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Late Cenozoic evolution of the Lunggar extensional basin, Tibet: Implications for basin growth and exhumation in hinterland plateaus

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Supplemental data for sedimentary lithofacies, sandstone point-count, U-Pb, and (U-Th)/He analyses

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Table DR1. Lithofacies descriptions and interpretations

Facies Code	Description	Interpretation
Gcb	Clast supported, massive (structureless), cobble to boulder breccia, 1.0-10.0 m	Debris flow, dry-rock avalanche
Gcm	Clast-supported, massive (structureless), cobble to boulder conglomerate, local poor normal grading, 1.0-10.0 m	Clast-rich debris flow
Gmm	Matrix-supported, massive (structureless), cobble to boulder conglomerate, local poor normal grading, 1.0-10.0 m	Matrix-rich debris flow
Gh	Normally graded, sandy pebble to cobble conglomerate, poor horizontal stratification, 0.5-2.0 m	Hyperconcentrated flow
Gi	Clast-supported, imbricated, normally graded, pebble to cobble conglomerate, 0.1-1.0 m	Traction bedload, fluvial gravel bar
Gt	Trough cross-stratified sandy pebble conglomerate, 0.5-2.0 m	3D dune migration
St	Trough cross-stratified, medium- to coarse- grained sandstone, 0.1-2.0 m	3D dune migration
Sr	Ripple cross-stratified fine- to medium-grained sandstone, 0.1-0.5 m	2D to 3D ripple migration
Ss	Medium- to very coarse (local granule to pebble) sandstone filling broad, shallow scours, 0.1-0.5 m	Scour fill
F1	Siltstone to very fine-grained sandstone, massive (structureless) with faint laminations and/or ripples	Waning flood flow in overbank fluvial setting
Fm	Massive (structureless) mudstone to siltstone, with organic material on bedding planes, 0.1-1.0 m	Suspension fallout in lacustrine setting

Table DR2. Sandstone point count parameters

Symbol	Grain	Calculated Parameters
Q	quartz	
Qm	monocrystalline quartz	Q-F-L:
Qmu	monocrystalline quartz, unstrained	$Q = Qm + Qp$
Qms	monocrystalline quartz, strained	$F = Fu + Fk$
Qp	polycrystalline quartz	$L = Lm + Lv + Ls$
F	feldspar	
Fu	feldspar (undifferentiated)	
Fk	potassium feldspar	
L	lithic fragments	Lm-Lv-Ls:
Lm	metamorphic lithic fragments	$Lm = Lm$
Lie	volcanic lithic fragments	$Lv = Lie + Lii$
Lii	intrusive igneous lithic fragments	$Ls = Lch + Lss + Lsc + Lsm$
Lch	chert lithic fragments	
Lsc	carbonate lithic fragments	
Lss	sandstone lithic fragments	
Lsm	mudstone/claystone lithic fragments	
Ama	accessory mineral: amphibole	
Amb	accessory mineral: biotite	
Amc	accessory mineral: chlorite	
Ame	accessory mineral: epidote	
Amm	accessory mineral: muscovite	
Amo	accessory mineral: other	
Ox	opaque oxides	
Cc	cement: carbonate	
Ch	cement: hematite	

Table DR3. Sandstone Q-F-L and Lm-Lv-Ls relative percentages

Sample	Level (m)	Section/unit	Q-F-L %			Lm-Lv-Ls%		
			Q	F	L	Lm	Lv	Ls
WW082209-06	~100	fluvial unit	39.7	15.2	45.2	7.3	0.7	92.0
WW082209-05	base	fluvial unit	18.7	6.8	74.5	1.2	1.2	97.6
WW082409-02	~100	lacustrine unit	44.5	26.1	29.3	7.0	3.5	89.5
WW082509-05	base	lacustrine unit	39.6	17.8	42.6	47.6	11.0	41.4
WW082609-05	635	section C	23.4	10.4	66.2	91.7	8.3	0.0
WW082609-03	540	section C	20.5	51.5	28.0	73.1	3.8	23.1
WW082609-01	424	section C	33.6	43.7	22.7	60.7	0.0	39.3
WW082309-07	273	section C	38.0	26.5	35.5	76.7	4.3	19.0
WW082309-03	103	section C	28.6	42.9	28.6	92.5	7.5	0.0
WW082309-01	4	section C	27.3	58.3	14.4	16.1	30.4	53.6
WW082509-02	105	section E	18.3	14.3	67.4	0.5	0.5	99.1
WW082109-03	0	section E	12.5	2.7	84.8	32.3	1.2	66.5
BH082509-07	380	section N2	30.1	35.5	34.4	11.2	3.2	85.6
BH082509-06	180	section N2	33.3	14.6	52.1	18.9	8.0	73.1
BH082509-04	90	section N2	19.1	19.7	61.2	24.8	9.3	65.9

28	332	4102	0.8	21.4277	12.8	0.1435	13.2	0.0223	2.8	0.21	142.1	4.0	136.1	16.8	32.3	308.9	142.1	4.0
29	573	21656	0.7	20.8544	8.3	0.1475	9.9	0.0223	5.3	0.54	142.3	7.5	139.7	12.9	96.9	197.6	142.3	7.5
80	1030	89381	3.0	20.2439	4.1	0.1526	8.3	0.0224	7.2	0.87	142.8	10.2	144.2	11.2	166.7	96.8	142.8	10.2
39	502	19226	0.5	21.5410	9.4	0.1448	10.2	0.0226	4.0	0.39	144.2	5.6	137.3	13.1	19.6	226.4	144.2	5.6
67	509	9715	0.7	20.4459	11.6	0.1538	11.9	0.0228	2.8	0.24	145.3	4.1	145.2	16.1	143.5	272.7	145.3	4.1
9	2311	169432	14.6	19.9853	3.1	0.1575	3.5	0.0228	1.8	0.50	145.6	2.6	148.6	4.9	196.7	70.9	145.6	2.6
14	957	63684	0.4	20.1568	5.1	0.1576	5.4	0.0230	1.7	0.32	146.8	2.5	148.6	7.4	176.8	119.0	146.8	2.5
47	2903	172497	0.6	20.4162	1.2	0.1560	2.1	0.0231	1.8	0.84	147.2	2.6	147.2	2.9	146.9	27.0	147.2	2.6
51	340	42125	0.7	20.3513	11.0	0.1567	11.6	0.0231	3.5	0.30	147.4	5.0	147.8	15.9	154.3	259.0	147.4	5.0
13	293	10973	1.0	26.2360	23.7	0.1223	24.0	0.0233	3.7	0.15	148.3	5.4	117.2	26.6	-477.2	635.2	148.3	5.4
6	413	31971	0.8	20.4482	14.3	0.1572	15.4	0.0233	5.7	0.37	148.5	8.3	148.2	21.3	143.2	337.6	148.5	8.3
15	430	24826	0.6	20.2033	9.8	0.1598	10.1	0.0234	2.7	0.26	149.2	3.9	150.5	14.2	171.4	228.6	149.2	3.9
53	661	36388	0.6	19.3864	6.9	0.1666	7.1	0.0234	1.8	0.25	149.3	2.6	156.5	10.3	267.0	158.2	149.3	2.6
10	454	20562	0.8	21.5022	9.0	0.1503	9.3	0.0234	2.6	0.28	149.4	3.9	142.2	12.4	24.0	215.4	149.4	3.9
57	1041	76312	0.7	20.1619	4.6	0.1607	4.9	0.0235	1.6	0.34	149.7	2.4	151.3	6.8	176.2	106.9	149.7	2.4
58	1162	7156	0.7	19.4303	4.0	0.1667	4.8	0.0235	2.5	0.53	149.7	3.7	156.5	6.9	261.8	93.0	149.7	3.7
48	384	19231	0.5	21.4515	18.5	0.1511	19.0	0.0235	4.5	0.23	149.8	6.6	142.9	25.4	29.7	446.8	149.8	6.6
25	1695	99964	0.4	20.4109	1.7	0.1590	2.2	0.0235	1.5	0.66	150.0	2.2	149.9	3.1	147.5	39.6	150.0	2.2
34	830	32119	3.7	20.4105	4.0	0.1592	4.7	0.0236	2.4	0.52	150.1	3.6	150.0	6.6	147.6	94.6	150.1	3.6
30	483	19574	0.7	21.9442	7.9	0.1481	8.2	0.0236	2.4	0.29	150.2	3.6	140.3	10.8	-25.0	191.2	150.2	3.6
78	271	8435	0.8	23.1108	21.8	0.1410	22.4	0.0236	5.3	0.24	150.5	7.9	133.9	28.2	-152.0	546.6	150.5	7.9
17	471	28016	0.8	20.2655	11.4	0.1609	11.5	0.0236	1.9	0.17	150.7	2.9	151.5	16.2	164.2	266.2	150.7	2.9
54	438	7876	0.9	21.2296	9.9	0.1537	10.4	0.0237	3.2	0.31	150.8	4.7	145.2	14.0	54.5	235.5	150.8	4.7
5	312	23216	0.9	22.3166	9.6	0.1464	10.9	0.0237	5.1	0.47	151.0	7.6	138.7	14.1	-66.0	234.8	151.0	7.6
11	2618	282418	0.6	20.3493	2.3	0.1606	3.5	0.0237	2.7	0.77	151.0	4.0	151.3	5.0	154.6	53.2	151.0	4.0
16	323	27116	1.1	20.6078	11.0	0.1588	12.2	0.0237	5.2	0.43	151.2	7.8	149.7	17.0	124.9	259.6	151.2	7.8
19	532	15149	0.8	21.0621	9.4	0.1555	9.5	0.0238	1.3	0.14	151.4	2.0	146.8	13.0	73.4	225.0	151.4	2.0
70	757	102441	1.0	19.6970	5.7	0.1663	6.5	0.0238	3.0	0.47	151.4	4.5	156.2	9.4	230.3	132.2	151.4	4.5
4	900	129770	1.0	20.1841	4.7	0.1626	5.8	0.0238	3.4	0.59	151.6	5.1	152.9	8.2	173.6	109.3	151.6	5.1
38	994	27944	1.2	20.3438	4.3	0.1614	4.8	0.0238	2.0	0.42	151.7	3.0	152.0	6.7	155.3	101.6	151.7	3.0
63	371	22931	0.7	20.2844	9.4	0.1619	9.9	0.0238	3.2	0.33	151.7	4.9	152.3	14.1	162.1	220.4	151.7	4.9
75	857	13850	0.8	19.7246	7.6	0.1668	19.2	0.0239	17.7	0.92	152.0	26.5	156.6	27.9	227.1	175.6	152.0	26.5
45	1019	51299	0.5	20.3258	5.9	0.1621	6.6	0.0239	3.0	0.45	152.3	4.5	152.6	9.4	157.3	138.3	152.3	4.5
42	370	16915	1.0	21.7661	11.3	0.1517	11.5	0.0239	2.0	0.17	152.6	3.0	143.4	15.3	-5.3	273.2	152.6	3.0
69	823	25093	1.3	19.8743	3.3	0.1663	4.3	0.0240	2.8	0.64	152.7	4.2	156.2	6.2	209.6	77.0	152.7	4.2
71	461	17973	0.7	21.5478	16.1	0.1534	16.8	0.0240	4.6	0.27	152.7	6.9	144.9	22.6	18.9	389.4	152.7	6.9
50	160	10266	1.2	22.2272	22.9	0.1490	23.0	0.0240	2.0	0.09	153.0	3.0	141.0	30.3	-56.2	562.6	153.0	3.0
73	533	23204	0.7	21.0010	12.5	0.1577	12.8	0.0240	2.6	0.20	153.0	3.9	148.7	17.7	80.3	298.1	153.0	3.9
81	315	20847	0.8	19.9265	13.5	0.1667	13.8	0.0241	2.8	0.20	153.5	4.3	156.6	20.1	203.6	315.7	153.5	4.3
31	326	17126	1.2	19.9647	11.2	0.1668	12.0	0.0242	4.2	0.35	153.8	6.3	156.6	17.3	199.1	260.9	153.8	6.3
83	568	2867	0.4	19.2946	14.5	0.1726	15.3	0.0242	4.8	0.31	153.9	7.3	161.7	22.9	277.9	334.2	153.9	7.3
41	191	14690	1.0	19.5798	25.1	0.1704	25.6	0.0242	5.0	0.20	154.1	7.7	159.8	37.8	244.1	585.6	154.1	7.7
35	379	17804	1.0	20.6713	4.3	0.1624	5.9	0.0243	4.0	0.68	155.1	6.1	152.8	8.3	117.7	101.3	155.1	6.1
2	465	24081	1.0	20.3792	9.2	0.1648	9.9	0.0244	3.6	0.37	155.2	5.5	154.9	14.2	151.1	215.7	155.2	5.5
1	546	48162	0.8	19.7313	2.8	0.1704	5.5	0.0244	4.7	0.86	155.3	7.2	159.7	8.1	226.3	65.0	155.3	7.2
86	1435	78326	0.8	20.2349	3.8	0.1668	5.2	0.0245	3.5	0.68	155.9	5.4	156.6	7.6	167.8	89.3	155.9	5.4
88	341	27950	0.8	19.7714	12.1	0.1710	12.7	0.0245	3.9	0.31	156.1	6.0	160.3	18.9	221.6	281.5	156.1	6.0
36	210	12608	0.8	22.1604	16.0	0.1534	17.6	0.0246	7.2	0.41	157.0	11.1	144.9	23.7	-48.9	391.9	157.0	11.1
79	302	3262	1.0	19.4258	15.6	0.1750	16.6	0.0247	5.5	0.33	157.0	8.5	163.8	25.1	262.3	361.2	157.0	8.5
20	392	15405	1.0	22.3874	10.6	0.1521	11.3	0.0247	3.9	0.34	157.3	6.0	143.8	15.1	-73.7	259.4	157.3	6.0
37	908	4392	0.7	19.8816	6.7	0.1727	7.6	0.0249	3.5	0.46	158.5	5.4	161.7	11.3	208.8	156.4	158.5	5.4
33	702	16962	0.9	18.6893	10.5	0.1929	14.1	0.0262	9.4	0.67	166.4	15.5	179.1	23.2	350.4	237.7	166.4	15.5
77	406	70053	11.1	16.7307	2.9	0.3285	7.2	0.0399	6.6	0.92	252.0	16.3	288.4	18.0	595.3	62.2	252.0	16.3
44	454	110990	4.6	16.7159	1.5	0.7785	2.5	0.0944	2.0	0.79	581.4	11.1	584.6	11.2	597.2	33.3	581.4	11.1
65	431	127231	2.1	14.9181	1.9	1.1390	5.0	0.1232	4.6	0.92	749.2	32.6	772.0	27.0	838.8	39.6	749.2	32.6

WW082309-01: Section C (4m), 31°36.885'N 83°33.737'E

12	416	12184	1.2	19.0191	14.3	0.0564	15.0	0.0078	4.4	0.29	50.0	2.2	55.8	8.1	310.7	327.0	50.0	2.2
15	740	23871	1.0	20.0294	6.2	0.1028	6.5	0.0149	2.0	0.31	95.6	1.9	99.4	6.2	191.6	143.8	95.6	1.9
58	447	4880	1.1	19.8988	12.4	0.1050	13.0	0.0152	4.1	0.32	97.0	4.0	101.4	12.6	206.8	287.5	97.0	4.0
26	1276	27687	0.7	20.6886	2.5	0.1031	3.1	0.0155	1.9	0.61	99.0	1.9	99.6	3.0	115.8	58.3	99.0	1.9
14	1690	149667	1.6	20.5066	2.8	0.1042	2.9	0.0155	0.9	0.30	99.2	0.8	100.7	2.8	136.5	64.8	99.2	0.8
13	564	31664	2.6	21.4653	7.2	0.1003	7.5	0.0156	2.1	0.28	99.9	2.1	97.1	7.0	28.1	173.2	99.9	2.1
36	1194	19387	1.5	20.5399	6.4	0.1052	7.0	0.0157	2.7	0.39	100.2	2.7	101.6	6.8	132.7	151.4	100.2	2.7
72	824	15389	1.5	19.8232	4.1	0.1107	4.9	0.0159	2.6	0.53	101.7	2.6	106.6	4.9	215.6	95.8	101.7	2.6
19	366	57884	1.9	20.8849	11.2	0.1057	11.7	0.0160	3.2	0.27	102.4	3.2	102.0	11.4	93.4	267.1	102.4	3.2
54	787	36687	1.3	20.6737	12.6	0.1075	13.5	0.0161	5.0	0.37	103.1	5.1	103.7	13.3	117.5	297.7	103.1	5.1
6	2509	45605	1.5	20.3647	1.5	0.1096	2.8	0.0162	2.3	0.84	103.5	2.4	105.6	2.8	152.8	35.9	103.5	2.4
73	260	19859	1.5	19.7774	14.7	0.1136	15.3	0.0163	4.0	0.26	104.2	4.2	109.2	15.8	220.9	342.8	104.2	4.2
78	803	46779	1.1	20.7507	3.5	0.1083	4.3	0.0163	2.5	0.57	104.2	2.6	104.4	4.3	108.7	83		

53	1085	20244	0.7	20.1564	2.9	0.1558	8.0	0.0228	7.4	0.93	145.1	10.7	147.0	10.9	176.8	66.7	145.1	10.7
65	380	39245	1.5	19.6658	9.1	0.1596	9.5	0.0228	2.5	0.26	145.1	3.6	150.3	13.3	234.0	211.5	145.1	3.6
68	631	16124	0.6	20.0662	5.0	0.1571	5.9	0.0229	3.2	0.54	145.7	4.6	148.2	8.2	187.3	116.0	145.7	4.6
63	1545	109553	3.0	20.3404	1.2	0.1556	5.3	0.0230	5.2	0.98	146.3	7.5	146.8	7.2	155.6	27.5	146.3	7.5
33	401	1537	1.0	19.9967	9.4	0.1590	10.0	0.0231	3.2	0.32	146.9	4.6	149.8	13.9	195.4	219.9	146.9	4.6
39	1716	68731	1.4	20.3582	1.1	0.1568	2.5	0.0232	2.3	0.91	147.6	3.4	147.9	3.5	153.6	24.6	147.6	3.4
22	511	27675	1.0	20.0985	3.9	0.1591	5.0	0.0232	3.2	0.64	147.8	4.6	149.9	7.0	183.5	89.8	147.8	4.6
70	370	39594	0.9	19.8482	7.3	0.1611	7.9	0.0232	3.2	0.40	147.8	4.7	151.7	11.2	212.7	168.4	147.8	4.7
4	537	22562	5.0	20.2977	8.0	0.1578	8.2	0.0232	2.0	0.25	148.0	3.0	148.7	11.4	160.5	186.8	148.0	3.0
64	327	6925	1.1	19.5297	10.7	0.1642	10.9	0.0233	2.1	0.19	148.2	3.1	154.4	15.7	250.0	247.4	148.2	3.1
20	501	22769	0.9	18.7616	8.6	0.1718	10.2	0.0234	5.4	0.53	148.9	7.9	161.0	15.1	341.6	195.7	148.9	7.9
69	502	11999	0.8	20.2698	7.7	0.1592	8.2	0.0234	2.9	0.35	149.2	4.3	150.0	11.4	163.7	179.3	149.2	4.3
86	470	28495	0.7	20.6242	4.3	0.1566	4.6	0.0234	1.5	0.32	149.2	2.2	147.7	6.3	123.1	102.1	149.2	2.2
41	582	4854	1.1	19.4066	4.6	0.1666	5.7	0.0235	3.4	0.59	149.4	5.0	156.5	8.3	264.6	106.3	149.4	5.0
47	645	38894	1.0	19.9746	5.9	0.1619	6.1	0.0235	1.6	0.26	149.5	2.3	152.4	8.6	197.9	136.3	149.5	2.3
5	851	20081	0.9	20.1615	3.5	0.1609	4.8	0.0235	3.2	0.67	149.9	4.8	151.5	6.7	176.2	82.6	149.9	4.8
82	995	65598	0.7	19.9173	2.1	0.1629	3.4	0.0235	2.7	0.79	149.9	4.0	153.2	4.9	204.6	48.4	149.9	4.0
23	285	9738	1.7	19.9368	10.1	0.1628	10.8	0.0235	4.0	0.37	150.0	5.9	153.2	15.4	202.3	234.5	150.0	5.9
35	422	6533	1.6	18.2877	12.6	0.1775	13.2	0.0235	4.0	0.30	150.0	6.0	165.9	20.2	399.2	282.3	150.0	6.0
38	1167	9207	0.6	20.5587	2.6	0.1590	4.0	0.0237	3.0	0.75	151.0	4.4	149.8	5.5	130.6	62.0	151.0	4.4
25	815	7621	0.7	20.1745	3.5	0.1621	4.6	0.0237	3.1	0.67	151.1	4.6	152.5	6.6	174.7	80.5	151.1	4.6
40	341	15245	0.8	20.1063	5.5	0.1627	5.6	0.0237	1.0	0.18	151.2	1.5	153.1	7.9	182.6	127.5	151.2	1.5
32	1140	37688	0.7	19.9930	2.9	0.1637	4.8	0.0237	3.8	0.80	151.3	5.7	154.0	6.8	195.8	67.0	151.3	5.7
34	350	16520	1.5	18.4382	8.0	0.1776	9.1	0.0238	4.1	0.46	151.3	6.2	166.0	13.9	380.8	181.1	151.3	6.2
16	606	37379	1.0	20.8588	3.0	0.1573	5.2	0.0238	4.2	0.81	151.6	6.4	148.3	7.2	96.4	72.0	151.6	6.4
60	237	39273	0.6	20.1743	6.5	0.1627	7.0	0.0238	2.5	0.37	151.7	3.8	153.1	9.9	174.8	151.0	151.7	3.8
11	505	38743	1.2	19.8548	4.1	0.1656	4.7	0.0238	2.2	0.48	151.9	3.4	155.6	6.7	211.9	94.8	151.9	3.4
57	717	71276	1.1	20.4621	2.6	0.1606	3.5	0.0238	2.5	0.69	151.9	3.7	151.3	5.0	141.7	60.0	151.9	3.7
44	280	12474	1.0	20.7457	13.3	0.1587	14.1	0.0239	4.7	0.34	152.2	7.1	149.6	19.6	109.2	314.9	152.2	7.1
48	429	20851	1.4	19.9866	6.7	0.1701	7.0	0.0239	2.1	0.30	152.5	3.2	159.5	10.4	265.5	154.0	152.5	3.2
21	1379	18060	1.1	20.0721	2.2	0.1647	3.1	0.0240	2.1	0.69	152.7	3.2	154.8	4.4	186.6	51.2	152.7	3.2
52	661	22474	0.6	20.2949	5.4	0.1628	6.1	0.0240	2.8	0.46	152.7	4.2	153.2	8.7	160.9	127.5	152.7	4.2
66	276	18390	0.9	19.8681	9.8	0.1665	10.2	0.0240	2.8	0.28	152.9	4.3	156.4	14.8	210.3	227.9	152.9	4.3
71	600	18729	0.9	20.6363	3.1	0.1606	4.3	0.0240	3.0	0.69	153.1	4.5	151.2	6.1	121.7	74.0	153.1	4.5
59	728	23641	1.1	19.5254	5.0	0.1701	5.8	0.0241	2.9	0.50	153.5	4.4	159.5	8.6	250.5	116.2	153.5	4.4
62	588	83445	1.1	19.8074	5.5	0.1684	5.7	0.0242	1.4	0.24	154.2	2.1	158.0	8.3	217.4	127.6	154.2	2.1
81	259	7209	0.9	20.7994	5.1	0.1610	5.5	0.0243	2.0	0.37	154.7	3.1	151.6	7.8	103.1	121.7	154.7	3.1
88	597	63268	1.1	19.9310	3.6	0.1681	4.6	0.0243	2.9	0.63	154.8	4.4	157.8	6.7	203.0	83.1	154.8	4.4
37	485	3730	1.0	19.8869	9.0	0.1687	9.3	0.0243	2.4	0.26	155.0	3.7	158.3	13.7	208.1	209.4	155.0	3.7
9	340	19276	1.4	19.4784	9.5	0.1731	10.5	0.0244	4.6	0.43	155.7	7.0	162.1	15.7	256.0	217.8	155.7	7.0
75	801	8488	0.6	19.2865	6.6	0.1748	8.0	0.0244	4.4	0.56	155.7	6.8	163.6	12.0	278.8	151.8	155.7	6.8
89	977	33563	0.8	20.1950	1.8	0.1677	3.4	0.0246	2.9	0.84	156.4	4.5	157.4	5.0	172.4	42.8	156.4	4.5
61	393	21534	1.1	20.2419	9.7	0.1676	10.0	0.0246	2.3	0.23	156.7	3.5	157.3	14.6	167.0	228.1	156.7	3.5
10	616	167429	1.1	20.3505	5.2	0.1669	6.1	0.0246	3.1	0.52	156.9	4.9	156.8	8.9	154.4	122.5	156.9	4.9
79	1790	113795	1.1	20.0783	1.6	0.1706	2.4	0.0248	1.8	0.75	158.2	2.8	159.9	3.6	185.9	37.2	158.2	2.8
2	315	14096	0.6	20.2816	6.8	0.1697	8.6	0.0250	5.4	0.62	158.9	8.4	159.1	12.7	162.4	158.8	158.9	8.4
29	732	39754	0.8	19.6757	3.5	0.1753	5.4	0.0250	4.1	0.75	159.3	6.4	164.0	8.1	232.8	81.5	159.3	6.4
77	498	8558	0.9	20.4407	6.0	0.1687	6.1	0.0250	1.3	0.21	159.3	2.0	158.3	9.0	144.1	140.5	159.3	2.0
67	385	16492	0.7	20.2019	5.6	0.1714	5.8	0.0251	1.5	0.26	159.9	2.4	160.6	8.7	171.6	131.8	159.9	2.4
28	1117	23105	1.2	20.0656	2.5	0.1729	7.5	0.0252	7.0	0.94	160.2	11.1	161.9	11.2	187.3	58.8	160.2	11.1
56	594	5147	0.9	17.1397	18.3	0.2038	19.0	0.0253	5.1	0.27	161.3	8.1	188.3	32.7	542.7	403.0	161.3	8.1
1	904	36814	5.4	20.2746	4.9	0.1725	5.9	0.0254	3.3	0.56	161.5	5.3	161.6	8.8	163.2	114.7	161.5	5.3
24	1153	6069	1.6	19.6985	4.7	0.1796	7.9	0.0257	6.3	0.81	163.4	10.2	167.8	12.2	230.2	107.7	163.4	10.2
84	1125	32290	0.7	20.3533	3.1	0.1745	3.8	0.0258	2.3	0.61	164.0	3.8	163.4	5.8	154.1	71.5	164.0	3.8
87	619	4732	1.1	19.3883	4.1	0.1833	5.9	0.0258	4.2	0.71	164.1	6.8	170.9	9.3	266.7	94.6	164.1	6.8
49	323	18546	1.3	20.9945	7.8	0.1714	10.0	0.0261	6.2	0.62	166.1	10.2	160.7	14.9	81.0	185.8	166.1	10.2
8	354	63467	1.1	19.9459	9.2	0.1805	10.4	0.0261	4.8	0.46	166.2	7.9	168.5	16.2	201.3	214.8	166.2	7.9
76	920	32683	1.6	20.1159	3.2	0.1816	7.1	0.0265	6.3	0.89	168.5	10.5	169.4	11.0	181.5	75.6	168.5	10.5
7	557	35351	1.1	20.2101	5.9	0.1907	6.3	0.0280	2.3	0.36	177.8	4.0	177.3	10.3	170.6	137.4	177.8	4.0
3	947	27382	1.7	19.8833	2.9	0.2000	9.8	0.0288	9.3	0.96	183.3	16.9	185.1	16.5	208.6	66.5	183.3	16.9
43	696	88991	1.0	19.2574	3.3	0.2093	4.4	0.0292	2.9	0.67	185.7	5.3	192.9	7.7	282.3	74.5	185.7	5.3

BH082509-07: Section N2 (380m), 31°44.264'N 83°35.774'E

75	541	2957	1.8	23.9864	44.0	0.0146	45.4	0.0025	11.0	0.24	16.3	1.8	14.7	6.6	-322.0	1162.0	16.3	1.8
42	1049	7721	2.0	24.2730	33.2	0.0148	33.4	0.0026	3.3	0.10	16.8	0.6	14.9	4.9	-275.3	865.6	16.8	0.6
55	2376	24036	1.9	19.6865	12.2	0.0188	12.5	0.0027	2.9	0.23	17.3	0.5	19.0	2.3	231.6	281.9	17.3	0.5
91	571	4508	3.7	29.5663	69.3	0.0130	69.6	0.0028	6.3	0.09	18.0	1.1	13.1	9.1	-804.8	2221.3	18.0	1.1
45	642	6314	7.2	19.7503	16.4	0.0315	18.8	0.0045	9.3	0.49	29.0	2.7	31.5	5.8	224.1	381.2	29.0	2.7
10	1154	37972	1.9	20.0406	11.8	0.0518	12.4	0.0075	3.8	0.31	48.4	1.8	51.3	6.2	190.3	275.0	48.4	1.8
71	881	15655	2.4	23.4450	13.8	0.0447	14.7	0.0076	5.1	0.35	48.8	2.5	44.4	6.4	-187.8	345.9	48.8	2.5
4	669	13239																

52	447	14232	1.3	20.7539	6.7	0.1538	8.3	0.0232	5.0	0.60	147.6	7.2	145.3	11.3	108.3	157.7	147.6	7.2
19	241	19092	1.8	22.1384	8.8	0.1458	9.9	0.0234	4.5	0.45	149.2	6.6	138.2	12.8	-46.4	214.8	149.2	6.6
43	313	49830	1.9	20.9251	11.6	0.1544	12.3	0.0234	3.9	0.32	149.3	5.7	145.8	16.7	88.9	276.6	149.3	5.7
63	441	28357	1.9	20.2992	11.5	0.1593	11.8	0.0235	2.5	0.22	149.4	3.7	150.1	16.5	160.4	270.1	149.4	3.7
58	387	3546	1.8	17.0797	22.0	0.1899	23.5	0.0235	8.3	0.35	149.9	12.3	176.5	38.1	550.4	485.2	149.9	12.3
59	532	10090	1.3	20.0095	8.3	0.1630	9.7	0.0237	5.0	0.52	150.7	7.5	153.4	13.8	193.9	192.3	150.7	7.5
15	252	12815	1.6	18.6190	5.3	0.1754	11.2	0.0237	9.9	0.88	150.9	14.8	164.1	17.0	358.8	120.2	150.9	14.8
80	649	24136	1.7	19.4236	6.0	0.1682	14.1	0.0237	12.8	0.90	151.0	19.1	157.9	20.6	262.5	138.2	151.0	19.1
61	756	21824	1.0	20.6674	6.5	0.1583	10.4	0.0237	8.1	0.78	151.2	12.1	149.2	14.4	118.1	153.3	151.2	12.1
70	464	33958	1.1	19.7233	7.3	0.1659	8.8	0.0237	4.8	0.55	151.2	7.2	155.9	12.7	227.3	169.8	151.2	7.2
21	680	14437	1.5	19.1651	4.8	0.1710	5.6	0.0238	2.9	0.52	151.4	4.4	160.3	8.3	293.2	109.7	151.4	4.4
27	679	37409	2.7	20.3408	3.5	0.1613	3.8	0.0238	1.4	0.37	151.6	2.1	151.9	5.3	155.6	82.2	151.6	2.1
30	439	16858	1.7	20.0485	7.8	0.1639	8.3	0.0238	3.0	0.36	151.9	4.5	154.2	11.9	189.3	180.9	151.9	4.5
9	309	29773	2.2	19.1611	15.6	0.1717	15.9	0.0239	3.1	0.20	152.0	4.7	160.9	23.7	293.7	358.1	152.0	4.7
18	291	21255	1.6	21.7441	11.9	0.1516	12.3	0.0239	3.3	0.27	152.3	4.9	143.4	16.5	-2.9	287.2	152.3	4.9
88	326	23660	2.1	21.0242	10.1	0.1569	10.5	0.0239	2.8	0.27	152.4	4.2	148.0	14.5	77.6	241.0	152.4	4.2
6	301	2069	1.6	20.0149	10.3	0.1651	11.1	0.0240	4.2	0.38	152.7	6.4	155.1	16.0	193.3	240.3	152.7	6.4
37	328	8230	2.4	21.7904	8.7	0.1516	10.5	0.0240	5.8	0.56	152.7	8.8	143.3	14.0	-8.0	210.7	152.7	8.8
78	242	14042	1.9	20.7445	10.5	0.1593	11.4	0.0240	4.5	0.40	152.7	6.8	150.1	15.9	109.3	247.9	152.7	6.8
40	243	22343	1.6	21.0138	12.1	0.1582	14.9	0.0241	8.7	0.58	153.5	13.1	149.1	20.7	78.8	288.9	153.5	13.1
8	1050	40818	3.9	20.3754	2.9	0.1633	4.0	0.0241	2.7	0.68	153.7	4.1	153.6	5.7	151.6	68.8	153.7	4.1
31	664	33378	2.0	20.2689	4.6	0.1644	5.7	0.0242	3.4	0.60	153.9	5.2	154.6	8.2	163.8	106.4	153.9	5.2
64	210	11540	1.9	17.7486	19.2	0.1878	19.7	0.0242	4.4	0.23	154.0	6.7	174.7	31.6	465.9	428.0	154.0	6.7
79	202	20697	1.8	20.9275	19.5	0.1595	20.3	0.0242	5.5	0.27	154.2	8.4	150.3	28.3	88.6	466.0	154.2	8.4
73	237	12229	1.7	22.8790	14.4	0.1461	15.4	0.0242	5.5	0.36	154.4	8.4	138.4	19.9	-127.1	356.2	154.4	8.4
3	238	11454	2.3	23.0847	14.6	0.1455	15.3	0.0244	4.5	0.29	155.1	6.9	137.9	19.7	-149.2	364.2	155.1	6.9
86	333	22436	1.5	18.8482	6.9	0.1782	10.0	0.0244	7.2	0.72	155.1	11.0	166.5	15.3	331.2	157.5	155.1	11.0
50	176	11497	1.7	21.1712	17.7	0.1591	18.3	0.0244	4.6	0.25	155.6	7.0	149.9	25.5	61.1	424.0	155.6	7.0
33	303	8956	1.7	17.4331	16.8	0.1936	19.4	0.0245	9.7	0.50	155.9	14.9	179.7	32.0	505.5	372.9	155.9	14.9
36	1587	79109	1.4	20.2611	2.9	0.1667	3.4	0.0245	1.8	0.53	156.0	2.8	156.6	5.0	164.7	67.8	156.0	2.8
29	187	9051	2.0	20.2621	16.6	0.1669	17.5	0.0245	5.6	0.32	156.2	8.6	156.8	25.4	164.6	389.9	156.2	8.6
53	206	22530	1.6	18.7455	18.9	0.1806	19.3	0.0246	4.1	0.21	156.4	6.4	168.6	30.0	343.5	430.7	156.4	6.4
89	275	23829	2.1	21.6658	18.4	0.1567	19.0	0.0246	4.4	0.23	156.8	6.8	147.8	26.1	5.7	447.2	156.8	6.8
5	602	58432	2.1	19.9989	7.3	0.1699	7.7	0.0246	2.7	0.34	156.9	4.1	159.3	11.4	195.1	168.8	156.9	4.1
34	676	41914	79.0	20.2331	4.3	0.1679	6.2	0.0246	4.4	0.72	156.9	6.9	157.6	9.0	168.0	100.2	156.9	6.9
66	672	36633	1.9	19.8023	4.2	0.1722	6.8	0.0247	5.4	0.79	157.5	8.3	161.4	10.1	218.1	96.8	157.5	8.3
51	192	27228	1.7	22.8966	25.0	0.1497	25.3	0.0249	4.0	0.16	158.3	6.3	141.6	33.4	-129.0	624.7	158.3	6.3
72	406	39740	1.5	19.0670	9.3	0.1798	9.6	0.0249	2.4	0.26	158.3	3.8	167.9	14.8	304.9	211.7	158.3	3.8
48	501	11490	1.6	19.8456	6.8	0.1738	8.1	0.0250	4.4	0.54	159.3	7.0	162.7	12.2	213.0	158.0	159.3	7.0
24	1207	41631	2.1	20.6677	4.0	0.1670	6.5	0.0250	5.1	0.79	159.4	8.0	156.8	9.4	118.9	194.4	159.4	8.0
22	161	17896	1.4	18.5680	14.2	0.1867	15.7	0.0251	6.6	0.42	160.1	10.4	173.8	25.0	365.0	322.0	160.1	10.4
32	367	17118	1.4	20.7967	12.6	0.1731	13.6	0.0261	5.1	0.38	166.2	8.4	162.1	20.4	103.5	299.6	166.2	8.4
44	420	101192	1.6	17.6247	2.5	0.6642	3.3	0.0849	2.2	0.65	525.3	10.9	517.2	13.4	481.4	55.3	525.3	10.9
11	335	110406	2.7	17.2964	2.2	0.6996	5.2	0.0878	4.8	0.91	542.3	24.8	538.6	21.9	522.8	47.9	542.3	24.8
41	962	192498	1.2	17.0892	1.0	0.7323	3.2	0.0908	3.0	0.95	560.0	16.3	557.9	13.7	549.2	21.5	560.0	16.3
28	670	216145	15.1	16.8725	0.9	0.7736	3.4	0.0947	3.3	0.96	583.1	18.2	581.8	15.0	577.0	19.4	583.1	18.2
65	209	57901	0.8	16.6748	3.4	0.8217	3.9	0.0994	2.0	0.51	610.7	11.5	609.0	17.8	602.5	72.6	610.7	11.5
13	1382	288850	12.5	16.4527	0.8	0.8336	2.0	0.0995	1.8	0.90	611.3	10.4	615.6	9.1	631.5	18.3	611.3	10.4
25	569	141911	19.1	14.9970	2.7	1.1521	5.2	0.1253	4.5	0.86	761.0	32.0	778.2	28.2	827.8	55.5	761.0	32.0
39	1345	894189	11.1	13.4190	2.9	1.6028	7.3	0.1560	6.7	0.92	934.5	58.2	971.3	45.5	1055.6	57.7	1055.6	57.7
49	969	376242	12.9	13.2434	0.6	1.7976	1.9	0.1727	1.8	0.94	1026.8	17.0	1044.6	12.4	1082.1	12.8	1082.1	12.8
74	507	140868	3.0	13.2021	1.0	1.8181	2.1	0.1741	1.9	0.89	1034.6	18.0	1052.0	13.9	1088.3	19.1	1088.3	19.1
20	74	39579	1.6	12.9956	4.8	1.9745	6.7	0.1861	4.7	0.70	1100.2	47.7	1106.9	45.4	1119.9	95.9	1119.9	47.7
68	103	78298	2.9	12.8064	3.2	2.1578	4.1	0.2004	2.5	0.60	1177.6	26.5	1167.6	28.3	1149.1	64.4	1149.1	26.5
90	195	134252	1.0	12.7473	1.9	2.1236	5.8	0.1963	5.4	0.94	1155.6	57.5	1156.5	39.7	1158.2	37.3	1158.2	37.3
54	173	159535	3.1	12.6454	1.1	2.2701	2.2	0.2082	1.9	0.86	1219.2	20.8	1203.1	15.3	1174.2	21.7	1174.2	20.8
23	422	185470	3.9	12.6045	0.8	2.1891	2.9	0.2001	2.8	0.96	1176.0	29.9	1177.6	20.2	1180.6	15.5	1180.6	15.5
83	40	19109	1.9	12.5343	6.9	2.0345	7.4	0.1850	2.5	0.35	1094.0	25.7	1127.1	50.1	1191.6	136.3	1191.6	136.3
38	323	113168	175	12.4840	1.3	2.1897	2.0	0.1983	1.6	0.78	1166.0	17.1	1177.8	14.3	1199.5	25.2	1199.5	17.1
35	208	64146	2.6	12.4223	1.7	2.2630	3.7	0.2039	3.3	0.89	1196.1	36.2	1200.8	26.1	1209.3	32.5	1209.3	36.2
2	108	90413	0.8	12.3227	3.3	2.3079	4.2	0.2063	2.7	0.63	1208.9	29.2	1214.7	30.0	1225.1	65.0	1225.1	29.2
56	49	14056	1.0	12.3186	5.6	2.1730	8.0	0.1941	5.7	0.71	1143.8	59.3	1172.4	55.6	1225.7	110.9	1225.7	59.3
16	35	21263	0.7	9.8972	6.1	2.8946	8.7	0.2078	6.1	0.71	1217.0	68.1	1380.5	65.6	1643.3	113.9	1643.3	68.1
69	187	128488	1.8	9.2561	0.8	4.6078	2.6	0.3093	2.4	0.95	1737.4	37.1	1750.7	21.5	1766.6	15.1	1766.6	37.1
81	868	1113517	36.3	9.1936	0.2	4.3879	4.9	0.2926	4.9	1.00	1654.4	72.0	1710.1	40.9	1778.9	4.2	1778.9	4.2
60	151	128400	5.1	9.0966	0.8	4.9360	4.0	0.3256	3.9	0.98	1817.3	61.7	1808.4	33.6	1798.3	15.1	1798.3	61.7
67	401	3100	2.2	7.0060	458.4	0.0478	458.6	0.0024	13.6	0.03	15.7	2.1	47.5	215.8	2260.6	840.5	2260.6	840.5
7	146	192853	3.1	5.5254	0.7	12.7712	2.5	0.5118	2.4	0.96	2664.3	52.3	2662.9	23				

44	246	15794	1.1	21.1008	15.1	0.1522	16.2	0.0233	5.9	0.36	148.5	8.6	143.9	21.7	69.0	359.8	148.5	8.6
94	264	18063	1.3	18.7032	8.8	0.1718	9.0	0.0233	1.9	0.21	148.5	2.8	160.9	13.4	348.7	199.7	148.5	2.8
83	252	21184	1.1	20.8196	14.4	0.1557	15.2	0.0235	4.8	0.32	149.8	7.1	146.9	20.8	100.8	343.0	149.8	7.1
2	222	24265	1.1	21.3965	12.7	0.1518	13.7	0.0236	4.9	0.36	150.1	7.3	143.5	18.3	35.8	306.0	150.1	7.3
86	196	12025	1.3	20.6338	17.6	0.1575	17.8	0.0236	2.7	0.15	150.2	4.0	148.5	24.6	122.0	417.6	150.2	4.0
96	344	16304	1.0	20.3467	6.6	0.1600	7.2	0.0236	2.7	0.37	150.4	4.0	150.7	10.0	154.9	155.7	150.4	4.0
65	485	112152	1.3	20.5409	6.7	0.1586	9.0	0.0236	6.0	0.67	150.6	8.9	149.5	12.5	132.6	158.0	150.6	8.9
88	198	16036	1.3	25.6502	19.3	0.1270	19.7	0.0236	4.1	0.21	150.6	6.1	121.4	22.6	-417.7	508.8	150.6	6.1
79	241	15251	1.3	21.9325	17.5	0.1489	17.8	0.0237	3.0	0.17	150.9	4.5	141.0	23.4	-23.8	427.6	150.9	4.5
81	339	13799	1.4	20.4966	6.6	0.1593	7.5	0.0237	3.4	0.46	150.9	5.1	150.1	10.4	137.7	156.2	150.9	5.1
73	297	31061	0.9	20.7238	19.0	0.1577	19.0	0.0237	1.9	0.10	151.0	2.9	148.7	26.3	111.7	450.8	151.0	2.9
75	305	13979	1.0	23.8995	21.0	0.1367	21.2	0.0237	2.4	0.12	151.0	3.6	130.1	25.9	-236.0	536.0	151.0	3.6
62	218	17937	1.2	23.5758	25.9	0.1390	26.4	0.0238	4.7	0.18	151.4	7.1	132.1	32.7	-201.7	659.7	151.4	7.1
15	230	9458	1.3	20.8396	15.2	0.1574	15.7	0.0238	4.1	0.26	151.6	6.1	148.5	21.7	98.6	361.7	151.6	6.1
70	289	11967	1.4	21.5773	10.3	0.1520	10.5	0.0238	1.8	0.18	151.6	2.8	143.7	14.0	15.6	248.1	151.6	2.8
92	311	30158	1.1	18.4541	9.1	0.1782	9.8	0.0238	3.8	0.38	151.9	5.6	166.5	15.1	378.9	204.6	151.9	5.6
12	349	15621	0.8	19.9168	7.6	0.1654	9.2	0.0239	5.2	0.56	152.2	7.8	155.4	13.3	204.7	176.9	152.2	7.8
85	188	7782	1.1	22.5038	17.7	0.1464	18.0	0.0239	3.4	0.19	152.2	5.1	138.7	23.3	-86.4	435.5	152.2	5.1
66	304	47892	1.3	20.9915	5.9	0.1571	7.8	0.0239	5.1	0.66	152.4	7.7	148.2	10.8	81.3	140.2	152.4	7.7
9	772	29864	1.1	19.9914	7.4	0.1652	7.6	0.0239	1.9	0.24	152.5	2.8	155.2	11.0	196.0	172.2	152.5	2.8
76	197	8718	1.2	20.2808	20.2	0.1627	20.6	0.0239	3.7	0.18	152.5	5.6	153.1	29.2	162.5	477.4	152.5	5.6
93	345	23993	1.3	20.1536	4.5	0.1640	5.7	0.0240	3.5	0.62	152.7	5.3	154.2	8.2	177.2	104.7	152.7	5.3
72	199	9993	1.1	24.1259	16.1	0.1371	17.1	0.0240	5.7	0.33	152.8	8.6	130.4	20.9	-259.9	411.0	152.8	8.6
34	225	9816	1.3	19.8288	21.6	0.1669	21.9	0.0240	3.9	0.18	152.9	5.9	156.7	31.8	215.0	504.7	152.9	5.9
1	319	13084	0.8	21.0091	10.2	0.1578	10.4	0.0240	1.9	0.19	153.1	2.9	148.7	14.4	79.3	243.1	153.1	2.9
67	213	11256	1.4	19.4773	16.7	0.1703	17.0	0.0241	3.3	0.20	153.3	5.0	159.7	25.2	256.2	386.6	153.3	5.0
59	670	22855	1.4	18.6768	10.7	0.1777	11.8	0.0241	4.9	0.42	153.4	7.5	166.1	18.1	351.9	242.5	153.4	7.5
74	151	11627	1.1	22.9734	26.0	0.1446	26.3	0.0241	3.9	0.15	153.4	5.9	137.1	33.8	-137.3	653.3	153.4	5.9
80	239	6892	1.0	22.5377	14.8	0.1475	14.9	0.0241	2.2	0.15	153.5	3.4	139.7	19.5	-90.1	363.4	153.5	3.4
3	187	16782	1.3	21.3517	20.6	0.1560	20.9	0.0242	3.9	0.19	153.8	6.0	147.2	28.7	40.8	496.5	153.8	6.0
4	266	14737	1.2	21.7160	10.4	0.1533	11.7	0.0241	5.5	0.46	153.8	8.3	144.8	15.9	0.2	251.4	153.8	8.3
38	208	19640	1.3	18.8802	17.2	0.1766	17.5	0.0242	3.3	0.19	154.0	5.0	165.1	26.7	327.3	393.7	154.0	5.0
55	496	36904	0.9	19.6631	8.0	0.1699	8.7	0.0242	3.4	0.40	154.3	5.2	159.3	12.8	234.4	184.2	154.3	5.2
50	310	22518	1.2	20.6592	14.5	0.1618	14.7	0.0242	2.6	0.18	154.4	4.0	152.3	20.9	119.1	343.4	154.4	4.0
47	191	12477	1.0	20.9898	14.9	0.1596	15.0	0.0243	2.3	0.15	154.7	3.5	150.3	21.0	81.5	354.7	154.7	3.5
69	408	38079	1.2	21.3185	8.7	0.1571	9.1	0.0243	2.5	0.28	154.8	3.9	148.2	12.5	44.5	208.1	154.8	3.9
21	373	24100	1.3	21.7969	7.9	0.1539	8.2	0.0243	2.1	0.26	154.9	3.2	145.3	11.1	-8.8	191.9	154.9	3.2
63	265	11658	1.2	18.5259	7.0	0.1813	7.6	0.0244	2.9	0.38	155.2	4.4	169.2	11.9	370.1	158.6	155.2	4.4
37	172	14435	1.2	27.3251	36.6	0.1232	36.9	0.0244	4.9	0.13	155.5	7.5	117.9	41.1	-586.2	1019.5	155.5	7.5
51	184	21014	1.1	21.6086	16.6	0.1560	18.4	0.0244	8.0	0.43	155.7	12.3	147.2	25.2	12.1	401.2	155.7	12.3
89	207	13898	1.3	21.5689	24.8	0.1565	25.6	0.0245	6.3	0.25	155.9	9.8	147.6	35.1	16.5	603.1	155.9	9.8
6	223	13139	1.2	23.8793	21.9	0.1415	22.3	0.0245	4.1	0.18	156.0	6.3	134.4	28.1	-233.9	558.9	156.0	6.3
29	272	16130	1.2	21.4504	13.0	0.1576	13.2	0.0245	2.4	0.18	156.2	3.8	148.6	18.2	29.8	311.9	156.2	3.8
30	150	7819	1.1	25.1160	25.9	0.1346	26.5	0.0245	5.7	0.22	156.2	8.8	128.2	31.9	-362.9	679.0	156.2	8.8
27	216	8779	1.2	19.4863	16.4	0.1740	16.9	0.0246	4.0	0.24	156.6	6.2	162.9	25.4	255.1	378.9	156.6	6.2
68	233	14574	1.0	20.4975	20.9	0.1656	21.1	0.0246	3.1	0.15	156.8	4.8	155.6	30.4	137.6	494.5	156.8	4.8
7	450	40989	1.1	21.2830	5.8	0.1597	6.3	0.0246	2.4	0.38	157.0	3.7	150.4	8.8	48.5	138.1	157.0	3.7
41	180	6959	1.2	19.3455	9.2	0.1761	9.5	0.0247	2.5	0.26	157.4	3.9	164.7	14.5	271.8	211.2	157.4	3.9
20	222	25579	1.4	21.0767	18.5	0.1619	19.1	0.0247	4.9	0.25	157.6	7.6	152.4	27.0	71.7	442.1	157.6	7.6
61	194	19522	1.4	20.2559	22.3	0.1685	22.5	0.0247	3.1	0.14	157.6	4.9	158.1	32.9	165.3	525.7	157.6	4.9
13	705	124544	0.9	19.5208	7.6	0.1750	10.3	0.0248	6.9	0.67	157.8	10.8	163.8	15.6	251.1	175.4	157.8	10.8
26	245	9916	1.2	21.3474	30.0	0.1602	30.3	0.0248	4.1	0.13	158.0	6.4	150.9	42.5	41.3	732.0	158.0	6.4
45	252	23353	1.2	19.2226	14.8	0.1780	15.6	0.0248	5.0	0.32	158.1	7.8	166.4	24.0	286.4	340.0	158.1	7.8
22	300	10885	0.8	21.6706	9.3	0.1581	10.4	0.0248	4.7	0.45	158.2	7.3	149.0	14.5	5.2	225.4	158.2	7.3
32	264	13622	1.3	21.7457	17.9	0.1575	18.2	0.0248	3.1	0.17	158.2	4.8	148.5	25.1	-3.1	435.2	158.2	4.8
60	257	21024	1.4	19.7037	10.5	0.1738	11.7	0.0248	5.1	0.43	158.2	7.9	162.7	17.6	229.6	244.0	158.2	7.9
52	146	5365	1.2	18.9094	26.8	0.1818	27.0	0.0249	3.8	0.14	158.7	6.0	169.6	42.3	323.8	617.9	158.7	6.0
39	248	20874	0.9	23.3955	17.4	0.1469	18.0	0.0249	4.7	0.26	158.8	7.3	139.2	23.4	-182.5	436.5	158.8	7.3
31	2886	207300	1.3	20.1160	1.1	0.1711	2.9	0.0250	2.6	0.92	158.9	4.1	160.3	4.2	181.5	25.4	158.9	4.1
18	354	41056	1.2	20.8545	11.4	0.1653	11.8	0.0250	2.9	0.25	159.2	4.6	155.4	17.0	96.9	271.4	159.2	4.6
36	185	13151	0.8	22.1511	17.1	0.1557	17.6	0.0250	4.2	0.24	159.2	6.6	146.9	24.1	-47.8	418.3	159.2	6.6
49	262	18219	1.2	21.8568	24.1	0.1579	24.3	0.0250	2.3	0.10	159.4	3.7	148.9	33.6	-15.4	591.0	159.4	3.7
87	197	11075	1.0	20.8109	13.1	0.1659	14.6	0.0250	6.5	0.44	159.4	10.2	155.9	21.1	101.8	311.0	159.4	10.2
11	239	21243	1.2	19.9491	9.8	0.1731	10.0	0.0250	2.0	0.20	159.5	3.2	162.1	15.0	200.9	228.8	159.5	3.2
28	124	6630	1.5	21.2583	24.4	0.1627	25.7	0.0251	8.3	0.32	159.7	13.1	153.1	36.6	51.3	588.9	159.7	13.1
8	462	26574	1.2	21.0004	9.1	0.1647	10.8	0.0251	5.8	0.54	159.8	9.1	154.8	15.5	80.3	216.6	159.8	9.1
54	145	11502	1.2	24.4327	46.3	0.1416	46.8	0.0251	6.7	0.14	159.8	10.6	134.5	59.0	-292.0	1239.7	159.8	10.6
46	281	25983	1.3	22.4780	14.2	0.1545	14.8	0.0252	3.9	0.27	160.4	6.2	145.9	20.1	-83.6	350.4	160.4	6.2
5	358	34553	0.9	21.1402														

Table DR5. Apatite (U-Th)/He results for granitic clasts from boulder conglomerates

Sample	Section	Level (m)	Age (Ma)	± (Ma)	U (ppm)	Th (ppm)	Sm (ppm)	Th/U	He (nmol/g)	mass (µg)	Ft
BH082509-09: Range-front section N2, 31°44.432'N 83°35.651'E											
BH082509-09-1	N2	555	7.5	0.4	20.1	62.0	64.9	3.1	0.97	2.8	0.68
BH082509-09-2	N2	555	13.4	0.8	21.1	80.1	74.8	3.8	1.92	4.3	0.65
BH082509-09-3	N2	555	7.3	0.4	22.3	69.9	67.5	3.1	0.98	3.8	0.63
BH082809-01: Range-front section N1, 31°42.935'N 83°35.428'E											
BH082809-01-1	N1	230	16.4	1.0	10.9	46.0	92.4	4.2	1.31	4.6	0.66
BH082809-01-2	N1	230	25.9	1.6	17.9	47.0	75.8	2.6	2.60	3.4	0.63
BH082809-01-3	N1	230	40.0	2.4	19.2	47.8	86.5	2.5	4.58	5.5	0.68
BH082809-05: Range-front section N1, 31°43.453'N 83°34.961'E											
BH082809-05-1	N1	650	13.2	0.8	10.5	10.1	30.2	1.0	0.66	3.2	0.71
BH082809-05-2	N1	650	9.3	0.6	22.8	24.6	42.3	1.1	0.91	3.0	0.63
BH082809-05-3	N1	650	8.7	0.5	22.6	68.3	66.1	3.0	1.16	3.8	0.63
WW082309-02: Range-front section C, 31°36.842'N 83°33.681'E											
WW082309-02-1	C	25	7.1	0.4	50.6	54.4	71.9	1.1	1.90	8.6	0.78
WW082309-02-2	C	25	4.3	0.3	111.2	125.0	92.5	1.1	2.40	10.1	0.74
WW082309-02-3	C	25	3.1	0.2	107.4	85.7	63.9	0.8	1.54	9.3	0.73
WW082309-06: Range-front section C, 31°36.768'N 83°33.448'E											
WW082309-06-1*	C	250	25.9	0.17	52.9	67.9	41.8	1.28	6.9	8.58	0.71
WW082309-06-2	C	250	8.6	0.06	60.1	65.1	43.4	1.08	2.3	4.83	0.67
WW082609-02: Range-front section C, 31°36.763'N 83°33.219'E											
WW082609-02-1*	C	425	29.3	0.19	51.5	138.3	52.2	2.68	8.6	4.16	0.64
WW082609-02-2	C	425	2.8	0.02	55.9	94.4	59.5	1.69	0.8	3.70	0.70
WW082609-06: Range-front section C, 31°36.727'N 83°32.864'E											
WW082609-06-1	C	647	2.9	0.2	72.2	111.2	13.3	1.5	1.15	6.0	0.75
WW082609-06-2	C	647	2.1	0.1	76.4	105.0	12.9	1.4	0.76	5.7	0.68
WW082609-06-3	C	647	2.5	0.1	73.5	93.5	14.5	1.3	0.88	5.5	0.69

Notes: Sample locations for sections C, N1, N2 (see Figures 2 and 4)

*omitted outlier (possible inclusion)

**lost grain

Table DR6. Zircon (U-Th)/He results for sandstones and granitic clasts (section C)

Sample	Level (m)	Sample Type	Age (Ma)	± (Ma)	U (ppm)	Th (ppm)	Sm (ppm)	Th/U	He (nmol/g)	mass (ug)	Ft
zWW082309-01-1	4	sandstone	9.6	0.8	330.0	225.8	0.6	0.68	16.6	21.47	0.83
zWW082309-01-2	4	sandstone	7.8	0.6	699.2	207.3	0.3	0.30	25.8	11.77	0.82
zWW082309-01-3	4	sandstone	9.8	0.8	655.4	253.7	0.5	0.39	29.5	6.46	0.78
zWW082309-01-4*	4	sandstone	46.5	3.7	127.7	64.8	0.1	0.51	27.7	6.51	0.77
zWW082309-01-5	4	sandstone	8.9	0.7	557.8	174.6	0.2	0.31	23.4	11.16	0.81
zWW082309-01-6	4	sandstone	8.5	0.7	179.0	138.6	0.5	0.77	7.6	7.28	0.78
zWW082309-02-1	25	clast	11.2	0.9	723.2	210.0	0.2	0.29	37.9	10.35	0.81
zWW082309-02-2**	25	clast	-4.2	-0.3	0.4	0.4	0.0	1.05	0.0	6.16	0.77
zWW082309-02-3	25	clast	8.5	0.7	867.1	208.3	0.3	0.24	33.3	7.33	0.79
zWW082309-02-4	25	clast	8.7	0.5	966.2	368.3	0.5	0.38	39.2	8.23	0.80
zWW082309-06-1	250	clast	9.7	0.8	1321.2	830.7	0.8	0.63	62.8	7.92	0.79
zWW082309-06-2**	250	clast	-0.4	0.0	0.2	0.4	0.0	1.87	0.0	11.75	0.81
zWW082309-06-3	250	clast	8.1	0.6	1054.3	419.6	0.6	0.40	39.7	7.59	0.79
zWW082309-06-4	250	clast	9.4	0.6	536.6	250.7	0.4	0.47	24.9	12.34	0.82
zWW082309-07-1	273	sandstone	7.5	0.6	694.6	247.4	0.9	0.36	24.6	9.87	0.81
zWW082309-07-2	273	sandstone	8.2	0.7	497.9	218.2	1.2	0.44	19.0	7.66	0.79
zWW082309-07-3	273	sandstone	9.4	0.8	235.9	157.8	0.5	0.67	10.9	7.90	0.79
zWW082309-07-4	273	sandstone	8.2	0.7	1367.2	361.9	0.4	0.26	50.1	6.11	0.78
zWW082309-07-5	273	sandstone	8.5	0.7	345.1	105.0	0.2	0.30	13.6	8.62	0.80
zWW082309-07-6	273	sandstone	8.9	0.7	251.9	171.7	0.6	0.68	10.7	5.43	0.76
zWW082609-01-1	424	sandstone	7.8	0.6	265.0	168.5	0.9	0.64	10.1	9.41	0.79
zWW082609-01-2	424	sandstone	7.8	0.6	316.2	118.2	0.2	0.37	11.5	7.71	0.79
zWW082609-01-3	424	sandstone	9.5	0.6	577.6	382.3	0.8	0.66	28.2	13.52	0.82
zWW082609-01-4	424	sandstone	7.6	0.5	383.9	158.1	0.5	0.41	13.9	12.06	0.81
zWW082609-01-5	424	sandstone	8.1	0.5	882.0	317.0	0.6	0.36	33.0	8.37	0.79
zWW082609-01-6	424	sandstone	7.8	0.5	283.6	185.5	0.5	0.65	11.2	11.90	0.81
zWW082609-02-1	425	clast	7.7	0.6	505.2	173.3	0.3	0.34	19.0	16.37	0.84
zWW082609-02-2	425	clast	7.5	0.6	780.2	281.2	0.5	0.36	27.2	9.10	0.79
zWW082609-02-3	425	clast	8.2	0.7	747.6	226.8	0.4	0.30	28.2	9.33	0.80
zWW082609-05-1	635	sandstone	7.2	0.4	424.8	193.2	0.3	0.45	14.0	5.52	0.77
zWW082609-05-2	635	sandstone	7.9	0.5	459.2	261.1	1.0	0.57	17.0	6.11	0.77
zWW082609-05-3	635	sandstone	7.2	0.4	1169.8	262.1	0.5	0.22	35.8	4.26	0.75
zWW082609-05-4	635	sandstone	8.8	0.5	1000.9	403.4	0.4	0.40	42.7	13.38	0.82
zWW082609-05-5	635	sandstone	6.8	0.4	849.7	143.5	0.3	0.17	25.4	6.14	0.79
zWW082609-05-6	635	sandstone	7.2	0.4	291.2	135.3	0.3	0.46	9.3	3.82	0.74
zWW082609-06-1	647	clast	7.5	0.6	227.6	119.4	0.2	0.52	8.2	8.93	0.79
zWW082609-06-2	647	clast	9.1	0.7	122.0	79.3	0.3	0.65	5.3	5.84	0.77
zWW082609-06-3	647	clast	7.8	0.6	113.9	81.1	0.4	0.71	4.4	8.04	0.79

Notes: Sample locations for section C (see Figures 2 and 4): 31°36.885'N 83°33.737'E (base), 31°36.727'N 83°32.864'E (top)

*omitted outlier (possible inclusion)

**lost grain