



## **Sampling Analysis Report**

Re: Historical Drill Samples ex  
Northern Territory Geological Survey  
Alice Springs Core Library

Date : 16 January 2009  
Author: Dr W.R. Taylor  
Keywords: Marqua, Phosphate, Phosphorite, Drill Chip Sampling, SEL24769  
Map Sheets: 1:250,000 Tobermory  
Copy to: 1. DRDPIFR Minerals and Energy, Darwin, Northern Territory  
2. Uramet Minerals Ltd, Perth Office

## **Introduction**

On 02 June 2008 drill chips from historical holes MQ3,5,7,10,12,15,16,19 (Saracen Minerals NL) stored in the NTGS Alice Springs Core Library were sampled for geochemical assay.

On 07 July 2008 drill chips from historical holes M10P, M8P, M9P,M7P,M6P, M5P (Agip Ltd) stored in the NTGS Alice Springs Core Library were sampled for geochemical assay.

This report details geochemical assay work conducted on those samples and is submitted in accordance with the conditions of the 'Request to Sample'.

The work was conducted as part of Uramet Minerals Ltd's Southern Georgina Basin phosphate exploration program which followed from the discovery of high-grade phosphorite in outcrop in the Boat Hill area (SEL24769, Marqua Project, Tobermory 1:250K map sheet). The Thorntonia Limestone was the principal target geological unit for this program. The historical holes were part of former base metal exploration programs conducted in the 1980's, however, phosphate mineralization failed to be recognized and no assays for phosphorus were conducted at the time.

The aim of this work was to identify high-grade phosphorite occurrences in the sub-surface Thorntonia Limestone and so target particular areas for reconnaissance phosphate drilling in the 2008 field season. As part of this program the historical holes were assayed for phosphorus and other elements related to phosphate mineralization.

## Historical Reference

The samples discussed in this report were previously described in historical company reports CR19820376 (Agip Ltd) and CR19880057 (Saracen Minerals NL). The original collar locations in those reports were found to be inaccurate. Therefore, where possible, historical drill collars were relocated in the field and their coordinates were measured by GPS to an accuracy of  $\pm 4\text{m}$ . Those locations are given in Table 1 below.

**Table 1. GPS Relocated Drill Holes**

Hole	Company	Sample Location	Type	Zone	MGA_E	MGA_N	Elevation	Date Recorded
M01P	Agip	Alice Core Library	chips	53	774715	7465761	234	May 23, 2008
M02P	Agip	Alice Core Library	chips	53	775098	7465958	242	Jul 3, 2008
M03P	Agip	Alice Core Library	chips	53	774746	7465806	233	May 23, 2008
M04P	Agip	Alice Core Library	chips	53	773551	7466091	242	May 30, 2008
M05P	Agip	Alice Core Library	chips	53	773435	7466132	240	May 23, 2008
M06P	Agip	Alice Core Library	chips	53	771645	7466196	240	May 23, 2008
M07P	Agip	Alice Core Library	chips	53	771488	7465861	236	May 30, 2008
M08P	Agip	Alice Core Library	chips	53	770657	7465898	239	May 23, 2008
M09P	Agip	Alice Core Library	chips	53	769966	7466088	231	May 22, 2008
M10P	Agip	Alice Core Library	chips	53	769525	7466372	223	May 23, 2008
M11P	Agip	Alice Core Library	chips	53	768621	7466368	229	May 22, 2008
M12P	Agip	Alice Core Library	chips	53	768634	7466385	233	May 22, 2008
M13PD	Agip	Alice Core Library	chips/core	53	769970	7466085	230	May 22, 2008
M14P	Agip	Alice Core Library	chips	53	768616	7466385	234	May 22, 2008
M15PD	Agip	Alice Core Library	chips/core	53	770404	7465973	237	May 23, 2008
XC1	Agip	No known sample	chips	53	766703	7466499	216	Jul 4, 2008
MQ01	Saracen	Alice Core Library	chips	53	774947	7465965	248	Jul 3, 2008
MQ02	Saracen	Alice Core Library	chips	53	774953	7465987	245	May 23, 2008
MQ03	Saracen	Alice Core Library	chips	53	774951	7466011	239	May 23, 2008
MQ04	Saracen	Alice Core Library	chips	53	774010	7466253	249	May 23, 2008
MQ05	Saracen	Alice Core Library	chips	53	774010	7466271	248	May 23, 2008
MQ06	Saracen	Alice Core Library	chips	53	774022	7466327	246	May 23, 2008
MQ07	Saracen	Alice Core Library	chips	53	762913	7467519	245	May 24, 2008
MQ08	Saracen	Alice Core Library	chips	53	762808	7467580	249	May 24, 2008
MQ09	Saracen	Alice Core Library	chips	53	762939	7467582	250	May 24, 2008
MQ10	Saracen	Alice Core Library	chips	53	763011	7467668	241	May 24, 2008
MQ11	Saracen	Alice Core Library	chips	53	763040	7467774	239	May 24, 2008
MQ12	Saracen	Alice Core Library	chips	53	763005	7467966	237	May 24, 2008
MQ13	Saracen	Alice Core Library	chips	53	763015	7467900	237	May 24, 2008

## Methods

Initial analytical screening was undertaken using a portable Niton model XLt500 XRF analyser equipped with a light element filter.

Drill spoil samples were packed into 4.5 cm diameter by 1.1 cm deep plastic cups and analysed in direct contact with the Niton X-ray measurement window without any cover to minimise attenuation of incident and emitted X-rays. The 'bulk soil' analytical mode was used. The counting time was 20 seconds on the heavy elements (U) and 100 seconds on the light elements (P, K and Ca). The NBS120c phosphate standard reference material was analysed numerous times yielding an average  $P_2O_5$  value ( $\pm 1\sigma$  standard deviation) of **39.7±5.6 %** (certified value **33.3±0.1 %**) and an average CaO value ( $\pm 1\sigma$  standard deviation) of **48.0±1.1 %** (certified value **49.4 ±0.2%**). Measured  $P_2O_5$  values are of lower precision than most other elements because of the weak energy of P X-rays combined with grain size and inhomogeneity effects. For the present study  $P_2O_5$  determined by this method can only be regarded as accurate within  $\pm 40$  % relative. The measured CaO values are considered accurate to within  $\pm 25$  % relative. These measurements were used to select  $P_2O_5$ -bearing samples for accurate laboratory assay. Niton assay results for U, CaO, K<sub>2</sub>O and  $P_2O_5$  are given in Table 2.

Laboratory assays on selected samples were undertaken at Genalysis Laboratories, Perth, by multi-acid dissolution and optical emission ICP determination. Results are given in Tables 3a and 3b.

## Conclusions

High grade  $P_2O_5$  values were noted in a number of holes. In particular a 21m interval, from 6 m, grading 17.2%  $P_2O_5$  in hole M15PD; a 3m interval, from 15m, grading 28.8%  $P_2O_5$  in hole M09P; a 3m interval, from 6m, grading 22.0%  $P_2O_5$  in hole M12P; a 3m interval, from 15m, grading 22.3%  $P_2O_5$  in hole M13PD; a 3m interval, from 10m, grading 16.6%  $P_2O_5$  in hole MQ06 and a 4m interval, from 13m, grading 16.0%  $P_2O_5$  in hole MQ15. Note: due to steeply dipping beds in some locations (M15PD, M12P, M13PD) these intervals may not correspond to true intersection widths.

**Table 2. Niton XRF Results**

Sample ID	Hole ID	Interval (m)	U	CaO	K2O	P2O5
Units			ppm	%	%	%
Avg Detection Limit			20	.1	.1	4.5*
M05P 00-03	M05P	00-03	bdl	2.2	.4	<2.1
M05P 06-09	M05P	06-09	bdl	1.3	.5	<1.8
M05P 12-15	M05P	12-15	bdl	5.1	1.5	<2.6
M05P 15-18	M05P	15-18	bdl	10.4	1.8	7.5
M06P 42-45	M06P	42-45	bdl	23.1	2.6	<5.0
M06P 45-46	M06P	45-46	bdl	28.7	2.4	<5.6
M07P 69-72	M07P	69-72	bdl	14.0	2.4	<3.9
M07P 72-75	M07P	72-75	bdl	14.0	2.7	<3.5
M08P 00-03	M08P	00-03	bdl	3.0	2.2	<2.5
M08P 03-06	M08P	03-06	27	3.5	3.4	<2.7
M08P 06-09	M08P	06-09	44	1.2	1.7	<2.2
M08P 09-12	M08P	09-12	31	1.0	1.5	<2.6
M08P 12-15	M08P	12-15	bdl	.5	.6	<2.6
M08P 15-18	M08P	15-18	bdl	.6	1.9	<4.2
M08P 18-21	M08P	18-21	bdl	.3	3.1	<4.1
M08P 21-24	M08P	21-24	bdl	8.0	3.4	<4.1
M08P 24-27	M08P	24-27	bdl	28.5	1.7	<6.3
M08P 27-30	M08P	27-30	bdl	33.3	1.1	<6.6
M08P 30-33	M08P	30-33	bdl	25.7	2.5	<5.8
M08P 33-36	M08P	33-36	bdl	29.2	1.8	<5.6
M08P 36-39	M08P	36-39	bdl	15.4	3.9	<4.3
M08P 39-42	M08P	39-42	bdl	16.5	3.7	<4.1
M09P 06-09	M09P	06-09	bdl	1.1	4.1	<3.2
M09P 09-12	M09P	09-12	bdl	1.1	4.6	<2.6
M09P 12-15	M09P	12-15	bdl	1.2	4.4	<2.6
M09P 15-18	M09P	15-18	58	29.1	1.1	23.0
M09P 18-21	M09P	18-21	bdl	8.4	1.6	<2.9
M09P 21-24	M09P	21-24	bdl	6.6	1.4	<2.5

M09P 24-27	M09P	24-27	bdl	5.4	1.5	<2.5
M09P 27-30	M09P	27-30	bdl	5.4	1.5	<2.6
M09P 30-31	M09P	30-31	bdl	5.7	1.5	<2.6
M09P 33-36	M09P	33-36	48	6.0	1.7	<2.6
M09P 36-39	M09P	36-39	bdl	4.3	2.3	<2.6
M10P 109-112	M10P	109-112	bdl	58.0	.7	<8.3
M10P 112-115	M10P	112-115	bdl	42.2	1.0	<6.5
M10P 115-118	M10P	115-118	bdl	37.7	1.4	<6.0
M10P 118-121	M10P	118-121	bdl	45.0	1.0	<6.7
M10P 121-124	M10P	121-124	bdl	47.6	1.3	<7.0
M10P 124-127	M10P	124-127	bdl	35.7	1.6	<6.0
M10P 127-130	M10P	127-130	bdl	27.6	1.8	<5.1
M10P 130-133	M10P	130-133	bdl	40.7	1.6	<6.5
M11P 00-03	M11P	00-03	bdl	1.4	2.2	<2.3
M11P 03-06	M11P	03-06	bdl	1.0	2.4	<2.6
M11P 06-09	M11P	06-09	bdl	1.5	1.8	<2.4
M11P 09-12	M11P	09-12	bdl	3.4	3.9	<2.9
M11P 12-15	M11P	12-15	bdl	2.6	3.4	<2.3
M11P 15-18	M11P	15-18	bdl	1.7	2.5	<3.0
M11P 18-21	M11P	18-21	bdl	3.0	1.8	<3.9
M11P 21-24	M11P	21-24	bdl	2.5	1.7	<3.5
M11P 24-27	M11P	24-27	31	2.6	1.4	<3.2
M11P 27-30	M11P	27-30	bdl	.9	1.1	<1.9
M11P 30-33	M11P	30-33	bdl	1.8	1.4	<2.7
M11P 33-36	M11P	33-36	bdl	2.2	2.7	<4.2
M12P 03-06	M12P	03-06	30	9.0	.9	<3.5
M12P 06-09	M12P	06-09	bdl	26.6	1.0	13.8
M12P 09-12	M12P	09-12	bdl	12.3	1.2	4.8
M12P 12-15	M12P	12-15	bdl	6.4	1.3	<2.6
M12P 15-18	M12P	15-18	bdl	5.7	1.0	<2.5
M12P 18-21	M12P	18-21	bdl	5.1	1.2	<2.3
M12P 21-24	M12P	21-24	bdl	7.1	1.3	4.0
M12P 24-27	M12P	24-27	20	8.2	1.4	4.1

M12P 27-30	M12P	27-30	bdl	46.5	1.1	<6.6
M12P 30-33	M12P	30-33	bdl	55.3	.4	<7.9
M12P 30-33	M12P	30-33	bdl	55.5	.5	<8.1
M12P 33-36	M12P	33-36	bdl	47.6	.9	<6.6
M12P 36-39	M12P	36-39	bdl	46.6	2.0	<6.9
M12P 39-42	M12P	39-42	bdl	43.5	1.4	<6.4
M12P 42-45	M12P	42-45	bdl	27.6	.4	<4.9
M12P 45-48	M12P	45-48	bdl	21.2	.1	<3.7
M13P 03-06	M13P	03-06	bdl	2.8	3.9	<2.6
M13P 06-09	M13P	06-09	bdl	1.4	4.2	<2.4
M13P 09-12	M13P	09-12	bdl	.7	4.4	<2.8
M13P 12-15	M13P	12-15	bdl	.9	4.2	<2.4
M13P 15-18	M13P	15-18	51	27.5	1.2	14.9
M13P 18-21	M13P	18-21	bdl	6.9	1.0	5.1
M13P 21-24	M13P	21-24	bdl	6.9	1.0	<2.4
M13P 24-27	M13P	24-27	bdl	4.9	1.0	<2.1
M13P 27-31	M13P	27-31	bdl	5.5	1.1	3.0
M13P 31-34	M13P	31-34	bdl	2.9	1.3	<1.7
M13P 34-37	M13P	34-37	bdl	2.5	.8	<2.3
M13P 37-40	M13P	37-40	bdl	4.7	1.0	<4.6
M13PD 71.8	M13P	71.8	bdl	33.9	.3	<11.3
M13PD 72.0	M13P	72.0	bdl	38.1	1.2	<10.8
M14P 00-06	M14P	00-06	bdl	10.6	.6	<2.9
M14P 06-09	M14P	06-09	78	13.8	1.0	<3.7
M14P 09-12	M14P	09-12	bdl	8.4	1.6	<3.2
M14P 12-15	M14P	12-15	bdl	5.5	3.6	3.2
M14P 15-18	M14P	15-18	43	2.7	4.1	<2.5
M14P 18-21	M14P	18-21	bdl	3.2	3.1	3.4
M14P 21-24	M14P	21-24	40	4.6	2.7	<2.5
M14P 24-27	M14P	24-27	bdl	5.1	2.5	<2.3
M14P 27-30	M14P	27-30	bdl	4.7	2.8	<2.5
M14P 30-33	M14P	30-33	38	3.9	2.1	<2.3
M15PD 03-06	M15PD	03-06	bdl	7.1	2.4	4.4

M15PD 06-09	M15PD	06-09	72	15.9	2.4	11.8	
M15PD 09-12	M15PD	09-12	79	35.0	1.6	30.1	
M15PD 12-15	M15PD	12-15	39	27.0	1.1	23.1	
M15PD 15-18	M15PD	15-18	bdl	21.0	1.0	11.5	
M15PD 18-21	M15PD	18-21	35	16.3	1.4	12.8	
M15PD 21-24	M15PD	21-24	bdl	9.8	.9	5.4	
M15PD 24-27	M15PD	24-27	bdl	14.7	.9	4.7	
M15PD 27-30	M15PD	27-30	33	13.2	1.0	6.4	
M15PD 30-33	M15PD	30-33	29	14.4	.7	8.5	
M15PD 33-36	M15PD	33-36	32	18.4	.7	15.3	
M15PD 36-39	M15PD	36-39	bdl	4.8	.7	<3.9	
MQ03 294650	MQ03	09-10	bdl	32.3	bdl	<4.7	
MQ03 294651	MQ03	10-11	bdl	32.7	bdl	<5.5	
MQ03 294652	MQ03	11-12	bdl	27.2	.2	<4.7	
MQ03 294653	MQ03	12-13	bdl	25.7	.8	<4.8	
MQ03 294654	MQ03	13-14	bdl	21.1	1.1	<5.0	
MQ03 294655	MQ03	14-15	bdl	27.1	1.0	<5.1	
MQ03 294656	MQ03	15-16	bdl	26.3	.9	<4.4	
MQ03 294657	MQ03	16-17	bdl	19.7	1.0	<4.1	
MQ03 294658	MQ03	17-18	bdl	26.2	1.2	<4.9	
MQ03 294659	MQ03	18-19	bdl	30.3	1.0	<4.9	
MQ03 294660	MQ03	19-20	bdl	32.2	.6	<4.8	
MQ03 294661	MQ03	20-21	bdl	32.0	.4	<4.9	
MQ03 294662	MQ03	21-22	bdl	17.1	2.3	<4.2	
MQ03 294663	MQ03	22-23	bdl	29.3	1.0	<5.0	
MQ03 294664	MQ03	23-24	bdl	34.0	.1	<5.3	
MQ03 294665	MQ03	24-25	bdl	33.8	.2	<5.2	
MQ03 294666	MQ03	25-26	bdl	24.5	.2	<4.3	
MQ03 294667	MQ03	26-27	bdl	28.5	.1	<4.5	
MQ05 294704	MQ05	00-01	bdl	11.8	1.2	4.5	
MQ05 294705	MQ05	01-02	bdl	8.1	.9	<2.5	
MQ05 294706	MQ05	02-03	bdl	13.1	.7	6.0	
MQ05 294707	MQ05	03-04	bdl	23.8	.4	14.9	

MQ05 294708	MQ05	04-05	33	14.5	.7	<3.3
MQ05 294709	MQ05	05-06	bdl	7.7	1.1	2.8
MQ05 294710	MQ05	06-07	bdl	5.5	1.3	2.6
MQ05 294711	MQ05	07-08	bdl	6.6	1.5	<2.5
MQ05 294712	MQ05	08-09	bdl	5.7	3.1	3.8
MQ05 294713	MQ05	09-10	bdl	2.9	4.0	2.6
MQ05 294714	MQ05	10-11	bdl	7.9	2.4	4.3
MQ05 294715	MQ05	11-12	35	19.3	2.1	9.7
MQ05 294716	MQ05	12-13	bdl	21.8	1.7	14.7
MQ05 294717	MQ05	13-14	bdl	9.9	1.4	6.1
MQ05 294718	MQ05	14-15	38	10.2	2.3	7.9
MQ05 294719	MQ05	15-16	bdl	2.8	1.4	2.7
MQ05 294720	MQ05	16-17	bdl	1.7	2.2	<2.2
MQ05 294721	MQ05	17-18	bdl	1.2	1.2	<2.6
MQ05 294722	MQ05	18-19	bdl	1.4	2.1	<11.4
MQ05 294723	MQ05	19-20	bdl	1.5	4.0	<3.2
MQ06 294752	MQ06	07-08	bdl	.7	4.8	<2.2
MQ06 294753	MQ06	08-09	bdl	.7	5.1	<2.2
MQ06 294754	MQ06	09-10	bdl	3.4	4.8	<2.7
MQ06 294755	MQ06	10-11	bdl	18.7	1.5	10.2
MQ06 294756	MQ06	11-12	42	30.8	.9	16.5
MQ06 294757	MQ06	12-13	bdl	10.1	1.7	5.5
MQ06 294758	MQ06	13-14	bdl	7.2	1.0	4.3
MQ06 294759	MQ06	14-15	bdl	10.6	1.2	<3.1
MQ06 294760	MQ06	15-16	bdl	6.4	1.8	3.4
MQ06 294761	MQ06	16-17	bdl	6.3	1.5	3.0
MQ06 294762	MQ06	17-18	bdl	9.3	1.1	3.3
MQ06 294763	MQ06	18-19	bdl	5.3	1.2	<2.2
MQ06 294764	MQ06	19-20	bdl	2.9	1.3	<2.3
MQ06 294765	MQ06	20-21	bdl	4.6	1.7	<2.3
MQ06 294766	MQ06	21-22	bdl	4.7	1.4	<2.2
MQ06 294767	MQ06	22-23	bdl	4.2	1.3	<2.2
MQ06 294768	MQ06	23-24	bdl	4.7	1.0	<2.0

MQ06 294769	MQ06	24-25	bdl	5.7	1.4	<2.3
MQ06 294770	MQ06	25-26	bdl	3.7	1.0	2.9
MQ06 294771	MQ06	26-27	bdl	3.0	1.0	<1.9
MQ06 294772	MQ06	27-28	bdl	5.1	1.5	<2.2
MQ06 294773	MQ06	28-29	bdl	1.9	1.8	<1.7
MQ06 294774	MQ06	29-30	32	3.2	2.4	<2.5
MQ06 294775	MQ06	30-31	bdl	2.9	3.4	<2.1
MQ06 294776	MQ06	31-32	bdl	8.5	2.6	<3.0
MQ06 294777	MQ06	32-33	bdl	26.5	1.4	<5.3
MQ10 294846	MQ10	01-02	30	2.2	1.6	<2.4
MQ10 294847	MQ10	02-03	bdl	2.9	1.3	<2.0
MQ10 294848	MQ10	03-04	33	2.3	1.0	<2.0
MQ10 294849	MQ10	04-05	bdl	1.2	1.1	<2.1
MQ10 294850	MQ10	05-06	bdl	.2	1.0	<1.5
MQ10 294851	MQ10	06-07	bdl	.3	1.0	<2.0
MQ10 294852	MQ10	07-08	bdl	.4	2.6	<2.1
MQ10 294853	MQ10	08-09	bdl	.3	1.4	<4.0
MQ10 294854	MQ10	09-10	63	.5	3.0	<4.4
MQ10 294855	MQ10	10-11	bdl	.2	4.1	<1.8
MQ10 294856	MQ10	11-12	bdl	.1	4.8	<2.5
MQ12 294883	MQ12	01-02	bdl	10.8	2.8	<3.6
MQ12 294884	MQ12	02-03	bdl	6.4	3.9	<3.3
MQ12 294885	MQ12	03-04	bdl	8.3	3.8	<3.0
MQ12 294886	MQ12	04-05	bdl	10.0	3.5	<3.3
MQ12 294887	MQ12	05-06	bdl	10.7	3.6	<3.3
MQ12 294888	MQ12	06-07	bdl	14.3	3.0	<5.6
MQ12 294889	MQ12	07-08	bdl	.6	4.8	<2.0
MQ12 294890	MQ12	08-09	bdl	.8	4.3	<2.0
MQ12 294891	MQ12	09-10	51	8.5	3.7	<4.0
MQ12 294892	MQ12	10-11	bdl	35.7	bdl	<6.3
MQ12 294893b	MQ12	11-12	45	37.8	.2	<6.4
MQ12 294893	MQ12	11-12	49	34.8	.2	<5.8
MQ12 294894	MQ12	12-13	95	35.1	.5	14.8

MQ12 294895	MQ12	13-14	61	17.5	1.1	7.6	
MQ12 294896	MQ12	14-15	bdl	17.1	1.1	4.3	
MQ12 294897	MQ12	15-16	28	16.0	1.2	4.7	
MQ12 294898	MQ12	16-17	bdl	17.7	1.2	6.2	
MQ12 294899	MQ12	17-18	bdl	19.7	1.5	8.6	
MQ12 294900	MQ12	18-19	bdl	10.1	1.3	<2.7	
MQ12 294901	MQ12	19-20	bdl	6.1	1.7	<2.4	
MQ12 294902	MQ12	20-21	bdl	9.9	2.0	4.3	
MQ12 294903	MQ12	21-22	bdl	8.6	2.5	5.3	
MQ12 294904	MQ12	23-24	bdl	7.7	3.2	3.4	
MQ12 294905	MQ12	24-25	bdl	6.5	2.7	<2.9	
MQ12 294906	MQ12	25-26	bdl	8.0	2.7	<3.1	
MQ12 294907	MQ12	26-27	48	8.4	3.7	<3.6	
MQ12 294913	MQ12	27-28	32	6.1	2.6	<2.7	
MQ12 294918	MQ12	28-29	36	7.8	3.0	<3.1	
MQ12 294919	MQ12	29-30	31	7.9	2.9	<3.3	
MQ12 294920	MQ12	30-31	26	7.7	2.3	5.3	
MQ12 294921	MQ12	31-32	bdl	9.2	2.4	<3.6	
MQ14 294957	MQ14	01-02	bdl	28.3	.6	<5.4	
MQ14 294958	MQ14	02-03	bdl	23.6	.5	15.8	
MQ14 294959	MQ14	03-04	31	21.6	.5	11.8	
MQ14 294960	MQ14	04-05	bdl	13.4	.4	5.9	
MQ14 294961	MQ14	05-06	bdl	8.4	.2	<4.8	
MQ14 294962	MQ14	06-07	bdl	10.9	.5	<5.0	
MQ14 294963	MQ14	07-08	bdl	7.8	.3	<2.9	
MQ14 294964	MQ14	08-09	bdl	6.8	1.6	<5.1	
MQ14 294965	MQ14	09-10	bdl	2.1	3.3	<3.0	
MQ14 294966	MQ14	10-11	bdl	18.5	2.3	<5.0	
MQ14 294967	MQ14	11-12	bdl	17.3	3.1	<4.1	
MQ14 294968	MQ14	12-13	30	15.0	3.0	<3.7	
MQ14 294969	MQ14	13-14	bdl	10.6	4.9	<3.1	
MQ14 294970	MQ14	14-15	bdl	3.1	5.2	<2.6	
MQ14 294971	MQ14	15-16	bdl	2.3	6.9	<2.5	

MQ14 294972	MQ14	16-17	bdl	3.6	5.1	<2.3
MQ14 294973	MQ14	17-18	bdl	3.6	4.2	<2.4
MQ15 294975	MQ15	01-02	bdl	17.8	.8	<4.3
MQ15 294976	MQ15	02-03	bdl	36.5	.2	8.6
MQ15 294977	MQ15	03-04	bdl	28.9	.4	<8.2
MQ15 294977	MQ15	03-04	bdl	30.4	.2	<7.0
MQ15 294978	MQ15	04-05	bdl	24.6	.9	<7.4
MQ15 294978	MQ15	04-05	bdl	28.0	1.1	11.7
MQ15 294979	MQ15	05-06	bdl	13.7	2.5	<4.4
MQ15 294980	MQ15	06-07	bdl	4.3	3.5	<3.5
MQ15 294981	MQ15	07-08	bdl	4.4	3.0	<4.8
MQ15 294982	MQ15	08-09	bdl	2.7	2.9	<7.6
MQ15 294983	MQ15	09-10	bdl	1.7	3.3	<6.4
MQ15 294984	MQ15	10-11	bdl	.7	4.5	<2.8
MQ15 294985	MQ15	11-12	bdl	.5	4.4	<3.3
MQ15 294986	MQ15	12-13	bdl	1.4	4.4	<3.3
MQ15 294987	MQ15	13-14	70	24.0	1.4	11.2
MQ15 294988	MQ15	14-15	bdl	15.5	1.7	8.7
MQ15 294989	MQ15	15-16	41	15.8	1.3	<11.2
MQ15 294989	MQ15	15-16	40	17.9	1.2	13.3
MQ15 294989	MQ15	15-16	41	16.6	1.4	<8.5
MQ15 294990	MQ15	16-17	65	20.2	1.3	12.8
MQ15 294991	MQ15	17-18	bdl	9.6	1.6	<4.6
MQ15 294992	MQ15	18-19	bdl	8.8	1.9	<4.9
MQ15 294993	MQ15	19-20	38	8.2	2.6	<3.6
MQ15 294994	MQ15	20-21	bdl	7.9	2.9	<4.5
MQ15 294995	MQ15	21-22	bdl	9.3	3.4	<3.5
MQ15 294996	MQ15	22-23	bdl	8.9	3.2	<3.4
MQ15 294997	MQ15	23-24	bdl	9.9	3.2	<4.4
MQ15 294998	MQ15	24-25	43	15.8	2.4	<4.6
MQ15 294999	MQ15	25-26	bdl	14.1	2.9	<4.4
MQ15 295000	MQ15	26-27	bdl	12.5	3.1	<4.7
MQ16 295015	MQ16	01-02	bdl	7.9	.9	<3.0

MQ16 295017	MQ16	03-04	bdl	9.6	1.3	4.9
MQ16 295018	MQ16	04-05	bdl	12.3	1.2	<3.5
MQ16 295019	MQ16	05-06	bdl	5.9	.7	3.8
MQ16 295020	MQ16	06-07	72	15.3	1.6	7.2
MQ16 295021	MQ16	07-08	bdl	.6	3.6	<2.7
MQ17 295035	MQ17	09-10	bdl	.6	1.9	<2.1
MQ17 295039	MQ17	13-14	41	11.0	1.8	4.6
MQ17 295040	MQ17	14-15	bdl	7.8	1.8	<2.7
MQ18 295053	MQ18	04-05	bdl	1.6	1.7	<1.8
MQ18 295054	MQ18	05-06	bdl	1.8	1.6	<1.7
MQ18 295055	MQ18	06-07	bdl	4.4	1.9	<2.0
MQ18 295056	MQ18	07-08	bdl	4.1	2.0	<2.2
MQ18 295057	MQ18	08-09	bdl	1.7	1.9	<2.1
MQ18 295058	MQ18	09-10	bdl	.6	2.9	<2.0
MQ18 295059	MQ18	10-11	bdl	.2	3.3	<2.2
MQ18 295060	MQ18	11-12	39	.2	3.3	<2.2
MQ18 295061	MQ18	12-13	bdl	.2	3.2	<1.9
bdl = below detection limit						
* for P2O5 detection limits are given for each analysis						

**Table 3a – Laboratory Assay Results**

Analysis ID	Hole ID	Analysis Date	Depth Interval(m)	MGA_E (zone 53)	MGA_N (zone 53)	Hole Location	Described Lithology (ex historical company report)
Q15P0306	M15PD	25/08/2008	3-6	770404	7465973	GPS	clay, fine grained with chert fragment, yellow, limonitic
Q15P0609	M15PD	25/08/2008	6-9	770404	7465973	GPS	clay, fine grained with chert fragment, yellow, limonitic
Q15P0912	M15PD	25/08/2008	9-12	770404	7465973	GPS	sandstone, fine grained, very soft, whitish grey, poorly sorted carbonate
Q15P1215	M15PD	25/08/2008	12-15	770404	7465973	GPS	limestone, fine grained mid grey, fragments of dark grey chert
Q15P1518	M15PD	25/08/2008	15-18	770404	7465973	GPS	limestone, fine grained mid grey, fragments of dark grey chert
Q15P1821	M15PD	25/08/2008	18-21	770404	7465973	GPS	clay, fine grained, very dark brown, limonitic
Q15P2124	M15PD	25/08/2008	21-24	770404	7465973	GPS	clay, fine grained light yellowish, 30% light grey chert
Q15P2427	M15PD	25/08/2008	24-27	770404	7465973	GPS	chert and limestone, fine grained, mid grey, hard
Q15P2730	M15PD	25/08/2008	27-30	770404	7465973	GPS	chert and limestone, fine grained, mid grey, hard
Q15P3033	M15PD	25/08/2008	30-33	770404	7465973	GPS	chert breccia, fine grained, spotted limonite with boxworks
Q15P3336	M15PD	25/08/2008	33-36	770404	7465973	GPS	chert breccia, fine grained, spotted limonite with boxworks
Q09P1518	M9P	25/08/2008	15-18	769966	7466088	GPS	limestone, very fine grained, friable in parts, almost clay, blue grey
Q13P1821	M13PD	31/07/2008	18-21	769970	7466085	GPS	clay, light greyish green
Q13P1518	M13PD	31/07/2008	15-18	769970	7466085	GPS	clay, fine grained, dark orange brown
Q12P0609	M12P	25/08/2008	6-9	768634	7466385	GPS	white to very light grey limestone with light grey chert
Q12P0912	M12P	25/08/2008	9-12	768634	7466385	GPS	white to very light grey limestone with light grey chert
Q12P2124	M12P	25/08/2008	21-24	768634	7466385	GPS	light grey fine grained limestone slightly siliceous
Q12P2427	M12P	25/08/2008	24-27	768634	7466385	GPS	light grey fine grained limestone slightly siliceous
Q05P1518	M5P	25/08/2008	15-18	773435	7466132	GPS	white to yellow friable calcerous sand and clay, interbedded with grey chert
QM050203	MQ5	31/07/2008	2-3	774010	7466271	GPS	white dolomitic siltstone, gypsum
QM050304	MQ5	31/07/2008	3-4	774010	7466271	GPS	white dolomitic siltstone, gypsum
QM051112	MQ5	31/07/2008	11-12	774010	7466271	GPS	light brown dust, grey brown siltstone
QM051213	MQ5	31/07/2008	12-13	774010	7466271	GPS	grey brown, black chalcedonic chert
QM051314	MQ5	31/07/2008	13-14	774010	7466271	GPS	grey brown, black chalcedonic chert

QM051415	MQ5	31/07/2008	14-15	774010	7466271	GPS	grey brown, black chalcedonic chert
QM061011	MQ6	31/07/2008	10-11	774022	7466327	GPS	greenish grey brown shale common iron concretions
QM061112	MQ6	31/07/2008	11-12	774022	7466327	GPS	white calcareous grainstone
QM061213	MQ6	31/07/2008	12-13	774022	7466327	GPS	white shale and black grey and brown chert
QM062526	MQ6	31/07/2008	25-26	774022	7466327	GPS	grey brown black chert
QM140102	MQ14	25/08/2008	1-2	754237	7467265	Estimate	light brown dust, iron concretions, chert
QM140203	MQ14	25/08/2008	2-3	754237	7467265	Estimate	light brown dust, iron concretions, chert
QM140304	MQ14	25/08/2008	3-4	754237	7467265	Estimate	brown, red black chert, light grey silicified shale
QM140405	MQ14	25/08/2008	4-5	754237	7467265	Estimate	brown chert and silicified shale, some gypsum
QM150203	MQ15	25/08/2008	2-3	754186	7467485	Estimate	loess and iron concretions
QM150304	MQ15	25/08/2008	3-4	754186	7467485	Estimate	loess and iron concretions
QM150405	MQ15	25/08/2008	4-5	754186	7467485	Estimate	iron stained chert with light green grey clay
QM151314	MQ15	25/08/2008	13-14	754186	7467485	Estimate	mottled dark and light brown siltstone
QM151415	MQ15	25/08/2008	14-15	754186	7467485	Estimate	mottled dark and light brown siltstone
QM151516	MQ15	25/08/2008	15-16	754186	7467485	Estimate	mottled dark and light brown siltstone
QM151617	MQ15	25/08/2008	16-17	754186	7467485	Estimate	yellow brown siltstone, common iron concretions
QM121213	MQ12	31/07/2008	12-13	763005	7467966	GPS	yellow brown siltstone
QM121314	MQ12	31/07/2008	13-14	763005	7467966	GPS	brown, black chert with yellow brown siltstone
QM121415	MQ12	31/07/2008	14-15	763005	7467966	GPS	light green grey siltstone with black and light brown chert, organic smell
QM121516	MQ12	31/07/2008	15-16	763005	7467966	GPS	light green grey siltstone with black and light brown chert, organic smell
QM121617	MQ12	31/07/2008	16-17	763005	7467966	GPS	light green grey siltstone with black and light brown chert, organic smell
QM121718	MQ12	31/07/2008	17-18	763005	7467966	GPS	grey organic siltstone, black chert
QM122021	MQ12	31/07/2008	20-21	763005	7467966	GPS	laminated medium grey and black siltstone, organic
QM122122	MQ12	31/07/2008	21-22	763005	7467966	GPS	laminated medium grey and black siltstone, organic
QM171314	MQ17	31/07/2008	13-14	748422	7468230	Estimate	light green grey siltstone
QM160607	MQ16	31/07/2008	6-7	748417	7468130	Estimate	grey brown chert
QM160304	MQ16	31/07/2008	3-4	748417	7468130	Estimate	light green grey silty shale

**Table 3b – Laboratory Assay Results**

UNITS DETECTION METHOD		ppm 50 A/OES	% calc	ppm 1 A/OES	% 0.01 A/OES	ppm 20 A/OES	ppm 20 A/OES	ppm 50 A/OES	% calc	ppm 5 A/OES	ppm 50 A/OES	ppm 1 A/OES	ppm 2 A/OES	ppm 1 A/OES
Analysis ID	Geological Unit	Ca	CaO	Cd	Fe	K	Mg	P	P2O5	Pb	S	Sr	V	Zn
Q15P0306	Thorntonia Lst	87750	12.28	na	5.42	14509	6389	36138	8.28	158	6450	236	189	1623
Q15P0609	Thorntonia Lst	116899	16.36	na	3.64	16147	6062	50941	11.67	133	968	102	243	1568
Q15P0912	Thorntonia Lst	239597	33.52	na	1.41	7014	3020	110462	25.31	353	989	179	87	1164
Q15P1215	Thorntonia Lst	239091	33.45	na	0.39	4766	1722	112100	25.69	87	2691	399	24	721
Q15P1518	Thorntonia Lst	188685	26.40	na	0.34	3886	1465	90186	20.66	57	2098	301	20	668
Q15P1821	Thorntonia Lst	146370	20.48	na	5.01	5133	1736	69946	16.03	45	1458	226	24	1342
Q15P2124	Thorntonia Lst	95645	13.38	na	2.18	6014	1604	44291	10.15	19	781	136	21	839
Q15P2427	Thorntonia Lst	109044	15.26	na	1.51	6651	1568	46897	10.75	26	663	137	24	805
Q15P2730	Thorntonia Lst	77229	10.81	na	0.91	6567	1374	35447	8.12	74	484	118	25	534
Q15P3033	Thorntonia Lst	107297	15.01	na	2.34	4887	2714	45206	10.36	431	289	117	22	2205
Q15P3336	Thorntonia Lst	96963	13.57	na	2.18	3758	2511	39902	9.14	321	340	85	29	1680
Q09P1518	Thorntonia Lst	258592	36.18	na	4.92	5866	2134	125867	28.84	735	1836	417	85	2546
Q13P1821	Thorntonia Lst	81103	11.35	9	1.07	8089	2013	33988	7.79	78	941	131	31	719
Q13P1518	Thorntonia Lst	246611	34.51	22	3.24	8673	4655	97325	22.30	345	1499	318	87	1783
Q12P0609	Thorntonia Lst	202343	28.31	na	1.10	6256	11931	95927	21.98	303	2650	315	32	949
Q12P0912	Thorntonia Lst	107907	15.10	na	0.89	6221	6671	45638	10.46	97	1282	182	22	658
Q12P2124	Thorntonia Lst	42820	5.99	na	0.72	6584	3155	14463	3.31	27	484	127	38	486
Q12P2427	Thorntonia Lst	74884	10.48	na	0.61	5600	3242	10742	2.46	28	294	115	35	415
Q05P1518	Thorntonia Lst	86062	12.04	na	7.90	12411	4711	42675	9.78	154	772	321	89	2618
QM050203	Thorntonia Lst	87069	12.18	3	0.76	6641	2783	34352	7.87	23	9558	75	76	326
QM050304	Thorntonia Lst	193075	27.02	7	0.42	4411	1947	70114	16.07	40	32953	90	52	336
QM051112	Thorntonia Lst	100919	14.12	3	1.89	18048	3227	40274	9.23	111	2293	128	52	1022
QM051213	Thorntonia Lst	101945	14.26	4	2.47	10997	1932	43398	9.94	158	4951	80	46	789
QM051314	Thorntonia Lst	58254	8.15	4	3.47	12455	3086	26292	6.02	162	689	56	49	1100
QM051415	Thorntonia Lst	68188	9.54	6	3.32	23230	5967	28468	6.52	202	1721	52	53	1363

QM061011	Thorntonia Lst	180146	25.21	8	6.13	10984	3407	81015	18.56	48	626	89	92	1655
QM061112	Thorntonia Lst	254155	35.56	9	1.42	7968	2193	104164	23.87	62	1734	297	44	706
QM061213	Thorntonia Lst	122753	17.18	2	1.79	12962	3247	53572	12.28	57	1099	240	62	815
QM062526	Thorntonia Lst	41901	5.86	5	0.88	6115	1149	17737	4.06	22	577	76	21	610
QM140102	Thorntonia Lst	153671	21.50	na	4.54	5425	6982	15733	3.61	656	515	134	239	1434
QM140203	Thorntonia Lst	138337	19.36	na	3.15	2739	4576	32680	7.49	628	677	128	117	898
QM140304	Thorntonia Lst	77383	10.83	na	16.76	3197	3170	24240	5.55	922	7379	84	114	2655
QM140405	Thorntonia Lst	160745	22.49	na	2.80	4799	9695	59806	13.70	616	17022	131	110	918
QM150203	Thorntonia Lst	147458	20.63	na	10.36	2536	4004	2218	0.51	54	929	157	351	127
QM150304	Thorntonia Lst	148136	20.73	na	8.24	2850	4917	1855	0.43	39	530	143	268	136
QM150405	Thorntonia Lst	119211	16.68	na	17.91	3986	4370	1641	0.38	35	428	166	397	243
QM151314	Thorntonia Lst	222038	31.07	na	7.31	12033	4531	108951	24.96	230	1143	706	251	1250
QM151415	Thorntonia Lst	116033	16.24	na	10.92	12586	4185	56642	12.98	794	1153	170	178	1910
QM151516	Thorntonia Lst	124302	17.39	na	20.75	7034	2732	59222	13.57	670	1381	224	169	4473
QM151617	Thorntonia Lst	150635	21.08	na	18.17	7224	2677	74197	17.00	693	1667	242	154	3738
QM121213	Thorntonia Lst	259113	36.26	6	1.11	6310	28691	95831	21.96	196	3424	382	59	1096
QM121314	Thorntonia Lst	122964	17.21	3	1.23	9791	15171	43979	10.08	106	1782	235	59	797
QM121415	Thorntonia Lst	115028	16.09	2	0.96	9383	18909	35061	8.03	76	1037	176	63	822
QM121516	Thorntonia Lst	89404	12.51	1	0.92	8667	10025	31516	7.22	51	843	142	48	811
QM121617	Thorntonia Lst	110469	15.46	1	0.87	9633	28054	24008	5.50	59	600	136	44	890
QM121718	Thorntonia Lst	114009	15.95	2	0.67	10442	38922	16178	3.71	48	483	150	37	1474
QM122021	Thorntonia Lst	77265	10.81	bdl	1.19	22985	7873	30611	7.01	103	1231	203	64	896
QM122122	Thorntonia Lst	79734	11.16	bdl	1.40	24139	11366	27371	6.27	85	1193	232	59	972
QM171314	Thorntonia Lst	89737	12.56	2	2.15	15637	3294	37433	8.58	117	1290	200	66	542
QM160607	Thorntonia Lst	90407	12.65	2	4.67	19082	5866	39735	9.10	1045	3904	157	189	606
QM160304	Thorntonia Lst	74760	10.46	2	3.61	9819	3121	33321	7.64	79	1224	279	77	480

bdl = below detection limit;

na = not analysed