



TNG LIMITED

MOUNT PEAKE PROJECT
Destructive XRF Analysis Report
EL 23074

Tenement/s	EL 23074	1:250 000 Sheet Name	Mount Peake (SE5305)
Holder	Enigma Mining Ltd	1:100 000 Sheet Name	Anningie (5554)
Manager	Enigma Mining Ltd	Datum	GDA94-52
Operator	Enigma Mining Ltd	GDA_E	317050-327590
Commodity	Ni	GDA_N	7599400-7617851
Elements Analysed	N/A		
Keywords	Literature, Geological and Data Review, Nickel, Iron, Vanadium, Titanium.		
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Report Date	September 2008		
Distribution	Department of Primary Industry, Fisheries and Mines	(1)	
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INTRODUCTION

Exploration Licence 23074 was granted to Tennant Creek Gold (NT) Pty Ltd (TCG) on the 22/07/2002. TCG is a wholly owned subsidiary of TNG Ltd. On 29 May 2007, TCG transferred the licence ownership to Enigma Mining Ltd, another wholly owned subsidiary of TNG Ltd. In April 2008 Enigma Mining Ltd applied for a 2 year renewal of the licence. This was approved by the department on 5 June 2008.

All reference to work by TNG Ltd. Or it's subsidiaries will be referenced as 'TNG' in this report.

TNG originally applied for the licence area to explore for Ni-Sulphides, and it forms part of the companies "Mount Peake" Project area together with EL 23271. On the 18th August 2003 "TNG" entered into a Joint Venture agreement with Falconbridge (Australia) Pty Ltd allowing them to earn a 60% interest.

On the 15th October 2003 Falconbridge (Australia) Pty Ltd entered into a Heads of Agreement with Discovery Nickel Limited (DNL) whereby DNL assumed Falconbridge's obligations for EL23074.

TNG resumed management of the tenement in October 2006 following the failure of the joint venture partners to fulfill its exploration, rent and reporting obligations.

Assessment of geophysical data collected by the JV partners revealed that one Diamond Drill Hole, ARD02 had been drilled into a large magnetic anomaly targeting an EM target at 200m depth. The hole was stopped at 150.6m having intersected magnetite rich gabbro from 30m.

Inspection of the core by TNG revealed that the core had not been cut or assayed. TNG submitted the core for assay and results show high concentrations of vanadium (V2O5) > 0.5% and titanium (TiO2) >8% in the magnetite grading >35% Iron (Fe). Davis Tube Recovery test work has since been completed providing significant encouragement in both recovery of >65% and upgrades to potential commercial grades of >1% V2O5, 17% TiO2, 55% Fe.

Further drilling is planned to evaluate the prospect during the next year.

Field Visit

A brief field visit was carried out to assess the type of exploration work that could be carried out by TNG over the magnetic and EM anomalies generated from the Discovery Nickel and Falconbridge geophysical surveys.

If the soil type was residual then the magnetic lag fraction could be collected and assayed to rank the anomalies prior to drill testing. Arrangements were also made to view the core from ARD02 at the DPIFM core library in Alice Springs

The licence areas are generally flat with broad low ridges of silcretised or ferruginous rock formations. Broad flood plains associated with the Murray Creek which runs through the licence area are also a feature.

ARD02 Diamond drill site

Discovery Nickel (DM) drilled this hole in 2006 targeting a very high resolution EM and magnetic anomaly. The hole was drilled at 270° and EOH was at 150m. Logging of the core by DM indicated that from 30m the entire hole was Magnetite bearing gabbro. Inspection of the drill spoil at the drill site revealed fine powdered grey magnetite in relatively considerable quantities (Plate 1-2).



Plate 1: Mount Peake Drill Site ARD02.



Plate 2: Magnetite in Drill Spoil ARD02.

Inspection of the core confirmed the high magnetite content and also showed that none of the core had been cut or sampled for assay (Plate 3).



Plate 3: Mount Peake: ARD02 Core with Mag Susc. Reading.

Assay Results

A sample from the ARD02 core was cut by TNG and submitted to ALS-CHEMEX for analysis for Fe, including V, Co, Ta and Ti as occurrences of these are known locally. Results are shown below.

MPARDO2 9.81% TiO₂, 0.59% V₂O₅, 34.5% Fe (drill core from 34m depth)
MP0001 8.90% TiO₂, 0.55% V₂O₅, 31.2% Fe (surface drill spoil ARD02)

These provided sufficient encouragement for the remainder of the core to be cut and submitted for assay. These samples were submitted To NAGROM Laboratories due to the extensive delays being experienced with ALS-CHEMEX. The samples were analysed by XRF and Davis Tube Recovery (DTR) testwork to determine the continuity of the mineralisation and the recovery of iron (Fe), vanadium pentoxide (V₂O₅), and titanium oxide (TiO₂) from magnetic concentrates.

The new XRF results confirmed that the mineralisation is continuous over at least an 80m intersection from 30m to a depth of 111m. Results of the assays are shown in Appendix 1. Best results were:

80m @ 28.7% Fe, 0.43% V₂O₅, 7.50% TiO₂ from 31m Incl: 38m @ 31.2% Fe, 0.49% V₂O₅, 8.60% TiO₂ from 46m 10m @ 31.4% Fe, 0.50% V₂O₅, 9.13% TiO₂ from 47m

The Davis Tube Recovery test work is designed to assess the recovery of the magnetic fraction from a low intensity magnetic separation procedure, and then assay this fraction for the elements of interest. The Davis tube test results are shown in Table 4. These have confirmed that the recoveries are very encouraging and produce significant upgrades confirming that the magnetite bearing gabbro is amenable to magnetic separation yielding a product of potentially economic Iron, Vanadium and Titanium grades:

Sample ID	Product Weight gms	Fe %	SiO ₂ %	Al ₂ O ₃ %	TiO ₂ %	V ₂ O ₅ %	P %	S %	DAVIS TUBE RECOVERY					
									LOI	Mass	Fe	TiO ₂	V ₂ O ₅	SiO ₂
									%	%	%	%	%	%
MP 1012 DTR	32.01	50.39	6.7	3.47	14.67	1.096	0.017	0.02	-1.87	33.99	56.43	53.73	76.96	8.88
MP 1022 DTR	59.86	55.27	2.16	2.53	17.13	1.144	0.008	0.03	-3.93	42.26	68.64	71.68	86.56	3.94
MP 1036 DTR	45.91	54.74	2.67	2.58	16.35	1.157	0.012	0.02	-3.53	35.24	60.75	65.19	81.56	3.67
MP 1076 DTR	40.97	55.5	2.47	2.55	16.01	1.148	0.008	0.02	-4.03	28.89	51.86	67.14	80.71	2.61
MP 1105 DTR	19.5	56.15	2.73	2.6	13.84	1.216	0.009	0.01	-3.39	14.09	33.25	51.46	81.99	1.1
MP 1009 DTR	29.18	55.51	3.42	2.6	14.19	1.215	0.006	0.01	-3.07	27.96	58.67	48.14	83.66	3.12
MP 1029 DTR	51.74	54.76	2.71	2.6	16.33	1.178	0.014	0.02	-3.73	39.95	65.3	66.98	85.88	4.59
MP 1047 DTR	58.59	54.9	2.49	2.6	16.51	1.168	0.012	0.02	-3.89	38.12	63.75	71.12	86.46	3.86
MP 1059 DTR	37.24	55.25	2.39	2.58	16.18	1.172	0.01	0.02	-3.91	33.55	59.62	70.05	86.8	3.01
MP 1088 DTR	21.76	55.49	2.9	2.6	14.76	1.21	0.013	0.01	-3.7	19.07	40.24	57.68	82.71	1.71

Table 4: Magnetite & DTR Results

APPENDIX 1 Mount Peake XRF Data

Sample	From	To	Fe	SiO ₂	Al ₂ O ₃	TiO ₂	As	V ₂ O ₅	P	S	LOI
ID	m	m	%	%	%	%	%	%	%	%	%
MP1001	23.5	24.0	13.62	44.87	11.64	3.75	<0.001	0.123	0.314	0.028	1.84
MP1002	24.0	25.0	18.76	35.46	8.27	6.15	<0.001	0.260	0.174	0.026	5.82
MP1003	25.0	26.0	18.96	36.59	8.59	6.09	<0.001	0.261	0.160	0.027	4.07
MP1004	26.0	27.0	21.14	33.68	7.81	7.22	<0.001	0.325	0.178	<0.001	4.13
MP1005	27.0	28.0	19.61	36.27	8.68	6.54	<0.001	0.288	0.190	<0.001	3.50
MP1006	28.0	29.0	21.17	31.92	7.56	7.21	<0.001	0.326	0.156	0.002	5.15
MP1007	29.0	30.0	22.66	34.28	8.70	7.16	<0.001	0.334	0.157	<0.001	1.96
MP1008	30.0	31.0	22.93	34.68	9.29	7.05	<0.001	0.333	0.174	0.005	0.90
MP1009	31.0	32.0	26.45	30.60	8.04	8.24	<0.001	0.406	0.141	0.006	0.26
MP1010	32.0	33.2	26.02	31.23	8.13	7.93	<0.001	0.392	0.144	0.007	-0.07
MP1011	34.0	35.2	23.48	33.47	8.99	7.20	<0.001	0.356	0.153	0.010	0.62
MP1012	37.0	37.3	30.35	25.65	6.85	9.28	<0.001	0.484	0.113	0.026	0.97
MP1013	38.8	40.0	30.22	26.90	6.82	9.20	<0.001	0.483	0.119	0.039	-0.59
MP1014	40.0	41.0	28.06	29.78	7.53	8.30	<0.001	0.436	0.129	0.045	-1.10
MP1015	41.0	42.0	31.21	26.14	6.43	9.40	<0.001	0.503	0.114	0.045	-1.33
MP1016	42.0	43.0	32.25	24.85	6.02	9.74	<0.001	0.526	0.105	0.040	-0.93
MP1017	43.0	44.0	30.66	26.95	6.42	9.07	<0.001	0.485	0.113	0.029	-1.22
MP1018	44.0	45.0	28.71	29.29	6.96	8.36	<0.001	0.443	0.119	0.047	-1.40
MP1019	45.0	46.0	26.58	31.27	7.73	7.77	<0.001	0.413	0.125	0.049	-0.99
MP1020	46.0	47.0	27.54	30.19	7.33	8.04	<0.001	0.432	0.121	0.040	-1.12
MP1021	47.0	48.0	31.48	26.07	6.27	9.26	<0.001	0.509	0.108	0.036	-1.56
MP1022	48.0	49.0	34.03	23.19	5.60	10.10	<0.001	0.561	0.098	0.034	-1.91
MP1023	49.0	50.0	31.23	26.21	6.24	9.14	<0.001	0.503	0.105	0.029	-1.63
MP1024	50.0	51.0	31.18	26.31	6.11	9.04	<0.001	0.504	0.104	0.024	-1.55
MP1025	51.0	52.0	31.93	25.50	5.76	9.28	<0.001	0.514	0.104	0.029	-1.74
MP1026	52.0	53.0	29.93	27.65	6.30	8.55	<0.001	0.471	0.105	0.037	-1.41
MP1027	53.0	54.0	31.04	26.58	6.14	8.94	<0.001	0.494	0.104	0.036	-1.60
MP1028	54.0	55.0	32.21	25.34	5.70	9.21	<0.001	0.512	0.095	0.032	-1.79
MP1029	55.0	56.0	33.50	23.61	5.45	9.74	<0.001	0.548	0.094	0.025	-1.66
MP1030	56.0	57.0	28.33	29.23	7.09	8.14	<0.001	0.447	0.106	0.028	-1.19
MP1031	57.0	58.0	30.94	26.26	6.13	8.96	<0.001	0.503	0.095	0.026	-1.03
MP1032	58.0	59.0	31.06	26.39	6.02	8.72	<0.001	0.489	0.098	0.030	-1.63
MP1033	59.0	60.0	31.24	26.25	5.92	8.71	<0.001	0.490	0.095	0.029	-1.59
MP1034	60.0	61.0	31.95	25.54	5.67	8.93	<0.001	0.504	0.092	0.028	-1.64
MP1035	61.0	62.0	31.42	26.21	5.91	8.74	<0.001	0.492	0.092	0.029	-1.66
MP1036	62.0	63.0	31.76	25.67	5.74	8.84	<0.001	0.500	0.090	0.027	-1.72
MP1037	63.0	64.0	31.10	26.44	5.91	8.57	<0.001	0.486	0.088	0.023	-1.66
MP1038	64.0	65.0	30.34	26.35	5.81	8.22	<0.001	0.464	0.087	0.010	0.77
MP1039	65.0	66.0	31.53	25.92	5.69	8.69	<0.001	0.494	0.087	0.021	-1.67

MP1040	66.0	67.0	31.61	25.73	5.73	8.87	<0.001	0.509	0.088	0.023	-1.60
MP1041	67.0	68.0	30.37	27.11	6.00	8.36	<0.001	0.476	0.085	0.024	-1.58
MP1042	68.0	69.0	31.62	25.92	5.48	8.51	<0.001	0.490	0.085	0.038	-1.40
MP1043	69.0	70.0	30.25	26.48	5.66	8.18	<0.001	0.467	0.096	0.011	0.18
MP1044	70.0	71.0	31.05	26.59	5.66	8.32	<0.001	0.473	0.086	0.023	-1.62
MP1045	71.0	72.0	31.24	26.36	5.65	8.42	<0.001	0.483	0.084	0.025	-1.73
MP1046	72.0	73.0	32.28	25.07	5.27	8.69	<0.001	0.502	0.082	0.026	-1.77
MP1047	73.0	74.0	32.83	24.58	5.09	8.85	<0.001	0.515	0.078	0.025	-1.98
MP1048	74.0	75.0	31.29	26.37	5.51	8.25	<0.001	0.475	0.085	0.024	-1.76
MP1049	75.0	76.0	31.17	26.52	5.53	8.25	<0.001	0.478	0.084	0.023	-1.95
MP1050	76.0	77.0	32.21	25.41	5.29	8.53	<0.001	0.496	0.079	0.021	-2.08
MP1051	77.0	78.0	29.91	27.94	5.97	7.79	<0.001	0.449	0.087	0.022	-1.76
MP1052	78.0	79.0	31.40	26.50	5.42	8.13	<0.001	0.475	0.076	0.025	-1.97
MP1053	79.0	80.0	31.84	25.72	5.08	8.19	<0.001	0.478	0.080	0.023	-1.70
MP1054	80.0	81.0	28.74	29.07	6.05	7.19	<0.001	0.413	0.084	0.026	-1.50
MP1055	81.0	82.0	28.59	28.43	6.05	7.41	<0.001	0.427	0.086	0.023	-0.27
MP1056	82.0	83.0	29.60	28.35	5.91	7.41	<0.001	0.427	0.080	0.019	-1.58
MP1057	83.0	84.0	32.13	25.18	4.96	8.20	<0.001	0.480	0.075	0.013	-1.11
MP1058	84.0	85.0	31.33	26.17	5.27	8.05	<0.001	0.469	0.070	0.019	-1.47
MP1059	85.0	86.0	31.09	26.67	5.22	7.75	<0.001	0.453	0.073	0.019	-1.80
MP1060	86.0	87.0	31.72	25.91	5.07	7.96	<0.001	0.466	0.073	0.019	-1.64
MP1061	87.0	88.0	30.26	27.38	5.47	7.46	<0.001	0.436	0.079	0.018	-1.38
MP1062	88.0	89.0	29.07	27.47	5.72	7.25	<0.001	0.416	0.078	0.026	0.79
MP1063	89.0	90.0	30.81	26.81	5.32	7.69	<0.001	0.448	0.073	0.017	-1.47
MP1064	90.0	91.0	30.62	27.26	5.46	7.63	<0.001	0.449	0.075	0.017	-1.76
MP1065	91.0	92.0	28.52	29.10	6.20	7.14	<0.001	0.415	0.079	0.016	-1.41
MP1066	92.0	93.0	30.88	26.98	5.28	7.61	<0.001	0.446	0.073	0.019	-1.65
MP1067	93.0	94.0	29.64	27.91	5.25	6.94	<0.001	0.409	0.079	0.009	-0.45
MP1068	94.0	95.0	28.89	28.91	5.90	6.96	<0.001	0.406	0.076	0.011	-1.31
MP1069	95.0	96.0	29.29	28.20	5.59	6.89	<0.001	0.404	0.078	0.016	-0.48
MP1070	96.0	97.0	30.80	26.80	5.20	7.36	<0.001	0.437	0.070	0.013	-1.09
MP1071	97.0	98.0	31.09	26.70	5.11	7.45	<0.001	0.445	0.069	0.011	-1.23
MP1072	98.0	99.0	26.70	31.31	6.57	5.99	<0.001	0.351	0.082	0.011	-1.10
MP1073	99.0	100.0	30.65	27.60	4.77	6.79	<0.001	0.402	0.075	0.013	-1.66
MP1074	100.0	101.0	29.85	28.36	5.14	6.51	<0.001	0.384	0.075	0.018	-1.71
MP1075	101.0	102.0	29.65	28.50	5.29	6.49	<0.001	0.383	0.075	0.020	-1.57
MP1076	102.0	103.0	30.92	27.30	4.86	6.89	<0.001	0.411	0.070	0.017	-1.80
MP1077	103.0	104.0	30.73	27.55	4.70	6.69	<0.001	0.396	0.073	0.017	-1.94
MP1078	104.0	105.0	29.23	29.11	5.28	6.23	<0.001	0.364	0.078	0.018	-1.70
MP1079	105.0	106.0	29.83	28.73	4.78	6.18	<0.001	0.363	0.077	0.018	-1.71
MP1080	106.0	107.0	28.69	30.13	5.12	5.65	<0.001	0.330	0.081	0.022	-2.06
MP1081	107.0	108.0	27.15	31.46	6.03	5.38	<0.001	0.314	0.084	0.026	-1.62

MP1082	108.0	109.0	27.44	31.35	5.90	5.42	<0.001	0.317	0.081	0.024	-1.73
MP1083	109.0	110.0	27.90	30.84	5.45	5.37	<0.001	0.313	0.085	0.023	-1.48
MP1084	110.0	111.0	28.33	30.32	5.35	5.57	<0.001	0.327	0.080	0.021	-1.81
MP1085	111.0	112.0	25.71	32.72	6.85	5.05	<0.001	0.290	0.083	0.019	-1.34
MP1086	112.0	113.0	26.71	31.89	6.06	5.16	<0.001	0.300	0.083	0.017	-1.49
MP1087	113.0	114.0	28.22	30.57	5.02	5.31	<0.001	0.307	0.080	0.016	-1.37
MP1088	114.0	115.0	26.30	32.36	6.12	4.88	<0.001	0.279	0.086	0.015	-1.21
MP1089	115.0	116.0	25.96	32.97	6.32	4.70	<0.001	0.267	0.088	0.014	-1.33
MP1090	116.0	117.0	26.11	32.71	6.28	4.77	<0.001	0.272	0.084	0.008	-1.29
MP1091	117.0	118.0	25.43	32.55	6.17	4.71	<0.001	0.267	0.086	0.004	-0.27
MP1092	118.0	119.0	25.92	32.99	6.11	4.62	<0.001	0.262	0.086	0.005	-1.31
MP1093	119.0	120.0	24.79	34.21	6.96	4.39	<0.001	0.244	0.090	0.008	-1.21
MP1094	120.0	121.0	25.10	33.94	6.69	4.35	<0.001	0.246	0.085	0.015	-1.27
MP1095	121.0	122.0	26.42	32.69	5.71	4.53	<0.001	0.259	0.087	0.015	-1.47
MP1096	122.0	123.0	25.29	33.73	6.65	4.40	<0.001	0.248	0.088	0.013	-1.36
MP1097	123.0	124.0	26.30	32.77	5.61	4.38	<0.001	0.254	0.088	0.017	-1.51
MP1098	124.0	125.0	24.50	34.60	7.14	4.08	<0.001	0.236	0.094	0.017	-1.35
MP1099	125.0	126.0	25.84	33.14	6.18	4.33	<0.001	0.254	0.090	0.008	-1.40
MP1100	126.0	127.0	25.09	33.91	6.62	4.13	<0.001	0.241	0.089	0.007	-1.38
MP1101	127.0	128.0	25.64	33.13	5.97	4.21	<0.001	0.242	0.088	0.006	-1.04
MP1102	128.0	129.0	23.26	35.65	8.20	3.87	<0.001	0.220	0.096	0.006	-1.02
MP1103	129.0	130.0	25.80	33.24	5.94	4.18	<0.001	0.244	0.094	0.007	-1.45
MP1104	130.0	131.0	24.65	34.37	6.60	3.93	<0.001	0.219	0.091	0.004	-0.84
MP1105	131.0	132.0	23.80	34.86	7.10	3.79	<0.001	0.209	0.095	0.004	-0.99
MP1106	132.0	133.0	21.60	36.67	8.66	3.38	<0.001	0.182	0.099	0.009	-0.82
MP1107	133.0	134.0	22.29	35.83	7.77	3.37	<0.001	0.180	0.095	0.006	0.03
MP1108	134.0	135.0	20.64	37.37	9.43	3.24	<0.001	0.172	0.102	0.003	-0.38
MP1109	135.6	136.0	20.80	36.81	9.30	3.22	<0.001	0.172	0.103	0.005	0.16
MP1110	136.0	137.0	20.60	37.81	9.55	3.20	<0.001	0.169	0.101	0.003	-1.03
MP1111	137.0	138.0	21.39	36.91	8.91	3.39	<0.001	0.182	0.100	0.002	-0.76
MP1112	138.0	139.0	19.05	38.47	10.81	3.15	<0.001	0.164	0.104	0.003	-0.05
MP1113	139.0	140.0	20.02	38.02	10.02	3.20	<0.001	0.169	0.105	0.006	-0.84
MP1114	140.0	141.0	19.97	38.08	10.07	3.18	<0.001	0.166	0.102	0.010	-0.46
MP1115	141.0	142.0	21.05	37.24	9.18	3.31	<0.001	0.177	0.103	0.008	-0.91
MP1116	142.0	143.0	20.89	37.30	9.28	3.32	<0.001	0.178	0.100	0.014	-0.79
MP1117	143.0	144.0	18.41	39.14	11.30	3.01	<0.001	0.155	0.106	0.026	-0.52
MP1118	144.0	145.0	19.82	38.06	10.41	3.30	<0.001	0.177	0.107	0.031	-0.71
MP1119	145.0	146.0	20.47	37.57	9.96	3.41	<0.001	0.184	0.104	0.032	-0.72
MP1120	146.0	147.0	19.37	38.48	10.70	3.16	<0.001	0.168	0.108	0.030	-0.84
MP1121	147.0	149.0	19.85	38.28	10.01	3.09	<0.001	0.164	0.110	0.030	-1.03
MP1122	149.0	149.4	21.92	36.33	8.32	3.44	<0.001	0.189	0.109	0.029	-1.08