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A quantitative analysis of alteration in the Carbon Leader Reef in the West Wits Line Goldfield: an application of Shortwave Infrared Reflectance Spectroscopy

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Appendix 4: Geochemical Analyses and Gold Assay
Tombstone Samples

		ANALYSIS USED	XRF[e]												
		Element	SiO_2	Al_2O_3	CaO	MgO	Fe_2O_3	K_2O	MnO	Na_2O	P_2O_5	TiO_2	Cr_2O_3	V_2O_5	LOI	Total
		Lower Detection	0.05	0.05	0.01	0.05	0.01	0.01	0.01	0.05	0.01	0.01	0.01	0.01	-50	0.01
		Upper Detection	100	100	100	100	100	100	100	100	100	100	50	100	100	120
Sample	Sample ID	Unit	%	%	%	%	%	%	%	%	%	%	%	%	%	%
1	94-94 E1	Footwall	88.80	8.11	0.03	0.08	0.71	0.73	<0.01	0.14	0.03	0.23	0.02	<0.01	1.53	100.40
		No. 1 Facies	87.50	3.60	0.01	0.16	3.99	0.39	<0.01	<0.05	<0.01	0.24	0.08	<0.01	2.35	98.40
		Hangingwall	93.10	4.94	<0.01	0.12	0.74	0.35	<0.01	0.06	0.01	0.13	0.04	<0.01	0.97	100.50
2	99-94 E2	Footwall	90.80	5.67	<0.01	0.05	0.59	0.19	<0.01	0.06	0.02	0.12	0.01	<0.01	1.31	98.80
		No. 2A Facies	87.50	5.28	0.01	0.06	3.73	0.22	<0.01	<0.05	0.03	0.19	0.04	<0.01	2.49	99.60
		PPQ[a]	93.40	3.49	<0.01	0.08	1.83	0.24	<0.01	<0.05	<0.01	0.14	0.06	<0.01	1.21	100.50
		No. 2B Facies	92.90	4.80	0.01	0.18	1.42	0.27	<0.01	0.08	0.03	0.16	0.03	<0.01	1.27	101.10
		BOAZ[b]	92.00	5.42	0.02	0.15	0.91	0.21	<0.01	<0.05	0.02	0.09	0.06	<0.01	1.09	100.00
3	104-88 W6	Footwall	88.40	7.42	0.01	0.15	2.30	0.36	<0.01	<0.05	0.03	0.24	0.03	<0.01	1.47	100.40
		No. 1 Facies	90.80	3.64	0.02	0.09	2.62	0.41	<0.01	0.08	0.03	0.27	0.07	<0.01	1.72	99.70
		Hangingwall	91.00	5.27	0.01	0.08	0.86	0.20	<0.01	<0.05	0.02	0.08	0.18	<0.01	0.97	98.70
4	105-86 E2	FWPB[c]	88.10	5.41	0.01	0.09	3.65	0.13	<0.01	<0.05	0.03	0.22	0.10	<0.01	1.89	99.60
		Footwall	85.40	9.46	<0.01	0.11	0.97	0.40	<0.01	0.15	0.02	0.25	0.02	<0.01	1.59	98.40
		No. 1 Facies	88.40	6.63	0.03	0.14	1.90	0.55	<0.01	0.21	0.04	0.41	0.05	<0.01	1.85	100.20
		Hangingwall	93.20	4.80	0.01	0.09	0.98	0.35	<0.01	0.14	0.01	0.09	0.02	<0.01	0.74	100.50
5	112-83 W3	No. 1 Facies	88.80	4.97	0.02	0.25	3.12	0.33	0.02	0.08	0.03	0.12	0.12	<0.01	0.81	98.70
		Hangingwall	91.80	3.06	0.01	0.35	3.22	0.11	0.02	<0.05	0.02	0.06	0.14	<0.01	0.45	99.30
6	112-83 W4	Footwall	93.00	5.18	<0.01	0.10	0.98	0.23	<0.01	<0.05	0.02	0.10	0.03	<0.01	0.81	100.50
		No. 1 Facies	90.00	3.80	<0.01	0.38	2.48	0.23	<0.01	<0.05	0.02	0.19	0.06	<0.01	1.16	98.30
		Hangingwall	91.10	4.78	<0.01	0.53	2.45	0.09	0.01	<0.05	0.02	0.10	0.06	<0.01	0.92	100.10
7	114-78 E1	Footwall	85.80	9.61	<0.01	0.11	2.43	0.52	0.02	0.14	0.02	0.21	0.16	<0.01	1.23	100.30
		No. 1 Facies	91.60	3.62	0.02	0.16	3.26	0.28	0.04	0.10	0.02	0.13	0.13	<0.01	0.63	100.00
		Hangingwall	91.30	5.15	0.03	0.35	2.03	0.24	0.07	0.08	0.02	0.07	0.02	<0.01	0.80	100.20
8	120-55 W4	Footwall	88.50	5.98	0.02	0.18	1.94	0.16	0.01	<0.05	0.02	0.15	0.04	<0.01	1.05	98.10
		No. 3 Facies	77.00	10.10	0.02	0.29	7.23	0.73	0.02	0.11	0.03	0.55	0.17	0.01	3.39	99.60
		Hangingwall	92.60	5.20	0.01	0.17	1.98	0.22	0.01	0.05	0.02	0.14	0.06	<0.01	0.80	101.20
9	120-77 S1	FWPB[c]	84.20	8.47	<0.01	0.17	4.54	0.44	0.01	<0.05	0.04	0.40	0.11	<0.01	2.34	100.80
		Footwall	81.80	10.70	0.01	0.22	3.45	0.52	0.01	0.12	0.03	0.40	0.12	0.01	1.63	99.10
		No. 3 Facies	86.90	5.39	<0.01	0.13	4.07	0.59	0.01	0.12	0.03	0.31	0.18	<0.01	1.45	99.20
		Hangingwall	90.20	5.26	<0.01	0.10	2.68	0.34	0.01	0.07	0.02	0.15	0.12	<0.01	0.84	99.80
10	96-94 E2	Footwall	78.40	15.80	<0.01	0.14	1.82	0.64	<0.01	0.15	0.03	0.36	0.04	0.01	2.64	100.00
		No. 1 Facies	91.40	5.72	<0.01	<0.05	0.72	0.24	<0.01	0.08	0.02	0.10	0.03	<0.01	2.31	100.70
		Hangingwall	91.40	5.83	<0.01	<0.05	0.72	0.24	<0.01	0.07	0.02	0.11	0.02	<0.01	1.16	99.60

[a] Pale Pebbly Quartzite; [b] Brown-Orange Argillaceous Zone; [c] Footwall Pebble Band; [d] Internal Quartzite; [e] X-Ray Fluorescence

Appendix 4: Geochemical Analyses and Gold Assay
Tombstone Samples

		ANALYSIS USED	XRF[e]												
		Element	SiO_2	Al_2O_3	CaO	MgO	Fe_2O_3	K_2O	MnO	Na_2O	P_2O_5	TiO_2	Cr_2O_3	V_2O_5	LOI	Total
		Lower Detection	0.05	0.05	0.01	0.05	0.01	0.01	0.01	0.05	0.01	0.01	0.01	0.01	-50	0.01
		Upper Detection	100	100	100	100	100	100	100	100	100	100	50	100	100	120
Sample	Sample ID	Unit	%	%	%	%	%	%	%	%	%	%	%	%	%	%
11	100-92 Wze	Footwall	90.20	4.61	<0.01	0.37	3.94	0.02	0.01	<0.05	0.02	0.08	<0.01	<0.01	0.79	100.00
		No. 2A Facies	90.20	2.14	0.05	0.43	3.67	0.14	<0.01	<0.05	0.02	0.22	0.10	<0.01	1.86	98.90
		Hangingwall	93.60	4.00	<0.01	0.27	1.25	0.19	<0.01	<0.05	0.02	0.08	0.02	<0.01	0.95	100.40
12	104-88 E1A	Footwall	93.00	4.77	<0.01	0.07	0.72	0.21	<0.01	<0.05	0.02	0.09	0.05	<0.01	0.89	99.80
		No. 1 Facies	92.40	3.59	0.02	0.13	1.81	0.37	<0.01	0.05	0.02	0.18	0.07	<0.01	1.22	99.80
		Hangingwall	92.70	4.96	0.01	0.06	1.90	0.28	<0.01	0.08	0.02	0.07	0.09	<0.01	1.15	101.30
13	104-88 W7	Footwall	91.20	6.46	<0.01	0.09	0.94	0.33	<0.01	0.05	0.03	0.18	0.04	<0.01	1.12	100.40
		No. 1 Facies	84.40	5.00	0.04	0.09	4.13	0.50	<0.01	0.16	0.05	0.62	0.19	<0.01	2.68	97.90
		Hangingwall	91.60	5.83	<0.01	0.05	0.82	0.28	<0.01	0.11	0.02	0.12	0.04	<0.01	1.09	100.00
14	109-87 E2	Footwall	90.50	6.98	0.01	0.10	1.00	0.36	0.04	0.08	0.02	0.13	0.02	<0.01	1.12	100.30
		No. 1 Facies	92.20	4.41	0.02	0.06	1.17	0.37	0.07	0.11	0.01	0.13	0.02	<0.01	0.98	99.50
		Hangingwall	89.70	5.41	0.01	0.28	1.53	0.36	<0.01	0.11	0.02	0.13	0.02	<0.01	1.21	98.80
15	112-84 Rse	Footwall	91.30	4.16	<0.01	0.07	1.27	0.34	<0.01	0.08	0.01	0.11	0.04	<0.01	1.04	98.50
		IQ[d]	91.00	4.19	0.02	0.21	1.66	0.44	<0.01	0.08	0.02	0.15	0.04	<0.01	1.21	99.00
		No. 1 Facies	93.00	3.37	0.01	0.23	1.29	0.30	<0.01	<0.05	0.03	0.13	0.03	<0.01	0.92	99.30
		Hangingwall	92.00	4.90	0.02	0.46	1.66	0.26	0.01	0.14	0.02	0.10	0.10	<0.01	0.99	100.60
16	120-55 NE7	Footwall	91.30	5.63	<0.01	0.16	1.10	0.52	<0.01	0.14	0.02	0.10	0.01	<0.01	0.85	99.90
		No. 3 Facies	89.10	3.12	0.01	0.59	4.01	0.27	<0.01	<0.05	0.02	0.14	0.05	<0.01	1.91	99.30
		Hangingwall	89.50	4.74	<0.01	0.35	3.96	0.02	0.02	<0.05	0.01	0.15	0.04	<0.01	0.99	99.80
17	120-55 W5	Footwall	87.70	8.02	<0.01	0.18	1.95	0.53	0.01	0.09	0.02	0.16	0.02	<0.01	1.07	99.70
		No. 3 Facies	91.10	4.74	<0.01	0.34	1.66	0.28	<0.01	0.06	0.01	0.16	0.04	<0.01	1.00	99.40
		Hangingwall	91.40	3.94	<0.01	1.03	2.32	0.12	<0.01	<0.05	0.02	0.11	0.02	<0.01	1.14	100.10
18	120-55 W7	Footwall	90.60	5.77	<0.01	0.09	1.32	0.49	<0.01	0.06	0.02	0.18	0.03	<0.01	1.33	99.90
		No. 3 Facies	85.60	2.28	0.02	0.48	6.33	0.12	<0.01	<0.05	0.04	0.28	0.14	<0.01	3.05	98.40
		Hangingwall	87.70	4.64	<0.01	0.98	4.20	0.08	<0.01	<0.05	0.01	0.12	0.04	<0.01	1.03	98.80
19	120-70 W1	Footwall	94.70	2.65	<0.01	0.06	1.32	0.38	<0.01	0.06	0.02	0.07	0.02	<0.01	0.74	100.10
		No. 3 Facies	89.10	1.61	0.02	0.22	3.79	0.11	<0.01	<0.05	0.02	0.09	0.04	<0.01	1.78	96.80
		Hangingwall	93.10	1.92	<0.01	0.25	2.61	0.03	<0.01	<0.05	0.02	0.08	0.03	<0.01	0.70	98.70

[a] Pale Pebbly Quartzite; [b] Brown-Orange Argillaceous Zone; [c] Footwall Pebble Band; [d] Internal Quartzite; [e] X-Ray Fluorescence

Appendix 4: Geochemical Analyses and Gold Assay
Tombstone Samples

		ANALYSIS USED	Fire Assay	AAS[e]	LECO[f]		XRF[g]			ICP-OES[h]						
		Element	*Au*	*Ag*	*Total S*	*Total C*	*U*	U_3O_8	*Th*	*As*	*Ba*	*Co*	*Cu*	*Ni*	*Pb*	*Zn*
		Lower Detection	0.02	1	0.01	0.01	10	10	10	50	2	10	10	10	30	10
		Upper Detection	50000	0	100	73.8	8500	8500	4390	10000	10000	10000	10000	10000	20000	10000
Sample	Sample ID	Unit	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
1	94-94 E1	Footwall	0.1	<1	0.4	<0.01	10	12	<10	60	127	10	<10	30	<30	20
		No. 1 Facies	10.3	2	3.16	<0.01	220	259	22	270	79	90	20	140	70	20
		Hangingwall	0.2	<1	0.23	<0.01	12	14	<10	60	63	<10	<10	30	<30	20
2	99-94 E2	Footwall	0.2	<1	0.3	<0.01	14	16	<10	60	37	20	40	30	<30	20
		No. 2A Facies	41.2	7	2.78	<0.01	198	234	21	180	41	70	40	90	70	20
		PPQ[a]	0.5	<1	1.3	<0.01	18	21	<10	50	44	30	10	40	<30	20
		No. 2B Facies	40.1	9	0.7	<0.01	852	1005	55	50	58	20	<10	40	230	20
		BOAZ[b]	0.7	<1	0.23	<0.01	25	29	<10	<50	42	<10	20	10	<30	20
3	104-88 W6	Footwall	0.9	<1	0.57	<0.01	33	39	<10	80	62	20	<10	40	<30	20
		No. 1 Facies	172.0	36	1.82	0.03	1891	2230	127	80	105	60	10	130	720	20
		Hangingwall	0.1	<1	0.14	<0.01	<10	11	<10	<50	39	<10	<10	<10	<30	10
4	105-86 E2	FWPB[c]	0.5	<1	1.86	<0.01	47	55	14	290	39	70	20	140	30	20
		Footwall	0.2	<1	0.02	<0.01	<10	<10	<10	<50	70	<10	<10	<10	<30	20
		No. 1 Facies	227.0	19	0.94	0.15	1833	2162	125	470	114	90	<10	280	780	20
		Hangingwall	1.4	<1	0.21	0.01	43	51	<10	<50	60	<10	<10	40	<30	20
5	112-83 W3	No. 1 Facies	73.6	11	0.3	<0.01	444	523	29	<50	69	20	<10	50	150	<10
		Hangingwall	0.6	<1	0.26	<0.01	24	28	<10	<50	28	10	20	60	<30	20
6	112-83 W4	Footwall	0.4	<1	0.12	<0.01	<10	<10	<10	<50	48	<10	<10	30	<30	<10
		No. 1 Facies	119.0	15	0.93	<0.01	1018	1201	71	60	60	30	10	80	460	20
		Hangingwall	0.3	<1	0.33	<0.01	15	18	<10	<50	22	10	<10	40	<30	10
7	114-78 E1	Footwall	0.9	<1	0.05	<0.01	<10	10	<10	70	105	10	<10	50	<30	<10
		No. 1 Facies	21.1	2	0.64	<0.01	441	520	30	<50	60	20	10	70	110	10
		Hangingwall	0.6	<1	0.18	<0.01	17	20	<10	<50	47	<10	40	50	<30	10
8	120-55 W4	Footwall	0.5	<1	0.3	<0.01	<10	<10	<10	<50	32	10	<10	30	<30	20
		No. 3 Facies	311.0	49	3.62	<0.01	1007	1188	72	220	173	90	20	130	410	20
		Hangingwall	0.2	<1	0.16	<0.01	17	20	<10	<50	41	<10	<10	30	<30	20
9	120-77 S1	FWPB[c]	2.8	<1	2.14	<0.01	222	262	35	250	109	100	10	110	110	10
		Footwall	0.5	<1	0.34	<0.01	<10	<10	<10	90	114	20	<10	60	<30	20
		No. 3 Facies	80.7	9	1.41	0.01	2228	2627	155	140	124	70	20	210	860	<10
		Hangingwall	3.9	<1	0.57	<0.01	175	206	12	<50	68	30	10	90	80	10
10	96-94 E2	Footwall	1.3	<1	0.09	0.01	12	14	<10	<50	150	12	<10	20	43	21
		No. 1 Facies	284.0	37	3.61	0.11	3113	3671	221	<50	150	260	17	730	1400	28
		Hangingwall	2.7	<1	0.33	0.01	51	60	<10	<50	53	18	<10	14	110	14

[a] Pale Pebbly Quartzite; [b] Brown-Orange Argillaceous Zone; [c] Footwall Pebble Band; [d] Internal Quartzite; [e] Atomic Absorption Spectroscopy; [f] LECO Carbon and Sulphur Analysis; [g] X-ray Fluorescence; [h] Inductively Coupled Plasma Optical Emission Spectroscopy

Appendix 4: Geochemical Analyses and Gold Assay
Tombstone Samples

		ANALYSIS USED	Fire Assay	AAS[e]	LECO[f]		XRF[g]			ICP-OES[h]						
		Element	*Au*	*Ag*	*Total S*	*Total C*	*U*	U_3O_8	*Th*	*As*	*Ba*	*Co*	*Cu*	*Ni*	*Pb*	*Zn*
		Lower Detection	0.02	1	0.01	0.01	10	10	10	50	2	10	10	10	30	10
		Upper Detection	50000	0	100	73.8	8500	8500	4390	10000	10000	10000	10000	10000	20000	10000
Sample	Sample ID	Unit	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
11	100-92 Wze	Footwall	1.1	<1	0.51	<0.01	19	22	<10	<50	56	34	100	89	43	30
		No. 2A Facies	128.0	18	2.1	0.04	1997	2355	137	<50	47	120	100	240	850	26
		Hangingwall	0.6	<1	0.63	0.01	20	24	<10	<50	40	19	36	34	<30	10
12	104-88 E1A	Footwall	3.8	2.2	0.19	<0.01	100	118	<10	<50	49	18	<10	26	83	13
		No. 1 Facies	83.9	11	1.16	<0.01	1242	1465	83	<50	85	54	16	150	530	12
		Hangingwall	0.4	<1	0.14	0.04	28	33	<10	<50	64	19	<10	29	31	<10
13	104-88 W7	Footwall	0.5	<1	0.32	0.02	13	15	<10	<50	76	23	<10	29	68	19
		No. 1 Facies	130.0	59	4.7	0.21	5746	6776	387	<50	150	210	30	570	2200	43
		Hangingwall	0.8	<1	0.45	<0.01	21	25	<10	<50	64	19	<10	20	65	22
14	109-87 E2	Footwall	0.6	<1	0.02	<0.01	<10	<10	<10	<50	95	19	<10	13	<30	14
		No. 1 Facies	132.0	15	1.11	0.04	806	950	51	<50	87	30	11	36	300	16
		Hangingwall	2.5	<1	0.99	0.09	76	90	<10	<50	78	35	<10	77	89	23
15	112-84 Rse	Footwall	2.1	<1	1.07	<0.01	27	32	<10	<50	69	33	11	31	76	17
		IQ[d]	41.1	5.2	1.14	0.04	396	467	26	<50	86	44	10	46	200	60
		No. 1 Facies	79.5	12	0.6	<0.01	1320	1557	87	<50	65	31	24	43	430	18
		Hangingwall	1.2	<1	0.18	0.02	39	46	<10	<50	47	23	<10	38	120	15
16	120-55 NE7	Footwall	0.1	<1	0.02	0.04	<10	<10	<10	<50	96	19	<10	22	97	23
		No. 3 Facies	36.0	5.2	2.09	0.02	219	258	22	<50	52	73	12	120	170	24
		Hangingwall	1.2	<1	0.9	0.04	<10	<10	<10	<50	15	37	11	53	42	22
17	120-55 W5	Footwall	0.9	<1	0.12	0.02	14	17	<10	<50	95	25	<10	17	120	30
		No. 3 Facies	15.4	2.8	0.29	<0.01	106	125	<10	<50	57	31	<10	40	96	22
		Hangingwall	0.1	<1	0.18	0.03	<10	<10	<10	<50	29	30	21	94	38	29
18	120-55 W7	Footwall	135.0	16	0.69	<0.01	133	157	13	<50	95	37	<10	49	140	18
		No. 3 Facies	173.0	37	4.31	0.1	4114	4851	282	<50	52	180	230	130	1700	42
		Hangingwall	1.1	<1	0.71	<0.01	46	54	<10	<50	35	43	<10	78	160	36
19	120-70 W1	Footwall	26.8	2.1	0.91	0.03	254	300	16	<50	69	43	11	54	200	<10
		No. 3 Facies	141.0	23	2.35	0.03	1832	2160	128	<50	30	93	33	160	970	18
		Hangingwall	8.0	<1	0.88	<0.01	105	124	<10	<50	15	52	11	62	180	16

[a] Pale Pebbly Quartzite; [b] Brown-Orange Argillaceous Zone; [c] Footwall Pebble Band; [d] Internal Quartzite; [e] Atomic Absorption Spectroscopy; [f] LECO Carbon and Sulphur Analysis; [g] X-ray Fluorescence; [h] Inductively Coupled Plasma Optical Emission Spectroscopy

		ANALYSIS USED	XRF[a]												
		Element	SiO_2	Al_2O_3	CaO	MgO	Fe_2O_3	K_2O	MnO	Na_2O	P_2O_5	TiO_2	Cr_2O_3	V_2O_5	LOI	Total
		Lower Detection	0.05	0.05	0.01	0.05	0.01	0.01	0.01	0.05	0.01	0.01	0.01	0.01	-50	0.01
		Upper Detection	100	100	100	100	100	100	100	100	100	100	50	100	100	120
Sample	Sample ID	Unit	%	%	%	%	%	%	%	%	%	%	%	%	%	%
20	DPH 3883	Footwall	85.60	6.94	0.11	<0.05	2.25	0.31	<0.01	<0.05	0.03	0.23	0.14	<0.01	1.50	97.20
		No. 2A Facies	92.80	3.71	0.31	0.12	1.42	0.26	0.02	0.09	0.02	0.13	0.05	<0.01	0.65	99.58
		Hangingwall	92.40	4.18	0.04	0.12	1.44	0.22	0.01	0.01	0.02	0.09	0.02	0.01	0.64	100.12
21	DPH 4057	Footwall	88.50	6.70	0.08	<0.05	0.89	0.20	0.02	<0.05	0.02	0.18	0.01	<0.01	1.30	97.88
		No. 3 Facies	88.00	6.94	0.24	0.08	1.75	0.45	<0.01	0.09	0.02	0.27	0.04	<0.01	1.60	99.46
		Hangingwall	92.90	3.19	0.04	0.22	1.02	0.19	0.02	0.05	<0.01	0.07	0.02	<0.01	0.43	98.52
22	GBH 1000 D6	Footwall	86.40	8.63	0.05	<0.05	0.57	1.20	<0.01	0.12	0.02	0.22	0.03	<0.01	1.52	98.87
		No. 2A Facies	91.70	3.08	0.06	0.12	2.10	0.38	<0.01	<0.05	0.01	0.12	0.03	<0.01	0.98	98.58
		Hangingwall	90.00	5.87	0.04	0.15	2.29	0.59	0.02	0.08	0.01	0.11	0.03	<0.01	0.72	100.11
23	GBH 2788	Footwall	77.40	13.20	0.05	0.50	3.26	2.47	0.02	0.31	0.04	0.42	0.05	<0.01	2.32	100.00
		No. 2B Facies	91.60	2.39	0.17	<0.05	2.10	0.43	0.02	<0.05	0.02	0.13	0.03	<0.01	0.37	97.25
		Hangingwall	92.70	2.28	0.04	0.24	2.35	0.35	<0.01	0.06	<0.01	0.09	0.04	<0.01	0.47	100.30
24	GBH 3763	Footwall	88.00	7.63	0.05	<0.05	0.87	0.29	<0.01	<0.05	0.02	0.17	0.02	<0.01	1.83	99.02
		No. 1 Facies	91.80	4.43	0.13	0.07	1.05	0.24	0.01	0.05	0.02	0.12	0.02	<0.01	0.74	98.71
		Hangingwall	92.30	4.36	0.04	0.07	1.38	0.23	<0.01	0.06	0.01	0.09	0.03	<0.01	0.74	99.87
25	GBH 3844	Footwall	89.40	6.25	0.04	0.08	1.05	0.24	<0.01	<0.05	0.02	0.15	0.02	<0.01	1.46	98.79
		No. 3 Facies	89.70	3.01	0.15	0.08	3.49	0.13	<0.01	<0.05	0.04	0.22	0.02	<0.01	0.95	97.94
		Hangingwall	90.20	4.45	0.04	0.22	2.89	0.22	0.02	<0.05	0.02	0.11	0.04	0.01	0.80	99.77
26	GBH 3845	Footwall	87.50	8.95	0.03	0.06	1.09	0.28	0.01	<0.05	0.02	0.24	0.03	0.01	2.10	100.41
		No. 3 Facies	89.00	4.10	0.08	<0.05	2.24	0.14	0.02	<0.05	0.03	0.20	0.19	<0.01	1.34	97.40
		Hangingwall	90.80	5.03	0.03	0.23	2.67	0.12	0.04	<0.05	0.02	0.11	0.05	<0.01	0.73	100.46
27	GBH 4003	Footwall	84.40	6.94	0.11	<0.05	3.03	0.57	<0.01	0.07	0.03	0.26	0.02	<0.01	2.22	97.64
		No. 1 Facies	91.00	4.62	0.06	0.24	1.72	0.30	0.01	0.11	0.02	0.15	0.03	0.01	0.95	99.19
		Hangingwall	92.80	4.04	0.08	0.35	1.50	0.15	<0.01	0.06	0.02	0.09	0.02	<0.01	0.72	100.12
28	GBH 6000	Footwall	91.40	5.40	0.05	<0.05	1.14	0.91	0.01	0.08	0.02	0.15	0.03	<0.01	1.51	100.72
		No. 1 Facies	92.60	3.05	0.15	<0.05	1.34	0.55	<0.01	<0.05	0.02	0.12	0.02	0.01	0.76	98.53
		Hangingwall	88.70	4.50	0.03	0.10	1.63	0.88	<0.01	0.09	0.02	0.09	0.02	0.01	0.77	98.05
29	GBH 6001	Footwall	86.50	7.64	0.04	0.09	1.22	1.45	<0.01	0.25	0.02	0.21	0.03	0.01	1.49	98.98
		No. 3 Facies	86.00	4.46	0.26	0.52	3.36	0.59	0.02	0.08	0.02	0.15	0.01	<0.01	1.52	97.00
		Hangingwall	84.70	4.58	0.04	1.84	5.55	0.08	0.01	<0.05	0.02	0.10	0.03	<0.01	1.59	100.42
30	GBH 6003	Footwall	88.80	7.62	0.06	<0.05	0.59	0.76	0.01	0.34	0.02	0.17	0.03	<0.01	1.58	100.02
		No. 1 Facies	90.00	4.11	0.06	0.75	2.54	0.27	0.01	0.12	0.02	0.12	0.03	<0.01	1.10	99.16
		Hangingwall	91.80	4.19	0.04	0.18	1.49	0.33	0.02	0.17	0.02	0.10	0.03	<0.01	0.79	100.00

[a] X-Ray Fluorescence

Appendix 4: Geochemical Analyses and Gold Assay
Borehole Samples

		ANALYSIS USED	XRF[a]												
		Element	SiO_2	Al_2O_3	CaO	MgO	Fe_2O_3	K_2O	MnO	Na_2O	P_2O_5	TiO_2	Cr_2O_3	V_2O_5	LOI	Total
		Lower Detection	0.05	0.05	0.01	0.05	0.01	0.01	0.01	0.05	0.01	0.01	0.01	0.01	-50	0.01
		Upper Detection	100	100	100	100	100	100	100	100	100	100	50	100	100	120
Sample	Sample ID	Unit	%	%	%	%	%	%	%	%	%	%	%	%	%	%
31	GBH 6004	Footwall	95.30	2.52	0.04	<0.05	1.04	0.21	<0.01	<0.05	0.01	0.10	0.03	0.01	1.12	100.42
		No. 2B Facies	90.00	2.78	0.30	<0.05	2.51	0.21	0.02	<0.05	0.04	0.22	0.04	<0.01	2.28	98.43
		Hangingwall	92.80	4.48	0.04	0.06	1.18	0.21	<0.01	0.07	0.02	0.10	0.03	<0.01	0.80	100.34
32	GBH 6014	Footwall	85.90	9.86	0.04	0.08	1.13	0.46	<0.01	0.11	0.02	0.29	0.06	<0.01	2.25	100.21
		No. 1 Facies	90.60	4.55	0.09	0.42	2.21	0.38	<0.01	0.07	0.03	0.14	0.10	<0.01	1.03	99.61
		Hangingwall	89.80	4.43	0.03	0.38	2.45	0.24	0.02	0.05	0.02	0.12	0.03	<0.01	0.79	99.14
33	GBH 6028	Footwall	86.20	3.65	0.07	0.16	4.05	0.18	0.01	<0.05	0.04	0.27	0.05	0.02	2.66	97.28
		No. 1 Facies	90.60	5.74	0.07	<0.05	0.82	0.31	<0.01	0.08	0.02	0.13	0.03	<0.01	1.80	99.60
		Hangingwall	91.80	2.20	0.04	<0.05	1.93	0.19	<0.01	<0.05	0.01	0.11	0.04	<0.01	1.06	100.38
34	GBH 6036	Footwall	90.40	4.64	0.05	0.14	2.24	0.28	0.02	0.24	0.02	0.12	0.03	0.01	1.06	99.26
		No. 1 Facies	89.80	2.19	0.06	0.47	3.24	0.15	<0.01	0.11	0.01	0.17	0.07	<0.01	0.78	97.04
		Hangingwall	95.90	2.27	0.07	0.10	1.37	0.22	<0.01	0.18	0.01	0.09	0.05	0.01	0.44	101.16

[a] X-Ray Fluorescence

Appendix 4: Geochemical Analyses and Gold Assay
Borehole Samples

		ANALYSIS USED	Fire Assay	AAS[a]	LECO[b]		XRF[c]	ICP-OES[d]						
		Element	*Au*	*Ag*	*Total S*	*Total C*	*U*	*As*	*Ba*	*Co*	*Cu*	*Ni*	*Pb*	*Zn*
		Lower Detection	0.02	1	0.01	0.05	8	30	10	10	10	10	20	10
		Upper Detection	100	100	35	40	8480	10000	10000	10000	10000	10000	10000	10000
Sample	Sample ID	Unit	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
20	DPH 3883	No. 2A Facies	89.70	I/S[e]	0.40	<0.05	755.00	60.00	50.00	30.00	140.00	370.00	290.00	I/S[e]
21	DPH 4057	No. 3 Facies	64.33	7.00	0.93	<0.05	293.00	100.00	80.00	40.00	40.00	90.00	220.00	<10
22	GBH 1000 D6	No. 2A Facies	4.52	<1	1.23	<0.05	180.00	60.00	50.00	40.00	50.00	60.00	110.00	<10
23	GBH 2788	No. 2B Facies	9.25	<1	0.97	<0.05	109.00	210.00	70.00	40.00	50.00	40.00	100.00	10.00
24	GBH 3763	No. 1 Facies	40.97	5.00	0.18	<0.05	581.00	70.00	70.00	20.00	60.00	380.00	310.00	20.00
25	GBH 3844	No. 3 Facies	31.40	3.00	1.73	<0.05	421.00	40.00	30.00	60.00	40.00	70.00	230.00	20.00
26	GBH 3845	No. 3 Facies	1.58	<1	0.86	<0.05	63.00	60.00	30.00	20.00	50.00	30.00	90.00	20.00
27	GBH 4003	No. 1 Facies	86.80	8.00	0.64	<0.05	524.00	110.00	70.00	40.00	50.00	70.00	260.00	<10
28	GBH 6000	No. 1 Facies	80.83	I/S[e]	0.77	<0.05	273.00	<30	60.00	20.00	40.00	20.00	110.00	I/S[e]
29	GBH 6001	No. 3 Facies	36.43	4.00	1.52	<0.05	756.00	<30	80.00	20.00	120.00	130.00	340.00	20.00
30	GBH 6003	No. 1 Facies	6.35	<1	0.58	<0.05	53.00	50.00	40.00	10.00	130.00	70.00	50.00	20.00
31	GBH 6004	No. 2B Facies	12.83	2.00	1.66	<0.05	361.00	50.00	40.00	40.00	70.00	80.00	190.00	<10
32	GBH 6014	No. 1 Facies	67.45	I/S[e]	0.45	<0.05	559.00	<30	60.00	10.00	30.00	40.00	240.00	<10
33	GBH 6028	No. 1 Facies	0.63	I/S[e]	0.30	0.11	23.00	90.00	50.00	20.00	40.00	40.00	50.00	I/S[e]
34	GBH 6036	No. 1 Facies	29.63	4.00	1.56	<0.05	386.00	150.00	30.00	60.00	80.00	90.00	220.00	10.00

[a] Atomic Absorption Spectroscopy; [b] LECO Carbon and Sulphur Analysis; [c] X-ray Fluorescence; [d] Inductively Coupled Plasma Optical Emission Spectroscopy; [e] Insufficient Sample