



**BUREAU
VERITAS**

Bureau Veritas Minerals Pty Ltd
MINERAL TESTING & LABORATORY SERVICES

ABN: 30 008 127 802

35-37 Stirling Street
Thebarton SA 5031

Telephone (08) 8416 5200
Facsimile (08) 8234 0355

Reference: **aa035274.a**
Date Finished: 31/05/2018
Order: None Supplied
Project:
Date Received: 01/05/2018
Type of Sample: Pulps
Samples Analysed: **116**

FINAL ANALYSIS REPORT

Analysis of Mineral Samples

for

BMEx Pty Ltd

PO Box 2192 Toowong QLD 4066

Attention: Mr Pete Moorhouse

Authorised By:

Vaughn Noble
Senior Chemist

Christopher Abbott
Senior Chemist

Jenet Hwende
Technical Quality
Manager



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Method	Mn	Fe	AL	P	CA	Ba
Result Name	%	%	%	%	%	%
Units						
Detection Limit	0.01	0.01	0.01	0.001	0.01	0.001
BLANK 1	72.04	<0.01	<0.01	<0.001	<0.01	<0.001
1	0.04	2.30	0.93	0.016	0.02	0.012
2	0.06	1.77	0.71	0.042	0.11	0.110
3	10.08	3.97	2.78	0.306	16.71	1.521
4	1.45	3.71	5.69	0.062	1.38	0.099
5	35.09	0.79	3.42	0.464	0.52	0.151
6	32.77	2.25	3.90	0.534	0.84	1.145
Std Nominal			2.93	0.095		
Determined	0.49	29.21	2.91	0.096	3.47	2.945
8	27.27	3.27	2.65	0.217	0.18	0.310
11	31.38	1.38	4.82	0.119	0.46	0.700
17	36.50	1.97	3.04	0.055	0.67	0.357
18	27.60	3.41	3.05	0.119	4.24	0.394
19	34.77	2.18	3.03	0.094	0.21	0.528
20	33.56	2.31	2.98	0.103	0.20	0.599
20 Rpt	33.66	2.31	2.98	0.098	0.20	0.595
21	31.32	2.73	2.79	0.119	0.20	0.642
22	27.40	4.14	2.70	0.120	0.25	0.685
23	25.53	6.58	2.65	0.109	0.20	0.816
24	29.29	3.41	2.43	0.144	5.75	0.752
25	33.17	2.40	2.75	0.142	1.55	1.008
26	32.36	2.24	3.09	0.114	0.43	0.956
27	23.85	3.32	2.81	0.191	1.31	0.957
28	29.51	2.60	2.48	0.234	2.84	0.921
Std Nominal	0.02	66.72		0.004	0.01	0.005
Determined	0.02	66.82	0.07	0.004	<0.01	0.004
29	35.27	3.24	2.59	0.284	0.68	1.270
30	34.03	4.49	2.62	0.182	0.82	1.301
31	32.55	8.96	2.59	0.150	1.14	0.897
32	32.81	8.07	2.60	0.159	0.79	0.915
33	30.47	8.85	2.49	0.190	0.79	0.965
34	22.66	9.91	2.48	0.170	0.56	0.838
35	27.81	0.93	1.83	0.242	0.16	1.141
36	28.66	2.38	2.33	0.220	0.65	1.047
37	26.92	5.56	1.90	0.282	0.87	1.034
37 Rpt	NR	NR	NR	NR	NR	NR
38	13.36	1.25	1.73	0.146	0.19	0.746
39	23.58	3.31	1.94	0.249	0.47	1.161
40	25.61	6.62	1.98	0.320	0.92	1.143
41	27.51	2.50	2.44	0.283	0.44	1.381
42	33.38	1.71	3.00	0.219	0.44	1.788



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Method

Result Name Units	Mn %	Fe %	AL %	P %	CA %	Ba %
Detection Limit	0.01	0.01	0.01	0.001	0.01	0.001
43	27.34	3.73	2.60	0.405	2.34	0.718
Std Nominal	0.17	66.63		0.048	0.78	
Determined	0.18	66.78	0.41	0.050	0.80	0.005
44	26.22	2.59	2.29	1.088	2.43	0.579
45	30.87	1.51	2.35	0.735	1.43	0.574
46	30.25	2.06	2.16	0.219	0.23	0.531
47	28.00	2.13	2.25	0.244	0.32	0.733
48	21.89	2.43	2.11	0.225	0.24	0.965
49	25.57	3.90	2.22	0.286	0.44	1.406
50	26.74	5.63	2.91	0.196	0.26	1.000
51	35.95	2.02	3.79	0.437	0.26	1.591
52	42.10	1.18	2.69	0.176	0.33	1.051
53	38.41	1.52	2.18	0.212	3.62	1.458
54	0.51	0.87	1.09	0.024	0.03	0.063
55	4.39	30.21	2.27	0.144	0.10	0.179
56	13.99	1.03	3.40	0.174	0.24	0.632
57	18.67	1.29	4.75	0.179	0.17	0.303
57 Rpt	18.54	1.30	4.76	0.182	0.17	0.307
58	19.92	0.87	3.22	0.234	0.28	0.269
59	32.90	6.35	2.39	0.515	0.60	0.677
60	10.89	0.45	2.46	1.282	3.19	0.232
61	2.65	0.24	1.01	0.947	25.96	0.087
62	1.77	2.97	1.64	5.494	28.69	0.079
63	8.28	1.39	1.13	9.142	28.26	0.169
Std Nominal			2.93	0.095		
Determined	0.50	29.39	2.88	0.100	3.47	3.023
64	4.50	43.43	1.65	0.228	2.07	0.156
65	0.04	38.33	0.81	0.131	0.05	0.037
66	0.14	41.17	0.40	0.199	0.69	0.014
67	0.22	44.08	0.54	0.283	0.65	0.007
68	0.06	9.20	0.63	0.136	0.08	0.007
69	0.12	36.76	0.49	0.077	0.07	0.013
70	0.20	57.12	0.52	0.248	0.14	0.013
71	0.20	20.98	0.38	0.109	0.09	0.028
72	0.21	29.90	0.59	0.052	0.63	0.012
73	0.11	43.27	0.97	0.140	0.01	0.013
73 Rpt	NR	NR	NR	NR	NR	NR
74	0.03	2.19	0.26	0.008	0.04	0.011
75	0.08	9.54	0.28	0.026	0.20	0.026
76	<0.01	22.40	1.94	0.179	0.26	0.006
77	0.35	55.09	1.50	0.198	0.11	0.023



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Method

Result Name Units	Mn %	Fe %	AL %	P %	CA %	Ba %
Detection Limit	0.01	0.01	0.01	0.001	0.01	0.001
78	0.77	54.99	1.34	0.119	0.16	0.015
79	0.42	57.84	0.66	0.119	0.11	0.004
80	0.18	57.48	0.83	0.160	0.15	0.013
81	0.28	55.12	1.25	0.096	0.18	0.031
Std Nominal	38.81	4.27		0.018	10.29	0.072
Determined	38.82	4.28	0.12	0.019	10.13	0.073
82	0.04	52.20	1.18	0.368	0.31	0.021
83	0.09	52.77	0.50	0.311	0.93	0.019
84	0.12	50.77	0.47	0.178	0.20	0.026
85	0.24	46.45	2.25	0.252	0.94	0.007
86	0.10	53.90	0.43	0.253	2.35	0.021
87	0.07	55.97	0.74	0.408	0.39	0.011
87 Rpt	NR	NR	NR	NR	NR	NR
88	0.32	43.51	2.29	0.091	0.86	0.027
89	0.08	2.96	0.23	0.029	10.88	0.018
90	10.23	39.73	0.39	0.078	1.94	0.338
BLANK 2	<0.01	69.95	<0.01	<0.001	<0.01	<0.001
91	3.31	21.77	0.65	0.094	6.02	0.102
92	0.22	56.62	0.35	0.191	1.35	0.068
93	9.73	36.11	0.28	0.072	5.02	0.308
94	1.66	50.98	0.62	0.118	0.14	0.030
95	0.69	45.83	1.30	0.048	1.27	0.031
96	2.04	46.48	0.83	0.118	2.41	0.082
97	1.61	52.66	1.09	0.063	0.28	0.028
98	1.34	52.94	1.07	0.074	0.27	0.021
99	0.36	44.50	1.93	0.072	1.03	0.051
100	2.62	47.95	0.89	0.074	0.43	0.079
101	0.30	45.60	0.21	0.053	9.95	0.041
102	10.17	19.49	0.37	0.087	17.56	0.152
103	0.07	4.65	0.23	0.018	0.10	0.010
Std Nominal	26.53			0.163	1.65	0.717
Determined	26.52	11.03	3.72	0.164	1.62	0.716
104	0.28	5.29	0.23	0.016	4.40	0.046
105	0.13	2.91	0.28	0.018	13.03	0.050
105 Rpt	0.13	2.91	0.27	0.020	13.09	0.049
106	0.23	25.15	0.22	0.054	4.20	0.016
107	0.18	13.66	0.28	0.037	2.88	0.049
108	0.54	2.15	0.44	0.026	8.60	0.144
109	4.85	8.21	0.70	0.040	11.39	0.477
110	0.18	1.57	0.34	0.022	14.39	0.030
111	1.11	27.58	1.88	0.224	7.65	0.074



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Method

Result Name Units	Mn %	Fe %	AL %	P %	CA %	Ba %
Detection Limit	0.01	0.01	0.01	0.001	0.01	0.001
112	0.06	48.48	0.29	0.268	3.80	0.023
113	0.17	22.53	1.07	0.275	1.74	0.017
114	31.31	1.53	3.20	0.143	1.01	3.088
115	0.17	35.82	0.36	0.076	1.24	0.017
116	10.53	2.94	2.74	0.113	1.18	0.194
117	0.37	32.51	1.14	0.426	14.64	0.037
118	12.78	19.27	0.98	0.127	10.74	1.300
Std Nominal			0.33	7.070		
Determined	1.58	14.65	0.31	7.065	34.89	0.013
119	24.04	8.68	2.85	0.128	11.24	1.941
120	8.58	1.51	3.34	0.043	1.94	0.071
120 Rpt	NR	NR	NR	NR	NR	NR
121	19.91	11.87	1.43	0.085	11.46	0.268
122	1.18	42.06	0.90	0.114	1.12	0.075
123	0.71	37.35	0.59	0.156	0.72	0.058
124	0.17	31.97	0.40	0.191	0.38	0.037

 These results pertain to the samples as received at this laboratory.
 Where standards are reported, the nominal value for the element is reported above the result found.

"NR" Implies result is not required for this determination

Sample Storage

The excess material (Residue) will be held after 30 days
 The pulp samples (Pulp) will be held after 60 days as per instructions.

Sample Preparation

No sample preparation was required on these samples.

Digest and Analysis:

The samples are cast using 57:43 flux to form a glass bead which is analysed by XRF.

AL,Ba,CA,Fe,Mn,P
 have been determined by X-Ray Fluorescence Spectrometry.