

Volcanic Architecture and Mineral Prospectivity of the Central Kalkarindji CFBP, Australia

	w2-a5 calib std	w2-b calib std	w2-c calib std	BIR-1R basalt	BHVO2-I basalt	40-45	60-65	95-100	101	140-145	150-155	185-190	225	225-230	280-285
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
L	9.18	9.10	9.21	3.16	4.52	22.10	24.74	18.94	18.26	12.86	12.28	27.54	36.20	15.16	12.59
Be	0.62	0.62	0.62	0.10	1.05	1.11	0.97	1.01	1.02	1.43	1.43	0.93	0.96	0.96	0.96
Ca	77616.31	77509.88	77926.83	99337.02	82629.12	58055.82	38318.45	57002.45	56079.50	56863.51	56490.37	41868.41	62682.50	67033.00	70979.99
Sc	36.01	36.09	36.10	46.40	32.41	40.44	40.48	42.00	40.69	37.95	38.48	37.30	38.72	38.35	39.40
Ti	6329.13	6351.87	6376.19	6084.15	16491.98	6629.41	6092.61	6315.18	6250.36	7766.68	7629.38	4986.36	5437.05	5440.74	5412.19
V	261.48	262.26	260.98	343.65	316.59	267.46	274.41	287.72	281.04	311.52	312.47	214.17	235.09	240.27	243.27
Cr	92.57	92.86	92.88	437.20	302.35	25.59	41.10	28.75	29.30	23.77	22.52	117.27	99.78	137.41	149.01
Co	44.39	44.57	44.58	56.36	45.85	43.74	42.55	45.57	45.49	43.19	42.52	35.46	39.35	39.97	40.78
Ni	69.75	69.94	70.23	179.34	119.70	39.24	46.80	41.13	41.30	25.41	24.86	51.06	47.39	56.58	58.11
Cu	103.45	103.71	101.91	121.53	125.75	17.43	64.04	11.64	11.79	12.31	42.46	44.47	59.75	59.10	41.19
Zn	76.93	77.10	76.94	88.70	103.47	52.26	71.03	82.57	83.04	85.84	62.41	61.56	73.16	69.16	66.29
Ga	17.44	17.42	17.41	15.85	21.20	18.47	16.39	17.92	18.01	18.97	18.83	15.14	16.90	16.45	16.49
As	0.83	0.77	0.76	0.04	0.50	0.68	0.62	0.30	0.32	0.42	0.53	0.69	0.33	0.48	0.36
Rb	19.80	19.81	19.79	0.19	9.13	68.51	53.22	58.23	61.14	67.99	63.16	59.99	58.69	55.20	51.58
86 Sr	195.53	194.98	194.15	108.85	395.69	180.83	168.89	182.42	178.08	142.57	149.87	190.09	153.44	147.12	146.62
88 Sr	195.82	194.79	194.15	108.61	393.82	181.52	170.06	182.14	178.16	143.23	150.27	190.77	154.35	148.01	147.55
Y	20.07	20.15	20.10	14.69	24.33	26.88	22.69	24.10	23.94	29.25	29.25	21.40	23.01	23.53	22.51
90 Zr	88.81	86.23	88.90	14.48	170.04	126.27	103.19	108.80	113.78	148.44	146.18	104.99	113.36	116.84	112.19
91 Zr	88.77	86.30	88.87	14.47	169.58	126.09	102.88	108.53	112.99	147.86	145.53	104.70	112.84	116.25	111.49
Nb	7.23	7.31	7.26	0.53	18.33	6.38	5.46	5.64	5.84	8.41	8.23	5.25	5.75	5.89	5.64
Mo	0.41	0.42	0.44	0.04	3.49	0.70	0.34	0.36	0.39	0.55	0.55	0.34	0.44	0.40	0.39
Cd	0.08	0.08	0.08	0.10	0.09	0.03	0.05	0.05	0.07	0.06	0.04	0.03	0.05	0.05	0.05
In	0.06	0.06	0.06	0.06	0.09	0.07	0.06	0.06	0.06	0.08	0.08	0.08	0.05	0.06	0.06
Sn	1.94	1.88	2.03	0.83	1.96	1.78	1.29	1.33	1.32	2.30	2.08	1.31	1.15	1.43	1.35
Sb	0.74	0.70	0.70	0.49	0.09	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01
Cs	0.89	0.89	0.89	0.00	0.10	1.15	13.74	0.66	0.65	1.05	0.83	5.76	0.70	0.91	0.96
135 Ba	169.74	169.51	169.82	6.44	130.70	228.29	189.99	209.97	206.54	244.95	232.15	267.85	208.71	207.39	203.79
137 Ba	169.04	170.01	169.80	6.42	130.53	228.43	189.19	208.47	205.21	242.92	231.89	266.10	207.64	206.97	202.34
La	10.52	10.52	10.52	0.60	15.23	18.02	15.11	14.83	15.30	23.03	22.59	13.89	15.47	17.30	15.66
Ce	23.24	23.18	23.23	1.89	37.75	37.82	31.10	31.60	32.47	47.70	47.02	29.70	32.37	36.61	32.53
Pr	3.03	3.03	3.02	0.38	5.40	4.57	3.75	3.88	3.96	5.67	5.60	3.63	3.95	4.29	3.92
Nd	12.89	12.91	12.92	2.37	24.30	17.97	14.82	15.39	15.73	21.89	21.69	14.41	15.61	16.80	15.49
Sm	3.28	3.28	3.24	1.09	6.07	4.24	3.56	3.74	3.79	4.96	4.92	3.36	3.64	3.85	3.63
Eu	1.10	1.10	1.09	0.52	2.06	1.16	1.00	1.08	1.08	1.27	1.29	0.95	1.02	1.02	1.00
Gd	3.69	3.71	3.72	1.88	6.21	4.69	3.93	4.16	4.14	5.21	5.21	3.68	4.02	4.16	3.94
Tb	0.61	0.61	0.62	0.36	0.94	0.79	0.67	0.71	0.70	0.86	0.87	0.62	0.68	0.68	0.66
Dy	3.80	3.81	3.81	2.55	5.22	4.90	4.22	4.47	4.42	5.37	5.38	3.92	4.17	4.28	4.14
Ho	0.80	0.80	3.81	0.59	1.00	1.06	0.90	0.97	0.96	1.15	1.15	0.85	0.92	0.92	0.89
Er	2.21	2.23	2.22	1.70	2.50	2.96	2.52	2.69	2.69	3.22	3.19	2.37	2.57	2.58	2.49
Tm	0.33	0.33	0.33	0.26	0.34	0.45	0.38	0.41	0.40	0.48	0.49	0.36	0.38	0.39	0.37
Yb	2.05	2.06	2.06	1.67	1.99	2.86	2.44	2.61	2.59	3.08	3.10	2.29	2.45	2.47	2.39
Lu	0.30	0.30	0.30	0.25	0.27	0.42	0.36	0.38	0.38	0.45	0.46	0.34	0.36	0.37	0.36
Hf	2.38	2.32	2.38	0.57	4.31	3.31	2.72	2.87	2.99	3.90	3.84	2.73	2.95	3.04	2.95
Ta	0.45	0.45	0.46	0.04	1.14	0.43	0.37	0.38	0.40	0.59	0.58	0.35	0.38	0.39	0.38
W	0.24	0.24	0.24	0.01	0.19	0.53	0.47	0.42	0.46	0.74	0.82	0.36	0.44	0.41	0.37
Tl	0.09	0.09	0.09	0.00	0.02	0.18	0.10	0.13	0.15	0.23	0.19	0.13	0.14	0.15	0.14
Pb	7.64	7.49	7.49	3.13	1.53	8.35	10.60	5.93	5.21	10.94	10.04	6.30	5.62	6.35	5.95
Bi	0.02	0.02	0.02	0.01	0.01	0.03	0.03	0.03	0.03	0.10	0.06	0.09	0.03	0.07	0.05
Th	2.11	2.05	2.16	0.03	1.18	6.98	5.80	6.09	6.43	9.44	9.35	5.56	6.00	6.25	5.91
U	0.50	0.50	0.51	0.01	0.42	1.08	0.93	0.96	0.98	1.59	1.60	0.81	0.92	0.97	0.93

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	304	350-355	405-410	415-420	435-440	451	560-565	595-600	620-625	640-650	770-775	805-810	820-825	850-855	Average
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
L	18.47	44.85	29.53	18.97	14.36	21.63	28.32	25.10	24.27	37.51	50.73	17.38	21.58	22.46	20.07
Be	0.87	0.93	0.87	1.49	1.50	1.49	0.92	0.99	1.03	1.01	0.89	1.50	1.37	0.95	1.08
Ca	68024.33	63250.27	58668.18	49284.83	58267.17	52986.57	39520.36	64748.08	61737.84	38235.76	21510.78	60677.44	55032.82	70282.03	56537.40
Sc	37.90	37.60	36.66	38.75	37.95	38.00	34.64	35.79	35.44	36.63	42.54	38.88	38.73	37.72	39.38
Ti	4936.08	5375.80	5408.29	8213.34	8016.79	7980.34	4848.53	5366.85	5384.92	4965.94	8034.40	7493.75	6670.84	5396.45	6196.00
V	235.85	236.69	235.22	366.44	352.82	359.65	215.06	234.33	280.31	245.60	377.57	303.68	268.87	238.81	266.74
Cr	134.88	159.25	178.25	41.26	42.47	44.13	216.44	219.92	195.50	203.37	37.45	33.67	37.88	118.85	67.45
Co	39.26	40.35	41.72	43.13	43.02	47.94	38.05	40.11	38.83	37.34	47.07	37.92	37.11	39.66	41.86
Ni	55.88	46.77	89.73	28.73	28.49	29.28	72.32	73.25	72.40	70.09	42.66	41.40	39.84	64.39	43.19
Cu	44.17	18.71	205.95	24.50	10.72	53.44	33.59	13.32	12.43	56.80	27.59	12.65	31.48	47.56	36.42
Zn	55.87	75.15	71.34	96.67	75.54	61.34	71.88	69.87	62.26	70.71	66.71	54.77	64.25	64.85	70.73
Ga	16.13	16.89	16.67	18.21	19.14	19.50	15.16	16.60	16.08	14.62	19.18	18.29	17.71	16.73	17.36
As	0.43	0.25	0.30	0.58	0.42	0.41	0.29	0.23	0.50	0.33	0.75	0.39	0.49	0.34	0.47
Rb	45.22	40.54	33.08	69.95	77.46	68.38	66.46	59.28	60.00	61.94	39.11	51.60	73.81	45.12	59.77
86 Sr	149.93	153.80	205.31	186.06	139.23	133.62	184.93	145.61	147.46	226.46	171.70	169.28	171.82	148.66	163.99
88 Sr	150.15	153.89	205.63	186.34	139.65	134.41	185.79	146.57	147.70	228.06	172.92	169.38	172.42	149.40	164.60
Y	21.22	22.32	22.11	31.71	31.38	30.23	20.87	21.94	23.73	22.08	29.92	30.80	27.18	22.38	24.66
90 Zr	102.74	108.53	111.22	156.97	160.40	159.89	99.36	108.79	108.57	103.60	156.75	147.33	135.22	108.54	119.40
91 Zr	102.47	108.36	111.07	155.98	159.79	159.31	99.31	108.20	108.00	103.62	157.48	147.81	135.82	108.67	118.92
Nb	5.15	5.73	5.11	8.45	8.61	8.56	5.21	5.79	5.75	5.43	8.45	7.77	7.07	5.64	6.25
Mo	0.30	0.62	0.29	0.62	0.57	0.46	0.30	0.43	0.56	0.27	0.38	0.47	0.37	0.47	0.44
Cd	0.05	0.04	0.02	0.03	0.04	0.03	0.02	0.04	0.05	0.03	-0.01	0.04	0.04	0.05	0.05
In	0.05	0.05	0.06	0.08	0.08	0.08	0.04	0.06	0.06	0.05	0.05	0.08	0.09	0.05	0.07
Sn	1.11	1.13	1.53	2.16	2.23	2.19	1.21	1.33	2.23	1.26	1.71	2.10	1.93	1.37	1.53
Sb	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.04	0.01	0.02	0.04	0.01	0.02
Cs	0.66	0.53	0.54	0.71	1.03	0.82	0.60	0.71	0.83	0.64	0.27	0.75	1.18	0.98	2.64
135 Ba	199.77	213.10	183.76	323.59	268.59	247.94	235.86	207.12	213.90	294.99	198.15	212.69	254.92	188.79	219.96
137 Ba	199.33	211.99	183.76	321.00	267.91	246.23	234.56	205.92	213.89	294.37	198.22	212.10	254.35	188.46	218.92
La	14.80	15.23	15.53	25.10	23.24	23.80	14.88	15.92	16.35	15.58	22.29	22.13	19.25	15.42	17.12
Ce	30.89	31.49	32.44	51.31	48.76	49.66	30.66	33.09	34.00	32.47	48.33	46.19	41.48	32.13	35.89
Pr	3.73	3.81	3.93	6.05	5.87	5.93	3.68	3.96	4.13	3.94	5.63	5.57	5.05	3.92	4.32
Nd	14.68	15.00	15.46	23.34	22.76	22.85	14.37	15.36	16.12	15.35	21.50	21.89	19.75	15.45	16.98
Sm	3.45	3.54	3.63	5.34	5.28	5.16	3.35	3.59	3.76	3.58	4.76	5.09	4.66	3.59	3.97
Eu	0.96	1.00	1.01	1.47	1.36	1.31	0.93	1.00	0.99	0.95	1.44	1.44	1.36	1.01	1.09
Gd	3.72	3.86	3.89	5.68	5.56	5.42	3.63	3.86	4.08	3.83	4.90	5.47	4.92	3.89	4.31
Tb	0.62	0.65	0.66	0.93	0.93	0.90	0.61	0.65	0.68	0.64	0.81	0.91	0.82	0.65	0.73
Dy	3.91	4.08	4.08	5.80	5.82	5.63	3.81	4.04	4.29	4.01	5.15	5.72	5.10	4.08	4.53
Ho	0.84	0.88	0.88	1.24	1.24	1.20	0.82	0.88	0.92	0.87	1.18	1.22	1.08	0.88	0.98
Er	2.36	2.48	2.49	3.49	3.46	3.39	2.32	2.48	2.59	2.45	3.51	3.40	3.02	2.48	2.73
Tm	0.35	0.37	0.37	0.52	0.52	0.51	0.35	0.37	0.38	0.37	0.53	0.50	0.46	0.37	0.41
Yb	2.27	2.37	2.38	3.30	3.28	3.27	2.19	2.35	2.40	2.33	3.37	3.17	2.92	2.35	2.63
Lu	0.33	0.35	0.35	0.48	0.48	0.48	0.33	0.35	0.36	0.35	0.49	0.47	0.43	0.35	0.39
Hf	2.70	2.85	2.96	4.10	4.21	4.18	2.63	2.87	2.88	2.75	4.18	3.88	3.60	2.85	3.13
Ta	0.35	0.39	0.35	0.60	0.62	0.61	0.35	0.39	0.39	0.37	0.59	0.54	0.50	0.38	0.43
W	0.48	0.42	0.37	0.72	0.59	0.61	0.36	0.43	0.43	0.51	0.41	0.75	0.51	1.38	0.50
Tl	0.07	0.07	0.05	0.20	0.27	0.22	0.16	0.17	0.15	0.14	0.10	0.16	0.22	0.10	0.16
Pb	8.26	7.87	4.54	10.55	12.00	11.77	5.49	6.93	7.43	5.07	4.75	9.53	9.31	6.35	7.53
Bi	0.02	0.02	0.03	0.05	0.06	0.06	0.01	0.02	0.06	0.02	0.03	0.06	0.05	0.03	0.05
Th	5.48	5.61	5.84	9.88	10.22	10.09	6.20	6.77	6.92	6.63	8.58	8.20	7.47	5.68	6.78
U	0.83	0.86	0.92	1.80	1.84	1.86	0.96	1.05	1.25	1.20	1.18	1.47	1.37	0.92	1.08