Appendix; Heavy mineral counts - ungrouped; data listing

Heavy mineral counts

- Analysis and presentation by Consorminex Inc.

- Percent proportion heavy minerals, >3.2 s.g., 63-250µm, 300 grain count of grains mounted in epoxy cement (n = 1.56) on 1"x2" petrographic slides

- PY = pyrite, fresh; Pg = pyrite, goethite veneer; HM = hematite, gray; Hr = hematite, red; IL = ilmenite, gray; Ib = ilmenite, euhedral; RU = rutile, red to orange; Rb = rutile, black; GO = goethite; SD = siderite; MZ = monazite; GA = garnet, pink; Gj = garnet, orange; Gp = garnet, rounded & etched; ZR = zircon, euhedral; Ze = round & rounded; Zp = zircon, purple round; Za = zircon, angular/irregular; KY = kyanite; ST = staurolite; SP = titanite; EP = epidote; Cz = clinozoisite; OR = orthopyroxene; Oc = orthopyroxene, colorless; BZ = bronzite; CP = clinopyroxene, undiff.; Dp = diopside; AM = clinoamphibole, undiff.; Hb = hornblende, green; Hc = hornblende, brown; LX = leucoxene; X1 = colorless, r.i.>1.56; UK = unknown and unidentifiable

Appendix. Heavy mineral counts; ungrouped

Field	Lab	PY	Pg	HM	Hr	IL	Ib	RU	Rb	GO	SD	MZ	GA	Gj	Gp	ZR	Ze	Zrp	Za	KY	ST	SP	EP	Cz	OP	Oc	BZ	CP	Dp	AM	Hb	Hc	LX	X1	UK
A02	168	0.0	0.0	1.3	1.3	10.7	0.3	0.0	0.3	4.7	0.0	0.3	22.7	1.0	0.3	0.3	0.3	0.0	0.0	0.7	0.0	0.7	15.0	1.0	0.0	1.0	0.0	4.3	6.3	0.7	20.3	1.7	4.7	0.0	0.0
A03	68	0.0	0.0	2.3	3.3	22.7	2.7	0.3	0.0	4.3	0.0	0.0	18.7	2.0	0.0	0.3	0.0	1.0	1.0	0.0	0.0	0.3	15.3	3.7	0.0	0.3	0.0	0.7	1.0	2.7	13.7	1.0	2.3	0.0	0.3
A04	35	0.0	0.0	3.0	1.3	11.0	0.0	0.3	0.0	1.3	0.0	0.0	26.7	2.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.7	14.3	4.7	0.0	0.3	0.0	0.0	2.0	3.0	27.3	1.0	0.3	0.0	0.3
A05	38	0.0	0.0	2.0	0.7	12.0	1.0	1.0	0.3	2.0	0.0	0.3	27.7	1.0	0.0	1.3	0.0	0.0	1.0	0.0	0.0	0.0	12.0	4.7	0.3	0.0	0.0	1.0	3.7	1.3	20.7	0.3	4.7	0.0	1.0
A06	209	0.0	0.0	1.0	0.7	8.7	1.0	0.3	0.0	2.7	0.0	0.0	8.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.7	22.7	9.7	0.0	0.0	0.0	1.3	7.7	1.0	25.7	3.0	5.3	0.0	0.0
A07	255	0.0	0.0	0.3	1.0	14.7	2.0	0.0	0.0	6.0	0.0	0.3	20.7	0.7	0.3	1.3	0.7	0.0	0.0	0.0	0.0	0.7	16.0	1.0	1.0	0.3	0.0	1.3	1.7	0.3	25.0	2.0	1.0	0.3	1.3
A08	119	0.0	0.3	2.0	2.0	11.7	9.3	1.3	0.0	1.3	0.0	0.0	21.7	0.0	0.0	3.3	0.7	0.3	0.0	0.0	0.0	0.0	11.0	4.0	0.3	0.0	0.0	1.7	0.7	1.7	22.0	2.0	2.3	0.0	0.3
A09	241	0.0	0.0	0.3	1.3	8.3	0.3	0.7	0.3	3.3	0.0	0.0	19.7	1.3	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	20.0	3.3	0.0	0.0	0.0	0.0	4.0	0.7	31.3	2.0	1.7	0.0	0.3
A10	133	0.0	0.0	3.0	4.0	28.7	3.0	0.3	0.3	6.3	0.0	0.0	17.7	0.0	0.0	1.7	1.3	0.0	0.0	0.0	0.0	0.0	13.0	0.3	0.0	0.0	0.0	0.0	2.0	0.0	13.7	0.7	3.7	0.0	0.3
A11	5	0.0	0.0	7.0	4.3	24.0	0.7	1.7	1.0	4.7	0.0	0.0	11.0	0.0	0.0	2.0	0.0	0.0	0.3	0.0	0.3	0.0	12.7	3.3	1.7	0.0	0.0	0.0	2.0	0.0	15.3	0.0	6.0	0.3	1.7
A12	126	0.0	0.0	1.7	2.7	30.0	3.0	0.3	0.0	11.7	0.0	0.0	13.3	0.0	0.0	2.3	2.7	0.0	0.0	0.0	0.0	0.0	13.3	1.3	0.0	0.0	0.0	1.7	2.0	0.0	8.3	0.7	3.7	0.0	1.3
A13	137	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.3	93.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.3	0.0	1.0
B02	118	0.0	0.0	1.3	2.0	26.0	6.0	1.7	1.3	3.0	0.0	0.3	20.3	0.0	0.0	3.7	0.7	1.0	0.0	0.0	0.3	0.0	15.7	1.7	0.0	0.3	0.0	0.3	0.7	2.0	9.7	0.3	1.0	0.0	0.7
B03	82	0.0	0.0	1.3	0.3	11.7	0.0	0.3	0.3	6.3	0.0	0.0	23.7	0.0	0.0	0.7	0.3	0.0	0.3	0.0	0.3	0.3	11.7	4.7	0.0	0.3	0.0	2.3	3.0	0.0	25.7	1.7	4.3	0.0	0.3
B04	91	0.3	0.0	1.0	0.0	7.7	0.0	1.3	0.3	4.3	0.0	0.0	22.7	0.0	0.0	1.3	0.3	0.3	0.0	0.3	0.0	0.0	21.0	4.0	1.3	0.3	0.0	1.7	2.7	0.7	25.3	0.3	2.7	0.0	0.0
B05	240	0.0	0.0	1.0	1.3	10.7	0.3	0.3	0.3	4.0	0.0	0.3	19.0	1.0	0.0	1.7	1.3	0.0	0.0	0.0	0.0	1.0	15.3	1.0	1.3	0.7	0.3	1.0	6.7	0.3	27.7	1.3	2.0	0.3	0.0
B06	153	0.0	0.0	0.3	1.7	14.7	11.7	1.0	0.0	1.7	0.0	0.0	19.3	1.0	0.0	1.3	0.7	0.0	0.0	0.3	0.0	0.3	12.7	4.0	0.0	0.7	0.0	1.0	2.0	4.7	17.7	1.0	2.3	0.0	0.0
B07	233	0.0	0.0	1.3	1.0	21.0	2.0	1.3	0.0	3.3	0.0	0.3	24.3	1.3	0.0	0.7	1.3	0.0	0.3	0.3	0.0	0.0	9.0	1.3	0.3	1.3	0.0	1.3	3.3	0.3	19.0	3.3	1.7	0.0	0.7
B08	245	0.0	0.0	0.7	1.3	13.0	4.0	0.3	0.0	2.7	0.0	0.0	24.3	0.3	0.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	16.7	0.3	0.7	0.0	0.0	0.7	6.3	2.3	19.3	0.7	4.3	0.0	0.0
B09	98	0.0	0.0	2.0	1.7	19.0	15.3	0.7	0.3	4.0	0.0	0.0	15.3	0.3	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	2.7	1.3	0.0	0.0	0.3	2.0	0.0	14.3	1.0	1.7	0.0	0.0
B10	11	0.0	0.0	3.7	2.7	23.7	0.0	1.3	0.0	2.3	0.0	0.7	11.0	1.3	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.3	11.0	4.7	0.0	0.0	0.0	0.0	1.0	0.3	25.7	0.0	8.0	0.0	1.0
B11	56	0.0	0.0	1.3	2.3	19.7	0.7	0.7	0.7	10.0	0.0	0.3	12.0	1.3	0.0	0.0	0.0	0.0	0.7	0.0	0.3	0.0	17.7	4.0	0.3	0.7	0.0	1.0	4.7	0.0	17.7	1.0	3.0	0.0	0.0
B12	173	0.0	0.7	0.7	2.0	7.0	0.0	2.3	0.0	61.3	0.0	0.0	4.0	0.0	0.0	0.3	7.0	0.3	0.0	0.0	0.0	0.0	5.7	1.3	0.0	0.3	0.0	0.0	0.0	0.0	1.7	0.0	5.3	0.0	0.0
C02	189	0.0	0.0	0.3	2.7	18.3	0.0	0.7	1.0	2.7	0.0	0.0	21.0	0.3	0.3	1.0	2.0	0.3	0.0	0.0	0.0	0.3	18.0	3.7	0.0	0.3	0.0	0.0	1.0	0.7	22.3	0.3	2.7	0.0	0.0
C03	51	0.0	0.0	2.0	1.3	9.0	0.3	0.7	0.3	2.0	0.0	0.0	20.0	1.7	0.0	0.0	0.0	0.0	1.0	0.3	0.0	0.7	17.0	3.7	1.3	0.3	0.3	0.7	1.0	2.0	30.3	1.3	2.0	0.0	0.7
C04	6	0.0	0.0	2.7	0.7	15.0	2.3	0.7	0.7	2.3	0.0	0.0	19.3	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	13.7	7.0	4.0	0.0	0.0	0.0	4.7	0.0	21.7	0.7	2.7	0.0	1.0
C05a	93	0.0	0.0	1.0	1.0	18.7	1.7	1.3	0.7	2.7	0.0	0.0	14.0	0.7	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	11.0	1.3	0.7	0.0	0.0	0.0	8.7	5.3	20.7	3.3	5.7	0.7	0.7
C05b	46	0.0	0.0	0.7	2.0	7.3	0.3	0.7	0.3	1.3	0.0	0.0	19.7	1.3	0.0	1.3	0.0	0.0	0.0	0.0	0.3	1.3	15.7	4.7	0.3	0.3	0.0	0.0	2.7	2.7	28.7	5.0	1.3	1.7	0.3
C06	237	0.0	0.3	0.3	1.0	13.3	3.0	1.3	0.0	7.0	0.0	0.3	21.0	0.7	0.0	1.3	1.7	0.0	0.0	0.0	0.0	0.3	9.3	1.0	1.3	0.3	0.0	1.7	3.0	1.3	18.7	3.3	7.7	1.0	0.0
C07	145	0.0	0.0	0.0	1.0	17.0	8.7	0.7	0.3	4.0	0.0	0.0	21.3	1.0	0.3	1.0	1.3	0.7	0.0	0.0	0.0	0.0	10.3	2.3	0.0	0.0	0.0	0.0	4.3	2.7	17.3	1.3	3.7	0.0	0.7
C08	136	1.3	0.0	1.0	0.7	15.3	6.3	0.7	0.0	1.7	0.0	0.0	29.3	1.7	0.3	2.0	1.0	0.7	0.3	0.3	0.0	0.0	16.3	0.7	0.0	0.0	0.3	1.7	0.3	0.3	11.3	1.3	3.3	0.0	1.7
C09	131	11.3	3.3	1.3	0.7	12.0	2.3	0.3	0.0	3.7	9.7	0.0	21.7	0.3	0.0	0.7	0.7	0.0	0.0	0.0	0.0	0.0	9.3	2.0	0.0	0.0	0.0	1.7	3.7	0.3	13.0	0.3	1.0	0.0	0.7
C10	210	0.0	0.0	2.3	1.0	19.3	0.7	0.3	0.7	8.7	0.0	0.7	18.7	1.3	0.7	0.3	1.0	0.7	0.0	0.0	0.0	0.3	16.0	2.7	0.0	0.3	0.3	0.3	0.7	1.3	16.3	0.3	5.0	0.0	0.0
C11	169	0.0	0.0	1.0	2.0	23.0	0.3	2.3	0.3	6.3	0.0	0.0	19.0	0.7	0.7	2.3	3.0	0.0	0.0	0.7	0.0	0.3	16.3	2.7	0.0	0.0	0.0	0.3	1.7	0.7	9.7	0.0	6.7	0.0	0.0
C12	166	0.0	0.0	3.0	2.7	31.7	1.7	0.3	0.0	2.7	0.0	0.0	12.7	0.7	0.3	3.0	8.0	0.0	0.0	0.3	0.3	0.0	14.3	2.0	0.0	0.0	0.0	0.7	2.0	1.3	7.3	0.0	5.0	0.0	0.0
D02	143	0.0	0.0	1.7	2.0	10.7	0.3	0.7	0.7	4.0	0.0	0.3	22.0	0.7	0.3	0.3	1.3	0.0	0.0	1.3	0.0	0.0	17.0	1.3	0.0	0.0	0.0	0.0	3.3	1.3	26.0	1.0	3.3	0.0	0.3
D03	149	0.0	0.0	0.7	1.3	11.7	0.3	0.3	0.3	2.3	0.0	0.0	20.3	0.3	0.3	1.0	1.7	0.0	0.0	0.3	0.0	0.3	19.3	8.0	0.0	0.0	0.0	0.3	3.3	0.0	23.7	1.7	2.3	0.0	0.3
D04	9	0.0	0.0	3.7	1.0	12.3	0.7	0.0	0.0	2.7	0.0	0.0	14.3	1.0	0.0	0.3	1.0	0.0	0.0	0.0	0.3	0.7	17.3	4.3	3.3	0.7	0.0	1.0	1.7	0.7	28.0	1.7	3.0	0.0	0.3
D05	106	6.7	13.0	0.3	0.0	5.7	6.3	0.3	0.0	5.7	0.0	0.0	16.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.0	9.7	1.3	1.3	0.0	0.0	0.0	2.3	2.3	25.0	0.3	2.0	0.0	0.0
D06	3	11.0	0.3	4.3	0.3	14.7	1.7	0.3	3.0	2.7	9.7	0.3	13.3	1.0	0.0	2.3	0.3	0.0	0.0	0.0	0.0	0.0	7.7	6.3	1.0	0.0	0.0	0.0	2.0	0.0	13.7	0.0	2.3	0.0	1.7
D07	14	0.0	0.0	3.7	0.7	19.3	4.7	0.7	0.0	2.0	0.0	0.7	28.0	0.7	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	13.3	2.3	2.3	0.3	0.0	0.7	2.3	0.7	14.0	0.0	2.7	0.0	0.7
D08	230	0.3	7.0	1.7	0.3	10.3	3.3	0.3	0.0	2.0	11.7	0.0	20.0	0.3	0.0	1.0	0.7	0.0	0.0	0.0	0.0	0.0	9.0	0.3	0.3	0.0	0.0	1.0	6.0	0.7	17.3	1.0	4.0	0.7	0.7

Appendix. Heavy mineral counts; ungrouped

Field	Lab	PY	Pg	HM	Hr	IL	Ib	RU	Rb	GO	SD	MZ	GA	Gj	Gp	ZR	Ze	Zrp	Za	KY	ST	SP	EP	Cz	OP	Oc	BZ	CP	Dp	AM	Hb	Hc	LX	X1	UK
D09	139	0.0	0.0	1.0	0.3	17.7	4.0	1.0	0.0	3.3	0.0	0.0	18.7	0.3	0.3	2.3	1.3	0.0	0.3	0.7	0.0	0.3	15.7	2.3	0.0	1.0	0.3	0.3	4.0	1.3	20.7	1.0	1.3	0.0	0.7
D10	127	18.0	0.0	1.0	0.0	12.3	0.3	0.0	0.0	2.3	9.7	0.0	11.3	0.3	0.0	0.3	0.3	0.0	0.0	0.0	0.3	0.0	10.0	1.7	0.7	0.0	0.0	3.0	2.3	0.0	22.7	0.7	2.3	0.0	0.3
D11	39	0.3	0.0	5.3	2.3	24.3	1.0	0.0	0.3	9.7	0.0	0.0	11.3	0.3	0.0	0.3	0.0	0.0	0.0	0.0	1.7	0.7	13.3	3.3	0.0	0.3	0.0	0.7	1.3	1.3	17.3	2.3	2.7	0.0	0.0
D12	225	0.0	0.0	2.3	2.0	15.3	0.3	1.0	0.0	15.0	0.0	0.0	16.0	0.3	0.3	1.3	1.0	0.3	0.3	0.3	0.0	0.0	19.7	2.7	0.0	0.7	0.0	0.0	2.7	1.0	13.0	0.3	4.0	0.0	0.0
E02	92	0.0	0.0	0.7	1.7	4.0	0.0	0.0	0.0	2.3	0.0	0.0	14.3	0.0	0.0	0.3	0.0	0.0	0.0	0.3	0.0	1.3	10.7	6.0	3.3	0.0	0.0	1.0	2.0	2.0	46.0	3.7	0.3	0.0	0.0
E03	190	0.3	0.0	0.7	0.7	17.3	0.7	1.3	0.0	3.0	0.0	0.0	24.0	0.3	2.0	2.0	1.3	0.0	0.0	0.3	0.3	0.0	14.7	3.3	0.0	0.0	0.0	0.3	1.7	0.3	21.7	0.7	3.0	0.0	0.0
E04	186	0.0	0.0	1.7	1.7	12.3	2.7	0.7	0.3	3.7	0.0	0.0	22.7	1.0	0.0	1.0	1.0	0.0	0.0	0.0	0.3	0.0	15.7	2.7	0.0	0.0	0.0	0.3	4.0	0.7	20.7	2.3	4.3	0.0	0.3
E05	61	0.0	0.0	1.0	0.3	8.0	0.3	0.3	0.3	5.3	0.0	0.0	22.7	0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.7	7.7	2.3	1.0	0.3	0.0	4.7	7.3	3.0	31.3	1.3	0.7	0.0	0.7
E06	12	0.3	0.0	1.0	0.3	20.0	11.0	0.3	0.0	3.0	0.0	0.0	19.7	1.0	0.0	1.0	0.3	0.0	1.3	0.3	0.3	0.7	13.0	2.3	2.7	0.3	0.0	0.0	2.3	1.0	12.3	0.3	5.0	0.0	0.3
E07	195	27.3	1.3	2.0	1.3	12.7	1.0	0.7	0.3	3.7	4.7	0.0	18.7	0.7	0.0	1.0	0.7	0.3	0.0	0.3	0.0	1.7	3.0	0.7	0.7	0.3	0.0	2.0	2.0	0.7	10.7	0.0	1.3	0.0	0.3
E08	113	0.0	0.0	1.7	1.3	18.7	8.0	0.7	0.7	4.0	0.0	0.3	17.7	0.7	0.0	2.0	1.0	0.3	0.0	0.7	0.0	0.0	13.7	2.3	1.0	0.3	0.0	0.7	2.7	0.7	16.0	1.7	2.3	0.0	0.7
E09	181	0.0	0.0	0.7	1.0	19.0	2.3	0.3	0.0	3.7	0.0	0.0	19.3	0.0	0.0	0.7	1.7	0.0	0.0	0.7	0.3	0.0	16.7	3.0	0.3	0.7	0.0	2.3	1.7	1.0	20.7	2.0	2.0	0.0	0.0
E10	101	0.0	0.3	2.3	1.7	18.0	0.3	0.3	0.0	11.0	0.0	0.3	10.7	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.3	0.0	19.3	1.7	0.3	0.3	0.0	0.0	6.7	0.7	20.7	1.0	3.3	0.0	0.0
E11	167	0.0	0.0	1.3	3.3	33.3	2.7	0.0	0.0	6.3	0.0	0.0	10.7	0.3	0.0	2.0	0.7	0.0	0.0	0.0	0.0	0.0	17.3	1.0	0.0	0.3	0.0	0.7	1.7	1.3	14.0	0.0	2.3	0.0	0.7
F02	185	0.0	0.0	2.0	0.7	6.3	0.0	0.0	0.0	2.3	0.0	0.0	12.7	0.3	0.0	1.0	0.3	0.0	0.0	0.3	0.0	0.3	19.3	2.3	0.0	1.0	0.0	0.7	4.0	1.3	38.3	3.7	2.7	0.0	0.3
F03	198	0.0	0.0	1.7	2.0	16.7	0.3	1.3	0.0	3.0	0.0	0.0	27.3	0.7	0.3	1.7	0.3	0.0	0.0	0.3	0.0	0.0	11.3	4.0	0.0	0.3	0.0	3.7	3.0	0.7	18.0	0.3	3.0	0.0	0.0
F04	211	0.3	7.0	1.7	0.3	9.3	0.3	0.7	0.7	17.7	0.0	0.0	9.3	1.7	0.0	0.3	1.3	0.0	0.0	0.7	0.0	0.0	6.0	9.3	0.0	0.3	0.0	2.0	4.3	0.7	23.0	0.3	2.0	0.0	0.7
F05	142	0.0	0.0	0.3	0.0	19.3	8.3	1.0	0.0	4.7	0.0	0.0	14.0	1.0	0.7	1.7	1.0	0.7	0.0	0.3	0.0	0.0	10.7	1.0	0.7	0.7	0.0	3.7	3.3	0.7	24.0	1.0	1.0	0.0	0.3
F06	57	13.3	0.3	0.7	1.3	11.0	1.0	0.0	0.3	2.7	7.0	0.3	17.3	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	8.7	2.3	0.3	0.3	0.0	2.7	5.7	1.3	19.0	1.3	1.0	0.0	0.3
F07	64	0.0	0.0	1.0	0.3	5.3	0.3	0.0	0.7	3.3	0.0	0.0	24.0	1.0	0.3	1.7	0.0	0.0	0.0	0.7	0.7	0.7	7.3	5.3	0.7	0.0	0.7	4.3	5.7	2.0	30.7	2.0	1.3	0.0	0.0
F08A	269	0.0	0.0	1.0	0.3	5.7	0.0	0.3	0.3	2.7	0.0	0.0	17.7	0.7	0.0	1.0	0.7	0.7	0.0	0.3	0.3	0.3	16.0	1.3	0.0	0.0	0.0	0.3	4.0	2.7	39.0	3.0	1.0	0.0	0.7
F08B	264	2.7	1.0	3.3	0.3	15.0	0.0	0.0	0.0	3.3	0.7	0.0	16.0	0.0	0.3	1.0	1.0	0.0	0.0	0.0	0.0	1.7	20.0	1.3	0.0	0.3	0.0	0.3	4.7	0.0	24.3	0.0	2.0	0.7	0.0
F09	229	0.0	0.0	2.3	1.7	19.3	0.0	1.3	0.3	8.3	0.0	0.0	11.3	0.0	0.0	1.3	1.3	0.3	0.0	0.0	0.0	0.0	23.0	5.7	0.0	0.0	0.0	1.0	0.7	1.3	11.3	0.0	8.3	1.0	0.3
F10	158	0.0	0.0	0.0	1.3	30.3	2.3	0.7	0.7	19.7	0.0	0.0	12.0	0.3	0.3	3.0	0.7	0.0	0.7	0.0	0.3	0.0	15.7	1.7	0.0	0.0	0.0	2.3	0.7	0.0	4.7	0.0	2.7	0.0	0.0
G02	125	0.0	0.3	1.3	1.3	18.7	1.0	2.0	0.0	5.0	0.0	0.0	11.7	0.0	0.0	2.7	1.0	0.3	0.0	0.0	0.0	0.3	16.0	2.0	0.3	0.3	0.0	0.3	7.0	0.3	23.7	2.7	1.3	0.0	0.3
G03	94	0.0	0.3	2.7	1.0	10.3	1.3	0.7	0.0	2.0	0.0	0.3	19.0	0.3	0.0	1.0	0.7	0.0	0.0	0.3	0.0	0.3	20.0	1.7	0.7	0.3	0.0	0.3	5.0	2.3	27.0	0.7	1.7	0.0	0.0
G04	163	0.0	0.0	0.7	0.3	18.3	3.3	0.3	0.7	2.3	0.0	0.0	27.3	0.3	1.0	0.7	0.3	0.0	0.0	0.7	0.0	0.0	12.3	3.7	0.0	0.3	0.0	1.7	3.7	0.7	17.7	1.7	0.7	0.0	1.3
G05	236	0.0	0.0	2.0	0.7	17.3	2.3	0.7	0.0	6.0	0.0	0.0	21.7	0.7	0.3	2.0	0.7	0.0	0.0	0.0	0.0	1.0	16.0	3.7	0.7	0.0	0.0	3.3	1.7	0.0	12.3	1.7	3.7	0.7	1.0
G06	90	0.0	0.0	2.0	0.7	13.0	9.0	2.0	0.0	3.0	0.0	0.3	14.7	0.3	0.0	2.0	4.0	0.0	0.0	0.0	0.0	0.0	11.7	5.0	0.3	1.0	0.3	1.3	4.0	1.0	20.7	0.3	2.0	0.0	1.3
G07	174	0.0	0.0	1.7	1.0	9.0	1.7	0.3	0.0	2.7	0.0	0.0	23.0	1.0	2.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	16.3	1.7	0.0	0.0	0.0	2.0	2.3	1.3	28.7	3.7	0.7	0.0	0.0
G08	193	0.0	0.0	0.7	2.0	10.0	2.3	0.7	0.0	3.3	0.0	0.0	18.0	0.0	0.0	1.7	0.3	0.0	0.0	0.7	0.0	0.3	13.7	3.7	0.3	0.0	0.3	3.3	3.0	0.3	28.7	2.3	3.3	0.0	1.0
G09	232	0.0	0.0	2.3	1.3	15.7	1.3	0.0	0.0	2.7	0.0	0.0	16.3	0.3	1.0	0.0	0.7	0.0	0.0	0.3	0.0	0.3	14.3	1.3	1.7	0.3	0.3	9.3	4.7	0.3	24.0	0.7	0.7	0.0	0.0
G10	22	0.0	0.0	7.3	5.3	44.3	0.0	0.3	0.0	6.0	0.0	0.0	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.3	4.7	0.3	0.0	16.7	0.7	0.7	2.0	0.0	1.0	0.0	1.0
H02	222	0.0	0.0	0.0	1.0	19.7	0.7	0.7	0.0	3.7	0.0	0.0	21.3	0.7	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.7	12.0	2.3	0.7	0.0	0.0	2.0	3.7	2.0	23.7	0.7	2.3	0.0	0.3
H03	179	0.0	0.0	1.0	0.7	17.7	16.7	1.0	0.0	1.3	0.0	0.3	24.3	0.3	0.0	1.7	0.3	0.0	0.0	0.0	0.0	0.0	13.0	2.7	0.0	0.3	0.0	0.3	2.0	0.3	11.0	4.0	1.0	0.0	0.0
H04	105	0.0	0.0	0.0	0.0	13.3	3.0	0.3	0.0	3.7	0.0	0.0	18.0	1.0	0.3	1.7	0.0	0.0	0.0	0.7	0.0	0.3	11.0	0.3	1.3	0.3	0.0	0.7	8.7	0.0	33.0	1.7	0.3	0.0	0.3
H05	124	0.0	0.0	1.0	0.0	20.3	1.3	1.0	0.0	3.0	0.0	0.3	16.7	0.0	0.0	1.7	0.3	0.0	0.0	0.0	0.0	0.0	13.3	5.7	1.7	0.0	0.0	1.3	6.0	0.3	21.0	0.7	4.3	0.0	0.0
H06	77	0.0	0.0	1.3	1.0	6.0	0.7	0.3	0.3	1.3	0.0	0.0	19.7	2.7	0.3	0.3	0.0	0.3	0.0	0.0	0.0	0.7	13.3	4.7	1.0	0.0	0.3	2.7	6.3	2.0	31.7	2.7	0.3	0.0	0.0
H07	170	0.0	0.0	0.0	1.0	8.7	5.7	1.0	0.3	2.3	0.0	0.0	19.0	0.7	0.0	0.7	0.7	0.0	0.0	0.0	0.3	0.0	19.3	5.0	0.0	0.3	0.0	1.0	5.0	1.7	25.0	0.3	2.0	0.0	0.0
H08	132	0.7	0.3	1.0	1.3	16.7	5.0	1.0	0.0	2.7	0.0	0.0	16.3	0.3	0.0	0.3	0.3	0.3	0.0	0.0	0.3	0.0	15.3	7.7	0.0	0.7	0.0	0.7	3.0	0.0	23.7	1.0	1.3	0.0	0.0
H09	271	0.0	0.0	5.0	3.0	28.0	0.0	0.0	0.0	5.0	0.0	0.0	3.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	7.0	1.3	2.7	0.0	0.0	36.7	1.7	0.0	5.7	0.7	0.0	0.0	0.0
H10	7	0.0	0.0	14.0	1.7	23.3	0.0	0.0	0.0	3.3	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	3.3	0.0	0.0	41.7	1.3	0.0	5.0	1.0	0.3	0.0	1.0

Appendix. Heavy mineral counts; ungrouped

Field	Lab	PY	Pg	HM	Hr	IL	Ib	RU	Rb	GO	SD	MZ	GA	Gj	Gp	ZR	Ze	Zrp	Za	KY	ST	SP	EP	Cz	OP	Oc	BZ	CP	Dp	AM	Hb	Hc	LX	X1	UK
I02	34	0.0	0.0	2.7	0.3	17.7	2.7	1.0	0.0	1.3	0.0	0.7	14.7	1.0	0.0	1.3	0.0	0.0	1.0	0.0	0.0	0.0	11.7	7.3	1.7	0.7	0.0	0.0	4.7	1.0	24.3	1.3	2.0	0.0	1.0
I03	87	0.0	0.3	0.3	0.3	12.0	0.0	0.3	0.7	2.3	0.0	0.0	24.7	0.7	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	12.0	3.7	1.0	1.0	0.0	3.3	7.0	4.0	23.3	0.7	1.0	0.0	0.0
I04	165	0.0	0.0	1.0	0.3	15.7	3.7	0.7	0.0	2.3	0.0	0.0	25.7	0.0	0.3	0.7	1.3	0.0	0.0	0.0	0.0	0.0	15.7	3.7	0.0	0.0	0.0	1.0	4.3	1.3	17.7	2.7	1.7	0.0	0.3
I05	217	0.0	0.0	1.7	0.7	9.0	1.7	0.3	0.3	2.3	0.0	0.0	23.7	2.0	1.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	18.3	2.3	0.0	0.0	0.0	1.7	3.7	1.3	25.0	2.0	1.3	0.0	0.3
I06	13	0.0	0.0	2.0	0.7	17.7	1.0	0.0	0.3	1.0	0.0	1.3	23.7	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	15.3	0.7	6.7	0.3	0.0	0.0	2.3	1.0	22.0	0.0	1.3	0.0	0.0
I07	86	0.0	0.0	1.7	0.7	16.7	0.3	1.0	0.7	5.0	0.0	0.0	18.7	0.0	0.0	0.0	0.7	0.7	0.0	0.0	0.0	0.0	20.3	1.0	0.7	0.0	0.0	1.0	7.0	2.3	19.7	0.7	1.0	0.0	0.0
I08	73	0.0	0.0	4.3	1.0	20.0	0.3	0.0	0.7	2.0	0.0	0.0	14.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3	0.3	0.0	8.7	2.7	2.0	0.0	0.3	8.0	3.7	2.0	25.7	2.7	0.7	0.0	0.3
I09	60	0.0	0.0	1.3	5.3	25.3	2.3	0.7	1.0	2.0	0.0	0.0	9.3	0.0	0.0	0.7	0.0	0.0	0.3	0.0	0.0	0.3	12.3	1.0	4.3	0.0	0.3	7.7	5.3	2.3	16.3	1.3	0.7	0.0	0.0
I10	155	0.0	0.0	0.7	0.3	21.7	3.3	1.0	0.0	3.3	0.0	0.0	24.3	0.0	0.0	1.7	0.3	0.0	0.0	0.0	0.0	0.7	13.7	1.0	0.0	0.0	0.3	2.3	5.0	0.3	16.7	1.3	2.0	0.0	0.0
J02	66	0.0	0.0	1.3	2.0	10.3	3.0	1.0	0.0	3.7	0.0	0.0	23.3	0.7	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.3	16.0	1.3	0.3	0.7	0.0	1.7	4.3	1.0	25.7	2.0	0.3	0.0	0.3
J03	47	0.3	0.0	0.7	1.7	2.7	0.0	0.7	0.0	5.3	0.0	0.3	19.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	16.7	3.7	1.0	0.7	0.7	11.3	5.0	2.0	26.7	0.3	0.0	0.3	0.0
J04	103	0.0	0.0	0.3	1.3	16.7	5.3	1.3	0.0	0.7	0.0	0.0	22.3	0.7	1.7	1.3	0.7	0.0	0.0	0.0	0.0	0.3	14.7	2.3	0.7	0.3	0.0	0.3	3.3	3.3	20.0	0.3	1.7	0.3	0.0
J05	226	0.0	0.0	2.7	0.7	10.3	1.0	0.3	0.0	0.3	0.0	0.0	26.0	0.7	0.0	1.7	0.0	0.0	0.3	0.0	0.0	0.7	17.3	2.3	0.0	0.0	0.0	2.0	4.0	0.3	24.7	2.7	2.0	0.0	0.0
J06	183	0.0	0.0	0.0	1.0	9.7	0.7	0.0	0.0	3.0	0.0	0.3	13.3	0.7	0.0	2.0	0.3	0.0	0.0	0.7	0.0	0.7	20.0	0.3	2.3	0.3	0.3	2.0	8.7	0.7	29.7	1.3	1.7	0.0	0.3
J07	204	0.0	0.0	2.3	3.7	29.7	0.7	0.3	0.3	3.7	0.0	0.0	9.7	0.0	0.0	0.0	1.7	0.0	0.0	0.3	0.0	0.3	10.0	1.3	1.0	0.0	0.3	8.3	3.3	2.3	17.0	1.3	0.7	0.0	1.7
J08	107	0.0	0.0	0.7	1.3	11.7	1.7	0.7	0.0	4.0	0.0	0.0	14.7	0.0	0.7	2.3	0.0	0.0	0.0	0.3	0.3	0.0	14.7	3.3	3.3	0.0	0.0	0.7	7.0	1.3	29.3	1.0	1.0	0.0	0.0
J09	130	0.0	0.0	2.0	3.3	37.3	2.0	0.0	0.7	2.7	0.0	0.0	16.7	0.0	0.3	0.7	0.3	0.0	0.0	0.0	0.0	0.0	12.0	1.7	0.0	0.0	0.0	2.3	3.0	0.0	14.0	0.3	0.7	0.0	0.0
J10	20	11.7	0.7	0.7	0.0	13.7	0.3	0.0	0.0	2.3	3.3	0.0	20.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	10.7	0.3	2.7	0.0	0.0	7.7	3.3	1.3	17.0	0.3	1.7	0.0	0.3
K02	273	5.7	11.3	1.0	0.7	12.0	0.7	0.0	0.0	1.3	1.0	0.0	15.0	1.0	0.0	0.3	1.0	0.3	0.0	0.7	0.0	0.3	19.0	1.3	0.0	0.7	0.0	0.3	4.0	1.0	18.7	0.3	2.0	0.3	0.0
K03	41	0.0	0.0	1.0	0.0	8.7	3.3	1.0	0.0	3.3	0.0	0.0	22.0	1.3	0.0	0.3	0.0	0.0	0.0	0.3	0.3	0.7	18.3	2.3	1.7	0.3	0.0	2.3	9.0	3.7	18.0	1.0	0.7	0.0	0.3
K04	250	0.0	0.0	1.7	0.7	14.3	5.0	0.7	0.0	5.0	0.0	0.0	20.3	0.0	0.7	1.7	0.3	0.3	0.0	0.0	0.0	0.3	21.0	1.0	0.0	0.3	0.0	2.0	5.0	0.3	14.3	0.7	2.7	0.0	1.7
K05	21	0.7	0.0	1.3	0.0	10.7	0.0	1.0	0.0	1.7	0.0	0.0	17.7	0.7	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.7	20.3	1.0	1.7	0.3	0.7	3.7	2.3	6.0	25.7	0.7	2.0	0.0	0.3
K06	261	0.0	0.0	1.7	2.0	45.0	0.3	0.3	0.0	3.7	0.0	0.0	4.0	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.3	8.3	0.3	1.0	0.0	0.0	19.3	4.0	0.0	8.7	0.0	0.3	0.0	0.0
K07	148	0.0	0.0	3.7	3.3	42.3	0.0	0.0	0.0	5.3	0.0	0.0	4.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	0.0	1.0	0.3	0.7	18.3	4.7	0.3	6.3	1.0	0.3	0.0	0.7
K08	121	0.0	0.0	3.0	4.3	41.0	0.0	0.3	0.0	3.0	0.0	0.3	5.0	0.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	2.3	1.0	5.3	0.0	1.0	20.3	3.7	0.0	5.3	0.7	1.0	0.0	1.7
K09	111	0.0	0.0	5.0	3.7	65.0	0.7	0.3	0.0	6.0	0.0	0.0	4.3	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.7	4.3	0.3	0.0	0.0	2.0	0.0	1.3	0.0	0.7	0.0	2.0
K10	228	0.0	0.0	4.3	2.7	30.0	1.0	0.3	0.0	7.3	0.0	0.0	9.3	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	12.7	0.7	1.3	0.0	0.0	8.7	5.0	0.7	13.7	0.3	1.7	0.0	0.0
L02	18	0.0	0.0	0.3	0.7	8.3	0.7	0.3	0.0	6.3	0.0	0.0	35.0	0.7	0.0	1.3	0.0	0.0	0.0	0.0	0.7	0.3	8.3	3.0	1.0	0.0	0.0	2.0	3.3	0.0	24.3	1.0	2.3	0.0	0.0
L03	251	0.0	0.0	1.0	0.3	9.7	1.0	0.0	0.0	4.3	0.0	0.0	11.7	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.7	21.7	1.0	0.0	0.3	0.0	1.3	5.7	0.3	33.0	2.0	1.7	1.7	0.7
L04	220	0.7	0.0	2.3	0.3	14.7	1.0	0.7	0.0	3.0	0.0	0.3	17.3	1.0	0.3	1.7	1.0	0.0	0.0	0.0	0.0	0.3	15.3	0.0	0.0	0.0	0.0	3.3	4.0	2.0	25.3	2.0	2.0	0.0	1.3
L05E	23	0.0	0.0	2.3	1.7	13.7	0.0	0.3	0.7	2.7	0.0	0.0	13.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	19.7	3.3	1.7	0.3	0.3	3.7	4.3	5.3	23.7	0.0	2.0	0.0	0.3
L05W	4	0.0	0.0	5.0	0.7	10.7	2.3	1.0	0.7	3.3	0.3	0.3	10.7	0.3	0.0	1.7	0.0	0.0	0.0	0.0	0.3	0.0	11.7	10.3	7.0	0.0	0.7	0.0	4.3	0.0	25.7	0.0	1.0	0.3	1.7
L06E	40	0.0	0.0	6.7	1.0	39.7	2.0	0.0	1.0	3.0	0.0	0.0	8.7	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	12.3	1.3	3.7	0.0	0.3	6.0	5.0	1.7	5.3	1.3	0.7	0.0	0.0
L06WA	218	0.0	0.0	3.7	1.3	13.3	0.3	0.0	0.0	3.7	0.0	0.3	16.0	0.3	0.3	0.3	0.3	0.0	0.0	0.3	0.0	0.3	17.7	1.7	0.3	0.0	0.0	3.3	8.3	0.7	23.0	1.3	3.0	0.0	0.3
L06WB	184	7.0	0.0	1.3	1.0	11.0	0.3	1.3	0.0	2.0	0.0	0.3	17.7	1.0	0.0	3.3	1.0	0.0	0.0	0.0	0.7	0.0	16.0	0.3	0.0	0.7	0.0	0.0	3.0	1.3	25.7	2.3	2.3	0.0	0.3
L07	44	0.0	0.0	4.7	2.0	42.3	2.7	0.0	1.7	3.7	0.0	0.0	6.0	0.7	0.3	0.0	0.0	0.0	0.7	0.0	0.0	0.0	13.7	1.3	1.3	0.0	0.0	1.3	3.0	1.7	12.0	0.3	0.0	0.0	0.7
L08	267	0.3	0.0	2.7	0.7	36.0	0.0	0.7	0.0	4.7	0.0	0.7	10.0	0.3	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.0	16.7	0.0	0.3	0.0	0.0	1.3	4.0	0.3	18.7	1.0	0.7	0.0	0.3
L09	19	0.0	0.0	6.0	2.3	40.0	0.0	0.0	0.0	1.7	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	4.0	1.3	0.7	28.7	1.7	0.0	4.3	0.0	0.3	0.0	1.3
L10	99	0.0	0.0	3.0	7.7	50.0	1.0	0.3	0.3	3.0	0.0	0.3	13.3	0.0	0.3	1.0	0.3	0.0	0.0	0.0	0.0	0.0	6.0	0.7	5.0	0.0	0.0	1.0	3.0	0.7	2.3	0.0	0.0	0.0	0.7
L11	150	0.0	0.0	2.3	3.7	41.0	0.3	0.3	0.0	4.7	0.0	0.0	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	38.0	1.0	0.0	1.3	0.7	0.0	0.0	0.0
M02	78	0.0	0.3	1.7	3.7	8.7	1.0	0.7	0.0	5.0	0.0	0.0	17.3	0.7	0.0	1.0	0.0	0.0	0.0	0.7	0.3	0.3	10.0	3.0	2.3	0.3	0.0	7.7	4.0	1.3	25.7	2.7	1.3	0.0	0.3
M03	152	0.0	0.0	0.7	0.7	12.0	2.3	0.3	0.0	1.7	0.0	0.0	22.0	0.0	0.0	1.3	3.3	0.7	0.0	0.3	0.0	0.3	23.0	1.0	0.0	0.3	0.0	1.0	6.7	1.0	18.3	0.7	2.0	0.0	0.3

Appendix. Heavy mineral counts; ungrouped

Field	Lab	PY	Pg	HM	Hr	IL	Ib	RU	Rb	GO	SD	MZ	GA	Gj	Gp	ZR	Ze	Zrp	Za	KY	ST	SP	EP	Cz	OP	Oc	BZ	CP	Dp	AM	Hb	Hc	LX	X1	UK
M04	248	0.0	0.0	1.3	1.0	10.0	1.0	0.3	0.0	3.7	0.0	0.0	19.0	0.3	0.3	0.3	1.0	0.0	0.0	0.0	0.0	0.7	22.0	0.3	0.0	0.0	0.0	1.7	4.7	1.0	26.7	0.7	3.3	0.7	0.0
M05	29	0.0	0.0	1.3	1.7	11.0	0.0	0.7	0.7	3.3	0.0	0.0	14.3	0.7	0.0	0.3	0.0	0.0	0.0	0.0	0.3	0.3	22.7	0.3	1.0	0.3	0.3	4.7	7.3	2.0	26.3	0.3	0.0	0.0	0.0
M06	49	0.0	0.0	2.0	0.7	7.0	0.3	0.0	0.0	3.7	0.0	0.0	13.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0	4.3	2.7	0.3	0.0	1.0	6.3	1.3	34.7	2.3	1.0	0.3	0.3
M07	172	0.0	0.0	1.7	2.7	38.0	6.3	0.7	0.3	4.7	0.0	0.0	12.3	0.0	0.0	1.0	0.7	0.0	0.0	0.0	0.0	0.0	9.3	3.7	0.0	0.3	0.3	5.0	2.7	1.0	8.7	0.3	0.3	0.0	0.0
M08	128	0.0	0.0	4.7	2.3	42.0	0.0	0.0	0.0	2.7	0.0	0.0	10.7	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.3	0.0	5.0	1.7	2.3	0.0	0.3	13.3	2.3	0.0	9.7	0.3	1.0	0.0	1.0
M09	180	0.0	0.0	8.0	3.3	51.7	0.7	0.0	0.0	5.7	0.0	0.0	4.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.3	0.3	20.0	0.7	0.0	3.3	0.0	0.7	0.0	0.0
M10	188	0.0	0.0	5.3	12.7	48.7	0.0	0.3	0.0	6.3	0.0	0.0	4.7	0.0	0.0	0.7	0.3	0.0	0.0	0.0	0.0	0.0	3.0	1.0	1.0	0.0	0.0	10.7	0.7	0.0	3.0	0.0	1.7	0.0	0.0
M11	120	0.0	0.0	21.7	11.0	55.3	0.0	0.7	0.0	4.0	0.0	0.0	3.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3	0.0	0.0	0.7	0.0	1.7	0.0	0.0	0.0	0.3	0.0	1.0	0.0	0.0	0.0	0.0
N03	215	0.0	0.0	0.0	2.3	8.3	0.7	0.3	0.3	3.7	0.0	0.0	27.3	0.7	0.3	1.3	0.7	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.3	0.0	0.0	0.0	3.3	0.0	30.0	1.3	2.0	0.0	0.3
N04	147	0.0	0.0	0.7	1.0	11.3	1.0	1.0	0.3	6.7	0.0	0.3	18.0	0.7	0.3	1.0	1.0	0.0	0.0	1.0	0.0	0.3	7.3	2.0	0.7	1.0	0.0	1.3	3.3	2.0	32.3	1.0	3.0	0.0	1.3
N05	138	0.0	0.0	0.3	0.0	15.0	0.0	0.3	0.7	1.3	0.0	0.0	17.3	0.3	0.3	1.3	1.0	0.3	0.0	0.0	0.0	0.3	27.3	5.3	0.0	0.0	0.0	0.7	3.0	2.3	21.0	1.0	0.3	0.0	0.7
N06	202	0.0	0.0	1.3	1.7	15.0	0.0	0.0	0.0	1.0	0.0	0.0	15.0	0.0	0.0	0.3	1.0	0.0	0.0	0.0	0.0	0.0	21.0	4.7	1.3	0.3	0.0	2.3	4.7	1.7	26.7	1.3	0.3	0.0	0.3
N07	16	0.0	0.0	3.0	1.7	36.3	0.0	0.0	0.0	4.7	0.0	0.0	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	10.3	3.0	15.0	0.3	0.7	1.0	3.3	0.0	14.3	0.0	0.7	0.0	0.0
N08	259	0.0	0.0	4.3	3.7	31.0	0.3	0.0	0.0	4.7	0.0	0.0	6.3	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.7	0.0	1.0	32.0	2.0	0.7	4.3	0.0	0.7	0.0	0.0
N09	32	0.0	0.0	9.0	4.7	24.7	0.3	0.3	1.0	2.7	0.0	0.0	13.0	0.3	0.0	0.3	0.0	0.0	0.3	0.0	0.3	0.0	12.0	1.0	1.4	0.0	0.0	5.3	8.0	2.0	11.7	0.0	1.0	0.0	0.7
N10	242	0.0	0.0	6.0	8.3	38.7	0.3	0.3	0.0	5.0	0.0	0.0	5.0	0.3	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	27.3	1.0	0.0	2.7	0.0	0.7	0.3	0.0
N11	266	0.0	0.0	5.3	6.7	55.0	0.0	0.0	0.0	11.0	0.0	0.3	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	4.0	2.0	0.0	3.3	0.0	0.7	2.0	2.0
N12	270	0.0	0.0	7.3	11.7	33.7	0.0	0.0	0.0	3.7	0.0	0.0	4.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.3	1.3	0.0	0.0	0.0	0.0	35.0	0.0	0.0	1.7	0.3	0.3	0.0	0.0
O03	177	0.0	0.0	1.0	0.0	12.0	2.3	0.0	0.0	3.0	0.0	0.0	22.3	0.7	0.0	1.3	2.3	0.3	0.0	0.0	0.3	1.7	14.3	3.0	0.0	0.3	0.3	3.7	4.7	1.3	21.0	1.7	2.3	0.0	0.0
O04	8	0.0	0.0	3.0	1.7	11.7	1.3	0.7	0.0	4.3	0.0	0.0	13.7	1.3	0.0	2.3	2.3	0.0	0.0	0.0	0.0	0.0	15.0	11.3	3.0	0.3	0.7	0.3	2.0	0.0	22.0	0.3	2.3	0.0	0.3
O05	272	0.0	0.0	1.7	1.0	7.7	0.0	0.7	0.0	2.7	0.0	0.0	13.0	1.0	0.0	1.0	1.7	0.0	0.0	0.0	0.0	0.7	28.0	2.7	0.0	0.0	0.0	0.7	5.7	4.0	25.0	0.3	1.0	1.3	0.0
O06	207	0.0	0.0	1.0	0.0	8.7	0.0	0.0	0.7	3.7	0.0	0.0	12.7	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.3	26.3	3.3	0.0	0.3	0.0	1.3	8.3	0.3	31.0	1.0	0.3	0.0	0.0
O07	182	0.0	0.0	2.7	2.3	31.7	3.0	0.0	0.0	4.7	0.0	0.0	8.7	0.0	0.0	0.3	1.0	0.0	0.0	0.0	0.0	0.0	11.7	1.0	0.0	0.0	0.0	8.0	8.7	0.7	14.7	0.7	0.0	0.0	0.0
O08	212	0.0	0.0	7.0	3.7	31.7	1.3	0.0	0.7	15.3	0.0	0.0	8.3	0.7	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3	11.0	0.7	0.0	0.0	0.0	5.0	0.7	0.3	8.7	0.0	1.0	3.0	0.3
O09	246	0.0	0.0	6.0	4.0	34.3	1.7	0.0	0.0	7.7	0.0	0.3	6.7	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.3	0.0	20.3	1.0	0.0	0.0	0.3	0.3	4.0	0.0	12.0	0.0	0.0	0.0	0.3
O10	162	0.0	0.0	1.7	1.3	27.7	0.0	0.0	0.3	6.0	0.0	0.0	5.3	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0	6.3	0.3	1.0	0.0	0.7	34.0	4.7	0.0	8.7	1.0	0.3	0.0	0.0
O11	221	0.7	0.0	15.3	3.7	30.3	0.0	0.0	0.0	6.7	0.0	0.0	5.0	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	5.3	0.0	2.0	0.3	0.0	26.0	1.0	0.0	2.7	0.0	0.3	0.0	0.0
O12	65	0.0	0.0	6.3	6.7	33.3	0.7	0.0	0.3	3.0	0.0	0.3	13.3	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	6.3	0.3	1.0	0.0	0.0	24.3	1.7	0.0	1.7	0.0	0.3	0.0	0.0
P03	37	0.0	0.0	3.0	1.0	12.3	1.7	0.7	0.0	2.7	0.0	0.0	28.7	1.3	0.0	0.7	0.0	0.0	0.3	0.0	0.0	0.0	12.7	3.7	0.7	0.0	0.0	2.3	5.0	1.7	17.3	1.0	3.0	0.0	0.3
P04	28	0.0	0.0	2.0	0.7	10.0	1.3	1.0	1.0	2.3	0.0	0.0	21.0	0.7	0.0	1.0	0.0	0.7	0.3	0.0	0.0	0.0	22.7	2.0	0.3	0.7	0.3	0.0	6.0	1.0	21.3	0.3	3.0	0.0	0.3
P05	206	0.0	0.0	0.0	0.0	6.7	0.0	0.3	0.0	1.3	0.0	0.0	13.3	0.7	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.7	23.0	4.3	0.0	0.0	0.0	1.7	7.3	0.7	36.3	1.7	0.7	0.0	0.7
P06	268	0.0	0.0	1.0	0.3	12.0	0.0	0.0	0.0	2.3	0.0	0.0	14.7	1.0	0.3	1.0	0.0	0.0	0.0	0.3	0.0	0.3	21.3	0.3	0.0	0.0	0.0	1.0	6.7	1.7	33.7	0.7	0.7	0.7	0.0
P07	48	0.0	0.0	0.7	1.3	8.7	0.0	0.3	0.3	2.3	0.0	0.0	15.3	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.7	21.3	6.0	1.0	0.0	0.7	0.0	7.3	0.7	28.7	1.0	0.3	0.0	1.3
P08	247	0.0	0.0	0.7	0.0	10.7	0.0	0.7	0.3	1.7	0.0	0.0	23.7	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	21.3	0.3	0.0	0.3	0.3	2.0	4.3	2.0	26.7	0.3	1.7	0.3	0.3
P09	154	0.0	0.0	4.7	4.7	23.0	0.3	0.0	0.0	14.3	0.0	0.0	12.0	0.3	0.0	2.3	1.0	0.0	0.0	0.0	0.0	0.0	12.0	2.3	0.0	0.0	0.0	3.0	9.3	0.7	9.0	0.3	0.7	0.0	0.0
P10	157	0.0	0.0	3.0	1.3	28.3	0.7	0.0	1.3	5.3	0.0	0.0	5.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	3.7	0.0	2.0	0.0	0.3	37.3	2.3	0.7	6.7	0.0	1.0	0.0	0.7
P11	123	0.0	0.0	1.3	0.7	15.3	0.0	0.0	0.0	2.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.7	0.3	0.0	0.0	1.3	70.3	1.7	0.0	3.7	0.0	0.0	0.0	0.3
P12	62	0.0	0.0	2.3	1.3	23.3	0.0	0.3	0.0	3.7	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	3.3	0.0	0.3	1.0	0.0	55.0	3.0	0.0	2.7	0.3	0.3	0.0	0.0
P13	10	0.0	0.0	8.7	6.0	26.0	1.0	0.0	0.0	8.7	0.0	0.0	2.7	0.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	10.0	0.7	0.0	28.0	1.3	0.0	1.0	0.0	0.7	0.0	0.7
Q02	72	0.0	0.0	3.3	0.0	7.0	0.0	0.3	0.0	3.0	0.0	0.3	15.3	0.3	0.0	1.3	0.0	0.0	0.0	0.0	0.0	1.0	13.3	7.7	0.3	0.0	0.3	3.3	2.0	4.7	32.0	2.3	1.3	0.0	1.0
Q03	200	25.0	0.3	0.7	0.3	9.3	1.0	0.0	0.0	3.7	7.0	0.0	16.3	0.7	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.3	8.3	2.7	0.0	0.0	0.0	3.0	1.7	0.0	15.7	1.0	2.0	0.0	0.3
Q03A	129	0.7	0.0	0.7	1.7	9.7	0.3	0.7	0.0	3.3	0.0	0.0	20.7	0.3	0.0	1.3	1.3	0.0	0.0	0.3	0.0	0.0	18.0	3.3	0.0	0.0	0.0	2.3	5.0	1.0	27.3	1.0	1.0	0.0	0.0

Appendix. Heavy mineral counts; ungrouped

Field	Lab	PY	Pg	HM	Hr	IL	Ib	RU	Rb	GO	SD	MZ	GA	Gj	Gp	ZR	Ze	Zrp	Za	KY	ST	SP	EP	Cz	OP	Oc	BZ	CP	Dp	AM	Hb	Hc	LX	X1	UK
Q04	257	0.0	0.0	2.0	1.0	5.3	0.0	0.3	0.3	2.7	0.0	0.0	12.3	1.3	1.0	0.3	0.0	0.0	0.0	0.0	0.0	1.0	26.7	1.7	0.0	0.0	0.0	0.7	8.7	0.3	30.0	1.7	1.3	0.7	0.7
Q05	203	0.0	0.0	0.7	0.7	10.0	0.3	0.3	0.0	0.7	0.0	0.3	14.3	0.7	0.3	0.0	0.7	0.0	0.0	0.0	0.0	0.7	18.3	5.7	0.7	0.7	0.3	0.3	9.0	1.0	33.0	0.3	0.7	0.0	0.3
Q06	108	0.0	0.0	1.3	0.7	8.3	1.7	0.0	0.0	0.3	0.0	0.0	20.3	2.3	0.7	0.3	1.0	0.0	0.0	0.0	0.0	0.7	23.3	0.7	0.0	0.0	0.0	0.3	9.0	2.3	24.3	0.7	0.7	0.0	1.0
Q07	17	0.0	0.0	1.0	0.0	16.0	0.0	0.0	0.3	1.0	0.0	0.0	14.7	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0	6.3	3.0	0.3	0.0	1.3	4.3	0.0	26.7	0.3	0.3	0.0	0.0
Q08	156	0.0	0.0	0.0	2.0	16.0	3.7	1.3	0.3	6.7	0.0	0.0	17.0	0.0	1.3	1.7	0.0	0.0	0.0	0.0	0.0	0.7	19.0	2.3	0.3	0.0	0.0	1.0	2.3	0.0	22.3	0.3	1.3	0.0	0.3
Q09	96	0.3	0.0	2.0	2.0	9.0	0.7	0.3	0.0	5.3	0.0	0.0	16.7	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.7	0.0	14.0	5.3	0.7	0.0	0.0	0.0	8.0	2.7	30.3	0.7	0.7	0.0	0.0
Q10	275	0.0	0.0	5.7	2.7	19.0	0.0	0.0	0.3	9.3	0.0	0.0	6.7	0.3	0.0	0.0	0.7	0.0	0.3	0.0	0.3	0.3	14.0	1.3	1.0	0.0	0.0	15.7	5.3	0.3	13.0	0.3	1.0	1.7	0.7
Q11	58	0.0	0.0	3.3	3.0	17.0	1.7	0.0	1.3	5.3	0.0	0.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0	2.0	12.7	0.7	0.0	6.0	8.0	0.0	16.3	3.0	1.0	0.0	0.0
Q12	97	0.0	0.0	1.0	1.0	20.0	0.0	0.3	0.0	1.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	3.3	0.3	15.0	0.0	3.7	43.0	3.0	0.0	3.3	0.0	0.7	0.0	0.0
Q13	263	0.0	0.0	2.0	2.0	7.0	0.0	0.0	0.0	2.7	0.0	0.0	1.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	2.0	0.7	0.0	0.0	0.0	74.7	2.3	0.0	3.0	0.0	0.7	0.3	0.0
R02	253	0.0	0.0	0.3	0.7	11.3	0.7	0.3	0.0	0.3	0.0	0.0	20.0	0.7	0.3	1.3	1.3	0.0	0.0	0.3	0.0	0.7	20.0	3.0	0.3	0.3	0.0	1.7	4.3	2.7	26.0	1.7	1.3	0.0	0.3
R03	15	0.7	0.0	3.7	0.3	13.7	0.3	0.3	0.0	2.0	0.0	0.0	26.0	0.3	0.0	0.3	0.0	0.0	0.3	0.0	0.3	0.0	12.3	2.3	3.3	0.7	0.3	1.7	1.3	0.0	27.0	0.0	1.7	0.0	1.0
R04	199	0.0	0.0	2.0	0.7	8.7	1.0	1.3	0.0	1.0	0.0	0.0	18.3	1.0	0.3	1.0	0.3	0.3	0.0	0.0	0.0	0.7	21.7	2.7	0.0	0.3	0.0	0.7	6.7	0.7	27.7	0.7	2.0	0.0	0.3
R05	219	0.0	0.0	1.3	0.3	12.7	0.0	0.3	0.0	1.7	0.0	0.3	22.0	0.3	0.3	0.7	1.7	0.0	0.0	0.3	0.0	0.0	17.3	3.3	0.0	0.0	0.0	1.7	3.0	3.7	24.7	3.3	0.3	0.0	0.7
R06	164	0.0	0.0	0.3	0.3	3.7	0.0	0.0	0.0	2.7	0.0	0.3	14.3	0.0	1.0	0.0	0.3	0.0	0.3	0.0	0.0	1.3	21.3	3.3	0.0	0.0	0.3	4.0	9.3	0.3	33.3	1.7	1.0	0.0	1.0
R07	134	0.0	0.0	0.3	0.7	8.0	0.7	0.0	0.0	2.0	0.0	0.3	21.0	0.7	0.3	0.7	0.7	0.0	0.0	0.3	0.0	0.0	18.0	2.3	0.0	0.0	0.0	2.3	4.0	2.0	33.7	0.3	1.7	0.0	0.0
R08	24	0.0	0.0	1.0	2.0	8.7	0.0	0.0	0.3	2.3	0.0	0.0	22.3	0.3	0.0	1.0	0.0	0.0	0.7	0.0	0.0	0.0	11.7	4.7	6.3	0.0	0.0	0.7	6.0	5.0	25.3	1.0	0.7	0.0	0.0
R09	201	1.7	0.0	2.0	1.7	11.3	0.0	0.0	0.0	1.7	0.0	0.0	18.3	0.0	0.0	0.7	0.3	0.0	0.0	0.0	0.0	0.3	17.3	0.7	0.3	0.0	0.0	2.3	18.7	1.0	18.3	1.3	1.7	0.0	0.3
R10	151	0.0	0.0	2.3	4.0	22.0	0.0	0.0	0.0	7.0	0.0	0.0	9.0	0.0	0.0	0.7	0.3	0.0	0.0	0.0	0.0	0.0	11.7	2.0	0.0	0.3	0.3	13.3	9.3	0.7	14.3	0.0	2.3	0.0	0.3
R11	213	0.0	0.0	1.3	1.7	9.7	0.3	0.3	0.0	6.7	0.0	0.0	8.7	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.3	26.7	1.3	0.3	0.0	0.3	8.3	8.3	0.0	24.7	0.0	0.3	0.0	0.0
R12	194	0.0	0.0	2.7	3.0	18.0	0.3	0.0	0.3	1.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	4.0	0.0	1.7	65.3	1.0	0.3	0.0	0.0	0.7	0.0	0.0
R13	192	0.0	0.0	1.3	2.3	22.0	0.0	0.0	0.0	0.7	0.0	0.0	5.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	6.0	0.0	3.7	53.3	0.3	0.0	3.7	0.0	0.7	0.0	0.0
R14	171	0.0	0.0	1.0	2.3	13.3	0.3	0.0	0.0	1.3	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	2.3	0.0	0.7	64.3	1.0	0.7	3.7	0.3	0.0	0.0	0.7
R15	74	0.7	0.0	10.0	7.0	23.7	1.0	0.0	0.3	2.0	0.0	0.0	4.3	0.0	0.0	1.0	0.0	0.0	0.3	0.0	0.0	0.0	5.0	0.7	10.0	0.0	0.0	22.3	1.3	0.0	9.3	0.0	0.0	0.0	1.0
S01	75	3.0	5.0	1.3	0.7	4.7	0.0	0.3	0.0	4.7	8.0	0.0	22.0	0.3	0.0	0.7	0.0	0.0	0.0	0.3	0.0	1.0	7.0	2.7	0.0	0.0	0.0	2.0	7.0	6.3	19.3	1.7	1.3	0.0	0.7
S02	45	0.3	0.3	2.7	0.3	9.7	1.0	0.7	0.0	1.3	0.0	0.0	28.3	2.3	0.0	1.3	0.0	0.0	0.3	0.0	0.3	0.7	15.0	4.0	1.7	0.0	0.0	0.3	2.3	1.7	24.7	0.7	0.0	0.0	0.0
S03	112	0.0	1.3	1.3	0.7	6.0	0.7	0.3	0.0	8.3	0.0	0.3	18.0	1.0	0.0	0.7	0.7	0.7	0.0	0.3	0.0	0.3	14.3	6.3	0.3	0.0	0.0	1.0	4.7	3.7	27.0	0.7	0.3	0.0	1.0
S04	79	0.0	0.0	1.0	1.7	1.3	0.0	1.0	0.0	1.3	0.0	0.0	19.3	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	7.7	2.3	0.0	0.0	3.0	8.3	3.0	32.7	1.7	2.3	0.0	0.7
S05	89	0.0	0.3	0.3	0.3	6.0	0.7	1.0	0.0	2.3	0.0	0.0	31.7	0.3	0.0	1.3	0.0	0.0	0.0	0.3	0.3	0.7	9.7	1.7	1.7	0.0	0.0	0.0	4.3	3.0	32.3	1.3	0.3	0.0	0.3
S06	53	0.0	0.0	1.0	0.7	9.3	0.0	0.7	0.0	2.7	0.0	0.0	23.7	0.3	0.0	1.0	0.0	0.0	0.3	0.3	0.3	0.3	15.0	4.3	1.0	0.0	0.0	1.0	2.0	0.7	32.3	2.0	0.7	0.0	0.3
S07	224	0.0	0.0	0.7	0.0	3.7	0.0	0.0	0.0	2.0	0.0	0.3	20.3	1.7	0.0	1.0	0.3	0.0	0.0	0.0	0.0	1.3	18.7	1.7	0.0	0.0	0.0	2.3	7.0	0.3	33.3	4.3	1.0	0.0	0.0
S08	81	0.0	0.0	0.7	0.0	2.7	0.0	0.0	0.0	1.3	0.0	0.0	20.0	1.7	0.0	1.0	0.0	0.0	0.3	0.0	0.3	0.3	8.3	3.3	2.0	0.0	0.3	6.7	5.7	2.3	38.7	3.3	0.3	0.0	0.7
S09	249	0.0	0.0	0.3	2.7	8.3	1.0	0.7	0.0	1.7	0.0	0.0	24.7	0.3	0.0	0.7	1.0	0.0	0.3	0.3	0.0	1.7	20.7	0.3	0.0	0.0	0.0	1.3	6.3	1.0	24.0	0.3	1.7	0.3	0.3
S10	55	0.0	0.3	0.3	0.7	4.0	0.0	0.0	0.0	5.3	0.0	0.0	12.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0	6.7	4.0	0.7	0.0	0.7	10.7	1.7	33.0	1.0	1.0	0.0	0.0
S11	84	0.0	0.0	1.3	3.3	7.0	0.0	1.3	0.0	7.0	0.0	0.0	6.7	0.0	0.0	1.0	0.7	0.3	0.0	0.3	0.0	0.0	20.0	19.3	0.3	0.3	0.0	4.0	6.0	1.3	17.0	0.0	1.7	0.0	1.0
S12	116	0.3	0.0	0.7	1.0	8.7	1.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.7	0.3	0.0	0.0	0.0	0.0	0.0	24.3	1.7	2.3	0.7	0.3	2.0	7.7	4.3	35.3	1.0	0.3	0.0	1.7
S13	146	0.0	0.0	0.0	0.0	23.7	2.3	0.0	0.0	1.7	0.0	0.0	11.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	1.7	0.0	3.7	53.3	1.0	0.0	0.7	0.0	0.0	0.0	0.0
S14	80	0.0	0.0	1.7	0.3	39.3	0.0	0.0	0.0	2.3	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	47.3	0.7	0.0	0.3	0.0	0.0	0.0	0.0
S15	187	0.0	0.0	1.0	5.7	19.7	0.3	0.0	0.0	3.0	0.0	0.0	5.0	0.7	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	1.3	0.7	0.0	54.7	0.0	0.0	4.7	0.0	0.7	0.0	0.3
S16	256	0.0	0.0	1.3	1.7	5.7	0.0	0.0	0.0	3.7	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	1.7	0.0	0.0	80.0	0.3	0.0	2.7	0.3	0.0	0.0	0.0
T01	71	0.0	0.0	3.3	1.0	15.0	1.3	0.7	0.3	2.0	0.0	0.3	32.7	2.3	0.0	1.0	0.0	0.0	0.7	0.0	0.0	0.3	3.7	5.7	1.0	0.3	0.3	3.7	2.3	1.0	17.3	1.7	1.3	0.0	0.7
T02	144	0.0	0.0	0.0	2.0	14.3	0.3	1.0	0.7	1.3	0.0	0.0	31.7	2.0	0.0	2.0	1.0	0.0	0.0	0.0	0.0	0.3	13.0	4.0	0.0	0.3	0.0	0.0	3.7	0.7	19.3	1.0	1.3	0.0	0.0

Appendix. Heavy mineral counts; ungrouped

Field	Lab	PY	Pg	HM	Hr	IL	Ib	RU	Rb	GO	SD	MZ	GA	Gj	Gp	ZR	Ze	Zrp	Za	KY	ST	SP	EP	Cz	OP	Oc	BZ	CP	Dp	AM	Hb	Hc	LX	X1	UK
T03	254	0.0	0.0	2.3	0.0	10.3	0.3	0.3	0.0	4.7	0.3	0.3	25.0	1.3	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	18.3	0.3	0.0	0.0	0.0	2.0	2.7	0.7	27.0	1.0	0.7	1.0	0.7
T04	265	0.0	0.0	1.0	0.3	3.7	0.3	0.0	0.0	1.7	0.0	0.3	26.3	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	13.7	0.7	0.0	0.3	0.0	1.3	8.0	3.0	30.7	0.3	3.0	1.3	0.0
T05	88	1.7	0.0	0.7	0.7	9.0	1.0	1.3	0.0	1.3	0.0	0.0	18.7	0.3	0.3	0.3	2.0	0.0	0.0	0.3	0.3	0.3	14.7	3.7	2.0	0.3	0.0	1.0	4.3	5.3	27.0	1.7	1.0	0.0	0.7
T06	140	0.0	0.0	0.3	0.3	7.7	1.7	0.7	0.3	0.0	0.0	0.3	22.7	0.7	0.0	1.3	1.3	0.0	0.3	0.0	0.3	0.3	15.0	1.3	0.0	0.0	0.0	1.0	7.7	2.7	32.3	0.0	1.0	0.0	0.7
T07	117	0.0	0.0	0.0	1.0	18.7	1.3	0.7	0.3	1.0	0.0	0.0	16.7	0.3	0.0	1.7	0.7	0.3	0.0	0.0	0.0	0.0	18.0	1.0	0.3	1.7	0.0	1.3	5.0	2.0	23.0	1.7	1.3	0.0	2.0
T08	85	0.0	0.0	0.0	0.7	8.7	1.3	0.3	0.0	1.0	0.0	0.0	21.0	1.0	0.0	0.7	0.3	0.0	0.0	0.0	0.0	0.3	13.7	3.0	0.3	0.3	0.0	3.0	8.7	2.7	30.7	0.7	1.0	0.0	0.7
T09	67	3.3	0.0	0.7	0.3	3.0	0.0	0.0	0.0	4.7	0.3	0.3	11.7	2.3	0.0	0.3	0.0	0.0	0.3	0.0	0.3	0.3	12.0	2.0	1.3	0.0	0.3	2.3	9.3	4.0	37.3	1.7	2.0	0.0	0.0
T10	27	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.3	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.7	67.0	0.0	27.0	0.7	0.0	0.0	0.3
T11	33	0.0	0.0	3.3	5.3	19.3	2.0	0.7	0.0	3.7	0.0	0.0	19.7	0.3	0.0	1.3	0.0	0.0	0.0	0.0	0.3	0.0	11.3	1.7	3.3	0.3	0.0	4.3	10.7	1.0	10.3	0.0	0.0	0.0	1.0
T11-2	260	0.0	0.0	0.7	1.0	5.0	0.0	0.0	0.0	4.7	0.0	0.0	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	7.7	0.0	0.0	0.3	0.0	34.3	9.3	0.3	27.7	1.3	0.3	0.3	0.0
T12	216	0.0	0.0	0.0	0.3	6.7	0.0	0.0	0.0	0.3	0.0	0.0	8.0	3.7	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	13.7	1.0	0.7	0.0	0.0	9.0	31.0	0.7	23.0	1.7	0.0	0.0	0.0
T14	208	0.0	0.0	0.7	0.0	5.0	0.0	0.0	0.0	0.3	0.0	0.0	1.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	0.3	0.0	0.0	0.0	64.3	9.0	0.0	10.0	0.0	0.0	0.0	0.7
T15	59	0.0	0.0	0.7	1.0	30.0	0.0	0.0	0.0	2.0	0.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	2.3	0.0	2.7	0.0	0.0	58.0	0.3	0.3	1.3	0.0	0.3	0.0	0.0
T16	25	0.0	0.0	2.0	1.7	5.0	1.7	0.0	0.0	3.7	1.3	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	5.0	0.0	0.0	71.7	2.7	0.0	2.3	0.0	0.0	0.0	0.0
U02	235	0.0	0.0	1.0	0.7	6.3	1.0	0.0	0.3	0.3	0.0	0.0	19.3	1.7	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	15.3	6.0	0.3	0.0	0.0	1.7	8.0	0.3	32.7	1.3	1.0	2.0	0.3
U03	191	0.0	0.0	0.3	0.7	10.7	0.3	0.3	0.3	0.7	0.0	0.3	31.0	1.3	1.0	1.0	1.3	0.0	0.3	0.0	0.0	1.0	16.3	4.0	0.3	1.0	0.0	0.3	5.0	0.7	18.3	2.0	1.3	0.0	0.3
U04	83	0.0	0.0	1.7	0.7	14.7	0.0	1.0	0.7	1.3	0.0	0.0	24.0	0.0	0.0	1.3	1.0	3.3	0.3	0.0	0.0	0.0	10.7	2.3	0.0	0.0	0.0	1.3	7.0	1.7	20.0	1.3	2.3	1.3	2.0
U05	54	0.0	0.0	0.3	0.0	5.7	0.0	0.0	0.7	1.3	0.0	0.0	21.7	0.3	0.0	0.0	0.0	0.3	1.3	0.0	1.0	0.7	14.7	7.3	2.3	0.7	0.0	2.7	3.7	3.3	29.3	0.7	1.3	0.0	0.7
U08	234	16.0	0.0	1.3	0.3	12.0	1.7	0.3	0.3	1.0	4.0	0.3	14.3	1.7	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.7	14.3	1.7	0.7	0.3	0.0	4.0	4.7	0.0	15.3	2.0	1.3	0.3	1.0
U09	31	0.0	0.0	2.0	0.7	14.3	0.3	1.0	0.0	0.7	0.0	0.0	23.7	1.0	0.0	0.3	0.0	0.3	0.3	0.0	0.0	0.3	20.0	2.7	1.0	0.7	0.0	1.0	3.0	3.7	21.3	0.3	1.3	0.0	0.0
U10	135	0.0	0.0	0.7	1.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0	1.0	0.0	0.0	0.0	6.3	10.3	0.7	28.7	0.7	0.0	0.0	0.0
U11	205	0.0	0.0	0.0	1.0	4.3	1.0	0.0	0.0	0.0	0.0	0.0	17.3	0.3	0.0	0.7	1.0	0.0	0.0	0.0	0.0	0.0	12.3	0.7	0.0	0.3	0.0	3.3	10.0	4.0	42.0	0.3	1.0	0.0	0.3
V02	70	0.0	0.0	1.3	0.0	3.3	0.3	0.3	0.0	1.7	0.0	0.0	26.0	1.3	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.3	8.7	3.3	1.3	0.0	0.0	5.7	4.7	2.3	31.7	3.3	3.0	0.0	0.3
V03	231	0.0	0.0	2.0	0.0	7.7	1.0	0.3	0.0	0.0	0.0	0.7	18.3	1.3	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.7	25.3	2.3	0.0	0.3	0.0	2.7	6.7	2.7	23.3	0.7	1.7	0.7	1.0
V04	50	0.0	0.0	2.3	1.0	6.7	2.0	2.3	0.7	4.3	0.0	0.0	26.7	0.7	0.3	2.0	0.0	0.7	1.3	0.0	0.3	0.0	12.7	5.0	2.7	0.0	0.0	0.0	2.7	2.7	19.0	3.3	0.7	0.0	0.0
V06	227	0.3	0.0	0.3	1.0	7.7	1.3	0.3	0.0	0.7	0.0	0.0	24.3	0.3	0.0	1.0	1.0	0.3	0.0	0.0	0.0	0.7	20.0	2.3	0.0	0.0	1.0	1.0	6.0	1.0	25.7	2.7	0.7	0.0	0.3
V07	36	0.0	0.0	0.0	1.7	6.7	0.0	0.0	0.0	2.0	0.0	0.7	20.7	0.7	0.3	0.3	0.0	0.0	0.0	0.0	0.0	1.3	15.7	3.7	2.3	0.3	0.0	3.7	5.7	4.7	28.7	0.7	0.3	0.0	0.0
V08	238	0.0	0.0	2.0	0.0	6.0	0.7	0.0	0.0	2.0	0.0	0.0	19.3	0.0	0.0	2.0	1.7	0.0	0.0	0.3	0.0	2.0	22.0	3.0	0.0	0.3	0.3	2.0	5.3	0.3	25.7	1.3	1.7	1.3	0.7
V09	178	0.0	0.0	0.3	2.0	2.0	0.0	0.0	0.0	0.3	0.0	0.0	10.7	0.3	0.0	0.3	0.0	0.0	0.0	0.0	0.7	0.7	21.7	6.3	0.0	0.0	0.0	1.0	10.3	0.0	43.3	0.0	0.0	0.0	0.0
W02	104	0.7	0.0	1.0	0.3	15.7	0.0	0.7	0.3	0.3	0.0	0.0	26.0	1.3	0.0	1.0	1.3	0.3	0.0	0.0	0.3	0.3	16.7	2.0	0.3	0.0	0.0	2.3	6.3	1.3	20.7	1.0	0.0	0.0	0.0
W03	102	0.0	0.0	2.0	2.7	11.7	0.7	0.7	0.0	1.0	0.0	0.0	15.3	0.3	0.0	0.7	1.3	0.7	0.3	0.0	0.0	0.3	22.7	1.7	0.0	0.0	0.0	0.0	4.7	4.3	27.0	0.7	1.3	0.0	0.0
W04	175	0.0	0.0	0.3	0.0	4.7	0.0	0.0	0.0	1.7	0.0	0.0	25.0	0.7	0.0	0.0	0.3	0.0	0.0	0.0	0.0	1.0	20.3	1.7	0.0	0.3	0.0	3.3	5.7	2.0	30.7	1.0	1.0	0.0	0.3
W05	100	0.0	0.0	1.0	0.3	3.7	0.0	0.3	0.0	2.0	0.0	0.0	9.3	0.3	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.3	24.0	2.7	0.3	0.0	1.0	1.3	8.3	1.0	41.7	0.7	1.0	0.0	0.0
W06	196	0.0	0.0	0.3	1.7	8.3	0.3	0.0	0.0	2.0	0.0	0.0	18.7	1.3	0.7	0.0	0.7	0.3	0.0	0.7	0.0	0.7	17.7	3.0	1.7	0.3	0.3	4.0	10.0	0.7	24.0	1.3	1.3	0.0	0.0
X01	43	0.0	0.0	2.0	0.7	12.7	2.7	0.7	0.0	2.3	0.0	0.0	15.3	1.7	0.0	1.0	0.0	0.0	0.7	0.0	0.0	0.3	19.0	2.0	2.0	0.7	0.0	5.0	8.7	2.0	16.0	1.7	1.3	0.0	1.7
X02	243	0.0	0.0	1.7	1.7	13.3	1.0	0.0	0.7	1.0	0.0	0.0	15.7	0.3	0.0	3.0	2.3	0.0	0.0	0.0	0.0	0.7	18.7	3.0	0.3	0.0	0.3	0.3	4.0	4.0	25.7	0.7	1.0	0.7	0.0
X03	274	0.0	0.0	0.7	0.3	9.0	0.0	0.3	0.3	2.7	0.0	0.3	17.7	0.3	0.7	0.7	1.7	1.0	0.7	0.0	0.0	1.0	26.0	2.3	0.0	0.0	0.0	0.7	5.3	1.3	25.7	0.3	1.0	0.0	0.0
X04	110	0.0	0.0	0.3	0.3	8.3	0.3	0.3	0.7	0.0	0.0	0.0	24.7	0.0	0.0	1.7	1.0	0.3	0.0	0.0	0.0	0.0	17.0	1.0	1.0	0.7	0.0	0.0	5.3	2.0	32.3	1.7	0.7	0.0	0.3
X05	244	0.0	0.0	1.7	0.7	6.0	0.0	0.0	0.3	2.3	0.0	0.0	16.3	0.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0	4.3	25.3	1.3	0.3	0.0	0.0	2.7	6.0	1.0	27.7	1.0	1.0	1.0	0.3
Y05	42	0.0	0.0	0.0	0.3	2.3	0.7	0.0	0.0	0.0	0.0	0.0	15.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	13.3	1.7	0.7	1.0	0.3	0.0	15.7	0.3	45.0	2.0	0.0	0.0	0.3

Appendix. Heavy mineral counts; ungrouped

Field	Lab	PY	Pg	HM	Hr	IL	Ib	RU	Rb	GO	SD	MZ	GA	Gj	Gp	ZR	Ze	Zrp	Za	KY	ST	SP	EP	Cz	OP	Oc	BZ	CP	Dp	AM	Hb	Hc	LX	X1	UK
Z01	109	0.0	0.0	0.7	0.7	4.0	0.0	0.0	0.0	1.0	0.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	24.3	1.7	0.7	1.7	0.0	0.0	7.3	4.7	32.7	1.3	0.7	0.0	0.3
Z02	160	0.0	0.0	1.0	0.0	10.7	0.0	0.3	0.0	1.7	0.0	0.0	22.0	1.0	0.0	2.3	1.3	0.0	0.3	0.0	0.0	0.3	15.3	7.7	0.0	0.3	0.0	0.0	4.3	1.7	27.3	2.0	0.3	0.0	0.0
Z03	223	0.3	1.0	1.0	0.0	6.0	0.0	0.3	0.0	1.3	0.0	0.0	22.0	0.3	0.0	1.3	0.3	0.0	0.0	0.3	0.0	0.7	18.7	6.3	0.7	0.0	0.0	3.3	7.3	1.7	22.3	3.3	0.7	0.0	0.7
Z04	141	0.0	0.0	0.0	0.0	7.0	2.7	1.0	0.0	0.3	0.0	0.0	47.7	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	5.3	2.0	0.7	0.7	0.0	0.3	11.0	1.3	15.7	3.0	0.0	0.0	0.7
Z05	161	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.7	0.0	0.0	35.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7	1.7	4.0	0.7	0.3	2.0	13.3	1.3	25.3	3.0	0.0	0.0	0.3
Z06	176	0.0	0.0	0.7	0.7	19.0	2.3	1.3	0.3	2.3	0.0	0.0	27.3	0.3	0.0	0.7	1.3	0.0	0.0	0.0	0.0	0.0	10.0	5.7	0.0	0.3	0.0	2.0	7.0	0.7	15.0	1.7	1.3	0.0	0.0
Z07	63	0.0	0.3	0.7	0.0	5.7	0.0	0.0	0.3	0.0	0.0	0.0	14.3	1.3	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.0	6.3	3.7	1.3	0.7	0.0	0.3	14.3	5.0	41.0	4.0	0.3	0.0	0.0
Z08	258	0.0	0.0	0.0	0.0	8.0	0.0	0.3	0.3	0.0	0.0	0.0	28.0	1.3	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.3	0.0	1.0	4.3	14.0	0.3	25.3	9.0	0.3	0.0	0.3
Z09	239	0.3	0.3	0.3	0.7	4.3	0.3	0.0	0.0	1.0	0.0	0.0	14.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	0.3	7.0	0.3	2.7	6.3	13.3	0.0	34.7	5.3	1.0	0.7	0.0
Z10	26	0.0	0.0	2.3	0.0	16.7	0.7	0.0	0.0	1.7	0.0	0.3	17.3	0.3	0.0	1.3	0.0	0.0	0.7	0.0	0.3	0.0	13.3	1.7	1.3	0.3	0.0	0.0	5.0	4.7	29.7	2.0	0.3	0.0	0.0
Z11	262	0.0	0.0	0.0	0.3	11.0	0.0	0.0	0.0	1.0	0.0	0.3	18.7	0.7	0.0	0.7	0.0	0.0	0.0	0.3	0.0	0.0	21.3	2.0	0.0	0.3	0.0	0.7	5.0	2.3	35.0	0.0	0.3	0.0	0.0
Z12	76	0.0	0.0	0.7	1.0	4.3	0.0	0.0	1.0	0.0	0.3	0.3	14.7	0.3	0.0	1.0	0.0	0.0	0.0	0.0	0.3	0.0	14.3	2.7	3.0	0.3	0.0	7.3	10.7	4.0	31.3	1.3	0.0	0.0	1.0
Z13	159	0.0	0.0	0.0	0.0	4.3	0.3	0.0	0.0	1.0	0.0	0.0	17.0	0.3	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	18.0	1.0	0.7	0.3	0.0	1.0	13.0	2.7	38.7	0.7	0.3	0.0	0.0
Z14	52	0.0	0.0	1.3	0.3	5.3	0.0	0.0	0.0	0.3	0.0	0.0	9.7	1.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3	17.7	4.0	0.7	0.7	0.0	0.3	2.7	3.7	48.7	2.7	0.0	0.0	0.3
Z15	30	0.0	0.0	1.3	0.7	6.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0	1.3	10.0	0.3	1.0	0.3	0.0	0.3	8.3	4.0	58.3	1.7	0.7	0.0	0.0
Z16	214	0.0	0.0	4.0	2.0	7.7	0.3	0.3	0.3	2.3	0.0	0.0	10.7	0.3	0.7	0.7	0.0	0.0	0.3	0.0	0.0	0.0	15.7	2.3	0.0	0.7	0.3	2.7	4.7	0.3	42.7	1.0	0.0	0.0	0.0
Z17	252	0.0	0.3	0.3	1.0	13.0	0.7	0.3	0.0	2.0	0.0	0.0	12.3	0.3	0.3	2.7	0.0	0.0	0.0	0.3	0.3	0.0	17.7	1.7	0.0	0.3	0.3	1.0	9.0	2.0	32.3	0.7	0.7	0.0	0.3
Z18	69	0.0	0.0	0.0	0.3	4.7	0.3	0.0	0.3	2.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	10.3	0.0	0.0	74.3	3.3	1.7	1.3	0.0	0.0	0.0	0.0
Z19	122	0.0	0.0	0.0	0.0	11.0	0.7	0.0	0.0	0.7	0.0	0.0	10.7	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	5.3	1.3	5.0	0.0	0.0	61.7	1.3	0.3	1.0	0.7	0.0	0.0	0.0
Z20	115	0.0	0.0	1.7	1.0	10.7	0.7	0.0	0.3	1.0	0.0	0.0	6.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	7.3	1.7	0.0	59.3	2.7	0.3	1.3	1.0	0.3	0.0	0.3
Control	95	0.0	0.0	1.0	2.3	5.7	0.0	0.0	0.0	1.0	0.0	0.0	16.3	0.7	0.0	0.7	0.7	0.3	0.0	0.0	0.0	0.3	21.3	5.0	1.0	1.0	0.0	4.3	9.3	1.3	25.0	1.0	0.7	0.0	1.0
Control	114	0.0	0.7	1.3	1.3	7.0	1.3	0.3	0.3	1.0	0.0	0.0	19.0	2.0	1.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	24.7	5.3	2.0	0.7	0.0	0.3	5.0	1.0	23.0	1.3	1.0	0.0	0.3
Control	197	0.0	0.0	1.7	0.3	4.0	0.3	0.0	0.0	0.7	0.0	0.0	24.7	0.0	0.3	1.7	0.7	0.7	0.0	0.3	0.3	0.0	18.0	7.3	1.0	0.3	0.0	2.3	5.3	1.7	26.3	0.7	0.7	0.0	0.7

Appendix. Heavy mineral counts; comments

Field	Lab	Notes
A02	168	
A03	68	
A04	35	
A05	38	
A06	209	
A07	255	
A08	119	Many good, complete, crystals of euhedral ilmenite.
A09	241	
A10	133	
A11	5	
A12	126	
A13	137	Several grains of goethite after organic fragments
B02	118	2 anatase grains.
B03	82	Black spinel?
B04	91	Odd, distinctive "bubbly", clear, epidote. Striking. A few grains of same seen in other samples but lots in this sample.
B05	240	
B06	153	
B07	233	
B08	245	
B09	98	
B10	11	
B11	56	
B12	173	Seven percent rounded zircon. Confirmed high R.I. under pet.mic.; parallel extinction; high birefringence colours; "kissing isojars" of uniaxial flash figure.
C02	189	
C03	51	
C04	6	
C05a	93	
C05b	46	
C06	237	
C07	145	
C08	136	
C09	131	Some pyrite/goethite after biota.
C10	210	
C11	169	
C12	166	
D02	143	
D03	149	
D04	9	The "amphibole, undiff." in this and the other samples appear to be pale varieties of hornblende (fairly continuous with the hornblende (Hb)).
D05	106	One pyrite fossil of a bit of vegetation.
D06	3	This sample has a particularly large variety of minerals.
D07	14	One anatase grain noted but not counted.
D08	230	

Appendix. Heavy mineral counts; comments

Field	Lab	Notes
D09	139	
D10	127	
D11	39	Several very black ilmenite grains.
D12	225	
E02	92	A polymineralic hornblende/epidote grain.
E03	190	
E04	186	
E05	61	
E06	12	Some excellent examples of euhedral ilmenites. Studying this slide facilitates recognizing broken ilmenites from same population.
E07	195	
E08	113	
E09	181	
E10	101	
E11	167	One isotropic, pink mineral grain. High R.I. Maybe only garnet? Maybe spinel?? Interesting.
F02	185	
F03	198	
F04	211	
F05	142	
F06	57	Pyrite grains are slightly tarnished. See one pyrite/siderite (polymineralic) grain.
F07	64	
F08A	269	
F08B	264	
F09	229	Over 10% quartz (more than 50 grains verified.
F10	158	
G02	125	One tourmaline grain.
G03	94	
G04	163	
G05	236	
G06	90	Examples of the black, euhedral ilmenites. Some(rare) grains in the suite have what may be leucoxene. This enforces the idea that these are ilmenites. One anatase.
G07	174	
G08	193	
G09	232	
G10	22	
H02	222	
H03	179	One black, euhedral garnet. Melanite?
H04	105	
H05	124	
H06	77	Great siderite twin (pseudo. Fe X).
H07	170	
H08	132	
H09	271	
H10	7	

Appendix. Heavy mineral counts; comments

Field	Lab	Notes
I02	34	
I03	87	
I04	165	
I05	217	
I06	13	
I07	86	One tourmaline.
I08	73	
I09	60	
I10	155	
J02	66	Two allanites counted as epidotes.
J03	47	
J04	103	
J05	226	
J06	183	
J07	204	
J08	107	One odd staurolite with what looks like polysynthetic twinning.
J09	130	
J10	20	Several framboidal pyrite grains similar to those found in tills underlain by Paleozoics of Hudson Bay Lowland.
K02	273	
K03	41	One very black spinel (octehedron) noted. May be a magnetite grain that slipped past.
K04	250	
K05	21	
K06	261	
K07	148	Much of cpx undiff. is distinctive with fine Schiller-like inclusions normal to C-axis of grain.
K08	121	Sample badly weathered.
K09	111	Difficult sample… lots of small grains.
K10	228	
L02	18	
L03	251	
L04	220	
L05E	23	
L05W	4	Several quartz grains observed (low R.I., almost invisible in reflected light, many checked with petro. microscope: n<epoxy. Qtz was ignored and not counted.
L06E	40	
L06WA	218	
L06WB	184	
L07	44	An example of a very nice rounded, etched garnet that may be from Paleozoics.
L08	267	
L09	19	
L10	99	Difficult sample, grains are small; some black rutile (nigrine) probably counted as ilmenite.
L11	150	
M02	78	
M03	152	One small, hexagonal leucoxene. Probably after a black, high lustre, euhedral ilmenite grain.

Appendix. Heavy mineral counts; comments

Field	Lab	Notes
M04	248	
M05	29	An example of a very nice rounded, etched garnet that may be from Paleozoics. Not counted (did not fall between boundaries of ribbon).
M06	49	Example of a rounded garnet that may not be of Paleozoic sediment origin.
M07	172	
M08	128	
M09	180	
M10	188	Many quartz grains. Ignored and not counted.
M11	120	1 anatase.
N03	215	
N04	147	
N05	138	
N06	202	
N07	16	
N08	259	
N09	32	
N10	242	
N11	266	
N12	270	
O03	177	
O04	8	Good example of an amber coloured rutile (counted as rutile, red to orange).
O05	272	
O06	207	
O07	182	
O08	212	Sample should be verified for olivine.
O09	246	
O10	162	
O11	221	
O12	65	
P03	37	
P04	28	
P05	206	
P06	268	
P07	48	
P08	247	
P09	154	
P10	157	
P11	123	70% cpx. Only one opx despite having verified many grains between X-polars.
P12	62	
P13	10	
Q02	72	
Q03	200	Several framboidal pyrite grains.
Q03A	129	

Appendix. Heavy mineral counts; comments

Field	Lab	Notes
Q04	257	
Q05	203	
Q06	108	Excellent example of Paleozoic garnet. Circled in red.
Q07	17	
Q08	156	
Q09	96	
Q10	275	Two grey-brown angular garnets.
Q11	58	
Q12	97	
Q13	263	Interesting grain where magnetite or hematite blebs have survived alteration encased in leucoxene after ilmenite A white hemoilmenite with grey blebs.
R02	253	
R03	15	
R04	199	
R05	219	
R06	164	
R07	134	
R08	24	
R09	201	
R10	151	
R11	213	Some of the epidote may be altering to pyroxene (or the other way around?).
R12	194	Good example of a sample where most of the pyroxene had to be verified under X-polars (clino. vs. Ortho)
R13	192	
R14	171	
R15	74	Difficult sample. Extinction angle of more than 50 pyroxene grains checked. Determination of cpx vs. opx was inconclusive for some of the more weathered grains.
S01	75	
S02	45	Good example of a euhedral ilmenite (tabular with hexagonal outline, very black and almost vitreous lustre, some have zircon? inclusions or "rip-out")
S03	112	
S04	79	
S05	89	
S06	53	
S07	224	
S08	81	
S09	249	
S10	55	
S11	84	Most of the goethite is red, making the sample rather distinctive.
S12	116	ONE IDDINGSITE ? Concentrate should be checked for olivine and iddingsite.
S13	146	
S14	80	
S15	187	
S16	256	
T01	71	pink garnets' (Gwyn and Dreimanis' 1979 "purple" garnets) chemistry varies little with intensity of pink.
T02	144	

Appendix. Heavy mineral counts; comments

Field	Lab	Notes
T03	254	Not sure about the one siderite grain observed.
T04	265	
T05	88	Good example of a Paleozoic (sediment) derived garnet.
T06	140	
T07	117	
T08	85	
T09	67	Several framboidal pyrite grains.
T10	27	Many of the cpx in this sample have the bottle green colour of diopside and were counted as such. Some grains are altered and resemble cpx of NA-01-25.
T11	33	One pink spinel noted.
T11-2	260	Mineral grains covered with alteration material -- difficult sample.
T12	216	
T14	208	
T15	59	Cpx can resemble opx, esp. Hypersthene, in this sample. Take care. The cpx here is also easily confused with siderite. Distinctive black ilmenite (50% of ilm).
T16	25	Many of the clinopyroxene (cpx) grains in this samples (and others) were verified under X-polars (for extinction angle).
U02	235	
U03	191	
U04	83	Is this sediment (sample NA-01-83) a till?
U05	54	
U08	234	
U09	31	
U10	135	
U11	205	
V02	70	Good example of a "paleozoic sediment" pink garnet. Note that many of the pink garnets in the suite likely appear colourless to most observers.
V03	231	
V04	50	
V06	227	
V07	36	An example of a very nice rounded, etched garnet that may be from Paleozoics.
V08	238	
V09	178	
W02	104	
W03	102	Many goethite after euhedral pyrite grains. Some may have pyrite cores
W04	175	
W05	100	
W06	196	
X01	43	
X02	243	
X03	274	
X04	110	The brown (or basaltic?) hornblendes are more kaiki than anything in this sample.
X05	244	
Y05	42	

Appendix. Heavy mineral counts; comments

Field	Lab	Notes
Z01	109	
Z02	160	
Z03	223	
Z04	141	Some of the pink garnets have large gas(or liquid?) inclusions. Are these of local provenance?
Z05	161	
Z06	176	
Z07	63	
Z08	258	
Z09	239	
Z10	26	
Z11	262	
Z12	76	
Z13	159	
Z14	52	
Z15	30	
Z16	214	
Z17	252	
Z18	69	
Z19	122	Also weathered, esp. Pyroxene. Most ilmenite very black however probably not the same population as the euhedral ilmenite.
Z20	115	
Control	95	
Control	114	
Control	197	