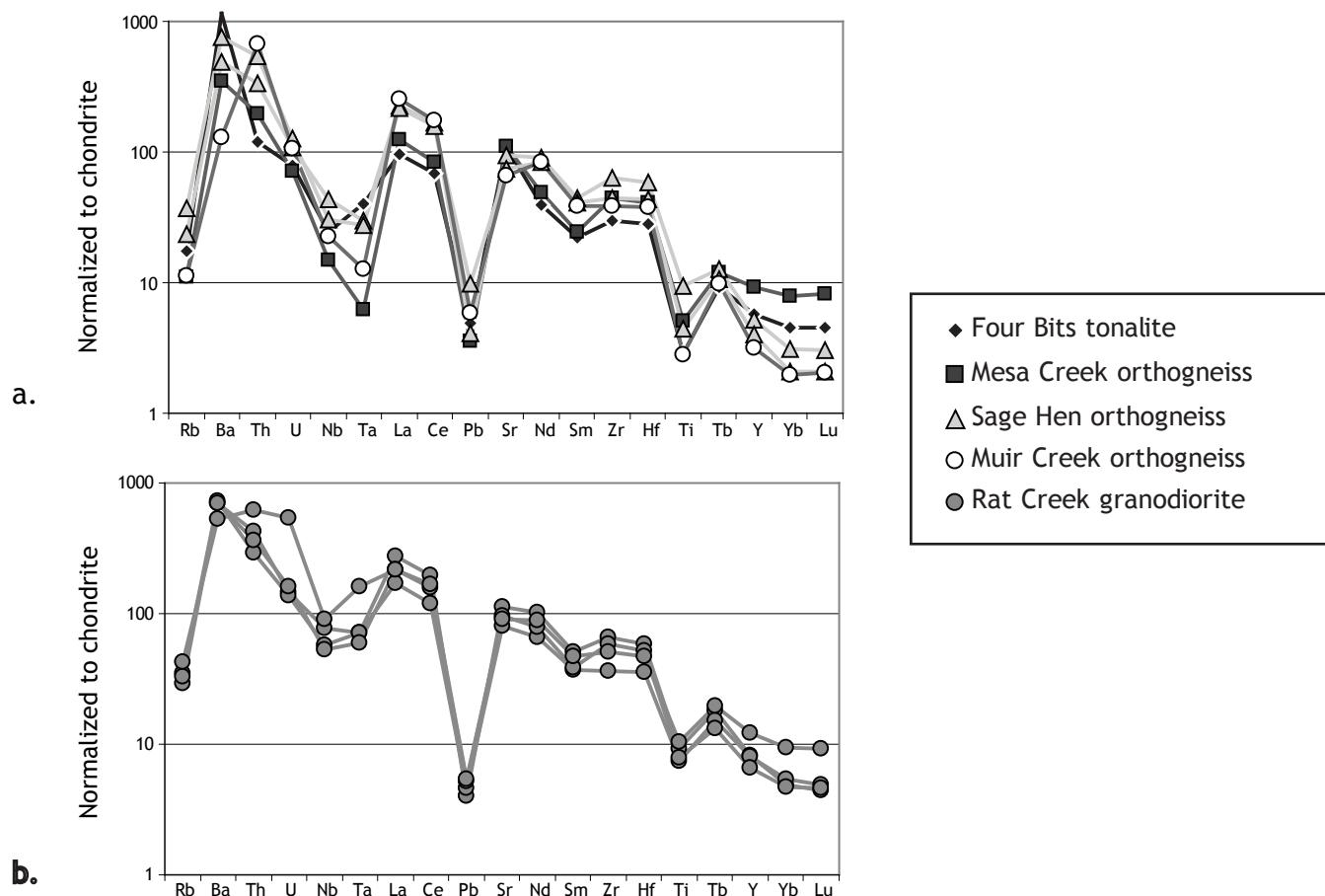


Braudy, N., Gaschnig, R., Wilford, D., Vervoort, J., Nelson, C.L., Davidson, C., Kahn, M.J., and Tikoff, B., 2016, Timing and deformation conditions of the western Idaho shear zone, West Mountain, west-central Idaho: Lithosphere, doi:10.1130/L519.1.



Sample ID	Lat (NAD 27)	Lon	lithology	Unit	Major/Trace	eSr, Nd, Pb	U-Pb	Data presented in this paper
10RMG009	44.4394	-116.2692	biotite granodiorite	Four Bit tonalite	X	X	X	
10RMG010	44.4412	-116.2350	garnet-bearing biotite tonalite	Mesa Creek orthogneiss	X	X	X	
10RMG011	44.3362	-116.1853	biotite-hornblende tonalite	Sage Hen orthogneiss	X	X	X	
10RMG012	44.3350	-116.1746	biotite garnet tonalitic orthogneiss	Sage Hen orthogneiss	X	X	X	
10NB257	44.4276	-116.2110	paragneiss	Muir Creek orthogneiss	X	X	X	
10NB376	44.4259	-116.2117	orthogneiss	Muir Creek orthogneiss	X	X	X	
07RMG47	44.0896	-116.1083	biotite-hornblende granodiorite	Rat Creek granodiorite		X	X	
10NB22	44.2851	-116.1292	biotite granodiorite	Rat Creek granodiorite	X	X	X	
10RMG020	44.0925	-116.0432	biotite granodiorite	Rat Creek granodiorite	X	X	X	
10RMG022	43.9118	-116.2726	biotite +/- hb granodiorite	Rat Creek granodiorite	X	X	X	
10RMG042	44.37153	-115.7673	biotite granodiorite	Atlanta peraluminous suite		X		
10RMG044	44.37438	-115.95212	biotite granodiorite	Atlanta peraluminous suite		X		
99MG	45.1973	-116.1422	granitic orthogneiss	Little Goose Creek complex				
99-1	45.9086	-116.0079	biotite trondhjemite	Blacktail stock; Hazard Creek complex equivalent				
11KGLGp03	45.4088	116.1258	hornblende-biotite tonalite	Looking Glass pluton; Payette River tonalite equivalent				
01-55	44.4236	-116.1418	granodiorite orthogneiss	Intrudes Little Goose Creek complex, probably associated with Payette River tonalite				
10NB377	44.4220	-116.1340	garnet-biotite quartzofeldspathic gneiss	Potters Pond migmatite complex				
10NB379	44.4206	-116.1315	garnet amphibolite	Potters Pond migmatite complex				

Zircon Hf Garnet Lu-Hf Notes

X
X
X
X X

X

X Major and trace elements previously published in Gaschnig et al. (2011)

X
X
X

X Major and trace elements and whole-rock isotopes previously published in Gaschnig et al. (2011)

X Major and trace elements and whole-rock isotopes previously published in Gaschnig et al. (2011)

X Zircons from this sample were dated by Giorgis et al. (2008) and analyzed for Hf isotopes in zircon here
X Zircons from this sample were dated by McClelland and Oldow (2007) and analyzed for Hf isotopes in zircon here
X Zircons from this sample were dated by Gray et al. (2012) and analyzed for Hf isotopes in zircon here
X Zircons from this sample were dated by Giorgis et al. (2008) and analyzed for Hf isotopes in zircon here

X
X

sample	238U	1 sigma	207Pb	1 sigma	Th	206/238	1 sigma	207/206	1 sigma
name	206Pb	% error	206Pb	% error	U	age	abs err	age	abs err

WISZ-related samples

10RMG009

10RMG009_1a(r)	62.4022	0.88%	0.0492	0.90%	0.26	102.5	0.9	159.1	20.9
10RMG009_2a(r)	70.4398	1.57%	0.0483	1.95%	0.01	90.9	1.4	116.2	45.3
10RMG009_2b(c)	64.6136	1.19%	0.0510	1.45%	0.12	99.0	1.2	241.3	33.0
10RMG009_4a(c)	64.2277	1.39%	0.0488	1.45%	0.70	99.6	1.4	136.4	33.7
10RMG009_5a(r)	63.9160	1.19%	0.0500	0.98%	0.14	100.1	1.2	194.3	22.6
10RMG009_6a(m)	62.7287	1.13%	0.0476	0.68%	0.31	102.0	1.1	80.8	16.1
10RMG009_7a(m)	62.5793	1.19%	0.0480	0.95%	0.26	102.2	1.2	97.3	22.3
10RMG009_8a(c)	63.4461	1.12%	0.0492	0.98%	0.22	100.8	1.1	158.5	22.8
10RMG009_8b(r)	66.7877	2.10%	0.0509	2.21%	0.02	95.8	2.0	234.5	50.2
10RMG009_9a(r)	68.3542	1.85%	0.0492	1.92%	0.09	93.6	1.7	155.8	44.3
10RMG009_10a(r)	64.8877	1.17%	0.0479	0.84%	0.42	98.6	1.1	96.7	19.9
10RMG009_11a(c)	59.3807	0.99%	0.0482	0.90%	0.57	107.7	1.1	111.1	21.2
10RMG009_12a(m)	59.6760	1.05%	0.0477	1.03%	0.44	107.1	1.1	82.6	24.3
10RMG009_12b(c)	41.9383	1.01%	0.0518	0.87%	0.43	151.9	1.5	276.8	19.7
10RMG009_13a(r)	62.6350	1.20%	0.0481	0.73%	0.31	102.1	1.2	106.6	17.1
10RMG009_13b(c)	35.3866	2.03%	0.0569	1.52%	0.40	179.6	3.6	488.7	33.3
10RMG009_14a(r)	63.4198	1.63%	0.0501	1.34%	0.05	100.9	1.6	201.8	30.8
10RMG009_14b(c)	62.8520	1.59%	0.0498	1.40%	0.83	101.8	1.6	184.2	32.3
10RMG009_15b(c)	62.6375	1.51%	0.0484	0.69%	0.24	102.1	1.5	120.1	16.2
10RMG009_16a(r)	60.5394	1.34%	0.0491	1.62%	0.05	105.6	1.4	152.4	37.6
10RMG009_16b(c)	60.9037	1.42%	0.0475	0.75%	0.40	105.0	1.5	74.8	17.6

10RMG010

10RMG010_2a(dr)	57.2230	1.67%	0.0490	0.88%	0.16	111.7	1.8	145.6	20.4
10RMG010_2b(dr)	58.6162	1.79%	0.0485	0.88%	0.17	109.0	1.9	122.7	20.6
10RMG010_4b(m)	61.1463	2.51%	0.0499	1.81%	0.15	104.6	2.6	188.3	41.5
10RMG010_6a(dr)	57.7010	1.89%	0.0490	0.78%	0.25	110.8	2.1	147.2	18.2
10RMG010_7a(*)	63.0467	2.30%	0.0486	1.08%	0.28	101.4	2.3	130.5	25.3
10RMG010_8a(br)	63.2850	2.92%	0.0487	2.55%	0.15	101.1	2.9	132.9	58.8
10RMG010_10a(br)	60.8451	1.67%	0.0481	1.43%	0.38	105.1	1.7	106.4	33.4
10RMG010_11a(br)	66.1231	2.11%	0.0481	1.90%	0.07	96.8	2.0	105.7	44.3
10RMG010_12a(dr)	55.8458	1.49%	0.0483	0.90%	0.25	114.4	1.7	114.7	21.0
10RMG010_12b(c)	29.9470	2.09%	0.0524	2.07%	0.52	211.7	4.3	302.1	46.5
10RMG010_13a(m)	56.3277	1.52%	0.0496	0.68%	0.23	113.4	1.7	176.5	15.8
10RMG010_14a	6.4752	1.57%	0.0744	0.79%	0.44	925.8	13.5	1052.3	15.8
10RMG010_16a(br)	58.6714	1.60%	0.0503	1.29%	0.14	108.9	1.7	206.9	29.5
10RMG010_17a(m)	58.4811	2.00%	0.0487	0.95%	0.08	109.3	2.2	133.1	22.1
10RMG010_17b	5.7890	1.69%	0.0749	0.57%	0.66	1027.2	16.0	1066.9	11.5
10RMG010_18a(c)	30.4014	2.62%	0.0546	2.90%	0.49	208.6	5.4	394.3	63.8
10RMG010_19a	5.2911	1.74%	0.0805	0.58%	0.10	1115.9	17.8	1209.9	11.3

10RMG011

10RMG011_2a(r)	68.1100	0.87%	0.0476	1.09%	0.11	94.0	0.8	77.5	25.6
10RMG011_3a(r)	67.3921	0.75%	0.0466	1.06%	0.14	95.0	0.7	26.9	25.0
10RMG011_3b(c)	62.8941	0.64%	0.0482	0.73%	0.07	101.7	0.6	109.0	17.2
10RMG011_4a(r)	69.8992	0.63%	0.0474	0.78%	0.09	91.6	0.6	67.4	18.3
10RMG011_6a(bright gr)	67.3655	1.66%	0.0489	2.35%	0.37	95.0	1.6	140.8	54.3

10RMG011_8a(bright gr)	64.5818	0.92%	0.0471	1.29%	0.38	99.1	0.9	53.7	30.4
10RMG011_9a(r)	68.1753	0.81%	0.0491	0.93%	0.13	93.9	0.8	151.2	21.7
10RMG011_10a(c)	68.0570	1.05%	0.0495	1.44%	0.48	94.0	1.0	172.4	33.2
10RMG011_11a(r)	69.8135	0.86%	0.0479	1.21%	0.16	91.7	0.8	94.8	28.5
10RMG011_11b(c)	67.4982	0.66%	0.0491	0.71%	0.25	94.8	0.6	154.9	16.6
10RMG011_12a(r)	68.1469	0.91%	0.0477	1.22%	0.20	93.9	0.8	84.9	28.6
10RMG011_13a(r)	68.0765	1.22%	0.0485	1.23%	0.19	94.0	1.1	122.8	28.7
10RMG011_14a(r)	68.8373	0.88%	0.0486	1.19%	0.12	93.0	0.8	130.6	27.8
10RMG011_14b(c)	66.3797	1.04%	0.0491	1.47%	0.34	96.4	1.0	150.6	34.0
10RMG011_15a(r)	69.5254	1.03%	0.0483	1.09%	0.15	92.1	0.9	115.9	25.5
10RMG011_15b(c)	69.8538	1.38%	0.0482	2.08%	0.26	91.6	1.3	110.7	48.5

10RMG012

10RMG012_1a(c?)	62.7754	1.40%	0.0482	1.26%	0.34	101.9	1.4	111.5	29.4
10RMG012_2a	66.5042	1.11%	0.0475	1.24%	0.33	96.2	1.1	73.1	29.2
10RMG012_4a(r)	68.3667	0.87%	0.0495	0.98%	0.33	93.6	0.8	171.3	22.7
10RMG012_5a(r)	65.7616	0.76%	0.0483	0.50%	0.03	97.3	0.7	115.3	11.7
10RMG012_6a(r)	64.6095	0.92%	0.0483	0.40%	0.07	99.0	0.9	112.4	9.4
10RMG012_6b(c)	64.8957	1.19%	0.0514	1.72%	0.39	98.6	1.2	259.4	39.0
10RMG012_7a	62.7586	0.85%	0.0477	0.48%	0.20	101.9	0.9	85.3	11.3
10RMG012_8a	70.4969	0.86%	0.0476	0.68%	0.05	90.8	0.8	81.8	16.2
10RMG012_9a	69.1828	0.87%	0.0475	0.76%	0.05	92.5	0.8	76.0	17.9
10RMG012_11a (r)	67.5531	0.79%	0.0477	0.45%	0.07	94.7	0.7	85.3	10.6
10RMG012_11b (c)	65.2834	2.03%	0.0501	2.94%	0.38	98.0	2.0	199.8	67.0
10RMG012_13a (inner r)	65.5907	0.84%	0.0484	0.49%	0.02	97.5	0.8	120.0	11.5
10RMG012_13b (outer r)	66.8795	0.93%	0.0480	0.78%	0.05	95.7	0.9	97.7	18.5
10RMG012_14a	17.8570	0.57%	0.0536	0.26%	0.39	351.3	2.0	355.9	5.9
10RMG012_15a(r)	68.8336	0.56%	0.0483	0.60%	0.05	93.0	0.5	112.5	14.1
10RMG012_17b(c)	63.6876	1.85%	0.0479	3.07%	0.59	100.4	1.8	96.0	71.2
10RMG012_19a(r)	68.0714	1.06%	0.0488	1.03%	0.30	94.0	1.0	137.8	24.1
10RMG012_20a	62.4052	1.12%	0.0487	1.59%	0.35	102.5	1.1	134.9	37.0

10NB376

10NB376_1a(r)	64.0975	1.41%	0.0485	2.50%	0.04	99.8	1.4	124.6	57.7
10NB376_1b(c)	62.8936	1.10%	0.0477	1.52%	0.07	101.7	1.1	83.6	35.7
10NB376_2a(r)	60.4940	1.42%	0.0475	1.80%	0.06	105.7	1.5	72.4	42.2
10NB376_3a(r)	59.3932	0.79%	0.0485	1.14%	0.07	107.6	0.8	124.4	26.7
10NB376_3b(c)	27.2417	0.97%	0.0513	1.49%	0.22	232.4	2.2	253.7	34.0
10NB376_4b(c)	25.4043	1.05%	0.0532	1.21%	0.32	248.9	2.6	338.4	27.2
10NB376_5a(c)	59.6645	1.09%	0.0473	1.12%	0.32	107.1	1.2	62.3	26.5
10NB376_6a(c)	60.2095	0.98%	0.0491	0.82%	0.04	106.2	1.0	152.9	19.0
10NB376_7a(r)	58.6909	1.34%	0.0480	1.24%	0.04	108.9	1.4	101.5	29.1
10NB376_9a(c)	60.3273	1.03%	0.0476	0.82%	0.05	106.0	1.1	79.0	19.5
10NB376_10a(r)	61.9016	1.15%	0.0467	1.98%	0.07	103.3	1.2	34.0	47.0
10NB376_11a(c)	62.3339	0.99%	0.0487	1.18%	0.05	102.6	1.0	131.6	27.6
10NB376_12a(r)	57.8785	1.07%	0.0488	1.36%	0.08	110.4	1.2	136.5	31.7
10NB376_14a(c)	28.8181	1.04%	0.0538	1.44%	0.33	219.9	2.3	362.8	32.1

Rat Creek granodiorite

07RMG47									
07RMG47_1a	70.9254	1.31%	0.0532	1.40%	0.30	90.3	1.2	336.8	31.4
07RMG47_1b	73.3507	1.38%	0.0495	1.90%	0.18	87.3	1.2	172.9	43.7

07RMG47_2a	73.3745	1.28%	0.0514	1.25%	0.27	87.3	1.1	256.8	28.4
07RMG47_3a	71.9948	1.43%	0.0507	1.49%	0.38	88.9	1.3	229.4	34.1
07RMG47_4a	73.6746	1.30%	0.0521	1.51%	0.24	86.9	1.1	291.3	34.1
07RMG47_5a	70.8735	1.14%	0.0500	1.45%	0.25	90.3	1.0	195.4	33.3
07RMG47_7a	75.9403	1.58%	0.0476	1.44%	0.17	84.3	1.3	80.6	34.0
07RMG47_10a	71.7065	1.03%	0.0482	1.34%	0.11	89.3	0.9	109.6	31.5
07RMG47_11a	74.2181	1.30%	0.0478	1.80%	0.10	86.3	1.1	87.8	42.3
07RMG47_12a	71.0198	1.32%	0.0469	1.71%	0.17	90.1	1.2	45.2	40.4
07RMG47_15a	72.3477	1.19%	0.0463	1.45%	0.28	88.5	1.0	14.9	34.4
07RMG47_17a	71.8304	1.25%	0.0481	1.34%	0.07	89.1	1.1	104.8	31.3

10RMG020

10RMG020_1a(c)	63.2809	0.93%	0.0478	1.20%	0.30	101.1	0.9	88.2	28.2
10RMG020_2a	70.9180	0.78%	0.0480	0.94%	0.35	90.3	0.7	98.5	22.1
10RMG020_3a	73.4427	0.73%	0.0490	0.67%	0.34	87.2	0.6	146.1	15.6
10RMG020_4a	73.5185	1.50%	0.0521	2.26%	0.51	87.1	1.3	291.5	50.9
10RMG020_5a(r)	69.1778	0.87%	0.0474	1.28%	0.12	92.5	0.8	70.3	30.2
10RMG020_5b(c)	71.2925	0.88%	0.0493	0.85%	0.32	89.8	0.8	162.8	19.7
10RMG020_6a	71.4844	1.13%	0.0503	1.45%	0.15	89.6	1.0	210.7	33.3
10RMG020_7a	71.8239	0.82%	0.0486	0.56%	0.47	89.1	0.7	130.6	13.2
10RMG020_8a	73.1930	0.71%	0.0493	0.69%	0.29	87.5	0.6	162.1	16.1
10RMG020_8b	73.1888	0.83%	0.0484	0.68%	0.29	87.5	0.7	117.4	16.0
10RMG020_10a(c)	40.1025	1.02%	0.0492	0.86%	0.50	158.8	1.6	159.3	20.0
10RMG020_10b(r)	70.3357	0.94%	0.0476	0.90%	0.28	91.0	0.8	79.9	21.1
10RMG020_11a	71.8037	0.88%	0.0480	0.87%	0.26	89.2	0.8	97.7	20.4
10RMG020_12a	72.0958	0.94%	0.0484	0.74%	0.32	88.8	0.8	118.7	17.4
10RMG020_13a(r)	71.2731	0.84%	0.0467	0.82%	0.24	89.8	0.7	35.4	19.7
10RMG020_13b(c)	69.9533	0.91%	0.0494	0.95%	0.27	91.5	0.8	167.6	22.0
10RMG020_14a	75.6725	0.85%	0.0480	0.83%	0.18	84.6	0.7	98.8	19.6
10RMG020_15a(r)	72.8421	0.94%	0.0506	0.97%	0.16	87.9	0.8	221.1	22.2
10RMG020_15b(c)	3.7158	0.78%	0.1087	0.20%	0.21	1536.3	10.7	1777.0	3.7
10RMG020_16a	71.4493	0.91%	0.0503	0.73%	0.27	89.6	0.8	208.2	16.9

10RMG022

10RMG022_1a	75.8309	1.16%	0.0491	0.94%	0.37	84.5	1.0	154.6	21.9
10RMG022_2a	75.1987	1.80%	0.0483	1.72%	0.36	85.2	1.5	112.1	40.1
10RMG022_3a	76.2543	1.15%	0.0485	0.76%	0.39	84.0	1.0	123.1	17.9
10RMG022_4a	75.9743	1.25%	0.0484	1.03%	0.28	84.3	1.1	119.7	24.1
10RMG022_5a(r)	73.2445	1.26%	0.0474	0.78%	0.33	87.4	1.1	69.4	18.5
10RMG022_5b(c)	74.6997	1.31%	0.0490	0.79%	0.41	85.7	1.1	148.6	18.4
10RMG022_6a	75.9335	1.29%	0.0483	0.80%	0.37	84.3	1.1	114.9	18.8
10RMG022_7a	75.0856	1.21%	0.0477	1.02%	0.29	85.3	1.0	85.3	24.2
10RMG022_8a	77.9259	1.68%	0.0472	1.55%	0.33	82.2	1.4	61.2	36.4
10RMG022_9a	76.2538	1.38%	0.0481	0.93%	0.22	84.0	1.2	104.3	21.9
10RMG022_10a	76.1090	1.25%	0.0472	0.94%	0.19	84.1	1.0	59.0	22.4
10RMG022_11a(r)	75.0313	1.24%	0.0533	0.88%	0.44	85.3	1.1	339.7	19.8
10RMG022_11b(c)	75.1677	1.82%	0.0536	1.55%	0.65	85.2	1.5	355.7	34.7
10RMG022_12a	77.1260	1.23%	0.0484	0.98%	0.32	83.0	1.0	120.2	23.0
10RMG022_13a	75.9346	1.00%	0.0492	0.90%	0.31	84.3	0.8	155.4	20.8
10RMG022_14a	76.8882	1.20%	0.0507	1.05%	0.24	83.3	1.0	224.9	24.1
10RMG022_15a	76.5363	2.23%	0.0481	1.65%	0.31	83.7	1.9	102.0	38.4

10NB22

10NB22_1b(c)	70.9264	1.86%	0.0530	3.00%	0.41	90.3	1.7	330.7	66.6
10NB22_7b	75.5727	1.47%	0.0474	2.59%	0.09	84.7	1.2	71.5	60.6
10NB22_12a	70.8541	1.24%	0.0482	1.56%	0.34	90.3	1.1	107.0	36.4
10NB22_13a	71.9237	1.57%	0.0464	2.33%	0.10	89.0	1.4	18.4	55.0
10NB22_14a	73.6595	1.42%	0.0506	2.05%	0.10	86.9	1.2	222.1	46.7
10NB22_15a	71.1987	1.15%	0.0469	1.50%	0.19	89.9	1.0	46.2	35.5
10NB22_17a	73.1554	1.19%	0.0480	1.48%	0.25	87.5	1.0	99.8	34.6
10NB22_19a	70.4544	1.19%	0.0492	1.40%	0.27	90.9	1.1	158.3	32.5
10NB22_22b	73.3361	1.53%	0.0468	1.05%	0.14	87.3	1.3	38.6	24.9
10NB22_23a	73.7567	1.40%	0.0463	0.95%	0.24	86.8	1.2	16.4	22.3
10NB22_24a	71.7605	1.52%	0.0481	1.13%	0.19	89.2	1.3	106.3	26.4
10NB22_24b	72.3744	1.32%	0.0480	1.00%	0.21	88.5	1.2	97.4	23.6
10NB22_25a	74.6064	1.36%	0.0476	0.93%	0.19	85.8	1.2	78.6	21.9

Atlanta peraluminous suite

10RMG042

10RMG042_1b(r)	77.4343	1.16%	0.0463	1.15%	0.09	82.7	1.0	11.3	28.2
10RMG042_2a(r)	78.4338	2.17%	0.0488	1.58%	0.20	81.7	1.8	139.3	36.6
10RMG042_3a(r)	82.2076	1.49%	0.0476	0.83%	0.13	77.9	1.2	78.2	19.7
10RMG042_6a(r)	75.4453	1.28%	0.0484	1.62%	0.13	84.9	1.1	121.1	37.7
10RMG042_6b(c)	66.0219	1.11%	0.0490	0.99%	0.31	96.9	1.1	148.5	23.0
10RMG042_7a(c)	80.3878	1.39%	0.0478	1.76%	0.40	79.7	1.1	91.2	41.1
10RMG042_8a(r)	76.2647	0.91%	0.0476	0.44%	0.13	84.0	0.8	77.1	10.6
10RMG042_8b(c)	76.2810	1.20%	0.0471	1.65%	0.37	84.0	1.0	55.0	38.9
10RMG042_9a(c)	40.2005	0.97%	0.0500	0.98%	0.43	158.4	1.5	194.1	22.7
10RMG042_10a(r)	82.1129	1.04%	0.0478	0.63%	0.09	78.0	0.8	89.2	14.9
10RMG042_11a(c)	41.9799	0.92%	0.0499	0.63%	0.28	151.8	1.4	188.3	14.5
10RMG042_12a(c)	74.8591	1.35%	0.0470	1.07%	0.27	85.5	1.1	50.0	25.5
10RMG042_14a(c)	61.2029	1.07%	0.0482	0.66%	0.15	104.5	1.1	106.8	15.5
10RMG042_15a(r)	80.4550	0.96%	0.0477	0.55%	0.19	79.6	0.8	85.6	13.0

10RMG044

10RMG044_1b(c)	83.0419	1.01%	0.0507	0.82%	1.12	77.2	0.8	227.8	19.0
10RMG044_2a(c)	53.5759	0.88%	0.0488	0.92%	0.15	119.2	1.0	136.9	21.6
10RMG044_3a(c)	62.7153	0.83%	0.0481	0.68%	0.24	102.0	0.8	106.0	16.1
10RMG044_5a(r)	74.6335	0.84%	0.0477	0.82%	0.14	85.8	0.7	86.3	19.4
10RMG044_7a(r)	77.0111	1.21%	0.0477	1.72%	0.20	83.2	1.0	84.6	40.4
10RMG044_9a(c)	72.8293	0.93%	0.0478	0.79%	0.27	87.9	0.8	88.6	18.8
10RMG044_10a(r)	76.7895	1.45%	0.0481	0.74%	0.12	83.4	1.2	103.4	17.5
10RMG044_11a(r)	72.3507	1.10%	0.0499	1.06%	0.17	88.5	1.0	190.1	24.4
10RMG044_12a(c)	64.7219	0.81%	0.0485	0.86%	0.32	98.8	0.8	122.9	20.2
10RMG044_13a(r)	76.1536	0.95%	0.0483	1.21%	0.12	84.1	0.8	112.0	28.4
10RMG044_14a(r)	76.4484	1.18%	0.0480	1.65%	0.35	83.8	1.0	98.8	38.5
10RMG044_16a(r)	78.7214	0.72%	0.0476	0.62%	0.07	81.4	0.6	80.9	14.7
10RMG044_17a(r)	80.3531	1.15%	0.0478	1.28%	0.22	79.7	0.9	89.1	30.0

WISZ related paragneiss detrital zircons

10NB257

10NB257_5a	2.9375	1.63%	0.1240	0.83%	0.47	1888.7	26.6	2014.6	14.6
10NB257_8a	3.3464	1.78%	0.1023	1.20%	0.94	1685.5	26.3	1666.3	22.1

10NB257_9a	2.8806	1.65%	0.1742	0.81%	0.32	1921.0	27.4	2598.2	13.5
10NB257_10a	37.5493	1.78%	0.0560	1.13%	0.16	169.4	3.0	453.1	24.8
10NB257_16a	2.9230	1.24%	0.1130	1.30%	0.46	1896.8	20.3	1848.7	23.3
10NB257_18a	4.2154	1.13%	0.1173	1.27%	0.49	1372.2	14.0	1914.8	22.6
10NB257_22a	3.3495	1.28%	0.1129	1.34%	0.29	1684.1	19.0	1846.4	24.0
10NB257_25a	3.1926	1.28%	0.1141	1.31%	0.51	1756.5	19.6	1865.6	23.4
10NB257_26a	3.0558	1.21%	0.1244	1.29%	0.50	1825.0	19.2	2020.3	22.7
10NB257_31a	3.3585	1.38%	0.1123	1.68%	1.02	1680.2	20.3	1837.3	30.2
10NB257_32a	4.0271	1.67%	0.1139	1.74%	0.59	1429.8	21.4	1862.9	31.2
10NB257_33a	5.5369	1.21%	0.0745	1.70%	0.43	1070.3	11.9	1055.6	33.8
10NB257_34a	2.6403	1.20%	0.1309	1.54%	0.23	2070.4	21.2	2109.4	26.7
10NB257_36a	3.1760	1.15%	0.1096	1.54%	0.33	1764.6	17.8	1792.1	27.7
10NB257_37a(dr)	55.4259	1.21%	0.0494	1.68%	0.01	115.3	1.4	164.9	38.9
10NB257_39a	3.3215	1.25%	0.1134	1.58%	0.49	1696.6	18.6	1855.2	28.3
10NB257_41a	3.4790	1.54%	0.1185	1.73%	1.24	1628.7	22.1	1934.1	30.6
10NB257_42a	3.6121	1.38%	0.1118	2.02%	0.35	1575.5	19.3	1829.5	36.2
10NB257_43a	3.0556	1.48%	0.1233	2.02%	0.55	1825.1	23.5	2005.0	35.4
10NB257_45a	3.9238	1.46%	0.1170	2.01%	0.16	1463.5	19.1	1910.9	35.6
10NB257_46a	3.0076	1.63%	0.1128	2.10%	0.75	1850.4	26.2	1845.3	37.6
10NB257_47a	3.2443	1.48%	0.1285	2.00%	0.44	1732.0	22.5	2078.0	34.8
10NB257_55a(dr)	56.3978	2.40%	0.0490	1.21%	0.01	113.3	2.7	148.1	28.2
10NB257_55b(c)	1.9778	2.40%	0.1853	1.09%	0.70	2637.8	51.8	2701.0	17.9
10NB257_57a	5.7717	2.50%	0.1401	1.09%	0.28	1030.0	23.8	2228.6	18.7
10NB257_58a	2.8177	2.42%	0.1856	1.03%	0.39	1957.9	40.8	2703.2	16.9
10NB257_63a	3.3341	2.58%	0.1162	1.33%	0.34	1691.0	38.3	1898.8	23.7
10NB257_65a	3.5403	2.46%	0.1130	1.20%	0.63	1603.7	34.9	1848.1	21.5
10NB257_67a	3.7066	2.13%	0.0999	0.66%	0.61	1539.7	29.1	1622.1	12.3
10NB257_70a	3.8420	2.24%	0.1118	0.99%	0.56	1491.3	29.8	1829.0	17.8
10NB257_74a	3.1981	2.21%	0.1432	0.78%	0.35	1753.9	33.8	2266.9	13.4
10NB257_75a	3.5355	2.30%	0.1222	0.83%	0.34	1605.7	32.6	1988.0	14.7
10NB257_79a	2.3151	1.26%	0.1719	0.72%	0.30	2314.5	24.4	2576.2	12.0
10NB257_80a	7.4068	1.43%	0.1070	0.90%	0.36	816.4	11.0	1748.3	16.4
10NB257_88a	2.5561	1.70%	0.1723	1.02%	0.29	2128.5	30.8	2580.0	16.9
10NB257_92a	3.0696	1.99%	0.1155	1.72%	0.16	1817.9	31.4	1888.4	30.6
10NB257_93a	2.7141	1.39%	0.1481	1.29%	0.18	2022.1	24.0	2324.4	21.9
10NB257_94a	3.5312	1.52%	0.1239	1.36%	0.56	1607.4	21.5	2012.6	23.9
10NB257_95a(dr)	50.6808	1.52%	0.0503	2.03%	0.03	126.0	1.9	210.5	46.3
10NB257_96a	16.3237	1.72%	0.0970	1.54%	0.19	383.3	6.4	1567.3	28.6
10NB257_100a	8.8470	1.48%	0.1046	1.42%	0.04	690.3	9.7	1707.2	25.8
10NB257_103a	3.0221	1.49%	0.1140	1.49%	0.40	1842.7	23.8	1863.4	26.6
207Pb/206Pb age only									
10NB257_3a			0.1497	0.81%	0.57			2342.4	13.8
10NB257_7a			0.1131	0.84%	0.31			1849.8	15.2
10NB257_12a			0.1135	1.04%	0.55			1855.7	18.8
10NB257_13a			0.1836	0.76%	0.57			2685.4	12.6
10NB257_17a			0.1093	1.27%	0.33			1788.5	22.9
10NB257_20a			0.1111	1.35%	0.66			1817.7	24.2
10NB257_21a			0.1120	1.71%	0.54			1832.0	30.6
10NB257_23a			0.0985	1.34%	0.44			1596.2	24.9
10NB257_24a			0.1118	1.28%	1.08			1829.5	23.1
10NB257_28a			0.1873	1.51%	0.44			2718.5	24.7
10NB257_28a			0.1873	1.51%	0.45			2718.6	24.7
10NB257_29a			0.1146	1.58%	0.42			1873.8	28.2
10NB257_30a			0.1138	1.91%	1.38			1860.9	34.1
10NB257_35a			0.1134	1.62%	0.45			1854.8	28.9
10NB257_38a			0.1214	1.56%	0.54			1976.5	27.5

10NB257_40a	0.1815	1.51%	0.29	2666.3	24.8
10NB257_52a	0.1179	2.00%	0.46	1924.5	35.5
10NB257_53a	0.0977	2.07%	0.88	1581.2	38.2
10NB257_59a	0.1795	1.05%	0.24	2648.4	17.3
10NB257_62a	0.1113	1.05%	0.25	1821.1	19.0
10NB257_68a	0.1233	1.10%	0.48	2004.6	19.4
10NB257_72a	0.1109	0.67%	0.33	1814.3	12.1
10NB257_76a	0.1763	0.73%	0.90	2617.9	12.1
10NB257_82a	0.1091	0.77%	0.40	1784.8	14.0
10NB257_86a	0.1103	0.79%	0.35	1804.7	14.3
10NB257_87a	0.1098	0.82%	0.32	1796.6	14.9
10NB257_89a	0.1165	0.77%	0.31	1903.9	13.8
10NB257_90a	0.1215	0.98%	1.37	1978.2	17.4
10NB257_97a	0.1458	1.40%	0.50	2297.2	23.9
10NB257_98a	0.1208	1.32%	0.28	1967.5	23.3
10NB257_101a	0.1788	1.29%	0.13	2642.2	21.2
10NB257_102a	0.1838	1.29%	0.08	2687.1	21.1
10NB257_104a	0.1672	1.28%	0.87	2530.2	21.3

Analytical spot codes: (r) = rim; (c) = core; (m) = mantle; (dr) = dark rim; (br) = bright rim; dark and bright refers to CL brightness; for 10NB257, analyses are from grain centers unless otherwise noted; for Rat Creek samples, analyses are from grain rims unless otherwise noted

Uncertainties are internal standard errors only

Sample ID	Unit	SiO ₂	TiO ₂	Al ₂ O ₃	FeO*	MnO	MgO	CaO	Na ₂ O	K ₂ O	P ₂ O ₅
10RMG009	Four Bit	71.94	0.21	15.69	1.51	0.03	0.40	2.73	4.48	2.50	0.08
10RMG010	Mesa Creek ortho	66.30	0.38	18.84	2.43	0.10	0.78	4.71	5.09	0.97	0.15
10RMG011	Sage Hen ortho	67.66	0.70	16.50	3.24	0.04	1.19	4.23	3.97	1.88	0.24
10RMG012	Sage Hen ortho	70.46	0.33	16.28	1.77	0.02	0.56	2.92	3.82	3.35	0.11
10NB376	Muir Creek ortho	73.08	0.20	15.88	0.98	0.01	0.43	2.71	5.28	1.24	0.04
07RMG47	Rat Creek	69.68	0.55	14.84	3.25	0.05	1.22	3.39	3.27	3.23	0.16
10NB22	Rat Creek	68.03	0.58	16.49	3.03	0.04	1.04	3.78	3.63	2.82	0.18
10RMG020	Rat Creek	66.60	0.68	16.78	3.50	0.05	1.19	4.16	4.10	2.32	0.23
10RMG022	Rat Creek	66.12	0.77	16.24	3.99	0.07	1.72	4.61	3.58	2.33	0.24
10NB257	Muir Creek ortho	90.24	0.273	5.69	0.91	0.004	0.60	0.61	0.76	0.80	0.014

Note: Major and trace element for 07RMG47 was previously published in Gaschnig et al. (2011) but isotopic data is new

Ni XRF	Cr	Sc	V	Ba	Rb	Sr	Zr	Y	Nb	Ga	Cu	Zn	Pb
3	3	0	19	2715	40	855	124	10	6	17	0	42	12
3	5	5	33	828	26	906	184	16	5	20	3	54	10
3	5	4	47	1182	55	741	276	8	11	23	1	107	11
3	3	3	20	1795	86	577	185	6	7	20	0	58	24
5	4	3	11	305	25	511	161	6	6	18	2	24	15
5	10	8	57	1712	80	619	175	13	15	19	1	76	12
4	5	5	46	1641	76	784	240	11	14	21	1	86	13
4	2	6	50	1655	66	878	279	13	20	23	0	94	11
5	9	8	75	1265	98	696	210	19	23	21	0	78	13
12	28	4	22	219	36	44	233	9	5.1	8	0	28	5

Dy	Ho	Er	Tm	Yb	Lu	Ba	Th	Nb	Y	Hf	Ta	U	Pb
1.76	0.32	0.82	0.12	0.73	0.11	2768	3.49	6.03	9.03	2.98	0.57	0.64	11.73
2.62	0.54	1.47	0.22	1.27	0.20	835	5.72	3.67	14.38	4.34	0.09	0.59	8.51
1.97	0.30	0.69	0.08	0.50	0.07	1169	9.81	10.73	8.15	6.16	0.42	0.90	9.74
1.64	0.24	0.47	0.05	0.33	0.05	1837	15.77	7.49	6.30	4.61	0.39	1.04	23.49
1.37	0.20	0.41	0.05	0.32	0.05	310	19.47	5.50	4.99	4.04	0.18	0.87	14.10
2.81	0.47	1.12	0.15	0.86	0.12	1745	8.54	14.00	12.52	3.81	1.00	1.14	10.99
2.34	0.39	0.94	0.12	0.76	0.11	1690	10.53	13.11	10.29	5.46	0.84	1.32	12.35
3.07	0.50	1.10	0.14	0.79	0.11	1687	12.24	19.15	12.78	6.24	1.01	1.20	9.58
3.78	0.69	1.72	0.25	1.53	0.23	1269	18.03	22.21	19.08	4.99	2.26	4.47	12.92

Rb	Cs	Sr	Sc	Zr
38.7	0.37	872	1.0	113
24.7	0.43	868	5.0	171
52.3	0.57	749	4.8	244
82.3	0.49	582	3.4	169
25.2	0.31	521	2.4	148
76.8	1.17	634	7.5	139
73.2	0.94	763	4.6	223
64.2	0.81	891	5.9	252
95.1	2.63	711	8.2	193

Sample	Spot	$^{176}\text{Hf}/^{177}\text{Hf}$	2s	$^{176}\text{Lu}/^{177}\text{Hf}$	$^{176}\text{Yb}/^{177}\text{Hf}$	age(Ma)	$\epsilon\text{Hf}(0)$	2std err	$\epsilon\text{Hf(t)}$	2std err
10RMG009										
	4a(c)	0.282794	± 0.000047	0.00167	0.07614	101	0.3	± 1.7	2.4	± 1.7
	7a(c)	0.282937	± 0.000044	0.00187	0.07087	101	5.4	± 1.6	7.5	± 1.6
	9a(r)	0.282975	± 0.000064	0.00192	0.06905	94	6.7	± 2.3	8.7	± 2.3
	11a(c)	0.282980	± 0.000057	0.00155	0.06160	108	6.9	± 2.0	9.2	± 2.0
	12a(c)	0.282931	± 0.000048	0.00120	0.04445	107	5.2	± 1.7	7.5	± 1.7
	14a(c)	0.282996	± 0.000052	0.00243	0.10162	101	7.5	± 1.9	9.5	± 1.9
	5a(r)	0.282802	± 0.000052	0.00050	0.01589	101	0.6	± 1.9	2.8	± 1.9
10RMG010										
	7a	0.282980	± 0.000048	0.00288	0.11385	101	6.9	± 1.7	9.0	± 1.7
	5a(r)	0.282941	± 0.000062	0.00055	0.02147	111	5.5	± 2.2	7.9	± 2.2
	6a(r)	0.283012	± 0.000057	0.00249	0.10067	111	8.0	± 2.0	10.3	± 2.0
	2a(m)	0.282966	± 0.000077	0.00093	0.04118	111	6.4	± 2.8	8.8	± 2.8
	1a(r)	0.283015	± 0.000067	0.00113	0.04367	98	8.1	± 2.4	10.2	± 2.4
10RMG011										
	3a(c)	0.282477	± 0.000051	0.00079	0.02852	102	-10.9	± 1.8	-8.7	± 1.8
	8a(c)	0.282460	± 0.000059	0.00007	0.00319	99	-11.5	± 2.1	-9.3	± 2.1
	10a(c)	0.282427	± 0.000048	0.00017	0.00738	94	-12.7	± 1.7	-10.6	± 1.7
	6a(r)	0.282393	± 0.000045	0.00019	0.00854	95	-13.9	± 1.6	-11.8	± 1.6
	14a(r)	0.282452	± 0.000041	0.00021	0.00841	93	-11.8	± 1.5	-9.7	± 1.5
10RMG012										
	3a(c)	0.282637	± 0.000057	0.00071	0.03143	99	-5.2	± 2.0	-3.1	± 2.0
	7a(m)	0.282708	± 0.000044	0.00077	0.03815	102	-2.7	± 1.6	-0.5	± 1.6
	2a(r)	0.282447	± 0.000045	0.00049	0.02085	96	-12.0	± 1.6	-9.9	± 1.6

17a(c)	0.282643	± 0.000039	0.00024	0.01027	100	-5.0	± 1.4	-2.8	± 1.4
13a(r)	0.282686	± 0.000036	0.00048	0.02135	96	-3.5	± 1.3	-1.4	± 1.3
10a(c)	0.282446	± 0.000049	0.00188	0.08300	94	-12.0	± 1.7	-10.0	± 1.7
8a(c)	0.282640	± 0.000058	0.00130	0.05875	91	-5.1	± 2.1	-3.2	± 2.1
10NB376									
9a(c)	0.282359	± 0.000032	0.00048	0.01948	106	-15.1	± 1.1	-12.7	± 1.1
9b(c)	0.282338	± 0.000042	0.00071	0.02784	106	-15.8	± 1.5	-13.5	± 1.5
1a(c)	0.282385	± 0.000032	0.00037	0.01474	105	-14.2	± 1.1	-11.9	± 1.1
4a(c)	0.282859	± 0.000057	0.00113	0.04907	240	2.6	± 2.0	7.8	± 2.0
11a(c)	0.282454	± 0.000042	0.00049	0.01877	105	-11.7	± 1.5	-9.4	± 1.5
01-55									
8a(c)	0.282613	± 0.000067	0.00033	0.01408	91	-6.1	± 2.4	-4.1	± 2.4
7a(c)	0.282666	± 0.000070	0.00037	0.01781	91	-4.2	± 2.5	-2.2	± 2.5
9a(c)	0.282534	± 0.000053	0.00048	0.02152	91	-8.9	± 1.9	-6.9	± 1.9
6a(r)	0.282592	± 0.000059	0.00028	0.01185	91	-6.8	± 2.1	-4.8	± 2.1
3a(c)	0.282550	± 0.000076	0.00081	0.03348	91	-8.3	± 2.7	-6.3	± 2.7
99MG									
3a(c)	0.282615	± 0.000063	0.00063	0.02399	105	-6.0	± 2.2	-3.7	± 2.2
1b(c)	0.282706	± 0.000061	0.00118	0.03299	105	-2.8	± 2.2	-0.5	± 2.2
1a(r)	0.282708	± 0.000076	0.00034	0.01000	105	-2.7	± 2.7	-0.4	± 2.7
99-1									
4a	± 0.282981	± 0.000040	0.00065	0.01821	111	6.9	± 1.4	9.3	± 1.4
4b	± 0.282936	± 0.000045	0.00131	0.03893	111	5.3	± 1.6	7.7	± 1.6
1a	± 0.282957	± 0.000041	0.00092	0.02846	111	6.1	± 1.5	8.5	± 1.5
6a	± 0.282932	± 0.000067	0.00115	0.03328	111	5.2	± 2.4	7.6	± 2.4
7a	± 0.282972	± 0.000056	0.00167	0.04881	111	6.6	± 2.0	9.0	± 2.0
8a	± 0.282945	± 0.000054	0.00117	0.03615	111	5.7	± 1.9	8.1	± 1.9

11KGLGp03

4a	0.282491	± 0.000056	0.00056	0.02132	92	-10.4	± 2.0	-8.4	± 2.0
10a	0.282554	± 0.000033	0.00069	0.02434	92	-8.2	± 1.2	-6.2	± 1.2
11a	0.282526	± 0.000043	0.00075	0.02425	92	-9.2	± 1.5	-7.2	± 1.5
3a	0.282578	± 0.000055	0.00056	0.01932	92	-7.3	± 2.0	-5.3	± 2.0
12a	0.282373	± 0.000053	0.00076	0.02606	92	-14.6	± 1.9	-12.6	± 1.9

07RMG47

13a	0.282529	± 0.000059	0.00060	0.01987	88	-9.1	± 2.1	-7.1	± 2.1
9a	0.282564	± 0.000045	0.00040	0.01419	88	-7.8	± 1.6	-5.9	± 1.6
5a	0.282464	± 0.000055	0.00050	0.01376	88	-11.3	± 2.0	-9.4	± 2.0
4a	0.282518	± 0.000050	0.00058	0.01778	88	-9.4	± 1.8	-7.5	± 1.8
3a	0.282566	± 0.000051	0.00105	0.03418	88	-7.7	± 1.8	-5.9	± 1.8
2a	0.282593	± 0.000057	0.00071	0.02378	88	-6.8	± 2.0	-4.9	± 2.0
1a	0.282551	± 0.000071	0.00047	0.01503	88	-8.3	± 2.5	-6.4	± 2.5

10RMG020

21a	0.282618	± 0.000030	0.00053	0.02089	90	-5.9	± 1.1	-3.9	± 1.1
20a	0.282420	± 0.000057	0.00037	0.01364	90	-12.9	± 2.0	-10.9	± 2.0
19a	0.282529	± 0.000050	0.00037	0.01516	90	-9.0	± 1.8	-7.1	± 1.8
18a	0.282480	± 0.000043	0.00105	0.04782	90	-10.8	± 1.5	-8.9	± 1.5
15a	0.282480	± 0.000051	0.00027	0.01065	90	-10.8	± 1.8	-8.8	± 1.8
14a	0.282454	± 0.000076	0.00029	0.01111	90	-11.7	± 2.7	-9.7	± 2.7
17a	0.282458	± 0.000065	0.00028	0.01001	90	-11.5	± 2.3	-9.6	± 2.3

10RMG022

5a	0.282449	± 0.000040	0.00038	0.01342	83	-11.9	± 1.4	-10.1	± 1.4
5b	0.282598	± 0.000049	0.00056	0.02547	83	-6.6	± 1.8	-4.8	± 1.8
4a	0.282527	± 0.000067	0.00038	0.01481	83	-9.1	± 2.4	-7.3	± 2.4
2b	0.282505	± 0.000051	0.00044	0.01557	83	-9.9	± 1.8	-8.1	± 1.8

2b	0.282458	± 0.000055	0.00029	0.00988	83	-11.5	± 2.0	-9.7	± 2.0
13a	0.282498	± 0.000080	0.00060	0.02268	83	-10.2	± 2.9	-8.3	± 2.9
13b	0.282477	± 0.000075	0.00065	0.02612	83	-10.9	± 2.7	-9.1	± 2.7
12a	0.282508	± 0.000046	0.00040	0.01515	83	-9.8	± 1.7	-8.0	± 1.7
10NB22									
19a	0.282413	± 0.000050	0.00052	0.01771	88	-13.1	± 1.8	-11.2	± 1.8
14a	0.282389	± 0.000035	0.00021	0.00623	88	-14.0	± 1.3	-12.1	± 1.3
15a	0.282472	± 0.000044	0.00054	0.01838	88	-11.1	± 1.6	-9.1	± 1.6
16a	0.282393	± 0.000043	0.00039	0.01192	88	-13.9	± 1.5	-11.9	± 1.5
10RMG042									
2a	0.282458	± 0.000026	0.00076	0.02008	82	-11.6	± 0.9	-9.8	± 0.9
7a	0.282429	± 0.000031	0.00032	0.00787	80	-12.6	± 1.1	-10.8	± 1.1
9a	0.282801	± 0.000028	0.00085	0.02197	158	0.6	± 1.0	4.0	± 1.0
9b	0.282798	± 0.000032	0.00045	0.01086	158	0.5	± 1.1	3.9	± 1.1
8a	0.282464	± 0.000033	0.00096	0.02660	84	-11.4	± 1.2	-9.6	± 1.2
8b	0.282523	± 0.000030	0.00054	0.01313	84	-9.3	± 1.1	-7.4	± 1.1
11a	0.282763	± 0.000025	0.00081	0.01849	152	-0.8	± 0.9	2.5	± 0.9
14a	0.282505	± 0.000049	0.00055	0.01222	105	-9.9	± 1.8	-7.6	± 1.8
10RMG044									
3a	0.282669	± 0.000030	0.00096	0.02380	102	-4.1	± 1.1	-1.9	± 1.1
2a	0.282622	± 0.000030	0.00039	0.01122	119	-5.8	± 1.1	-3.2	± 1.1
13a	0.282456	± 0.000036	0.00033	0.00878	84	-11.6	± 1.3	-9.8	± 1.3
10a	0.282610	± 0.000022	0.00154	0.04510	83	-6.2	± 0.8	-4.4	± 0.8
5a	0.282353	± 0.000030	0.00033	0.00954	83	-15.3	± 1.1	-13.5	± 1.1