REPOSITORY ITEMS FOR

Volcanosedimentary paleoenvironments of Ediacaran fossils in Newfoundland.

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Table R1. Petrographic textures (volume %) of selected beds, Conception Group.

Pedotype	Horizon	Sample	Gravel	Sand	Silt	Clay	Soil fabric	Soil texture
Above	siltstone	R3925	0	7.8	58.4	33.8	Argillasepic porphyroskelic	Silty clay loam
Murphys	A	R3926	0	4.4	53.8	41.8	Argillasepic porphyroskelic	Silty clay
Murphys	A	R3927	0	3.2	59.2	37.6	Argillasepic porphyroskelic	Silty clay loam
Murphys	Bg	R3928	0	5.8	56.8	37.4	Argillasepic porphyroskelic	Silty clay loam
Murphys	C	R3929	0	6.6	55.2	38.2	Argillasepic porphyroskelic	Silty clay loam
none	lapilli tuff	R3932	31.4	10.0	36.8	21.8	Silasepic crystic	Silty clay loam
Above	siltstone	R3935	0	7.8	61.6	30.6	Argillasepic porphyroskelic	Silty clay loam
Union	A	R3936	0	3.8	52.4	43.8	Insepic porphyoskelic	Silty clay
Union	Bw	R3937	0	9.8	50.4	39.8	Insepic porphyoskelic	Silty clay loam
Union	C	R3938	0	7.0	51.2	41.8	Argillasepic porphyroskelic	Silty clay
Union	C	R3939	0	8.4	50.0	41.6	Argillasepic porphyroskelic	Silty clay
Union	C	R3940	0	9.0	59.4	31.6	Argillasepic porphyroskelic	Silty clay loam
Union	C	R3940	6.6	4.6	47.0	41.8	Argillasepic porphyroskelic	Silty clay
Catalina	A	R3941	0	12.0	60.2	27.8	Silasepic crystic	Silty clay loam
Catalina	Bw	R3942	0	7.0	60.4	32.6	Silasepic crystic	Silty clay loam
Catalina	Bw	R3943	0	5.8	60.6	33.6	Silasepic crystic	Silty clay loam
Catalina	C	R3944	0	8.6	60.0	31.4	Silasepic crystic	Silty clay loam
Catalina	C	R3945	0	5.4	55.8	38.8	Argillasepic porphyroskelic	Silty clay loam
Catalina	A	R3946	0	7.2	57.4	35.4	Argillasepic porphyroskelic	Silty clay loam
Catalina	A	R3947	0	6.4	58.8	34.8	Argillasepic porphyroskelic	Silty clay loam
Catalina	Bw	R3848	0	8.2	53.6	38.2	Argillasepic porphyroskelic	Silty clay loam
Catalina	Bw	R3949	0	20.0	48.2	31.8	Argillasepic porphyroskelic	Silty clay loam
Catalina	C	R3950	0	19.6	49.4	31.0	Silasepic crystic	Silty clay loam
Catalina	C	R3951	0	14.8	61.8	23.4	Silasepic crystic	Silt
Catalina	C	R3952	0	19.8	56.6	23.6	Silasepic crystic	Silt
Catalina	C	R3953	0	0	43.6	56.2	Argillasepic porphyroskelic	Silty clay
Above	tuff	R3978	0	20.0	58.4	21.6	Silasepic crystic	Silty clay loam
Above	shale	R3978	0	0	67.2	32.2	Argillasepic porphyroskelic	Silty clay loam
Above	shale	R3979	0	3.0	44.2	52.8	Argillasepic porphyroskelic	Silty clay
Above	tuff	R3980	0	22.4	33.0	44.6	Mosepic agglomeroplasmic	Clay
Above	tuff	R3981	0	27.4	29.6	43.0	Mosepic agglomeroplasmic	Clay
Above	tuff	R3982	0	23.8	34.6	41.6	Mosepic agglomeroplasmic	Clay
Above	tuff	R3983	0	23.8	29.4	46.8	Mosepic agglomeroplasmic	Clay
Murphys	A	R3984	0	3.4	46.4	50.2	Insepic porphyroskelic	Silty clay
Murphys	Bg	R3985	0	2.2	47.4	50.4	Argillasepic porphyroskelic	Silty clay
Above	sandstone	R3986	0	28.8	39.2	32.0	Skelsepic intertextic	Clay loam
Catalina	A	R3987	0	2.0	46.6	51.4	Insepic porphyroskelic	Silty clay
Catalina	Bw	R3988	0	3.2	53.0	43.8	Insepic porphyroskelic	Silty clay
Catalina	C	R3990	0	16.6	49.4	34.0	Insepic porphyroskelic	Silty clay loam

Catalina	C	R3991	0	20.6	50.4	29.0	Silasepic intertextic	Clay loam
Catalina	C	R3992	0	26.4	44.4	29.2	Silasepic intertextic	Clay loam
Catalina	C	R3993	2.4	15.0	51.8	30.8	Argillasepic porphyroskelic	Silty clay
Catalina	A	R3994	0	4.4	51.2	4.4	Insepic porphyroskelic	Silty clay
Catalina	Bw	R3995	0	6.0	53.2	40.8	Insepic porphyroskelic	Silty clay
Catalina	Bw	R3996	0	6.8	56.2	37.0	Insepic porphyroskelic	Silty clay loam
Catalina	C	R3997	0	15.8	52.6	31.6	Silasepic intertextic	Silty clay loam
Catalina	C	R3998	0	16.2	52.8	31.0	Siilasepic intertextic	Silty clay loam
Catalina	C	R3999	0	14.2	52.8	33.0	Silasepic intertextic	Silty clay loam
Catalina	C	R4000	0	21.6	46.6	31.8	Argillasepic porphyroskelic	Clay loam
Catalina	A	R4001	0	5.0	52.2	42.8	Mosepic porphyroskelic	Silty clay
Above	siltstone	R4002	0	5.6	58.8	35.6	Argillasepic porphyroskelic	Silty clay loam
Acis	A	R4003	0	21.0	37.4	41.6	Insepic porphyroskelic	Clay
Acis	Bw	R4004	0	7.6	47.6	44.8	Insepic porphyroskelic	Clay
Acis	C	R4005	0	10.6	52.4	37.0	Argillasepic porphyroskelic	Silty clay loam
Acis	C	R4006	0	24.8	48.0	27.2	Silasepic crystic	Clay loam
Acis	A	R4007	0	7.8	50.6	41.6	Siilasepic intertextic	Silty clay
Acis	Bw	R4008	0	2.8	61.2	36.0	Insepic porphyroskelic	Silty clay loam
Acis	C	R4009	0	20.6	54.6	24.8	Insepic porphyroskelic	Silt loam
Acis	A	R4010	0	16.4	46.4	37.4	Silasepic granular	Silty clay loam
Maglona	Bw	R4011	0	9.4	55.6	35.0	Argillasepic porphyroskelic	Silty clay loam
tempestite	sandstone	R4012	0	31.6	44.4	24.0	Silasepic intertextic	Loam
tempestite	sandstone	R4013	0	41.8	46.8	11.4	Silasepic intertextic	Loam
tempestite	sandstone	R4014	0	52.6	35.2	12.2	Silasepic intertextic	Loam
tempestite	sandstone	R4015	0	52.0	34.2	13.8	Silasepic intertextic	Loam
tempestite	sandstone	R4016	0	14.0	51.0	35.0	Argillasepic porphyroskelic	Silty clay loam
tempestite	sandstone	R4017	0	21.8	46.8	31.4	Silasepic intertextic	Clay loam
tempestite	sandstone	R4018	0	55.8	22.8	21.4	Silasepic intertextic	Loam
Maglona	A	R4019	0	6.8	51.0	42.2	Insepic porphyroskelic	Silty clay
Maglona	Bw	R4020	0	2.6	57.4	40.0	Insepic porphyroskelic	Silty clay
Maglona	C	R4021	0	11.4	50.8	37.8	Insepic porphyroskelic	Silty clay loam
Maglona	A	R4022	0	13.0	45.8	41.2	Argillasepic porphyroskelic	Silty clay
Maglona	A	R4023	0	4.6	60.8	34.6	Insepic porphyroskelic	Silty clay loam
Above	siltstone	R4024	0	5.2	52.0	42.8	Argillasepic porphyroskelic	Silty clay
tempestite	siltstone	R4025	0	2.6	49.6	47.8	Argillasepic porphyroskelic	Silty clay
tempestite	siltstone	R4026	0	23.4	57.8	18.8	Argillasepic porphyroskelic	Silt loam
tempestite	siltstone	R4027	0	27.0	59.4	13.6	Argillasepic porphyroskelic	Silt loam
tempestite	sandstone	R4028	0	45.8	43.8	10.4	Silasepic intertextic	Loam
tempestite	sandstone	R4029	0	45.8	36.4	17.8	Silasepic intertextic	Loam
tempestite	sandstone	R4030	0	35.0	33.2	31.8	Silasepic intertextic	Clay loam
Above	tuff	R4032	0	36.2	45.4	18.4	Silasepic intertextic	Loam
Murphys	A	R4040	0	10.0	54.0	36.0	Insepic porphyroskelic	Silty clay loam
Murphys	C	R4041	0	10.8	59.0	30.2	Argillasepic porphyroskelic	Silty clay loam
Murphys	C	R4042	0	14.8	51.6	33.6	Argillasepic porphyroskelic	Silty clay loam
Murphys	C	R4043	0	19.2	48.8	32.0	Silasepic intertextic	Clay loam
Above	siltstone	R4046	0	5.0	52.0	43.0	Insepic porphyroskelic	Loam
Above	sandstone	R4047	0	35.2	38.0	26.8	Silasepic intertextic	Clay loam
Above	sandstone	R4048	0	34.6	35.0	30.4	Silasepic intertextic	Clay loam
Above	sandstone	R4049	0	54.0	34.4	11.6	Silasepic intertextic	Loam
Murphys	A	R4050	0	14.8	50.2	35.0	Insepic porphyroskelic	Silty clay loam
Murphys	Bg	R4051	0	5.6	61.4	33.0	Insepic porphyroskelic	Silty clay loam
Murphys	C	R4052	0	20.6	54.6	24.6	Insepic porphyroskelic	Silt Loam

Murphys	C	R4053	0	19.0	50.2	30.8	Insepic porphyroskelic	Silty clay loam
Above	siltstone	R4075	0	7.6	58.6	33.8	Argillasepic porphyroskelic	Silty clay loam
Above	siltstone	R4076	0	7.4	52.6	40.0	Argillasepic porphyroskelic	Silty clay loam
Murphys	A	R4077	0	10.8	47.4	41.8	Insepic porphyroskelic	Silty clay
Murphys	Bg	R4078	0	9.8	57.2	33.0	Argillasepic porphyroskelic	Silty clay loam

Note: All samples are shown on Fig. 7. Volumes are from counting 500 points in petrographic thin sections perpendicular to bedding using a Swift automated stage and counter. Error is ±2% for common (>10%) components (Murphy, 1983). Specimens are from the Mistaken Point Formation, with exception of R3978-3985 from Drook Formation, R4032 from Briscal Formation, and R4040-4043 from the Trepassey Formation.

Table R2. Petrographic composition (volume %) of selected beds, Conception Group

Pedotype	Horizon	Sample	quartz	feldspar	Clay	opaque	mica	laumontite	rock fragments	Sanidine
Above	siltstone	R3925	18.6	28.0	34.0	4.4	7.6	0	5.6	1.8
Murphys	A	R3926	15.6	31.2	40.6	3.4	3.2	0	6.0	0
Murphys	A	R3927	9.4	31.8	37.4	4.0	2.0	0	14.2	1.0
Murphys	Bg	R3928	12.4	29.0	38.4	6.8	2.6	0	9.0	1.8
Murphys	C	R3929	10.4	35.4	37.0	5.4	2.6	0	6.8	2.4
none	lapilli tuff	R3932	15.4	20.4	23.8	5.0	0.2	33.8	1.4	0
Above	siltstone	R3935	21.2	27.6	33.6	3.6	5.4	0	8.8	0
Union	A	R3936	8.8	28.4	44.6	3.6	7.4	0	7.2	0
Union	Bw	R3937	7.0	35.0	41.0	6.0	5.2	0	5.8	0
Union	C	R3938	9.2	32.4	41.6	4.0	5.0	0	7.8	0
Union	C	R3939	18.0	28.0	38.8	2,4	2.4	0	10.4	0
Union	C	R3940	23.6	26.0	31.4	3.0	3.8	0	6.6	0
Union	C	R3940	15.0	24.0	44.8	3.6	2.0	0	7.8	2.8
Catalina	A	R3941	23.4	29.4	31.6	6.0	3.6	0	3.8	2.2
Catalina	Bw	R3942	21.6	27.4	34.6	7.8	3.0	0	3.6	2.0
Catalina	Bw	R3943	16.8	27.8	34.2	6.4	5.0	0	6.6	3.4
Catalina	C	R3944	19.4	29.0	33.4	7.0	2.8	0	8.0	0.4
Catalina	C	R3945	22.0	26.2	37.4	6.0	4.2	0	3.4	0.8
Catalina	A	R3946	18.0	31.4	36.6	6.0	2.8	0	4.2	1.0
Catalina	A	R3947	18.2	27.4	37.4	8.0	3.8	0	5.2	0
Catalina	Bw	R3848	22.2	30.8	36.6	5.8	1.6	0	3.0	0
Catalina	Bw	R3949	24.2	26.6	33.4	6.0	1.0	0	6.2	2.6
Catalina	C	R3950	23.0	28.4	33.4	6.6	1.0	0	5.2	2.4
Catalina	C	R3951	30.0	30.8	22.4	4.6	2.0	0	10.2	0
Catalina	C	R3952	29.2	31.8	26.8	3.6	3.2	0	5.8	0
Catalina	C	R3953	9.6	22.8	54.4	3.0	3.8	0	6.4	0
Above	tuff	R3978	4.6	11.8	23.0	6.8	1.6	45.8	6.4	0
Above	shale	R3978	22.2	26.2	37.8	4.0	4.0	0	5.8	0
Above	shale	R3979	11.8	16.8	54.0	6.0	7.4	0	4.0	0
Above	tuff	R3980	6.4	9.6	46.2	4.0	1.6	28.6	3.6	0
Above	tuff	R3981	5.2	9.8	44.0	3.8	1.4	34.6	1.2	0
Above	tuff	R3982	17.2	23.4	40.4	3.6	0.4	5.2	9.8	0
Above	tuff	R3983	7.4	11.2	43.4	3.2	3.2	29.2	2.4	0
Murphys	A	R3984	16.8	28.8	49.0	1.2	2.0	0.8	1.4	0
Murphys	Bg	R3985	20.0	24.4	48.0	3.0	2.6	0.6	1.4	0
Above	sandstone	R3986	25.6	27.0	33.2	5.4	1.2	0	7.6	0
Catalina	A	R3987	14.2	28.6	48.4	3.4	3.4	0	2.0	0
Catalina	Bw	R3988	17.4	22.4	43.2	8.8	4.2	0	4.0	0
Catalina	C	R3990	18.4	23.4	36.2	8.0	5.4	0	8.6	0
Catalina	C	R3991	18.2	26.6	31.8	10.4	1.2	6.4	5.4	0

Catalina	C	R3992	20.0	23.0	32.8	7.8	1.6	7.6	7.2	0
Catalina	C	R3993	25.2	25.8	31.2	6.8	3.8	0	7.2	0
Catalina	A	R3994	19.0	25.8	43.6	4.2	4.0	0	3.4	0
Catalina	Bw	R3995	19.4	25.4	39.0	6.0	6.0	0	4.2	0
Catalina	Bw	R3996	19.0	22.4	37.4	10.2	3.8	0	7.2	0
Catalina	C	R3997	19.8	27.0	31.8	8.8	1.4	0.4	10.8	0
Catalina	C	R3998	16.8	25.8	31.0	7.4	2.8	1.0	15.2	0
Catalina	C	R3999	19.4	25.4	33.8	6.0	5.0	0	10.4	0
Catalina	C	R4000	12.8	17.4	33.8	3.2	3.4	0	29.4	0
Catalina	A	R4001	17.2	26.6	43.8	6.0	0.8	0	5.6	0
Above	siltstone	R4002	21.6	26.6	34.8	7.2	2.4	0	6.6	0
Acis	A	R4003	19.2	23.2	42.2	7.2	4.8	0	3.4	0
Acis	Bw	R4004	16.8	22.6	42.4	8.0	7.2	0	3.0	0
Acis	C	R4005	23.4	27.0	34.8	7.2	2.0	0	5.6	0
Acis	C	R4006	21.6	26.0	28.6	8.8	2.6	0	12.4	0
Acis	A	R4007	19.4	23.8	40.0	7.2	4.6	0	5.0	0
Acis	Bw	R4008	20.8	26.4	37.6	4.0	5.6	0	5.6	0
Acis	C	R4009	26.0	30.6	26.4	5.8	5.6	0	5.6	0
Acis	A	R4010	22.6	24.8	39.4	4.2	5.4	0	3.6	0
Maglona	Bw	R4011	20.4	27.4	36.4	4.8	4.6	3.0	3.8	0
tempestite	sandstone	R4012	14.2	17.4	25.2	7.2	2.2	8.4	25.2	0
tempestite	sandstone	R4013	25.0	19.2	12.8	8.6	3.2	9.6	21.4	0
tempestite	sandstone	R4014	10.6	17.4	10.4	5.2	6.0	31.2	19.2	0
tempestite	sandstone	R4015	8.8	10.4	11.6	6.0	2.4	44.6	16.2	0
tempestite	sandstone	R4016	22.2	28.8	35.4	3.2	4.0	0	6.4	0
tempestite	sandstone	R4017	21.0	24.2	30.8	6.6	1.8	5.6	9.8	0
tempestite	sandstone	R4018	11.4	13.8	22.2	4.8	1.2	25.6	21.0	0
Maglona	A	R4019	15.0	25.2	41.6	5.2	3.8	0	9.2	0
Maglona	Bw	R4020	22.2	23.4	39.0	4.4	4.6	0	6.4	0
Maglona	C	R4021	21.4	22.4	37.4	5.0	2.4	0	11.0	0
Maglona	A	R4022	23.8	26.0	39.6	5.0	3.0	0	2.6	0
Maglona	A	R4023	22.4	25.8	35.0	7.2	3.8	0	5.8	0
Above	siltstone	R4024	20.8	24.4	42.0	4.2	3.2	0	5.4	0
tempestite	siltstone	R4025	18.4	20.6	49.8	3.4	4.6	0	3.2	0
tempestite	siltstone	R4026	13.8	16.8	19.0	12.6	6.6	0	31.2	0
tempestite	siltstone	R4027	11.6	9.8	13.8	8.6	8.6	0	47.6	0
tempestite	sandstone	R4028	11.6	10.8	10.0	11.8	9.5	0	44.8	0
tempestite	sandstone	R4029	21.2	21.0	20.8	7.0	5.6	0	24.4	0
tempestite	sandstone	R4030	19.6	19.0	32.8	5.5	2.8	0	20.2	0
Above	tuff	R4032	18.0	13.0	20.2	5.2	1.6	29.0	13.0	0
Murphys	A	R4040	20.4	26.6	36.4	5.0	4.4	0	7.2	0
Murphys	C	R4041	23.0	23.8	29.0	7.4	5.4	0	11.4	0
Murphys	C	R4042	23.4	25.4	33.0	4.6	2.8	0	10.8	0
Murphys	C	R4043	22.4	21.4	33.6	5.4	4.2	0	13.0	0
Above	siltstone	R4046	24.4	26.8	34.8	3.0	3.8	0	7.2	0
Above	sandstone	R4047	11.4	11.0	29.8	8.2	2.8	0	36.8	0
Above	sandstone	R4048	21.4	22.8	30.6	6.2	1.4	0	17.6	0
Above	sandstone	R4049	23.4	20.0	13.6	5.2	1.4	20.8	15.6	0
Murphys	A	R4050	23.0	24.2	35.2	5.8	3.2	0	8.6	0
Murphys	Bg	R4051	25.2	26.4	30.2	5.2	4.6	0	8.4	0
Murphys	C	R4052	16.0	17.0	22.8	7.4	4.4	0	32.4	0
Murphys	C	R4053	25.6	24.8	34.4	6.6	2.4	0	6.2	0

Above	siltstone	R4075	23.0	26.0	34.2	7.0	3.8	0	6.0	0
Above	siltstone	R4076	15.0	20.0	41.8	10.8	1.4	0	11.0	0
Murphys	A	R4077	24.4	22.8	41.6	3.8	0.8	0	6.6	0
Murphys	Bg	R4078	18.2	20.6	34.2	4.4	2.6	0	17.2	0

Note: All samples are shown on Fig. 7. Volumes are from counting 500 points in petrographic thin sections cut perpendicular to bedding using a Swift automated stage and counter. Error is ±2% for common (>10%) components (Murphy, 1983). Other in most cases in mafic minerals, Specimens are from the Mistaken Point Formation, with exception of R3978-3985 from Drook Formation, R4032 from Briscal Formation, and R4040-4043 from the Trepassey Formation.

Table R3. Chemical analyses (wt%) and bulk density (g cm^{-3}) of Conception Group

Pedo-type	Sample	SiO_2	Al_2O_3	Fe_2O_3	FeO	CaO	MgO	Na_2O	K_2O	TiO_2	MnO	P_2O_5	SrO	BaO	LOI	C	Total	Density $g.cm^{-3}$
Union	3936	54.6	19.72	8.24	4.25	0.82	2.08	2.09	5.33	0.96	0.18	0.133	0.01	0.06	3.84	0.03	98.05	2.78
Union	3937	67.53	14.49	5.4	3.08	0.52	1.64	2.89	2.69	0.56	0.16	0.058	0.01	0.02	2.6	0.02	98.56	2.74
Union	3938	63.37	15.48	7.69	4.74	1	1.96	3.15	2.72	0.69	0.22	0.071	0.01	0.02	3.03	0.1	99.41	2.76
Union	3939	63.54	16.36	6.04	3.01	0.74	1.82	3.08	3.13	0.7	0.18	0.083	0.01	0.02	2.99	0.03	98.68	2.74
Union	3940	68.01	13.85	6.35	4.62	1.41	1.04	4.62	1.57	0.46	0.14	0.37	0.02	0.01	1.45	0.11	99.28	2.68
Catal.	3941	67.85	14	3.35	1.92	2.85	0.92	5.01	1.41	0.51	0.11	1.541	0.02	0.01	1.63	0.02	99.20	2.70
Catal.	3942	75.48	11.25	5.68	4.31	0.5	0.49	5.41	0.36	0.26	0.1	0.087	0.02	0.01	0.07	0.04	99.68	2.67
Catal.	3943	76.76	11.73	2.42	1.54	0.69	0.43	5.82	0.34	0.29	0.07	0.06	0.02	0.01	0.8	0.04	99.50	2.68
Catal.	3944	76.21	11.07	5.27	3.94	0.48	0.39	5.61	0.22	0.24	0.09	0.165	0.02	0.01	0.03	0.04	99.66	2.66
Catal.	3945	77.47	10.88	2.54	1.48	0.51	0.43	5.5	0.21	0.26	0.08	0.069	0.01	0.01	0.72	0.03	98.69	2.66
Catal.	3987	72.12	11.43	7.45	4.48	0.13	1.48	2.09	1.78	0.38	0.13	0.062	0.01	0.02	1.85	0.03	98.90	2.72
Catal.	3988	72.08	12.47	6.02	3.03	0.1	1.67	1.82	2.22	0.4	0.13	0.065	0.01	0.03	2.5	0.02	99.50	2.75
Catal.	3990	67.4	15.4	5.72	2.83	0.09	1.5	1.57	3.45	0.47	0.1	0.064	0.01	0.05	2.94	0.02	98.75	2.70
Catal.	3991	64.1	18.33	4.7	1.99	0.14	1.49	2.1	4.56	0.39	0.08	0.069	0.01	0.07	3.35	0.01	98.83	2.62
Acis	4003	62.33	16.53	6.47	3.79	0.38	1.58	2.9	3.04	0.68	0.12	0.158	0.01	0.04	3.01	0.03	99.05	2.75
Acis	4004	65.89	16.89	5.47	2.62	0.15	1.52	3.19	2.98	0.74	0.1	0.1	0.01	0.04	2.92	0.02	100.00	2.75
Acis	4005	62.85	17.01	7.48	3.78	0.27	1.61	3.01	3.1	0.79	0.12	0.109	0.01	0.04	2.93	0.02	99.40	2.76
Acis	4006	60.59	17.81	6.9	3.42	0.38	1.95	2.77	3.32	0.66	0.14	0.18	0.01	0.05	3.5	0.01	98.15	2.77
Magl.	4019	66.77	15.06	5.88	3.22	0.09	1.45	2.33	2.93	0.69	0.11	0.08	0.01	0.04	2.85	0.02	98.24	2.72
Magl.	4020	66.25	15.71	5.97	3.48	0.09	1.82	2.32	2.89	0.7	0.14	0.078	0.01	0.04	3.18	0.01	99.19	2.76
Magl.	4021	63.95	15.4	7.52	4.23	0.1	2.03	2.33	2.71	0.68	0.17	0.08	0.01	0.03	3.32	0.01	98.21	2.78
Magl.	4022	63.65	15.64	7.71	4.64	0.09	2.25	2.32	2.54	0.76	0.18	0.075	0.01	0.03	3.34	0.02	98.59	2.75
temp.	4025	63.57	17.47	6.42	3.46	0.13	1.56	3.11	3.16	0.89	0.12	0.101	0.01	0.03	3.26	0.01	99.83	2.72
temp.	4026	62.31	18.15	7.1	4.3	0.14	1.8	2.95	3.02	0.91	0.14	0.105	0.01	0.03	3.22	0.01	99.88	2.75
temp.	4027	61.18	17.11	7.71	4.44	0.16	1.8	2.99	2.86	1.03	0.15	0.113	0.01	0.03	3.48	0.01	98.61	2.73
temp.	4028	61.25	17.52	7.18	4.57	0.18	1.81	3.01	2.82	1.07	0.14	0.093	0.01	0.02	3.39	0.03	98.49	2.73
Error	all	0.1	0.0.08	0.0.03	0.09	0.04	0.54	0.05	0.02	0.003	0.001	0.004	.0012	.0005				0.04

Note: Specimen locations are shown in Fig. 7. Analyses are by XR on glass discF, with FeO by Pratt titration and C by Leco analyzer from ALS Chemex of Vancouver, BC, Canada, using Canadian Certified Reference Materials Project standard SY-4 (diorite gneiss from near Bancroft, Ontario). Errors (2σ) are from 89 replicate analyses of the standard in the same laboratory.

Table R4. Chemical analyses (oxide wt% and trace ppm) of tuffs, Conception Group

	Briscal	Drook	Drook	Drook	Drook	Mistaken	Mistaken	Mistaken	Mistaken	Mistaken	Mistaken	Mistaken	error
Sample	4032	3980	3981	3982	3983	3932	3995	3996	4007	4009	4012	4029	-
SiO_2	69.3	56.1	57	58	52.2	56.4	73.1	71.8	62.5	63.4	65.4	62	0.1
Al_2O_3	13.7	23.1	21.9	24	23.6	11.9	13.05	14.2	18.05	18.05	17.5	16.95	0.08
Fe_2O_3	4.93	2.75	2.66	2.73	3.72	1.92	3.37	3.49	5.98	6.24	4.45	8.07	0.03
CaO	1.54	1.54	1.42	1.02	2.22	13.65	0.13	0.18	0.15	0.16	0.32	0.3	0.04
MgO	2.26	1.93	1.76	1.61	2.7	0.27	1.03	1.09	1.52	1.63	1.56	1.86	0.01

Na_2O	2.07	0.33	0.36	0.33	0.43	6.37	1.66	1.62	2.76	2.73	1.75	2.94	0.05
K_2O	2.84	6.86	6.83	7.15	6.76	0.19	2.94	3.28	3.67	3.61	4.14	2.61	0.02
TiO_2	0.55	0.48	0.48	0.5	0.51	0.32	0.43	0.45	0.85	0.85	0.47	1	0.003
MnO	0.18	0.19	0.18	0.14	0.27	0.4	0.07	0.07	0.11	0.12	0.1	0.17	0.001
P_2O_5	0.07	0.1	0.1	0.09	0.1	0.35	0.06	0.06	0.1	0.1	0.1	0.1	0.004
LOI	4.25	5.9	5.89	5.2	7.27	9.91	2.23	2.62	2.99	2.85	3.26	2.96	-
Total	101.77	99.47	98.77	100.97	99.96	101.74	98.16	98.95	98.78	99.84	99.16	99.03	-
Ba	439	1540	1605	1625	1515	58.8	585	639	686	669	776	386	5
Ce	610	152.5	161	170	209	77.3	60.3	78.8	44.8	56.3	132.5	52.1	2
Co	5.3	1	0.9	0.9	3	2.4	9.4	9	15.4	17.4	9	20.6	0.2
Cr	60	20	10	10	10	160	40	30	70	60	40	80	1
Cs	3.88	7.5	7.9	8.33	8.06	0.47	4.52	4.87	5.66	5.67	4.95	3.66	0.1
Cu	49	24	8	10	6	5	24	19	19	17	33	34	1
Dy	12.6	13.1	13.65	13.5	16.5	5.62	4.71	4.91	5.54	5.62	4.83	9.74	0.6
Er	5.48	8.54	8.96	8.93	10.2	3.78	2.97	3.06	3.91	3.91	2.62	5.01	0.5
Eu	2.81	1.93	2.1	2.09	2.72	1.4	1.08	1.27	0.8	0.96	2.31	2.03	0.04
Ga	25.5	31.5	32.8	33	33.5	7.4	17.4	18.8	26.9	27.1	25.7	22.6	1
Gd	23.2	12.3	12.65	12.65	16.25	6.04	4.88	5.39	4.77	5.31	6.91	8.65	0.5
Hf	12.2	11.1	11.7	11.4	12.1	6.2	4.9	5.3	7	7.1	4.9	7.4	0.4
Ho	2.14	2.84	2.92	2.91	3.4	1.21	0.99	0.99	1.23	1.26	0.92	1.82	0.1
La	336	76.1	80.6	83.7	103	40.5	28.4	37.6	20.8	26.3	68.9	22.8	1
Lu	0.77	1.25	1.31	1.31	1.4	0.68	0.49	0.5	0.61	0.62	0.39	0.65	0.1
Mo	2	3	4	5	5	3	2	2	2	2	2	2	0.1
Nb	71.8	24.4	25.6	25.2	28.2	6.9	15.1	15.8	17.4	17.9	10.4	18.3	1
Nd	230	69.9	74.7	77.4	96.4	37.1	26.7	34	21.9	26.6	58	27	1
Ni	10	5	5	5	9	5	12	12	24	26	15	30	1
Pb	5	556	5	153	7	9	237	8	129	12	47	71	1
Pr	66.7	18.65	19.9	20.8	25.9	9.57	7.42	9.5	5.63	7.06	15.8	6.47	0.3
Rb	111	221	229	236	223	6.4	120.5	129	149.5	148	154.5	100.5	1.5
Sm	33.6	13.05	14.3	14.45	18.05	6.84	5.34	6.45	4.63	5.43	9.72	7.67	1
Sn	5	5	5	5	6	2	2	2	3	3	3	3	0.4
Sr	90.9	28.8	31.4	30.5	35.7	279	50.5	51.8	67.7	68.9	52.6	91.5	12
Ta	4.5	1.9	2	2	2.1	0.5	1.1	1.2	1.4	1.3	0.9	1.3	0.1
Tb	2.67	2.01	2.07	2.07	2.63	0.89	0.75	0.81	0.82	0.87	0.9	1.5	0.1
Th	14.9	23.8	24.9	24.4	25.9	8.24	14.35	15.9	12.05	11.55	7.98	10.25	0.2
Tl	<0.5	0.8	0.9	0.9	0.8	<0.5	<0.5	0.5	0.5	0.5	0.5	<0.5	1
Tm	0.77	1.27	1.32	1.32	1.46	0.58	0.45	0.48	0.58	0.58	0.38	0.68	0.1
U	3.28	4.09	4.2	4.26	4.84	2.33	2.98	3.13	1.67	1.84	2.13	2.04	0.1
V	35	44	47	48	51	7	52	57	130	130	86	105	1.6
W	1	1	1	1	1	1	1	1	2	2	<1	2	0.1
Y	57.4	73.8	77.4	75.4	90.1	36.8	26.8	27.5	32.5	32.6	25.4	44.9	2
Yb	5	8.62	8.68	8.89	9.81	4.25	3.21	3.24	4.03	4.09	2.54	4.55	0.4
Zn	106	101	34	49	51	32	83	56	102	99	65	122	2
Zr	489	386	400	398	422	226	168	174	265	259	184	278	16

Note: Specimen locations are shown in Fig. 7. Analyses are by ICP-MS from ALS Chemex of Vancouver, BC, Canada, using Canadian Certified Reference Materials Project standard SY-4. Errors (2σ) are from 89 replicate analyses of the standard in the same laboratory.