2.54	4.62	2.89
45.851	65.18	0.54	15.60	4.25	0.10	2.20	4.14	3.09
45.845	64.10	0.47	16.72	4.19	0.11	1.75	4.88	3.72
45.845	71.40	0.33	14.31	2.58	0.11	0.92	2.36	3.71
46.579	65.70	0.49	16.30	3.91	0.10	1.60	3.70	3.40
45.918	64.30	0.58	15.60	4.87	0.11	2.20	4.40	2.80
46.238	68.10	0.39	15.00	3.78	0.10	1.30	3.40	3.20
46.038	66.50	0.46	15.80	3.55	0.05	1.70	3.40	2.80
45.910	65.40	0.57	15.40	4.51	0.11	2.10	3.60	2.80
46.008	61.60	0.67	16.60	5.65	0.11	2.30	4.10	3.10
45.971	65.20	0.49	15.50	4.40	0.10	2.00	4.50	3.00
46.004	64.10	0.57	15.30	5.16	0.11	2.10	4.20	2.70
46.3	63.60	0.62	15.20	5.39	0.11	2.70	4.70	2.80
46.3	61.20	0.72	15.00	5.69	0.12	3.80	4.80	2.90
46.3	68.60	0.41	13.60	3.45	0.08	1.70	3.00	3.10
46.3	66.10	0.58	14.10	4.05	0.08	2.30	3.30	2.80
46.3	68.40	0.37	13.90	3.54	0.07	1.70	3.40	2.90
45.787	71.70	0.15	15.20	1.72	0.05	0.62	2.40	4.00
45.746	72.20	0.12	14.40	2.18	0.11	0.50	1.90	4.00
45.868	70.30	0.31	13.80	3.33	0.07	1.20	2.30	3.10
45.917	63.00	0.67	15.90	5.02	0.07	2.40	4.80	2.80
46.477	58.30	0.58	16.80	7.21	0.14	2.70	5.00	3.40
46.034	65.60	0.58	15.80	4.11	0.11	1.70	3.80	2.90
46.142	63.70	0.72	15.80	5.10	0.12	2.50	4.40	2.80
45.862	72.50	0.29	14.80	1.72	0.06	0.51	1.80	3.60
45.860	69.20	0.44	14.90	2.67	0.08	1.10	2.60	3.30
46.190	64.60	0.68	16.00	4.53	0.12	2.10	3.80	2.80
45.987	65.50	0.64	15.50	4.34	0.09	2.00	3.60	2.90
46.525	60.00	0.89	16.00	6.79	0.15	3.50	5.70	2.70
46.526	56.50	0.83	17.80	7.49	0.12	3.30	6.00	3.30
46.583	68.50	0.44	15.30	3.22	0.06	1.20	2.80	3.20
46.564	67.30	0.45	15.50	3.60	0.12	1.10	3.60	3.40
46.559	58.90	0.84	18.20	5.42	0.14	2.20	5.20	3.60
45.844	67.90	0.57	16.00	2.27	0.09	0.40	1.20	4.20
46.530	67.90	0.41	15.30	3.52	0.09	1.40	3.00	3.20
45.87	65.20	0.60	15.50	4.41	0.07	2.00	4.20	2.90
46.162	64.20	0.71	16.20	4.82	0.07	2.10	4.30	2.80

46.684	57.20	0.64	17.10	6.42	0.17	2.30	6.40	3.90
45.942	56.50	0.68	13.30	7.03	0.13	9.20	6.00	2.70
45.835	63.80	0.52	16.00	5.06	0.09	2.60	4.60	2.80
45.814	62.60	0.58	15.80	5.80	0.13	2.90	5.70	2.90
45.823	62.10	0.60	16.00	5.89	0.12	2.70	6.00	2.90
45.8	64.20	0.47	15.70	4.64	0.12	2.60	4.50	3.30
45.865	70.00	0.35	14.60	3.20	0.07	1.10	2.90	3.10
45.833	68.60	0.31	15.60	3.39	0.09	1.00	3.80	3.60
45.829	67.40	0.36	16.00	3.58	0.07	1.10	4.10	3.80
45.838	65.10	0.42	15.70	4.47	0.11	2.10	4.80	3.60
45.840	64.10	0.52	15.10	5.52	0.13	2.40	5.40	3.30
45.830	63.10	0.51	16.50	5.31	0.14	1.90	5.30	3.60
45.832	66.50	0.42	15.90	4.18	0.12	1.50	4.60	3.40
45.821	62.40	0.47	16.60	5.05	0.15	2.20	5.50	4.00
45.808	63.90	0.48	15.90	5.24	0.14	2.10	5.40	3.40
45.800	63.60	0.51	15.90	5.10	0.13	2.10	4.50	3.40
45.806	64.30	0.46	16.30	4.84	0.13	1.90	5.00	3.50
45.802	66.40	0.37	16.20	3.95	0.10	1.30	4.50	3.80
45.809	66.80	0.41	16.30	3.79	0.10	1.40	4.50	3.50
45.878	66.40	0.49	14.70	4.38	0.09	2.20	4.00	3.30
45.881	66.40	0.45	14.90	3.90	0.10	2.50	3.60	3.40
45.883	67.50	0.40	14.50	3.52	0.08	2.40	3.10	3.20
46.480	73.80	0.28	13.80	0.85	0.08	0.16	0.99	3.20
46.513	63.20	0.66	14.20	5.67	0.11	3.40	4.60	2.50
45.900	65.00	0.56	15.20	4.66	0.10	2.00	4.30	2.80
45.868	66.60	0.50	15.20	4.28	0.10	1.60	3.80	3.00
45.849	70.40	0.33	15.50	2.91	0.10	0.76	2.30	3.90
45.834	69.60	0.30	16.20	2.73	0.04	0.80	3.40	3.60
45.834	66.00	0.47	15.40	4.53	0.11	2.00	4.60	3.30
45.836	62.40	0.58	15.60	5.78	0.20	2.20	5.70	3.30
45.638	68.00	0.39	15.30	3.86	0.09	1.00	3.20	3.20
45.823	61.00	0.76	15.80	6.83	0.14	2.90	5.80	2.60
46.571	65.20	0.49	16.20	4.00	0.10	1.70	3.60	3.20
46.510	59.80	0.72	16.00	5.98	0.09	3.40	5.10	3.00
46.264	65.30	0.56	15.20	4.34	0.08	2.60	3.20	3.00
46.184	64.00	0.60	16.00	4.82	0.08	2.40	4.20	2.90
46.288	62.50	0.70	15.40	5.67	0.10	2.70	4.60	2.80
46.433	63.00	0.62	15.00	4.72	0.08	2.10	4.30	2.90
45.923	71.50	0.26	14.20	2.48	0.08	0.93	2.90	2.90
45.829	67.80	0.35	15.60	3.49	0.08	1.10	4.00	3.90
45.835	67.50	0.38	14.70	3.82	0.09	1.90	3.80	3.50
45.838	66.20	0.41	15.00	4.36	0.11	2.00	4.30	3.40
45.837	63.80	0.45	16.20	5.08	0.12	1.90	5.10	3.40
45.841	65.40	0.43	15.50	4.47	0.11	1.70	4.40	3.30
45.825	66.60	0.36	15.20	3.99	0.11	1.90	4.30	3.30
45.827	64.60	0.47	15.60	4.92	0.13	1.80	4.70	3.60
45.817	62.80	0.48	16.30	5.23	0.13	2.20	5.60	3.80
45.824	62.60	0.47	15.40	5.52	0.13	2.70	5.30	3.50
45.806	62.20	0.49	15.90	5.81	0.13	2.50	5.70	3.30
45.808	63.80	0.45	16.40	4.72	0.12	1.70	5.10	3.70

45.808	63.40	0.46	16.30	5.05	0.13	2.00	5.20	4.00
45.800	67.00	0.34	16.20	3.47	0.09	1.20	4.10	3.80
45.876	60.10	0.52	15.60	6.12	0.14	3.80	6.10	4.00
45.879	67.30	0.46	14.20	3.91	0.08	2.10	3.40	3.10
45.882	65.10	0.43	15.90	3.85	0.12	1.60	3.30	3.60
45.839	64.60	0.42	16.20	4.67	0.12	1.80	4.70	3.60
45.764	65.30	0.32	17.40	3.58	0.12	1.10	4.90	4.00
45.749	62.00	0.51	16.10	6.17	0.14	2.10	5.90	3.70
45.734	66.60	0.37	15.60	4.27	0.08	1.30	4.00	3.50
45.776	70.10	0.22	15.20	2.28	0.05	0.71	2.90	3.60
45.955	72.30	0.17	14.40	1.53	0.04	0.72	2.40	3.00
45.680	67.40	0.34	15.80	3.39	0.09	1.00	3.70	3.70
46.348	67.30	0.42	14.90	3.51	0.10	1.20	3.40	3.20
46.279	64.70	0.55	16.10	4.57	0.05	1.30	2.80	3.00
46.279	62.50	0.60	17.10	3.49	0.10	1.00	1.40	2.60
46.260	65.40	0.45	15.70	2.48	0.10	1.50	3.70	3.20
46.260	69.40	0.48	15.40	2.13	0.62	0.45	0.40	5.00
46.260	70.00	0.64	17.40	1.38	0.17	0.26	0.29	4.60
46.131	75.40	0.18	12.80	0.99	0.02	0.26	0.93	2.30
45.965	64.00	0.44	15.90	4.66	0.14	2.10	4.60	3.20
46.008	65.80	0.58	15.70	4.65	0.10	2.30	4.20	3.00
46.001	78.00	0.12	12.80	0.74	0.02	0.13	0.85	3.20
46.007	65.30	0.60	15.00	4.48	0.08	2.20	3.80	2.70
45.924	65.00	0.58	15.60	4.74	0.09	2.20	4.00	3.00
45.924	65.40	0.54	15.50	4.57	0.08	2.00	4.00	2.90
45.924	65.20	0.62	15.40	4.49	0.09	2.00	4.10	3.00
46.210	76.90	0.12	13.00	0.68	0.01	0.09	0.65	2.70
46.210	77.80	0.12	13.00	0.50	0.01	0.11	0.29	2.80
46.210	75.60	0.14	13.20	1.07	0.01	0.30	1.10	2.50
46.229	73.90	0.28	13.90	1.96	0.05	0.45	0.63	2.80
45.840	70.40	0.26	15.30	2.54	0.08	0.66	2.60	4.00
45.833	50.60	1.20	14.30	12.38	0.24	6.00	7.20	3.10
46.464	76.20	0.14	12.30	1.35	0.02	0.21	0.80	3.00
46.401	65.00	0.51	14.60	4.51	0.10	2.20	4.20	2.70
46.276	66.80	0.31	16.40	3.12	0.12	1.00	4.10	3.30
46.234	68.40	0.40	15.20	3.24	0.06	1.20	3.20	3.40
46.751	63.40	0.52	17.00	4.92	0.13	1.60	5.20	3.60
45.7316	62.59	0.38	16.87	5.90	0.09	2.74	4.56	3.96
45.7179	57.42	0.61	16.62	7.47	0.12	3.57	5.46	3.82
45.7179	57.85	0.46	16.21	7.10	0.10	3.09	5.13	3.68
45.7179	60.29	0.47	15.99	6.77	0.11	3.34	4.54	4.06
45.7179	58.47	0.50	15.26	7.80	0.11	3.24	5.04	3.75
45.7316	65.64	0.25	16.49	2.95	0.05	0.71	4.13	3.83
45.7383	59.27	0.50	16.10	6.90	0.11	1.88	4.89	3.83
45.7576	63.01	0.43	16.42	5.47	0.09	1.68	4.74	3.78
45.7819	68.10	0.35	12.91	4.47	0.07	1.28	4.03	3.60
45.7974	67.67	0.30	15.59	4.33	0.08	1.27	3.88	3.54
45.8343	64.23	0.49	16.64	5.71	0.12	2.00	5.34	3.59
45.8343	62.03	0.47	15.93	5.09	0.12	1.92	5.21	3.81
45.8343	60.19	0.46	15.35	5.03	0.12	1.87	5.49	3.64

45.8123	58.72	0.55	16.45	5.75	0.12	2.35	5.63	3.62
45.8123	61.15	0.56	16.22	5.24	0.13	2.61	5.47	3.49
45.8123	60.43	0.48	15.68	5.23	0.12	2.25	5.62	3.60
45.8123	59.97	0.52	15.99	6.76	0.12	2.14	5.65	3.55
45.8004	64.75	0.45	16.73	3.55	0.13	1.80	5.48	3.77
45.8305	59.76	0.48	16.04	5.60	0.12	3.11	5.48	3.60
45.8152	64.18	0.32	16.99	3.35	0.05	1.03	4.56	4.13
45.8152	65.76	0.30	16.45	3.22	0.05	0.94	4.09	3.97
45.8152	69.05	0.32	17.04	3.44	0.06	0.93	4.59	3.77
45.8152	68.00	0.30	16.79	3.06	0.06	0.93	4.25	4.05
45.8503	58.86	0.56	18.32	5.40	0.12	2.26	5.19	4.16
45.8719	58.09	0.63	15.87	7.57	0.14	3.73	5.77	3.44
45.8719	57.26	0.56	16.17	7.09	0.12	3.76	5.78	3.53
45.8719	57.95	0.55	14.65	7.54	0.11	3.26	5.60	3.54
45.8719	61.50	0.50	15.34	5.05	0.11	3.07	4.56	3.17
45.8588	61.55	0.49	16.24	5.02	0.10	2.34	4.55	3.26
45.8841	62.32	0.53	15.86	4.06	0.10	0.31	5.06	3.71
45.7735	63.82	0.48	16.64	3.89	0.11	1.37	4.00	3.48
45.7575	61.39	0.58	17.02	4.83	0.09	2.00	4.20	3.76
45.9066	63.56	0.38	16.92	3.37	0.09	2.30	3.11	3.58
45.8738	65.63	0.54	14.97	4.08	0.11	2.43	3.55	3.44
45.7658	75.50	0.26	12.51	3.05	0.04	0.72	2.51	3.81
45.7658	69.10	0.27	12.70	3.40	0.04	0.73	2.48	3.83
45.7658	69.40	0.26	12.67	2.93	0.03	0.70	2.61	3.81
45.7845	70.66	0.33	15.07	4.12	0.08	1.03	3.13	3.58
45.7845	65.83	0.35	14.84	4.52	0.08	1.18	3.07	3.48
45.7845	67.20	0.31	14.67	4.10	0.08	1.01	3.18	3.52
45.7845	70.41	0.26	14.73	3.66	0.02	0.96	2.93	3.35
45.8472	70.32	0.27	14.88	1.56	0.05	0.50	1.63	3.26
45.8472	70.93	0.25	14.87	1.58	0.05	0.57	1.75	3.62
45.8472	74.05	0.22	14.71	1.52	0.05	0.90	1.62	3.43
45.8472	72.36	0.20	14.98	1.71	0.07	0.53	1.72	3.48
45.7992	71.37	0.27	15.06	2.06	0.08	0.63	2.03	3.51
45.7992	71.64	0.27	14.49	2.00	0.08	0.70	2.09	3.44
45.7992	70.61	0.29	14.60	2.26	0.07	0.70	2.12	3.29
45.7992	73.39	0.26	14.46	1.98	0.08	0.60	2.29	3.38
45.8257	72.21	0.25	13.77	2.44	0.06	0.64	2.29	3.71
45.8257	69.91	0.28	15.63	2.67	0.08	0.85	2.57	3.67
45.8257	72.17	0.15	13.62	1.29	0.04	0.40	1.70	3.58
45.8257	70.62	0.28	14.97	2.32	0.09	0.79	2.00	3.92
45.8840	67.70	0.49	11.88	3.49	0.08	1.47	3.66	3.14
45.8636	65.56	0.48	15.27	3.20	0.08	1.37	3.17	3.28
45.8636	67.85	0.37	15.75	3.01	0.08	1.30	3.07	3.06
45.8636	65.16	0.43	15.52	3.49	0.07	1.37	3.11	3.20
45.8636	69.60	0.35	15.10	2.91	0.07	1.30	3.10	3.11
45.8797	68.95	0.42	15.69	3.38	0.07	1.40	3.33	3.19
45.8997	65.81	0.43	15.12	3.15	0.08	1.53	3.34	3.03
45.8997	66.35	0.42	15.64	3.57	0.09	1.57	3.23	2.82
45.8997	67.94	0.41	15.00	3.44	0.08	1.60	3.43	2.81
45.8683	65.33	0.44	15.81	3.32	0.08	1.53	3.41	3.20

45.8721	66.93	0.36	15.09	3.03	0.07	1.27	2.73	2.82
45.9249	70.31	0.34	15.32	2.78	0.06	1.03	2.90	3.25
	66.40	0.48	15.99	4.02	0.08	1.90	3.84	2.71
	66.15	0.48	16.00	4.15	0.08	1.86	3.87	2.79
	63.76	0.49	15.75	4.03	0.08	1.86	3.73	3.06
	65.73	0.52	16.13	4.12	0.08	1.93	4.00	2.98
	66.60	0.48	15.50	3.56	0.08	1.73	3.85	3.04
	64.97	0.51	16.18	4.56	0.09	1.97	4.12	3.07
	64.84	0.50	15.31	3.90	0.08	1.83	4.12	3.00
	63.76	0.49	15.75	3.94	0.08	1.74	3.80	2.96
45.8809	67.07	0.45	15.44	3.01	0.09	1.66	3.66	3.00
45.8967	69.21	0.38	15.06	2.92	0.07	1.24	3.01	2.99
45.8899	70.91	0.33	15.00	2.42	0.07	1.03	2.39	3.04
45.8684	72.16	0.32	14.81	2.20	0.07	0.90	2.31	3.06
45.8323	64.58	0.48	15.80	3.95	0.06	1.83	4.18	2.14
45.9451	67.81	0.35	15.24	2.95	0.07	1.27	2.87	3.15
45.9161	69.68	0.31	13.97	2.77	0.06	0.97	2.81	2.98
45.8535	69.43	0.36	15.13	2.92	0.07	1.16	3.00	3.02
45.8535	67.52	0.37	14.66	2.79	0.07	1.19	2.94	4.46
45.8535	66.34		15.85	2.79	0.07	1.21	3.04	3.54
45.8744	65.99	0.35	15.88	3.54	0.10	1.67	3.82	3.38
45.8485	64.80	0.53	15.88	3.95	0.09	2.07	4.22	3.46
45.7843	70.94	0.21	15.45	1.54	0.04	0.55	2.19	3.74
45.7583	71.90	0.11	14.33	1.44	0.09	0.28	1.07	4.05
45.7374	72.71	0.16	14.75	1.72	0.09	0.36	1.39	3.94
45.7374	72.30	0.17	15.05	1.68	0.11	0.36	1.43	4.06
45.7416	71.77	0.17	15.14	1.64	0.10	0.36	1.44	4.03
45.6336	69.14	0.36	15.36	2.62	0.09	1.13	2.72	3.26
45.6498	67.54	0.41	15.43	3.10	0.10	1.23	3.45	3.42
45.7044	71.43	0.24	14.14	1.67	0.05	0.63	2.20	3.41
45.6820	69.61	0.27	15.24	2.08	0.08	0.79	2.32	3.20
45.6819	66.41	0.36	16.74	2.81	0.10	0.97	3.83	3.83
45.7111	71.27	0.24	15.23	2.05	0.08	0.64	2.55	3.33
45.7314	66.75	0.41	15.34	3.42	0.12	1.35	3.42	3.43
45.6681	66.77	0.29	15.84	2.17	0.07	0.66	2.34	3.09
45.6586	67.62	0.31	15.83	2.36	0.08	0.94	3.00	3.76
45.7171	69.40	0.30	15.82	2.15	0.09	0.82	3.10	3.58

K2O	P2O5	LOI	H2O+	H2O-	Tot_H2O	CO2	Cl	F
3.34	0.26		0.65	0.09		0.08		
4.12	0.26		0.55	0.18		0.07		
2.10	0.42		0.85	0.14		0.02		
3.66	0.21		0.56	0.05		0.05		
3.54	0.24		0.47	0.05		0.08		
4.29	0.09		0.43	0.13		0.10		
4.59	0.17		0.60	0.12		0.31		
3.33	0.42		0.61	0.24				
5.77	0.23		0.39	0.19		0.02		
4.61	0.46		0.76	0.03				
3.90	0.23				0.83			
4.10	0.24				0.75	0.20		
4.20	0.28				0.75	0.10		
5.20	0.23				0.58			
4.30	0.16				1.30	0.21		
2.40	0.24		0.49	0.22				
3.20	0.22		0.65	0.12				
4.60	0.20		0.64	0.14				
4.10	0.22		0.78	0.30				
2.70	0.23		0.67	0.16				
2.60	0.23		0.71	0.22				
3.70	0.21		0.73	0.15				
3.50	0.19		0.83	0.27				
4.00	0.18		1.00	0.24				
4.00	0.17		1.00	0.09				
3.50	0.16		0.91	0.04		0.09		
4.80	0.02							
4.84	0.06							
3.85	0.21							
4.18	0.15							
3.56	0.19							
3.59	0.18							
3.70	0.16							
3.76	0.19							
4.29	0.16							
4.34	0.18							
2.95	0.20							
4.36	0.20							
3.74	0.22							
4.06	0.11							
4.13	0.17							
4.53	0.10							
4.05	0.15							
4.13	0.15							
4.09	0.30							
4.06	0.12							
4.08	0.14							

3.34	0.40				
4.23	0.13				
4.07	0.08				
3.58	0.15				
3.31	0.13				
4.75	0.08				
4.09	0.08				
3.71	0.37				
4.75	0.23				
4.47	0.16				
3.92	0.13				
4.82	0.14				
2.87	0.14				
3.66	0.19	0.50	0.15		
4.32	0.17				
4.14	0.17				
4.13	0.16	0.66	0.15		
3.46	0.09	0.51	0.11		
2.55	0.22	0.57	0.17		
3.43	0.22	0.53	0.12		
2.88	0.15				
3.06	0.24				
2.26	0.22	0.54	0.14		
2.43	0.21	0.52	0.31		
2.95	0.16	0.48	0.11		
2.81	0.11				
1.70	0.43	1.63	0.27		0.08
2.61	0.49	0.76	0.14		0.07
3.72	0.21	0.91	0.28		
4.18	0.17	0.69	0.19	0.15	
4.23	0.21	0.66	0.22		
4.04	0.14	0.76	0.25	0.03	
4.34	0.16	0.65	0.16		
4.52	0.15	0.58	0.09		
5.78	0.05	0.52	0.25		
5.52		0.48	0.22		
1.17	0.68	1.08	0.13		
4.09	0.22	0.79	0.19		
5.26	0.06	0.43	0.17		
5.70	0.06	0.42	0.19		
4.00	0.19			0.62	
4.00	0.19			0.38	
3.40	0.08			0.26	0.12
3.40	0.10			0.51	
3.90	0.08			0.68	0.18
4.40	0.08			0.57	0.22
4.10	0.20			0.63	
4.00	0.22			0.63	0.19
4.70	0.12			0.59	
4.30	0.14			0.75	0.07
4.90	0.17			0.57	0.31

4.20	0.16				0.38			
4.80	0.01				0.20			
4.80	0.01				0.14			
2.79	0.40		1.60	0.34				
0.81	0.49	0.44						
1.80	0.36	0.81						
2.70	0.30	0.65						
1.60	0.34	0.68						
4.70	0.05	1.20						
4.30	0.14	0.47						
4.00	0.34	0.77						
5.10	0.03	0.47						
2.00	0.14	0.55						
1.60	0.25	0.66						
2.60	0.30	1.20						
2.80	0.40	0.02						
3.20	0.42				0.68			
3.00	0.22	0.88						
3.90	0.19	0.57						
3.30	0.40	0.56					0.05	
5.80	0.09				0.42		0.05	
4.10			1.03	0.48				
4.80	0.18		0.60	0.60				
4.04	0.19		0.48	0.16				
2.80	0.31				0.88			
2.80	0.31				0.78			
4.80	0.16				0.42			
2.30	0.31	0.66						
3.18	0.36				1.13			
2.40	0.42	1.00						
1.70	0.28	1.20						
3.60	0.38				0.84			
3.40	0.20	1.00						
3.60	0.12	1.00						
2.53	0.28		1.19	0.23		0.16	0.03	0.05
3.24	0.17		0.59	0.15		0.06	0.04	0.05
3.54	0.26	0.69						
3.20	0.07	0.56						
3.42	0.07	0.66						
4.95	0.18	0.70						
4.18	0.27	0.57						
3.86	0.29	0.65						
3.11	0.22	0.49						
5.60	0.16	0.38						
3.86	0.23	0.56						
2.61	0.38	0.51						
3.99	0.30	0.34						
3.29	0.33	0.37						
4.79	0.24	0.86						
4.32	0.15	0.83						

4.80	0.10	0.50			
4.23	0.18	0.55			
4.76	0.18	0.82			
6.21	0.14	1.60			
4.22	0.14	1.50			
3.71	0.44	0.71			
3.47	0.20	0.65			
3.94	0.32	0.32			
3.92	0.21	0.51			
4.85		0.13			
2.65	0.17	0.27			
3.28	0.13	0.54			
3.71	0.21		0.66	0.17	0.01
3.70	0.20		0.71	0.23	0.08
3.75	0.19		0.57	0.13	0.02
2.84	0.20		0.48	0.11	0.01
3.03	0.12		0.41	0.19	0.01
3.60	0.23		0.64	0.08	
3.80	0.28		0.80	0.10	
3.60	0.24		0.58	0.07	
4.30	0.16		0.82	0.15	
3.70	0.16		1.10	0.07	0.30
3.60	0.25		1.10	0.09	
3.20	0.27		0.90	0.15	
3.50	0.29		1.20	0.20	0.25
3.70	0.21		0.62	0.09	
4.50	0.29		0.56	0.11	
4.80	0.15		0.59	0.11	
5.60	0.19		0.58	0.10	
4.60	0.13		0.64	0.10	
3.40	0.11		0.37	0.11	
3.40	0.09		0.56	0.11	
4.40	0.11		0.61	0.08	0.05
3.70	0.23		1.10	0.13	
3.40	0.50		1.10	0.21	0.28
3.80	0.18		0.87	0.13	
3.70	0.21		0.64	0.09	
3.70	0.09		0.80	0.07	
4.00	0.16		0.72	0.21	
3.80	0.20		0.93	0.17	0.05
4.10	0.18		0.79	0.12	
2.50	0.31		0.97	0.13	
2.50	0.46		1.10	0.22	
4.00	0.20		0.61	0.12	0.11
3.50	0.22		0.63	0.13	0.24
2.50	0.46		0.95	0.15	
5.50	0.13		1.40	0.24	
3.70	0.16		0.90	0.20	
3.70	0.20		0.94	0.03	
3.40	0.20		0.89	0.05	

3.70	0.47		0.53	0.04		
2.80	0.42		0.93	0.04		
2.80	0.22		0.88	0.08		
2.30	0.26		0.70	0.02		
2.40	0.21		0.77			
3.40	0.24		0.53	0.15	0.11	
4.10	0.14		0.56	0.15		
2.80	0.21		0.56	0.14		
2.80	0.27		0.62	0.13		
2.50	0.25		0.68	0.18		
2.40	0.34		0.76	0.13		
2.50	0.28		0.52	0.09		
2.50	0.24		0.64	0.13		
2.40	0.32		0.75	0.16		
2.40	0.27		0.75	0.14		
3.10	0.24		1.00	0.17		
2.50	0.29		0.74	0.17		
2.40	0.23		0.68	0.21		
2.40	0.22		0.64	0.16		
3.60	0.20		0.67	0.15		
3.70	0.19		0.87	0.26		
4.50	0.18		0.67	0.13		
6.00	0.04	0.30				
4.00	0.20	0.24				
4.00	0.22	0.40				
4.00	0.22	0.50				
2.90	0.17	0.78				
2.50	0.15	0.52				
3.10	0.20	0.12				
2.60	0.26	0.48				
3.60	0.17	0.66				
3.00	0.25	0.60				
4.20	0.20	0.60				
4.20	0.32	0.62				
4.20	0.19	1.30				
3.90	0.18	0.44				
4.00	0.22	0.75				
4.20	0.20	2.20				
4.20	0.16			0.42	0.06	
2.80	0.22		0.32	0.11		
2.80	0.23		0.63	0.22		
2.60	0.25		0.46	0.06		
2.40	0.29		0.56	0.39		
3.20	0.24		0.58	0.23		
3.00	0.23		0.48	0.08		
2.80	0.26		0.52	0.18		
2.20	0.30		0.55	0.18		
2.70	0.26		0.72	0.20		
2.40	0.29		0.68	0.25		
2.40	0.29		0.53	0.18		

2.40	0.26		0.63	0.12		
2.40	0.21		0.59	0.20		
2.30	0.29		0.55	0.11		
4.00	0.19		0.85	0.20		
4.30	0.22		1.00	0.34		
2.40	0.24		0.63	0.23		
2.10	0.29		0.76	0.12		
1.90	0.35		0.68	0.18		0.14
2.90	0.23		0.64	0.12		
3.60	0.16		0.66	0.14		
4.60	0.10		0.54	0.10		
3.20	0.22		0.68	0.11		
4.10	0.17				1.20	0.34
4.60	0.25				2.20	
4.70	0.27				4.10	
4.10	0.30				1.50	0.05
5.60	0.04				0.24	
5.00	0.01				0.18	
5.90	0.04		0.70	0.22		
3.70	0.27		0.56	0.16		
4.30	0.12				0.76	0.08
4.70	0.00				0.24	0.05
4.50	0.10				0.83	0.09
4.10	0.10				0.76	0.11
4.10	0.12				0.68	0.14
3.80	0.11				0.86	0.16
5.70	0.00				0.52	
5.30	0.00				0.66	0.06
5.60	0.00				0.44	
5.60	0.06		0.78			0.07
3.40	0.12		0.52			0.06
2.20	0.54				1.00	
5.00	0.11				0.41	0.05
4.20	0.18	1.10				
3.00	0.12	1.00				
4.00	0.18	0.31				
2.60	0.26	0.58				
3.77	0.22	0.563				0.0225 0.0715
2.78	0.40	0.322				0.0230 0.0549
3.42	0.10	0.425				0.0050 0.0537
3.83	0.21	0.306				0.0200 0.0544
3.10	0.22	0.353				0.0300 0.0546
2.28	0.15	0.412				0.0475 0.0547
2.92	0.40	0.189				0.0115 0.0605
2.53	0.17	0.401				0.0020 0.0525
2.80	0.17	0.414				0.0118 0.0651
3.00	0.16	0.365				0.0098 0.0641
2.88	0.22	0.188				0.0177 0.0589
2.84	0.23	0.183				0.0219 0.0605
2.90	0.22	0.223				0.0182 0.0566

2.69	0.26	0.413	0.0139	0.0527
2.60	0.27	0.406	0.0177	0.0535
2.79	0.24	0.351	0.0241	0.0540
2.81	0.28	0.347	0.0177	0.0542
2.46	0.21	0.486	0.0278	0.0488
2.81	0.23	0.535	0.0118	0.0554
2.50	0.18	0.273	0.0123	0.0419
2.86	0.18	0.231	0.0342	0.0486
2.53	0.17	0.284	0.0465	0.0384
2.67	0.17	0.224	0.0161	0.0383
3.78	0.25	0.205	0.0193	0.0615
2.63	0.31	0.279	0.0177	0.0586
2.87	0.24	0.205	0.0193	0.0556
3.15	0.23	0.258	0.0321	0.0547
2.74	0.23	0.349	0.0161	0.0569
2.79	0.23	0.289	0.0182	0.0597
3.37	0.22	0.296	0.0198	0.0564
2.36	0.20	0.419	0.0174	0.0727
2.22	0.30	0.647	0.0450	0.0767
3.03	0.17	0.517	0.0397	0.0797
2.37	0.19	0.521	0.0053	0.0940
3.50	0.11	0.297	0.0150	0.0480
4.02	0.12	0.489	0.0360	0.0424
3.55	0.11	0.506	0.0030	0.0429
3.54	0.16	0.415	0.0102	0.0493
3.43	0.18	0.423	0.0096	0.0455
3.69	0.16	0.577	0.0070	0.0496
3.73	0.15	0.564	0.0070	0.0522
3.38	0.13	0.425	0.0465	0.0338
4.22	0.25	0.475	0.0046	0.0366
2.87	0.13	0.361	0.0016	0.0326
2.36	0.11	0.300	0.0502	0.0310
3.55	0.11	0.417	0.0073	0.0618
3.34	0.11	0.511	0.0073	0.0596
3.51		0.450	0.0032	0.0576
2.75	0.12	0.536	0.0042	0.0608
3.36	0.11	0.244	0.0132	0.0398
3.11	0.11	0.241	0.0208	0.0469
2.92	0.05	0.222	0.0272	0.0349
2.67	0.13	0.229	0.0076	0.0490
3.63	0.17	0.340	0.0069	0.0926
3.80	0.17	0.680	0.0138	0.0947
3.92	0.17	0.608	0.0211	0.0913
3.70	0.11	0.577	0.0049	0.0941
2.27	0.16	0.380	0.0069	0.0926
1.40	0.18	0.421	0.0122	0.0965
4.11	0.16	0.412	0.0049	0.1040
3.95	0.17	0.576	0.0065	0.1173
4.16	0.17	0.431	0.0109	0.1142
3.88	0.19	0.289	0.0292	0.1075

4.05	0.15	0.499	0.0085	0.0977
4.14	0.16	0.300	0.0049	0.1022
2.98	0.19	0.326	0.0109	0.1278
3.26	0.20	0.252	0.0178	0.1367
3.72	0.16	0.218	0.0097	0.1400
3.68	0.13	0.170	0.0223	0.1393
4.00	0.16	0.321	0.0158	0.1429
3.20		0.217	0.0160	0.1670
3.87	0.17	0.427	0.1091	0.1490
4.12	0.17	0.314	0.0222	0.1382
3.72	0.18	0.430	0.0111	0.0828
4.12	0.13	0.302	0.0076	0.0678
3.66		0.304	0.0076	0.0578
4.22	0.11	0.225	0.0083	0.0530
3.36	0.20	0.200	0.0083	0.0719
4.10	0.13	0.124	0.0097	0.0679
4.11	0.12	0.342	0.0070	0.0498
3.36	0.16	0.386	0.0063	0.0490
3.12	0.18	0.630	0.0243	0.0490
4.72	0.17	0.327	0.0403	0.0480
3.17	0.19	0.456	0.0076	0.0678
4.06	0.17	0.465	0.0083	0.0600
2.97	0.07	0.488	0.0097	0.0370
3.16	0.05	0.440	0.0243	0.0458
2.48	0.09	0.509	0.0090	0.0430
3.36	0.08	0.436	0.0535	0.0430
3.46	0.08	0.508	0.0146	0.0389
2.40	0.14	1.095	0.0083	0.0638
2.76	0.19	0.736	0.0229	0.0629
2.62	0.10	0.625	0.0076	0.0529
3.26	0.12	0.547	0.0104	0.0408
2.72	0.15	0.930	0.0042	0.0630
3.19	0.10	0.826	0.0063	0.0598
2.93	0.18	0.494	0.0056	0.0729
4.90	0.13	0.534	0.0076	0.0439
3.41	0.16	0.448	0.0242	0.0422
3.20	0.13	0.388	0.0153	0.0506

S	SO3	FeS2	Tot_oth_sulf	total	vol_sum	Ba	Be	Cs
0.01				100.03	0.83	717		
0.02				99.65	0.82	1075		
0.04				99.94	1.05	448		
0.01				99.91	0.67	448		
0.03				99.78	0.63	1164		
0.01				100.10	0.67	985		
				100.17	1.03	985		
				100.09	0.85	1075		
0.01				99.78	0.61	896		
0.01				99.70	0.8	448		
				99.54	0.83			
				99.63	0.95			
				99.34	0.85			
				99.50	0.58			
				99.75	1.51			
				100.91	0.71			
				100.31	0.77			
				100.43	0.78			
				100.44	1.08			
				100.48	0.83			
				100.01	0.93			
				100.39	0.88			
				99.85	1.10			
				99.81	1.24			
				97.92	1.09			
				99.92	1.04			
				99.02		70		
				99.75				
				99.66		846		2.93
				99.34		910		7.87
				99.30		875		
				99.56				
				99.85				
				99.61		881		8.74
				99.12				
				99.27		897		4.58
				99.68				
				99.49		913		
				99.80		1011		
				99.80				
				99.93		870		3.32
				99.36				
				99.60		804		5.57
				99.69				
				99.61		1112		4.15
				100.85		961		
				99.55		987		

			100.44			
			100.39		1513	2.68
			99.91		1175	
			99.29		1268	
			100.11		919	
			100.68		703	4.09
			100.05		697	
			99.94		848	
			99.62			
			99.37			
			100.07		1350	2.60
			99.84		1001	5.60
			100.11		907	
			100.15	0.65		
			100.45		981	2.10
			99.20			2.21
			99.98	0.81		
			99.90	0.62		
			100.16	0.74		
			99.47	0.65		
			100.09		1256	1.39
			99.45			
			100.20	0.68		
			99.46	0.83		
			99.91	0.59	1235	
			99.96		1184	
0.05	0.04		99.77	2.07	269	
			99.80	0.97	806	
			99.70	1.19	717	
0.07			99.86	1.10	627	
			99.72	0.88	806	
0.03			99.75	1.07	537	
	0.07		100.18	0.88	627	
			99.88	0.67	627	
			99.82	0.77		
			100.31	0.70		
0.03			99.69	1.24	717	
			99.97	0.98	627	
0.01			100.13	0.61	627	
			99.93	0.61	896	
			100.18	0.62		
			99.33	0.38		
			99.69	0.38		
			100.01	0.51		
			100.35	0.86		
			99.49	0.79		
			99.55	0.63		
			99.80	0.82		
			100.39	0.59		
			100.42	0.82		
			99.72	0.88		

		99.52	0.38		
		100.22	0.20		
		100.15	0.14		
		99.64	1.94		
		101.20	0.44		
		101.35	0.81		
		101.81	0.65		
		101.72	0.68		
		101.30	1.20		
		101.03	0.47		
		100.23	0.77		
		101.02	0.47		
		100.42	0.55		
		101.06	0.66		
		100.06	1.20		
		100.77	0.02		
		100.11	0.68		
		99.77	0.88		
		100.24	0.57		
		99.87	0.61		
		100.13	0.47		
0.02		100.15	1.51		
		100.30	1.22	896	
	0.13	99.31	0.77	537	
		99.45	0.88		
		100.00	0.78		
		99.65	0.42		
		99.65	0.66		
		100.02	1.13		
		100.81	1.00		
		100.70	1.20		
		100.21	0.84		
		100.47	1.00		
		99.98	1.00		
		100.69	1.66	970	2
		100.00	0.89	1000	2
		99.74	0.69	940	7.9
		99.78	0.56	590	1.4
		100.04	0.66	1210	3.1
		99.48	0.70	426	5
		100.03	0.57	864	4.1
		99.40	0.65	800	7.2
		99.67	0.49	1320	4.2
		99.84	0.38	118	3
		99.47	0.56	1100	4.5
		99.56	0.51	1020	2
		99.37	0.34	699	7.7
		99.27	0.37	601	7.8
		99.65	0.86	800	6.7
		99.64	0.83	764	<5
					5.9

0.05

99.24	0.50	257		5.43
100.68	0.55	776	<5	7.3
99.20	0.82	912	<5	5.2
99.29	1.60	1670		5.48
99.17	1.50	947		5.06
99.12	0.71	916		1.34
99.26	0.65	1160		3.78
99.30	0.32	908		5.70
99.20	0.51	748		6.09
99.69	0.13	40.4		3.19
99.00	0.27	1230		1.86
99.21	0.54	1360		3.44
99.74	0.84			
99.84	1.02			
99.76	0.72			
99.79	0.60			
99.61	0.61			
99.94	0.72			
100.07	0.90			
99.98	0.65			
99.84	0.97			
100.06	1.52			
99.42	1.19			
99.91	1.05			
99.92	1.65			
99.95	0.71			
99.90	0.67			
99.74	0.70			
99.93	0.68			
99.91	0.74			
99.91	0.48			
99.69	0.67			
99.83	0.74			
100.00	1.23			
100.01	1.59			
99.77	1.00			
99.98	0.73			
100.03	0.87			
99.51	0.93			
99.95	1.15			
99.92	0.91			
99.85	1.10			
99.93	1.32			
99.94	0.84			
99.99	1.00			
98.84	1.10			
100.09	1.64			
99.96	1.10			
99.94	0.97			
99.92	0.94			

99.25	0.57
99.90	0.97
99.69	0.96
99.89	0.72
99.90	0.77
100.22	0.79
100.52	0.71
100.31	0.70
100.45	0.75
100.14	0.86
100.38	0.89
100.04	0.61
100.35	0.77
100.25	0.91
100.38	0.89
100.05	1.17
100.39	0.91
100.39	0.89
100.43	0.80
100.40	0.82
100.47	1.13
100.36	0.80
99.54	0.30
99.01	0.24
99.48	0.40
100.02	0.50
100.24	0.78
100.01	0.52
100.10	0.12
99.42	0.48
99.71	0.66
99.95	0.60
99.69	0.60
99.45	0.62
100.23	1.30
99.70	0.44
99.77	0.75
99.60	2.20
100.21	0.48
99.98	0.43
99.75	0.85
99.39	0.52
100.01	0.95
99.79	0.81
99.76	0.56
99.86	0.70
100.04	0.73
99.78	0.92
99.94	0.93
99.67	0.71

100.20	0.75	
99.83	0.79	
99.91	0.66	
99.98	1.05	
100.01	1.34	
99.84	0.86	
100.21	0.88	
100.20	1.00	
99.84	0.76	
99.74	0.80	
99.99	0.64	
99.84	0.79	
100.03	1.54	
100.45	2.20	
98.19	4.10	
98.60	1.55	
99.97	0.24	
100.06	0.18	
99.80	0.92	
99.97	0.72	
101.84	0.84	
100.91	0.29	
99.90	0.92	
100.54	0.87	
100.26	0.82	
100.04	1.02	
100.45	0.52	
100.70	0.72	
100.07	0.44	
100.66	0.85	
100.10	0.58	
99.28	1.00	
99.65	0.46	
99.49	1.10	
99.35	1.00	
99.75	0.31	
100.09	0.58	
102.07	0.563	996
99.19	0.322	1062
98.13	0.425	1189
100.40	0.306	1076
98.45	0.353	1111
97.13	0.412	1291
97.49	0.189	1438
99.12	0.401	1079
98.54	0.414	1078
100.53	0.365	1177
101.78	0.188	1044
98.15	0.183	1100
95.78	0.223	1147

96.89	0.413	956
98.42	0.406	1030
97.07	0.351	1028
98.60	0.347	994
99.99	0.486	1016
98.08	0.535	1025
97.77	0.273	1226
98.25	0.231	1172
102.40	0.284	1182
100.68	0.224	1248
99.44	0.205	1252
98.96	0.279	836
98.04	0.205	946
97.35	0.258	1044
96.88	0.349	978
97.13	0.289	998
95.99	0.296	1040
96.97	0.419	1165
97.28	0.647	1290
97.17	0.517	1053
98.04	0.521	867
102.53	0.297	1191
97.43	0.489	1389
96.80	0.506	1229
102.43	0.415	966
97.73	0.423	1106
98.81	0.577	984
101.05	0.564	1140
96.49	0.425	1637
98.66	0.475	1537
99.94	0.361	1637
97.90	0.300	1501
99.18	0.417	1092
98.72	0.511	1132
97.99	0.450	1093
99.89	0.536	1123
99.19	0.244	1045
99.21	0.241	1417
96.18	0.222	259
98.09	0.229	839
96.17	0.340	726
97.16	0.680	788
99.28	0.608	809
96.84	0.577	929
98.45	0.380	805
98.55	0.421	886
97.30	0.412	786
98.53	0.576	768
99.59	0.431	907
97.57	0.289	930

97.10	0.499	950
100.69	0.300	809
99.04	0.326	889
99.21	0.252	867
96.98	0.218	847
99.57	0.170	808
99.38	0.321	788
99.08	0.217	789
98.21	0.427	867
97.27	0.314	829
98.77	0.430	849
99.52	0.302	790
99.23	0.304	648
100.45	0.225	608
96.89	0.200	726
98.11	0.124	789
98.23	0.342	
99.09	0.386	835
98.00	0.630	772
98.21	0.327	805
98.70	0.456	918
99.89	0.465	904
98.24	0.488	1250
97.05	0.440	1007
98.34	0.509	1053
99.08	0.436	1242
98.72	0.508	1142
98.41	1.095	1243
98.47	0.736	993
97.19	0.625	1169
97.58	0.547	1387
98.96	0.930	1553
99.59	0.826	912
97.97	0.494	975
96.88	0.534	2379
98.02	0.448	1494
99.04	0.388	867

Rb	Sr	Y	Zr	Hf	Nb	Th	U	Ga
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338
592
338
338
676
169
169
846
169
507

8.0 1.7
8.1 1.2

203	36	8.6	101		20.7	29.5		15.4
112	538	27.5	210		14.9	11.9		16.4
169	457	25.3	205	4.7	24.0	21.7	3.9	20.9
109	572	23.8	191		13.2	11.6		17.0
172	458	25.8	204	96.3	26.1	22.5	4.8	17.8
153	469	24.7	216		23.4	14.0		16.3
161	488	27.6	195		22.8	16.8		17.3 20.2
117	641	22.1	159		19.1	11.6		
132	515	25.1	162	140	17.4	18.1		16.2
				28.2		13.9		15.9
127	590	22.6	152	64.3	28.1	16.0		19.1
135	543	21.4	171		21.7	21.1		17.5
143	530	25.2	161		27.8	20.0		16.6

149	462	19.2	164	174	28.7	13.5		18.6
138	650	19.0	160		27.0	17.3		17.1
127	610	21.4	175		37.9	13.5		19.6
107	473	21.6	174		28.3	14.6		19.6
158	442	19.8	147	217	25.1	21.4	3.3	13.6
158	416	24.0	155		24.7	20.0		19.0
101	577	19.6	179		16.3	9.1		14.6

106	617	25.7	167	4.7	46.8	14.3		18.7
174	754	19.4	180		26.1	20.0		22.9
69	394	22.7	135		13.4	3.7		17.0
128	603	26.1	198		28.5	18.7		19.1

71	750	22.6	157		31.1	9.7		19.0
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69	833	20.2	175		15.0	6.7		19.6
67	840	16.5	159		26.0			17.8

254
676
338
169
338

254

676

15.6 5.2

8.1 2

10.4 1.6

7.6 2.4

19 3.4

16.2 3.8

16.2 5.1

23 4.3

18.3 12.1

5.6 1.7

15.5 3.2

34 4.9

4.6 0.8

4 0.7

9.8 1.7

61	670	17	134		14	8	200	18
124	700	16	158		21	8	100	21
134	653	18	186	3	14	9.8	3.21	18
107	587	8.4	77.2	2	12	12	2.11	16
113	235	11.4	127	4	22	13.8	2.39	14
197	256	22.8	103	4	19	27.9	7.28	13
152	530	22.7	154	4	13	17.5	3.63	16
151	467	19	133	3	12	14.9	1.86	16
112	561	10.1	134	4	14	10.7	2.06	16
187	28.6	8.8	40.3	2	27	15.9	3.72	13
146	494	14.8	124	3	16	14.8	3.71	15
67.2	703	17.4	134	4	10	6.7	0.74	17
169	431	18.9	178	5	12	17.4	5.58	16
153	481	21.3	278	8	13	24.2	4.38	16
171	430	14.3	110	4	14	25.9	4.73	15
139	447	19.6	165	5	12	27.5	5.30	16

179	313	18.2	73.5	3.71	11.8	30.3	7.82	
146	454	21.0	235	7	14	16.7	5.20	17
122	530	16.3	178	5	13	13.2	2.25	18
338	376	7.6	428	3.33		7.98	3.39	
300	387	7.2	126	3.27		7.10	2.77	
77.8	384	20	98.5	4.87		7.22	1.52	
95.6	725	24	170	7.33	10	10.5	2.34	
119	689	23	187	6.59	20	16.6	2.04	
130	504	23	299	4.29	10	20.1	3.42	
163	36.7	5.6	266	3.75		26.7	3.12	
58	798	17	176	3.97		6.56	1.13	
101	451	15	64.1	4.28	10	12.9	0.968	

19.5 4.2

7.6 2.4

2.7	0.4
5.9	2.3

8.8	3.9
16.2	3.2
30.7	8.0
7.4	0.8

9.3	2.7
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16.9	5.7
16.9	4.5
15.6	3.6
12.7	2.3
5.4	1.2
6.6	1.2
6.6	1.6

9.2	3.3
11.1	2.3
13.0	2.9
19.0	7.1
18.8	5.1
15.2	2.4
17.9	1.6
20.1	8.3

24.2	3.7
38.5	4.8
17.3	5.0

39.6	9.0
14.6	4.1
42.0	20.0
15.4	3.2

12.8	2.1
7.9	3.2
40.0	7.5

14.9	2.6
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286	652	32	1
190	700	39	2
223	651	17	2
227	605	16	2
210	751	12	1
135	600	17	3
189	653	16	2
183	654	23	2
193	753	22	1
220	679	38	3
213	703	38	3
193	805	33	3
207	706	34	3

206	804	37	4
190	852	34	3
201	753	39	3
222	759	39	3
163	654	34	3
196	777	26	3
170	901	19	2
179	904	32	2
160	951	31	1
175	902	16	1
212	852	28	2
216	754	14	3
199	805	22	2
245	701	11	3
241	745	32	3
264	765	30	2
239	734	19	3
192	656	14	3
153	823	39	3
237	725	23	3
179	552	22	4
251	502	38	1
241	501	17	3
271	501	15	3
286	552	56	3
286	602	51	4
291	552	61	8
303	552	44	3
313	504	16	3
306	512	27	3
245	471	36	3
217	514	18	3
318	503	32	9
342	503	32	3
334	523	55	3
279	541	60	3
180	581	54	1
138	555	47	2
214	339	76	4
186	606	56	3
279	593	64	62
357	583	57	4
344	563	35	4
332	593	64	35
220	551	75	5
341	561	30	3
406	521	92	4
392	493	75	4
421	492	63	3
370	563	63	3

377	473	54	3
394	543	60	4
294	594	60	3
311	622	63	4
321	562	51	3
336	613	51	3
332	573	60	3
300	564	60	3
326	572	52	2
342	554	58	3
329	551	70	2
395	493	56	2
388	393	86	3
363	403	78	4
316	592	58	3
405	453	78	3
214	531	85	3
207	507	55	3
151	484	58	3
241	532	66	3
172	544	75	3
172	558	74	3
179	408	44	2
165	144	25	2
186	241	20	2
172	239	20	2
172	240	51	3
193	508	60	3
200	603	68	3
145	556	44	2
186	482	48	3
165	506	64	4
193	412	72	5
214	508	54	3
228	675	42	2
177	704	60	3
204	409	66	4

La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy
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34.3	51.0			6.10	1.06		1.3	
25.8	38.0			5.66	0.95			

35.8	46.3			6.25	1.09			
35.6	90.0			5.31	1.04			

57.4	75.0			6.34	1.11			
39.8	48.0			5.82	1.10		1.1	
39.6	47.0			4.73	0.93			

42.3	76.0	5.07	0.92
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57.8	55.0	4.39	0.78
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25.1	104	6.68	1.02
40.3	130	4.34	0.82

29.7	75.0	3.72	1.20
22.0	49.0	5.44	1.12

76.4	212	6.11	1.45
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34.7	104	4.18	0.99
24.5	59.0	4.16	0.93

30	48		23		4			
42	66		27		2			
33.2	67.2	7.44	28.4	4.6	1.5	4.5	0.61	3.2
19.8	36.2	3.85	13.5	2.2	0.89	2	0.28	1.52
36.5	62.3	6.54	21.4	3.7	1	3.15	0.42	2.11
22.4	48.6	5.8	22.2	4.1	0.95	3.99	0.6	3.52
43.2	78.3	8.84	31.7	5.3	1.41	4.53	0.71	3.84
51.3	89.1	9.05	29.8	4.6	1.3	4.32	0.6	3.56
45.4	72.2	6.39	20.3	2.7	0.97	2.23	0.31	1.73
8.4	16.6	1.85	5.90	1.4	0.27	1.28	0.22	1.49
35.3	61.3	6.1	21.5	3.4	0.98	2.91	0.44	2.44
38	64.5	6.56	23.9	4.5	1.52	3.86	0.57	3.17
43.8	79.7	8.56	30.0	4.6	1.27	3.9	0.65	3.42
38.2	73.9	8.23	29.6	5.2	1.22	4.91	0.71	4.1
49.2	82.5	8.01	26.2	3.9	0.94	3.21	0.46	2.38
57.8	96.4	9.79	31.4	5.0	1.11	4.63	0.67	3.52

15.6	38.0	3.63	15.8	3.07	0.422	2.86	0.442	2.86
38.6	73.6	8.39	29.5	5.2	1.19	4.91	0.74	3.82
38.5	71.6	7.93	27.8	4.6	1.10	4.29	0.60	3.12
23.7	41.8	5.5	81.5	3.77	0.888	2.80	0.357	1.6
19.6	33.6	5.4	18.8	2.94	0.678	1.95	0.249	1.5
35.5	70.2	9.6	26.7	5.44	1.22	4.48	0.665	4.1
38.1	69.9	9.2	29.8	5.94	1.59	5.51	0.755	4.7
43.2	76.8	12	29.5	5.64	1.21	4.74	0.643	4.6
47.7	81.7	9.3	30.1	5.75	1.12	4.68	0.698	4.5
16.6	24.8	2.5	31.5	0.907	0.172	0.751	0.138	0.85
28.8	48.8	8.0	30.4	3.58	0.962	3.18	0.411	3.3
48.7	75.6	12	5.39	4.05	0.932	3.21	0.413	3.1

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	0.32	118
	0.30	53.8
4.9	0.58	28.5
	0.40	53.4
	0.66	35.8
	0.57	22.4
3.8	0.51	56.0
	0.50	29.5
	0.42	42.0

			2		0.08	16	10
			1		0.08	4	6
0.66	2.4	0.32	2	0.3		12	30
0.28	1.11	0.16	1	0.18		2.3	
0.39	1.31	0.16	1.2	0.23		0.8	
0.75	2.92	0.41	2.8	0.47		5.2	
0.81	2.94	0.38	2.4	0.35		11.8	20
0.68	2.31	0.31	2	0.31		13.2	20
0.32	1.34	0.19	1.3	0.26		3.9	
0.31	1.18	0.15	1.3	0.2			
0.49	1.82	0.23	1.6	0.27		5.6	
0.59	2.21	0.3	1.7	0.31		10.2	10
0.72	2.58	0.3	2.1	0.34		11.9	20
0.79	2.95	0.4	2.6	0.4		16.7	60
0.51	1.95	0.25	1.7	0.32		4.4	10
0.75	2.19	0.33	2.4	0.36	<1	11.5	10

0.606	1.82	0.324	2.38	0.43		0.824	5.3	6.99
0.81	2.24	0.34	2.4	0.38	<1		14.2	20
0.63	1.93	0.27	2.0	0.30	<1		7.3	20
1.96	0.76	0.144	0.856	0.122		0.752	5.65	57.3
0.392	0.73	0.108	0.58	0.0851		6.31	3.55	55.3
0.360	2.5	0.395	2.39	0.337		2.82	1.44	4.55
0.875	2.8	0.415	2.66	0.4		1.09	6.62	10.3
0.948	2.7	0.377	2.20	0.315		0.261	12.6	45.7
1.02	2.8	0.421	2.50	0.367		0.854	11.0	15.0
0.875	0.78	0.181	1.47	0.301		0.329	0.305	1.17
1.03	2.0	0.257	1.64	0.251		0.772	7.00	11.8
0.287	1.7	0.258	1.62	0.254		1.35	2.31	2.50

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148
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53
87
133
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Sn

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0.0			0.0		36.1	29.7		
57.4	17.1		42.2		26.2	62.3		
50.6	11.9		26.1		23.0	61.1		
63.0			28.3		22.7	67.3		
54.1	13.2		25.5		23.0	58.0		
48.6	13.8		24.7		17.0	56.2		
53.9			43.5		21.2	52.0		
57.3			43.2			65.7		
					21.2			
40.0	10.4		12.0		28.7	52.3		
42.8	10.8		8.0			56.2		
31.0	6.9		2.2		22.7	54.9		
35.8			0.0		23.4	54.4		
39.4			3.6		25.2	56.6		

29.8	3.0	0.0	26.9	53.8
16.6		0.0	30.3	56.7
36.2		0.0	19.1	48.8
25.0		0.0	19.8	45.2
25.6	4.8	1.7	26.5	47.3
29.0		13.5	23.0	46.8
308		74.8	22.7	68.0

14.7	3.0	0.0	25.8	52.1
28.8	4.6	12.5	30.1	50.3
94.0		14.0	15.2	69.4

41.3	10.2	18.3	23.4	59.2
	13.2			

35.8	8.6	3.4	19.5	63.9
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60.3	8.8	15.2	23.0	56.7
14.7	4.4	3.6	16.3	56.4

4	13	110	13	0.43	7	42	10	
3	4	30	15	0.34	4.2	46	5	
7	11	113	11		11	63	2	
		15			12	16		
			7		22	16	2	
		46	10		24	30	2	
	11	104	11		17	51	2	
8	12	121	36		18	64	2	1
		23			20	43	1	
			15	156	33		1	2
		49	7		16	35	1	
	8	78	22		12	61	1	
5	11	100	32		16	53	2	1
12	15	134	35		16	67	2	1
		48	14		17	28	2	1
42	11	96	24	3	19	53	4	<1

10.5	5.33					40.4	1.82	1.61
21	12	110	33	<2	20	56	3	2
14	7	73	10	<2	22	64	2	1
21.0	5.61					419		4.90
16.0	5.69					270		51.4
6.38	12.3					47.1		0.516
7.93	11.5					57.4		0.63
18.3	12.3					54.1		3.83
6.32	11.4					53.9		1.99
6.39	0.855					7.48		0.907
10.4	5.93					25.9		1.16
13.1	2.76					21.8		2.22

49	50	12
48	80	
48	82	5
46	88	2
46	110	9
15	29	10
37	61	4
21	58	15
20	85	
20	122	
18	58	14
20	100	5
20	128	4

26	49	7
23	76	11
23	93	7
25	55	11
26	29	
35	77	3
20	40	5
20	33	7
17	31	
15	22	
32	53	
49	50	1
51	59	16
46	58	14
50	59	4
35	40	
65	72	4
30	43	7
25	50	1
55	19	13
50	66	6
14	21	
12	21	9
15	28	4
15	45	
17	67	
18	35	
17	20	
20	35	
20	18	
25	10	5
25	30	
20	25	1
20	32	
20	29	
20	37	
15	78	2
11	84	2
11	62	2
11	72	1
25	41	
30	34	3
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136	48	
30	38	2
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30	20	3
30	58	3
30	55	2
30	55	

30	78	
25	72	2
30	150	3
30	137	2
35	137	2
30	115	3
35	110	3
30	119	6
30	143	2
30	134	2
30	86	2
25	91	1
25	88	2
30	75	2
30	115	2
30	94	1
11	88	2
11	75	4
9	80	2
11	82	
17	117	1
22	120	5
15	54	3
9	53	3
9	48	6
11	57	3
9	44	6
9	48	20
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80	20	1	16		
40	10	1	16		
0.9		0.2	19	77.6	0.8
0.8			19	73.7	0.5
1.2			19	74.2	0.5
1.8		0.1	19	75.3	0.7
0.7		0.1	19	76.4	0.7
0.8		0.3	19	76.5	0.9
0.9		0.1	19	74.7	0.4
1.8		0.3	19	76.9	0.6
1.3		0.2	19	76.3	0.8
			19	80.7	0.8
0.8		0.3	19	74.7	0.6
1		0.1	19	78.2	0.5
1.1		0.2	19	76.3	0.5
1.1	<30	0.1	19		

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16	22

intrs_name	Plag	Kspar	Qtz	Hb	Pyx	Opx
Unionville						
Unionville						
Butte						
granodiorite, undivided, of Knopf						
Butte						
Broadwater						
Scratchgravel						
porphyritic granodiorite of Knopf						
Unionville						
Butte						
Butte						
Unionville						
Unionville						
Butte						
Rader Creek	49.6	16.2	24.8	3.7		
Rader Creek	47.2	19.4	25.2	4.4		
Rader Creek	40.0	23.5	20.3	9.0		
Rader Creek	43.7	32.5	12.8	6.0		
Rader Creek	48.8	18.2	20.6	5.8		
Rader Creek	54.3	15.2	14.7	8.2		
Rader Creek	42.7	24.4	18.9	8.3		
Rader Creek	39.1	35.1	12.5	6.4	0.1	
Rader Creek	33.1	35.0	17.1	9.7		
Rader Creek	27.5	39.7	15.8	11.4	0.1	
Rader Creek	38.1	29.7	16.8	11.2	0.1	
Alaskite-aplite						
Alaskite-aplite	15.0	37.8	45.3	0.5		
Burton Park						
Burton Park	37.3	17.0	17.9	12.9		
Burton Park						
Burton Park	39.8	15.9	18.6	11.7		
Butte	36.9	25.6	28.3	1.5		
Butte						
Butte	49.3	15.4	21.1	6.2		
Butte						
Butte	40.6	17.6	22.5	10.0		
Butte						
Butte						
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Butte						
Butte						
Butte						
Climax Gulch						
Climax Gulch	35.9	25.5	27.0	1.4		
Climax Gulch	30.1	27.1	34.2	2.6		
Climax Gulch	29.7	35.8	29.2	1.5		

Donald	35.5	31.9	24.8	<0.01	
Donald	35.9	30.9	25.8	0.1	
Donald	38.0	30.2	24.3	1.3	
Hell Canyon	35.4	24.2	33.8	2.4	
Hell Canyon	43.5	21.9	23.8	5.5	
Homestake	30.0	24.9	34.5	1.8	
Homestake	37.1	30.7	20.2	1.1	
Ringing Rocks	28.2	23.1	3.0	11.3	13.8
Ringing Rocks	30.1	28.4	23.1	12.1	0.0
Moose Creek					
Moose Creek	38.8	21.3	31.3	0.0	
Moosetown	36.2	32.1	22.0	0.1	
Moosetown	34.8	26.5	27.5	0.4	
Rader Creek	40.3	26.4	17.9	8.8	
Rader Creek					
Rader Creek	38.6	27.2	19.6	9.2	
Rader Creek	37.8	31.2	15.3	10.2	
Rader Creek	39.1	30.7	14.9	10.7	
Rader Creek					
Rader Creek	51.7	17.3	16.4	7.5	
Rader Creek					
Rader Creek	47.8	20.2	24.1	3.8	
Rader Creek	48.4	17.8	24.8	4.1	
Rader Creek	52.8	16.7	18.1	6.5	
Rader Creek	48.0	19.4	19.6	4.7	
Satellitic					
Butte					
Butte	42.47	17.57	22.55	4.44	2.37
Butte					
Butte					
Alaskite-aplite					
Alaskite-aplite					
Black Butte	63		1	2	
Butte	34	22	25	9	
Alaskite-aplite					
Alaskite-aplite					
Butte	43.5	22.7	19.8	5.2	0.2
Butte	35	32	18	7	
unnamed plutons	44.6	16.5	32.6		0.1
unnamed plutons	47.8	20.4	26.5		
unnamed plutons	37.4	24.7	30.3		
Butte	26.5	39.7	28.5	0.6	
Butte	36.6	28.0	22.9	4.9	
Butte	45.9	23.2	14.9		5.4
Butte	31	28	33	3	
Butte					
Butte	30.0	37.5	20.8	1.2	

Butte	39.9	30.6	19.9	2.2		
Alaskite-aplite	29.8	28.4	40		0.3	
Alaskite-aplite	31	28.4	38.4		0.4	
Marysville						
Black Butte						
Black Butte						
Cemetery Ridge						
Cemetery Ridge						
Turnley Ridge						
Butte						
Butte						
Alaskite-aplite						
Sagebrush Park	58	8	27	2		
Sagebrush Park						
Slim Sam	41	32	17	7		
Spar	35	29	4	7	7	
Kokoruda Ranch	26	24				28
Antelope Creek	56	18	10	8		
Butte	41.1	13.6	26.7	3.1	0.5	
Butte	52	24	14	7		
Alaskite-aplite	19.4	47.6	31.5			
Black Butte						
Butte						
Butte						
10N						
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Satellitic						
Rattlesnake	51	9	8	9		
Orphan Boy	49	20	3	7		
Rattlesnake	53	18	7	16		
Rattlesnake	55	12	13	13		
Lone Mountain	45	30	12	8		
Rattlesnake	51	22	16	9		
Vosburg	50	28	15	6		
Slim Sam						
Swamp Creek						
Burton Park	42.8	20.7	17.7	12.0		
Hell Canyon	49.8	25.3	20.5	4.5		
Moose Creek	33.6	29.8	31.5			
Homestake	30.7	35.8	28.5	0.5		
Butte	35.4	25.0	22.3	8.0		
Butte	36.2	25.5	19.5	8.0		
Donald	35.8	29.5	26.3	tr		
Deer Creek						
Climax Gulch	42.0	27.7	21.6	tr		
Rader Creek	48.3	21.1	14.9	13.0		
Butte	34.8	30.7	22.5	5.0		
Unionville	40.5	19.2	25.0	8.0		
Pulpit Rock	31.1	32.9	28.1			
Butte	34.7	28.5	23.4	8.0		

Butte				
Butte	37.2	24.5	20.0	7.0
granodiorite, undivided, of Knopf	27.3	44.8	19.6	4.0

Alaskite-aplite
Turnley Ridge
Butte
Butte
Alaskite-aplite
Rader Creek
Deer Creek
Butte
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Climax Gulch
Rader Creek
Donald
granodiorite, undivided, of Knopf
Homestake
Pulpit Rock
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Climax Gulch
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Climax Gulch 45.4 20.3 29.4 4.0
Climax Gulch
Butte
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Unionville
Unionville
porphyritic granodiorite of Knopf
porphyritic granodiorite of Knopf
granodiorite, undivided, of Knopf
Rader Creek
Satellitic
Butte
Butte

Scratchgravel						
Ringling Rocks	32.5	27.6	2.7	1.5	18.7	2.1
Rader Creek	42.0	25.9	13.0	12.4	1.0	
Burton Park						
Burton Park						
Climax Gulch						
Climax Gulch						
Rader Creek	50.4	17.4	19.6	3.8		
Rader Creek	52.2	16.4	23.0	3.8		
Rader Creek	51.0	13.9	19.6	6.9		
Rader Creek	51.0	14.2	17.0	9.9		
Rader Creek	51.2	12.9	17.8	9.1	0.5	
Rader Creek	50.0	12.9	21.3	6.2	0.1	
Rader Creek	50.9	17.8	15.0	10.2	0.1	
Rader Creek	49.2	14.6	18.6	9.8	1.2	
Rader Creek	47.4	19.3	20.2	5.6	0.1	
Rader Creek	49.5	13.8	19.6	8.6		
Rader Creek	52.3	10.7	23.6	5.0		
Rader Creek	47.7	13.6	24.7	4.9		
Rader Creek	40.5	23.2	17.0	11.6	0.2	
Rader Creek	40.4	25.8	15.3	12.3		
Rader Creek	30.0	35.6	17.6	8.7	0.6	
Alaskite-aplite						
Unionville	39.9	22.8	12.5	12.6	1.1	
Butte	32.8	30.5	22.6	3.8		
Donald	45.1	29.6	16.5	3.3		
Donald	47.6	18.5	25.6	0.2		
Rader Creek	48.4	14.4	28.6			
Rader Creek	45.0	21.4	15.9	7.2	1.0	
Rader Creek	53.8	14.7	14.8	7.4		
Hell Canyon	41.0	20.6	23.0			
Burton Park	45.9	16.9	13.9	6.3	2.3	
granodiorite, undivided, of Knopf	39.8	32.3	14.5	3.9		
Butte	37.0	24.2	13.5	12.4	0.7	
Butte	35.3	31.7	18.0	2.0	2.0	
Butte	35.7	29.2	20.1	5.0	0.4	
Butte	43.1	24.2	13.9	8.3		
Butte	45.4	22.6	21.6	2.2		
Butte	34.1	24.9	31.5			
Rader Creek	44.8	18.7	25.8	4.0		
Rader Creek	48.0	14.2	23.4	7.0		
Rader Creek	38.6	19.5	28.4	7.0	0.1	
Rader Creek	51.7	14.8	18.4	5.8		
Rader Creek	43.6	21.0	19.8	7.2		
Rader Creek	42.2	23.9	20.4	6.2		
Rader Creek	47.6	17.1	19.8	9.7		
Rader Creek	51.3	12.8	17.1	11.1	0.3	
Rader Creek	51.2	13.7	15.8	9.5	0.3	
Rader Creek	50.3	15.6	16.1	9.9	0.3	
Rader Creek	45.6	18.6	19.0	7.6		

Rader Creek	53.4	13.0	19.2	5.9	
Rader Creek	51.6	15.6	22.4	4.2	
Rader Creek	48.1	15.2	10.0	14.4	1.7
Rader Creek	41.0	25.1	17.0	15.2	
Rader Creek					
Rader Creek					
Rader Creek					
Donald					
Rader Creek					
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Hell Canyon					
Butte					
Butte					
Butte					
Butte					
Butte					
Butte					
Alaskite-aplite	18.0	44.0	35.0		
Butte					
Butte					
Alaskite-aplite					
Butte					
Butte					
Butte					
Butte					
Alaskite-aplite					
Alaskite-aplite					
Alaskite-aplite					
Granite porphyry					
Donald	34.8	33.5	23.8	1.3	
Burton Park	49.7	12.6	5.8	12.4	3.3
Alaskite-aplite	15.6	37.4	45.7		
Butte					
Swamp Creek					
Butte	35.3	27.3	27.4	2.8	0.2
Marysville	53.0	14.0	17.5	8.5	
Rader Creek	42	18	16	12	
Rader Creek	44	14	14	16	
Rader Creek	48	5	20	13	
Rader Creek	46	8	19	10	
Rader Creek	45	12	15	15	
Rader Creek	55	7	30		
Rader Creek	49	12	21	7	
Rader Creek	47	10	23	9	
Rader Creek	41	21	23	4	
Rader Creek	46	16	28	2	
Rader Creek	43	22	18	12	
Rader Creek	44	16	22	11	
Rader Creek	53	14	18	7	

Rader Creek	45	16	20	12
Rader Creek	49	8	18	14
Rader Creek	51	12	15	8
Rader Creek	47	20	15	11
Rader Creek	57	7	22	9
Rader Creek	50	17	13	13
Rader Creek	52	8	30	2
Rader Creek	51	13	25	1
Rader Creek	61	8	19	3
Rader Creek	50	10	29	3
Rader Creek	43	21	13	12
Rader Creek	44	19	10	16
Rader Creek	46	15	9	19
Rader Creek	40	18	14	19
Rader Creek	32	20	21	16
Rader Creek	49	7	21	9
Rader Creek	43	16	14	17
Rader Creek	51	14	20	5
Rader Creek	47	15	17	9
Rader Creek	33	20	21	17
Rader Creek	34	28	18	14
Donald	43	15	32	
Donald	41	16	37	
Donald	49	22	23	
Donald	53	9	25	3
Donald	38	16	39	1
Donald	41	16	33	3
Donald	40	14	38	1
Donald	45	17	32	
Donald	50	17	27	
Donald	32	27	36	
Donald	29	25	38	
Donald	44	22	26	1
Donald	38	16	36	1
Donald	43	24	28	tr
Donald	41	21	29	tr
Donald	50	17	26	tr
Donald	36	23	33	2
Donald	43	24	26	
Donald	49	15	28	
Climax Gulch	46	14	27	5
Climax Gulch	21	48	21	2
Climax Gulch	50	17	21	5
Climax Gulch	44	21	28	3
Climax Gulch	48	17	21	4
Climax Gulch	51	15	26	2
Climax Gulch	39	14	26	6
Climax Gulch	50	10	30	3
Climax Gulch	39	21	23	6
Climax Gulch	35	25	27	5

Climax Gulch	38	12	41	2
Climax Gulch	40	25	26	2
Climax Gulch	33	15	33	9
Climax Gulch	36	20	32	6
Climax Gulch	41	24	22	5
Climax Gulch	45	13	27	6
Climax Gulch	34	16	38	5
Climax Gulch	49	8	21	3
Climax Gulch	50	12	22	5
Climax Gulch	42	24	22	5
Climax Gulch	32	37	22	5
Climax Gulch	41	14	32	3
Climax Gulch	24	27	35	3
Climax Gulch	37	25	29	2
Climax Gulch	30	19	32	7
Climax Gulch	40	15	24	4
Climax Gulch	38	20	37	3
Climax Gulch	48	8	32	3
Climax Gulch	37	27	24	2
Climax Gulch	40	11	38	2
Climax Gulch	44	4	33	10
Climax Gulch	48	10	22	4
Moosetown	36	23	33	
Moose Creek	44	27	24	
Moose Creek	45	20	29	
Moose Creek	39	27	26	
Moose Creek	42	24	27	
Alaskite-aplite	46	25	24	3
Hell Canyon	50	17	30	1
Alaskite-aplite				
Hell Canyon	46	21	24	5
Hell Canyon	34	43	19	2
Hell Canyon				
Hell Canyon	43	26	23	4
Hell Canyon	46	26	20	4
Hell Canyon	45	25	22	5
Hell Canyon	51	19	24	3

Cpx	OI	Bi	Opq	Acc	Acces(incl opq)	Alt
-----	----	----	-----	-----	-----------------	-----

4.0	1.1	0.6
2.4	0.8	0.6
5.7	1.0	0.5
3.2	1.3	0.7
4.8	1.4	0.4
5.0	2.0	0.6
3.9	1.4	0.4
3.9	1.9	1.0
2.8	1.9	0.4
3.4	1.6	0.5
2.7	1.2	0.2

0.7	1.7
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12.9	1.1
------	-----

11.4	2.6
6.1	1.6

5.6	2.4
-----	-----

7.3	1.5
-----	-----

9.2	1.0
4.2	1.8
3.2	0.6

	5.8	1.7
	6.2	1.1
	4.8	1.4
	2.7	1.5
	3.2	2.1
	6.3	2.5
	6.8	1.1
5.2	11.4	4.0
0.0	10.6	2.5

	6.3	1.0
	8.3	0.1
	9.3	1.5
	4.7	1.7

	5.0	1.3
	3.7	1.8
	3.4	1.1

	5.6	2.5
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	2.7	1.4
	3.6	1.3
	5.0	1.9
	5.2	3.0

	9.77	0.76	0.07
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20	10	4	0.1
2	7	1	0.8

	7.2		1.4
	6		2
	5.2		1.0
	2.5	0.9	0.6
	5.0		2.6
	3.5		1.2
	5.3		2.3
	7.1		3.5
	5		<1
	8.6		1.9

1.3

		6.1			1.3
			0.5	0.9	
			0.5	1.2	
		5	<1		
		1	1		
	4	12	2		
13	2	5		2	
		6			2
		13.0			2.0
		1			2
		1.1			0.4

8		13			2
11		8			2
2					4
		5			2
1		1			3
					2
					1

6.0	0.8
tr	tr
4.5	0.6
4.0	0.5
8.0	1.3
10.0	0.8
7.0	1.4
8.0	0.7
1.0	1.8
6.5	0.5
6.0	1.4
7.0	0.8
5.0	0.5

10.0	1.3
3.0	1.3

0.4

0.5

9.4	2.3	1.7	1.5
3.2	1.8	0.7	

7.1	1.1	0.7
3.4	1.0	0.2
6.6	1.4	0.7
5.9	1.3	0.9
5.7	2.3	0.6
7.8	1.5	0.3
4.0	1.8	0.4
5.0	1.4	0.3
5.2	1.6	0.6
6.4	1.7	0.4
6.7	1.2	0.4
7.2	1.6	0.4
5.9	1.2	0.2
4.4	1.3	0.4
6.5	0.8	0.3

9.6		1.5
7.9		2.4
4.4		1.1
6.3		1.8
7.5		1.1
7.8		1.7
5.9	0.9	2.5
12.9		2.5
12.1		2.6
7.7	1.1	0.6
9.9	1.4	0.8
6.3	2.0	0.8
8.5	0.8	0.3
3.0		7.5
5.9		2.3

3.7 4.1

	0.7	1.0
5.4	0.9	0.4
5.8	1.0	0.6
6.8	1.2	0.4
6.9	2.1	0.4
6.6	1.3	0.6
5.8	1.1	0.4
3.5	1.9	0.4
4.7	2.2	0.4
7.5	1.5	0.4
5.4	1.8	0.6
6.3	2.1	0.6

6.9	1.2	0.3
5.1	0.6	0.4
9.1	1.2	0.2
0.7	0.6	0.4

1.5	0.5	1.0
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5.7	0.6	0.3	
12.6			3.6
0.5			0.8

5.4	1.0	0.4		0.2
4.8			2.2	
9	0			
9	2			
10	2			
12	4			
10	2			
7	1			
10	0			
8	2			
7	3			
5	1			
3	1			
2	4			
5	2			

3	2
6	2
11	2
6	0
2	3
4	1
5	3
7	1
7	1
4	3
8	2
9	1
9	1
7	1
6	3
8	4
5	4
7	2
8	3
10	
2	3
6	2
4	1
4	1
6	2
4	1
5	1
6	1
4	1
5	0
4	0
7	0
4	3
5	3
4	0
6	1
5	1
4	1
6	1
5	1
8	1
7	1
5	1
2	1
6	5
5	1
9	5
5	0
7	3
6	1

2	4
5	1
7	2
3	2
5	2
5	3
3	3
17	3
9	1
6	0
3	0
8	1
6	5
5	1
10	1
15	1
1	0
6	3
7	2
8	1
3	6
12	3
6	1
4	0
4	2
5	2
5	1
1	1
2	0
3	1
1	1
2	2
3	1
2	1
2	1

sample_number	modal_lithology	lithology	ign_form	alteration	longitude	latitude
SiO₂>78%:						
26-B-2	Granophyre		Sill		-112.2625	46.3417
50-KC-20 (also 52-C-8)	Aplite		Dike/sill		-111.930	46.310
10661-1	Alaskite				-112.648	46.014
Al₂O₃<10%:						
49-KC-6	Quartz monzonite		Stock		-111.812	46.227
Al₂O₃>20%:						
59P23-6	Quartz monzonite		Pluton	Argillic	-112.246	46.422
Page 88 no. 2		Quartz monzonite	Pluton	Yes	-112.526	46.026
Page 88 no. 3		Quartz monzonite	Pluton	Yes	-112.509	46.024
vol_sum>3%:						
Page 45- B		Diorite	Pluton		-112.346	46.727
59P12-3		Quartz monzonite	Pluton	Argillic	-112.260	46.348
59P13-4		Quartz monzonite	Pluton	Argillic	-112.290	46.279
B247		Quartz monzonite	Pluton	Yes	-112.252	46.466
Page 90		Aplite	Dike/sill	Yes	-112.524	46.020
59P23-8	Quartz monzonite		Pluton	Sericitic	-112.246	46.422
59P12-4		Quartz monzonite	Pluton	Argillic	-112.260	46.348
B251		Granodiorite	Pluton	Yes	-112.007	46.450
B250		Granodiorite	Pluton	Yes	-112.007	46.450
B252		Granodiorite	Pluton	Yes	-112.007	46.450
59P13-8		Quartz monzonite	Pluton	Sericitic	-112.290	46.279
B246		Quartz monzonite	Pluton	Yes	-112.252	46.466
59P12-6		Quartz monzonite	Pluton	Sericitic	-112.260	46.348
Page 88 no. 4		Quartz monzonite	Pluton	Yes	-112.529	46.019
Page 88 no. 5		Quartz monzonite	Pluton	Yes	-112.559	46.023
Page 49 no. 3		Quartz monzonite	Pluton	Yes	-112.237	46.494
Page 88 no. 6		Quartz monzonite	Pluton	Yes	-112.538	46.019
Page 49 no. 2		Quartz monzonite	Pluton	Yes	-112.237	46.494
CO₂>0.35%:						
6		Quartz monzonite	Pluton		-112.539	46.019
7-102A		Quartz monzonite	Pluton	Yes	-112.521	46.033
59P12-2		Quartz monzonite	Pluton		-112.260	46.348
4R10C	Quartz monzonite		Pluton		-112.271	46.284
Page 55-A	Granodiorite		Pluton		-112.310	46.736
B249	Monzogranite		Pluton	Yes	-112.252	46.466
4R5C	Quartz monzonite		Pluton		-112.251	46.439
7-103A		Quartz monzonite	Pluton	Yes	-112.471	46.021
B248	Monzogranite		Pluton	Yes	-112.252	46.466
Page 58 no. 2		Quartz monzonite	Pluton	Yes	-112.031	46.467
S>0.2%:						
7-18A		Quartz monzonite	Pluton		-112.138	46.472
7-96B		Quartz monzonite	Pluton		-112.383	46.830

7-56B		Quartz monzonite	Pluton	Yes	-112.463	46.004
7-54A		Quartz monzonite	Pluton	Yes	-112.475	46.017
B253	Granodiorite		Pluton	Yes	-112.007	46.450
B255	Monzogranite		Pluton	Yes	-112.007	46.450
7-55B		Quartz monzonite	Pluton	Yes	-112.458	46.021
B256	Granodiorite		Pluton	Yes	-112.007	46.450
B254	Granodiorite		Pluton	Yes	-112.007	46.450
Total_oth_sulf>0.2:						
Page 41		Rhyolite porphyry	Dike	Yes	-112.514	46.025
Total<95%						
28640	Granodiorite		Pluton		-112.3335	45.8343
28679	Granodiorite		Pluton		-112.5860	45.8997
59P12-5		Quartz monzonite	Pluton	Argillic	-112.260	46.348
Total>103%:						
28630	Granodiorite		Pluton		-112.3470	45.7658
28707	Granodiorite		Pluton		-112.4864	45.8535

SiO2	TiO2	Al2O3	FeO*	MnO	MgO	CaO	Na2O	K2O
78.14	0.17	12.03	0.86	0.01	0.13	0.41	2.62	5.49
78.31	0.14	11.86	0.32	0.01	0.70	0.36	2.97	5.34
80.09	0.12	11.44	0.20	0.04	0.12	0.31	2.87	4.79
54.78	0.58	8.55	6.31	0.12	11.00	15.78	1.32	1.43
68.01	0.57	20.53	3.22	0.04	1.28	0.63	0.24	5.13
69.87	0.79	20.96	1.94		0.20	0.19	0.23	5.71
63.85	0.67	23.63	4.10		1.36	0.39	0.56	5.37
59.46	0.51	16.32	5.22		6.64	5.47	3.75	2.50
68.99	0.39	17.51	3.29	0.04	0.75	2.29	3.02	3.54
66.66	0.64	18.24	3.72	0.11	1.07	1.49	2.77	5.01
71.91	0.65	17.74	2.11	0.02	0.58	0.32	0.30	6.19
76.51	0.26	15.48	0.45		0.62	0.11	1.68	4.88
74.40	0.50	16.86	2.29	0.15	0.74	0.15	0.12	4.64
70.35	0.48	16.84	3.13	0.21	0.92	0.76	0.30	6.82
73.52	0.60	18.25	3.08	0.01	0.17	0.12	0.19	3.94
70.44	0.51	16.25	8.78	0.02	0.08	0.08	0.19	3.41
73.94	0.59	19.55	1.65		0.46	0.40	0.41	2.93
67.77	0.59	17.93	5.08	0.96	2.19	0.52	0.12	4.59
70.27	0.44	15.67	9.04	0.03	0.50	0.03	0.08	3.94
72.97	0.49	17.51	2.42	0.18	0.61	0.20	0.10	5.39
68.07	0.56	16.98	8.41		0.46	0.22	0.41	4.76
75.01	0.76	17.75	6.30			0.06	0.09	0.03
74.52	0.63	15.96	1.98		0.76	0.29	0.44	5.23
62.11	0.70	15.59	4.48	0.81	2.44	8.42	0.18	5.04
76.88	0.23	15.27	1.98		0.35	0.06	0.45	4.64
65.23	0.61	15.66	4.81	0.11	2.12	4.38	2.79	4.07
65.46	0.52	15.65	4.79	0.10	2.13	4.47	2.74	3.86
68.59	0.41	15.57	3.19	0.09	1.22	3.26	3.26	4.27
63.57	0.61	16.15	5.18	0.08	2.76	4.50	3.17	3.68
65.01	0.43	16.95	4.19	0.13	1.57	4.80	3.87	2.84
67.60	0.53	15.15	4.18	0.31	1.62	2.74	2.63	5.12
68.78	0.47	14.55	4.21	0.08	1.22	2.95	2.85	4.68
63.91	0.63	17.31	5.27	0.08	1.98	3.96	2.40	4.17
68.34	0.54	15.73	4.16	0.33	0.76	2.23	2.66	5.10
74.20	0.32	15.68	1.60	0.05	0.34		0.44	7.28
67.13	0.44	16.86	2.96	0.09	1.02	3.55	3.96	3.76
67.69	0.39	17.23	3.12	0.06	1.22	3.85	3.75	2.53

64.78	0.62	16.47	4.58	0.11	2.24	3.97	2.75	4.27
65.41	0.73	16.25	5.86	0.05	2.50	2.60	1.77	4.58
68.39	0.50	15.98	4.13	0.04	1.48	2.71	2.90	3.71
69.40	0.48	15.68	2.88	0.04	1.45	2.51	2.78	4.66
64.84	0.57	17.30	4.25	0.10	2.04	3.66	2.54	4.48
69.53	0.49	15.87	3.28	0.04	1.45	2.75	3.17	3.31
67.61	0.53	16.08	4.47	0.05	1.58	2.88	3.08	3.54
71.56	0.25	15.49	1.20	0.08	0.57	1.48	2.76	6.51
58.39	0.55	18.90	6.00	0.13	2.21	6.24	4.08	3.23
67.26	0.43	16.40	3.64	0.10	1.59	3.41	2.93	4.06
68.81	0.42	15.93	5.84	1.88	1.11	0.60	0.09	5.20
74.56	0.25	12.07	2.75	0.04	0.64	2.29	3.67	3.60
70.17	0.35	14.25	2.90	0.07	1.22	3.07	3.37	4.44

P2O5	LOI	H2O+	H2O-	Tot_H2O	CO2	Cl	F	S
0.14	0.61							
	0.26							
0.03								
0.12	1.00							
0.34				6.30	<0.05			
0.11		5.25	1.41					
0.06		7.68	2.88					0.17
0.14		3.03	0.67					
0.17				3.80	<0.05			
0.29				4.10	<0.05			
0.18		3.46	0.71		0.04			
0.17				3.00	<0.05			
0.18				4.60	1.10			
0.13		4.91	0.77		0.00			0.02
0.25		5.21	0.60		0.01			0.02
0.05		5.10	1.92		0.01			0.01
0.25				3.80	3.40			
		1.75	0.04		0.02			7.05
0.12				2.50	0.34			
0.14		3.01	1.20					5.47
		3.88	0.87					5.46
0.19		0.48	0.10		0.25		0.02	
0.23		4.09	2.19		5.50			
0.14		0.37	0.08		0.21			
0.21		0.83	0.27		0.35			0.07
0.26		0.91	0.11		0.35			
0.15				1.20	0.40			
0.30				1.40	0.48			
0.21		1.11	0.31		0.69			
0.13		0.83	0.28		0.74			
0.20				0.96	0.80			
0.29		1.90	0.26		0.82			0.78
0.14		0.89	0.50		1.43			
0.08		1.52	0.32		1.50			
0.24		0.73	0.26		<0.05			0.28
0.16		0.90	0.10		<0.05			0.38

0.22		1.00	0.09	<0.05		0.47
0.24		1.70	0.68	0.19		0.48
0.17		1.28	0.50	0.02		0.70
0.12		0.72	0.17	0.02		0.71
0.20		1.10	0.17	<0.05		0.79
0.10		0.72	0.22	0.02		0.99
0.18		1.22	0.27	0.03		1.14

0.10		0.91	0.40	0.37		
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0.27	0.203				0.0171	0.0603
0.18	0.363				0.0049	0.1082
0.12			2.00	1.00		

0.15	0.539				0.0390	0.0398
0.16	0.456				0.0070	0.0500

SO3	FeS2	Tot_oth_sulf	total	vol_sum	Ba	Be	Cs	Rb
			99.63	0.61	350		8.29	233
			101.44	0.26				
			100.72		133		7.53	181
			99.41	1.00				
<0.10	0.15		100.05	6.45				
0.31			100.01	6.97	0.10			
			100.15	10.73	0.05			
			99.66	3.70				
<0.10	<0.10		99.99	3.80				
<0.10	<0.10		98.19	4.10				
			99.53	4.21				
	4.37		97.20	4.37				
<0.10	1.40		99.32	4.40				
<0.10	<0.10		99.67	5.70				
			99.82	5.70	358			
			99.47	5.84	358			
			99.81	7.04	358			
<0.10	0.70		99.44	7.90				
0.24			100.82	9.10	90			
<0.10	6.80		98.76	9.64				
			102.00	9.68				
			98.15	10.21				
	6.73	3.48	99.84	11.06	358			
	0.49		99.89	12.27				
	4.75	7.54	99.84	12.95				
			100.04	1.52	717			
			99.94	1.37				
<0.10	<0.10		100.04	1.60				
			100.05	1.88				
0.06			100.36	2.17	1343			
			99.75	1.85	358			
			100.30	1.76				
			99.92	3.76				
			99.82	2.82	537			
	0.45		99.78	3.79				
			99.93	1.27				
			100.18	1.38				

		100.10	1.56		
		99.33	3.05		
		99.77	2.50	537	
		99.84	1.62	448	
		100.52	2.06		
		99.80	1.95	90	
		99.88	2.66	358	
	0.39	100.06	2.07	1164	
		86.38	0.203	1277	209
		94.59	0.363	786	389
<0.10	1.50	94.91	4.50		
		104.16	0.539	1189	268
		106.36	0.456	759	214

Sr	Y	Zr	Hf	Nb	Th	U	Ga	La
67		139	4.96		30.7	6.19		31.7
					26	4.4		
64	33.7	85	68.8	41.1	67.9	12.3	15.2	18.0

254

338

169

148

752
511

33 3
43 3

500
458

20 2
66 3

Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho
62.5		19.3	3.55	0.24	2.78	0.35		0.48
35.5			4.00	0.28				

Er	Tm	Yb	Lu	Ag	Au	Co	Cr	Ni
	0.22	1.37	0.22		1.34	0.50	6.27	0.00
		4.9	1.24			40.5		11.4

36
15

18
30

22
25

15
17

Sc	V	Cu	Mo	Pb	Zn	Sn	W	Ta
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2.51					13.6		2.03	2.19
1.88		6.1		31.5	31.3			3.8

1000

2500

300

139 <1
60 <1

40 <1
71 2

As	Sb	B	data_src	rad_age	uncert	intrs_name	Plag	Kspar
14.5	2.59		19			Butte granophyre	13.9	51.6
			9, 13, 20			????	14.0	45.4
			4			Alaskite-aplite	2.2	60.0
			9			Spar	13	18
			17			Butte		
			5			Butte		
			5			Butte		
			8			Marysville		
			17			Butte		
			17			Butte		
			7			Butte		32
			5			????		
			17			Butte		
			17			Butte		
			7			Butte		22
			7			Butte		21
			7			Butte		13
			17			Butte		
			7			Butte		
			17			Butte		
			5			Butte		
			5			Butte		
			12			Butte		
			5			Butte		
			12			Butte		
			5			Butte		
			17			Butte		
			17			Butte		
			17			Butte		
			2			Butte		
			8			Marysville	47.5	15.6
			7			Butte	30	31
			2			Butte		
			17			Butte		
			7			Butte	28	29
			12			Butte		
			17			Butte		
			17			Rader Creek		

	17		Butte		
	17		Butte		
	7		Butte	39	13
	7		Butte	37	21
	17		Butte		
	7		Butte	41	20
	7		Butte	39	15
	5		Modoc		
	27	22	Rader Creek	47	21
	25	22	Climax Gulch	36	15
		17	Butte		
	26	22	Donald	45	18
	29	22	Climax Gulch	53	8

Qtz	Hb	Pyx	Opx	Cpx	Ol	Bi	Opq	Acc
34.0						0.2	0.3	
39.2						1.1	0.3	
37.7	0.0					0.0		
5	63							
26						3	2	<1
33								<1
29								<1
24								<1
48							1	<1
22.2	5.5					7.2	1.7	0.3
23	3					4	1	<1
19						4	1	<1

27			8	<1
22			10	<1
28			11	<1
26			16	<1

17	8		5	1
29	3		15	1

31			4	1
29	3		4	2

cces(incl opo Alt

0.1

1

38

45

50

63

51

9

19

13

1

<1

4