

First Annual Report
on
EL 9/2010 – DELORAINE

Reporting Period: 14 September 2010 – 13 August 2011
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COORDINATES ARE WGS84 (GDA94/MGA55)

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1 ABSTRACT

Objective:

Exploration Licence (EL) 9/2010 “Deloraine” was applied for in order to facilitate an exploration program to discover economically viable deposits of bauxite associated with Tertiary Volcanics, in an area with old penneplained surfaces preserved as plateaus. The goal of the program is to determine the quality and quantity of the bauxite in the area using an RC drill rig mounted on a light Mitsubishi 12 tonne truck.

Methodology:

1. Detailed geological mapping, including geomorphological mapping, to define the areas with best potential for bauxite.
2. Systematic sampling of natural outcrops and exposures in road cuts of lateritic weathering profile.
3. Chemical analyses of samples, including specialist analyses to determine total and available alumina, total and reactive quartz, loss on ignition and other analyses as required in bauxite search.
4. Drill testing of zones with best potential defined by work under 1, 2. and 3, by an RC drill rig mounted on a light Mitsubishi truck to get samples representing the whole lateritic weathering profile (from upper-most iron rich zone through alumina rich zone down into mottled and pallid saprolite zone).
5. Systematic drill testing at close spacings to obtain data for resource estimation in the best target areas defined by programme under 4.

Results:

Over the reporting period, a total of 129 holes were drilled for 837m. Most holes intercepted bauxite mineralization averaging 3m in thickness to a maximum of 9m but varied from a very high to a very low grade. A total of 480 samples were selected for analysis by XRF and analysed for available alumina and reactive silica after wet screening at 260 microns. An additional 82 samples were selected for analysis without screening. Extra samples will be submitted to the laboratory for assaying. Some samples are those not included in previous sampling, while others are extra samples to ensure a sufficient buffer zone is taken around the zones of known ore occurrences.

Recommendations for future work:

Recommendation for future work include further:

- Detailed geological mapping, including geomorphological mapping and study of satellite images to define the areas with the best potential for bauxite.
- Systematic sampling of natural outcrops and exposures in road cuts of lateritic weathering profile.
- Chemical analyses of samples, including specialist analyses to determine total and available alumina, total and reactive quartz, loss on ignition and sieving (+0.26mm) at 260 microns as required in the bauxite search.

ABSTRACT Cont

- Drill testing of zones with best potential with an RC drill rig mounted on a light six wheel truck to get samples representing the whole lateritic weathering profile (from upper-most iron rich zone through alumina rich zone down into mottled and pallid saprolite zone).
- Systematic sampling and drilling at waypoints with best bauxite potential
- Sieve testing to find optimal sieve size for Tasmanian bauxites
- Detailed analysis of assay results to determine assaying strategy for future drilling
- Testing new sample processing techniques to improve silica reduction

2 INTRODUCTION

Exploration Rationale

Exploration Licence (EL) 9/2010 “Deloraine” was applied for in order to facilitate an exploration program to discover economically viable deposits of bauxite associated with Tertiary Volcanics, in an area with old penneplained surfaces preserved as plateaus. The goal of the program is to determine the quality and quantity of the bauxite in the area using an RC drill rig mounted on a light Mitsubishi 12 tonne truck.

Geological Setting

In the Deloraine area, the occurrences of bauxite are located in areas with Tertiary basaltic volcanics.

Study of geomorphology based on a digital terrain model led the company’s geologist to the conclusion that Tertiary basaltic volcanics are preserved on remnants of old surface which form larger plateaus or smaller ‘mesas’.

Bauxite was formed during the Tertiary period when tropical climate prevailed (high rainfall and relatively high temperatures). Bauxite is present in the upper part of the ancient lateritic / saprolitic weathering profile. Except for the lateritic crust, ancient lateritic / saprolitic weathering profile is easily eroded because weathered rocks are soft.

However, under protective cover of Tertiary basaltic volcanics, large tonnages of bauxite may have been preserved. This concept is being tested by drilling.

The bauxite mineralization in the Deloraine tenement is generally confined to hills, ridges and plateaus of bauxitised volcanoclastic deposits. There are multiple different forms of bauxite in Tasmania which results in different geochemical characteristics in individual deposits.

Tenement Information

EL 9/2010 “Deloraine” was granted on and from 14 September 2010 for a period of 5 years to ABx4 Pty Ltd (**ABx4**).

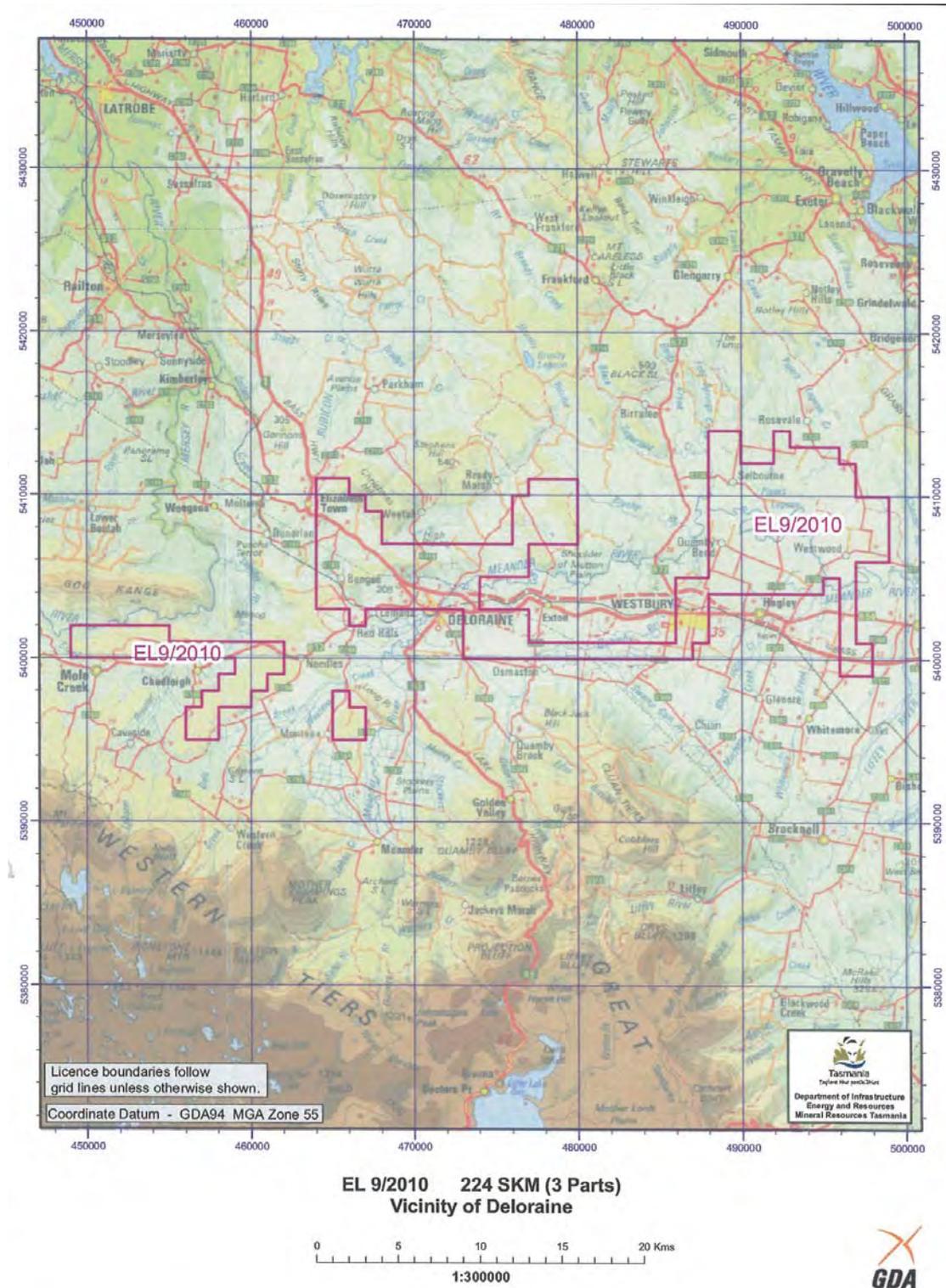
This is the First Annual Report for the reporting period 14 September 2010 - 13 August 2011 incorporating the results of work completed during the first year of tenure.

Total area of the Licence is 224 sq km and its Mineral Category is 1 – Metallic Minerals and Atomic Substances.

Location

EL 9/2010 is located around the town of Deloraine (Map 2) where there is a rail line which connects all the ports of Tasmania to each other. Ports and rail way lines in Tasmania are generally under capacity and the Deloraine Tenement is only 42km from Devonport. EL 9/2010 is close to the city of Launceston and could offer a wide range of services and skilled work force.

INTRODUCTION Cont



Map 1 – Location Map of EL 9/2010 “Deloraine”

Tenure, including joint venture details and title transfers

EL 9/2010 “Deloraine” is 100% owned by ABx4 which is a 100% owned subsidiary of Australian Bauxite Limited.

3 REVIEW OF PREVIOUS WORK

Prior to Current Tenement

Exploration for Bauxite was conducted by C.R.A Exploration Pty Limited (**CRA**) in the late 1960s and early 1970s. CRA decided to relinquish its tenement in central northern Tasmania as no worthwhile results were obtained.

Two reports were composed by CRA and can be found in Appendix A:

1. Miss S.E. Close, Feb 1970, Scintillometer Search for Bauxite, Northwest Tasmania, *CRA Exploration Pty Limited*
2. Miss S.E. Close, June 1971, Final Report on Bauxite Search, Devonport E.L. 36/70 Tasmania, *CRA Exploration Pty Limited*

The following is an extract from the second report, summarizing CRA's findings:

Final Report on Bauxite Search, Devonport E.L. 36/70 Tasmania

Final testing of this area in central northern Tasmania was carried out using a Gemco Model 210A auger drill. A total footage of 1148 feet was drilled in 57 holes and 206 samples were sent to Zinc Corporation for Al_2O_3 , SiO_2 and Fe_2O_3 analysis.

Drilling was concentrated on the two most promising areas, near Sassafras and near Deloraine, although all areas of soil over basalt within the E.L. were tested.

CONCLUSION

It is recommended that the E.L. be relinquished before the renewal date of 24th June, 1971. A memo has already been written to this effect.

No worthwhile results were obtained. Most of the 206 samples contained less than 30% total alumina, while 8 contained between 30 and 40% total alumina, but were also high in Fe_2O_3 and SiO_2 . The higher values occurred in holes B20 and B25.

GENERAL DISCUSSION

As stated before, the drilling was carried out on all the areas of soil over basalt within the E.L. These have been described in preceding reports.

During current Tenement

This is the first year of exploration in EL 9/2010.

4 EXPLORATION COMPLETED DURING THE REPORTING PERIOD

Literature Review

Two reports were composed by CRA and can be found in Appendix A:

- Miss S.E. Close, Feb 1970, Scintillometer Search for Bauxite, Northwest Tasmania, *CRA Exploration Pty Limited*
- Miss S.E. Close, June 1971, Final Report on Bauxite Search, Devonport E.L. 36/70 Tasmania, *CRA Exploration Pty Limited*

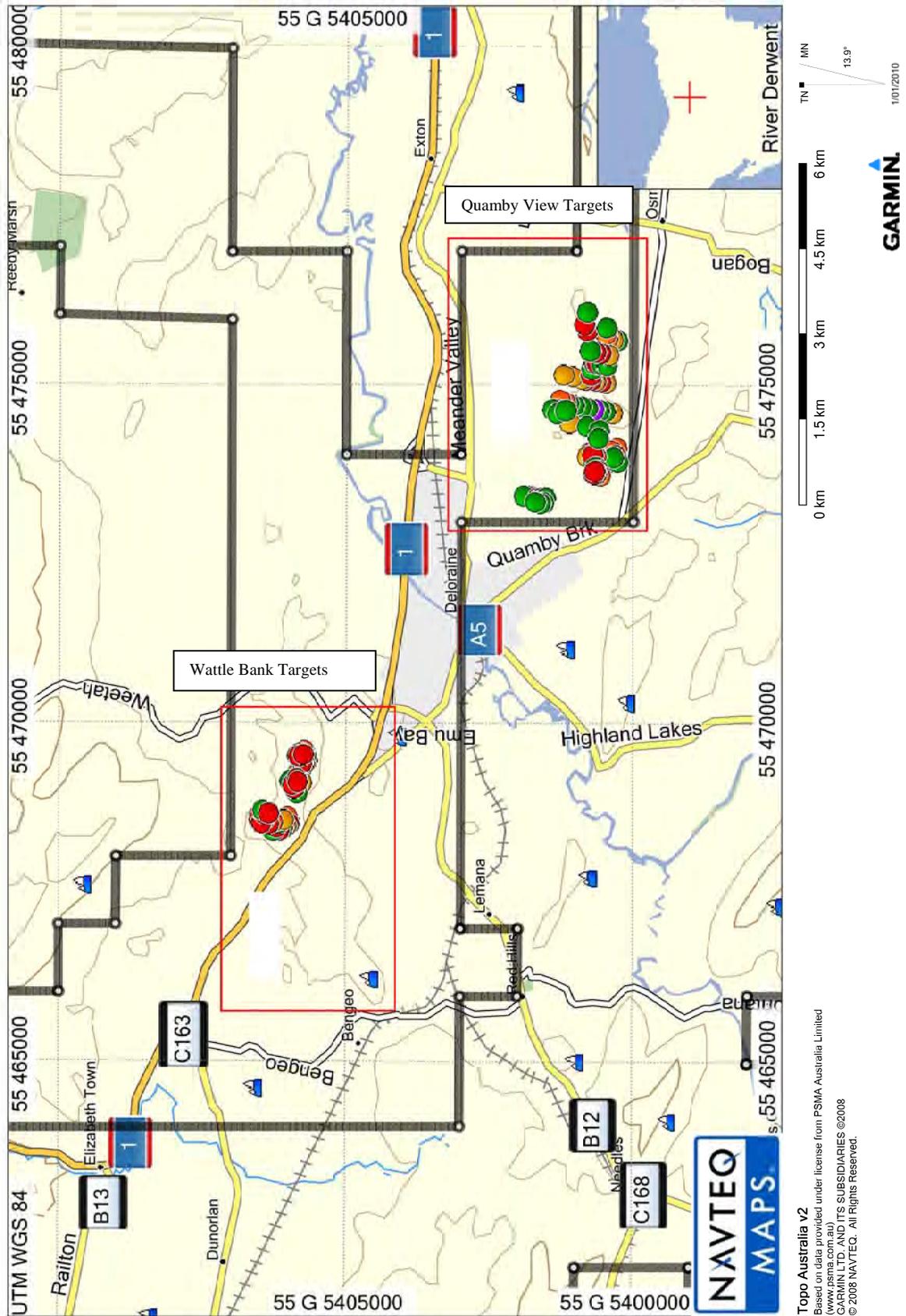
Regional Exploration Activities

Drilling and Sampling

Total 129 holes/ 837m

In the November 2010 drilling campaign, a total of 129 holes were drilled for 837m. Most holes intercepted bauxite mineralization averaging 3m in thickness to a maximum of 9m but varied from a very high to a very low grade. A total of 480 samples were selected for analysis by XRF and analysed for available alumina and reactive silica after wet screening at 260 microns. An additional 82 samples were selected for analysis without screening. Extra samples will be submitted to the laboratory for assaying. Some samples are those not included in previous sampling, while others are extra samples to ensure a sufficient buffer zone is taken around the zones of known ore occurrences.

EXPLORATION COMPLETED DURING THE REPORTING PERIOD Cont



Map 2 – Overview of Deloraine Drill Targets

Coloured dots represent drill holes.

Red outlined areas represent target areas.

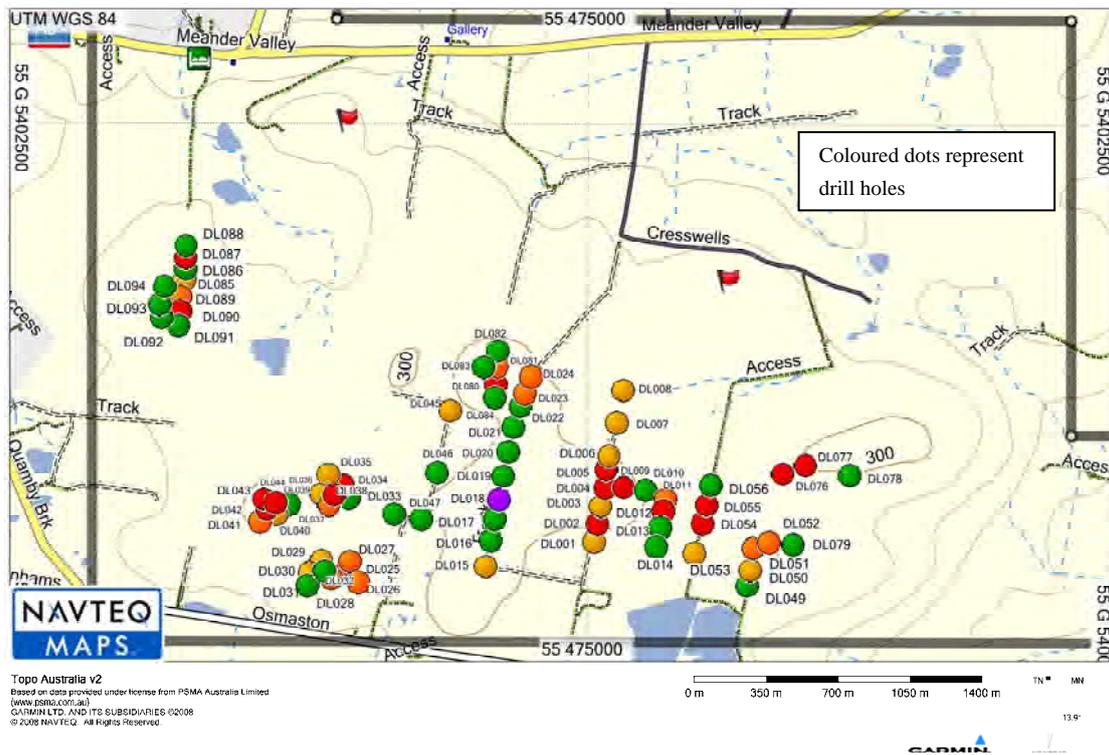
Dark thick line represent tenement border.

EXPLORATION COMPLETED DURING THE REPORTING PERIOD Cont

Quamby View Targets

Total holes: 75/468m

The Quamby View Targets consist of a large undulating Plateau with steep sides. The western Quamby View targets are quite small and consist of 7 small hills (on top of the plateau) with a diameter of about 100m each. These hills have no real trends and are dotted everywhere on the plateau. The eastern targets are larger, and are either 4 larger hills or one large hill with a smaller one to the north. The targets were difficult to drill due to crops.



Map 3 – Quamby View Targets.

Western Targets

1. The average grade for bauxite for holes DL025-DL032 with a cut off grade of 2.5 aA/rS ratio is: 33.6% Available Alumina (avl Al₂O₃), 2.9% Reactive Silica (rx SiO₂), 39.26% Total Alumina, 4.6% Total Silica and 29.1 % Iron oxide. Recovery is excellent averaging 71%. The bauxite at surface was rich in quartz which is reflected in the assays. Unfortunately this is the only hole on this deposit which had a significant intersect and high grade of bauxite. Most other holes had too much quartz and iron, which means this deposit is very non-continuous.

EXPLORATION COMPLETED DURING THE REPORTING PERIOD Cont

Table 1 - DL025- Only good hole in this target

Sample No	Al ₂ O ₃ avl	Rx SiO ₂	Al ₂ O ₃	SiO ₂	Fe ₂ O ₃	LOI	Rx & Avl	Total	Recovery %
							A/S AV/RX	A/S	+0.26mm
DL02501	31.4	4.5	38.2	9.64	26	22.28	6.98	3.96	62
DL02502	41.4	0.7	44.4	1.08	25.6	25.53	59.14	41.11	77.3
DL02503	44.1	0.9	46.4	1.26	22.2	26.54	49.00	36.83	78
DL02504	40.2	1.5	44.3	2.04	24.4	25.42	26.80	21.72	80
DL02505	37.8	2.6	42.9	3.28	25.3	24.51	14.54	13.08	61.9
DL02506	33.9	5.1	40.6	5.83	25.9	22.91	6.65	6.96	55.6
DL02507	28.9	5.8	37.2	6.68	29.2	21.54	4.98	5.57	77

Please see Appendix E for complete assay results.

- The average grade for bauxite for holes DL033-DL038 with a cut off grade of 2.5 aA/rS ratio is: 26.6% Available Alumina (avl Al₂O₃), 3.1% Reactive Silica (rx SiO₂), 33.0% Total Alumina, 4.7% Total Silica and 38.6 % Iron oxide. Significant intersects of bauxite were intersected but had a pisolitic iron zone 5-6m thick and then graded into very high quality bauxite. Recovery for the target is moderate at 63%. Iron decreases down hole but with the loss of iron, reactive silica increases which lowers the A/S ratio of the high grade zones.

Table 2 - DL038

Sample No	Al ₂ O ₃ avl	Rx SiO ₂	Al ₂ O ₃	SiO ₂	Fe ₂ O ₃	LOI	Rx & Avl	Total	Recovery %
							A/S AV/RX	A/S	+0.26mm
DL03801	11.4	9	25.3	15.75	43.7	9.98	1.27	1.61	50.3
DL03802	10.1	0.7	15.85	3.61	67	8.14	14.43	4.39	71.6
DL03803	24	0.4	26.7	2.26	49.4	15.3	60.00	11.81	63.1
DL03804	28	0.5	30.1	2.12	44.1	16.83	56.00	14.20	69.3
DL03805	22.9	1	27.1	2.51	47.9	16.64	22.90	10.80	77.1
DL03806	22.4	1.2	27.6	2.26	47.7	18.13	18.67	12.21	52.3
DL03807	37.7	2.5	42.6	3.04	25.6	24.58	15.08	14.01	72.7
DL03808	33.2	4.7	40.2	5.38	26.5	23.01	7.06	7.47	59.3
DL03809	29.9	9	40.6	10	23.2	22.49	3.32	4.06	39.1

Please see Appendix E for complete assay results.

- The average grade for bauxite for holes DL039-DL044 with a cut off grade of 2.5 aA/rS ratio is: 19.0% Available Alumina (avl Al₂O₃), 2.7% Reactive Silica (rx SiO₂), 24.6% Total Alumina, 5.0% Total Silica and 50.6 % Iron oxide. Recovery is good at 74.5%. This target is very close to target '2' and shows a very similar profile but is even more rich in iron and only has very minor high grade zones at the base of the iron layer. More samples of this material

EXPLORATION COMPLETED DURING THE REPORTING PERIOD Cont

will be sent to ALS Laboratory for analysis to determine an accurate base of the high grade layer.

4. The average grade for bauxite for holes DL023-DL024 and DL080-DL084 with a cut off grade of 2.5 aA/rS ratio is: 28.3% Available Alumina (avl Al₂O₃), 6.7% Reactive Silica (rx SiO₂), 38.0% Total Alumina, 7.7% Total Silica and 28.5 % Iron oxide. The bauxite layers have a low recovery at 50% probably as a result of the high values of reactive silica present in the bauxite.
5. The average grade for bauxite for holes DL085-DL094 with a cut off grade of 2.5 aA/rS ratio is: 21.1% Available Alumina (avl Al₂O₃), 7.11% Reactive Silica (rx SiO₂), 31.1% Total Alumina, 9.1% Total Silica and 35.7 % Iron oxide. Recovery is low at 54%. This bauxite is very low grade, so the classification of bauxite may not apply. The bauxite target was generally quite disappointing because the large target was actually very thin.

Eastern Targets

Out of holes DL001-DL014, only 3 holes intersected bauxite of ordinary grade although almost all holes intersected bauxite. The grades for these samples were very poor. The average thickness of bauxite in these 3 holes was 2m with bauxite mineralization occurring at depth of 0-3m. Drill hole spacings for this target were 75m, but even though the holes were very closely spaced, there was very little continuity of drill intersect with grade. The average grade for bauxite for holes DL001-DL014 with a cut off grade of 2.5 aA/rS ratio is: 26.9% Available Alumina (avl Al₂O₃), 7.0% Reactive Silica (rx SiO₂), 37.1% Total Alumina, 8.9% Total Silica and 28.5 % Iron oxide. The total average of all assays taken from this target is 12.4% Available Alumina (avl Al₂O₃), 15.7% Reactive Silica (rx SiO₂), 30.6% Total Alumina, 21.7% Total Silica and 27.3 % Iron oxide. It is unusual in comparison to other deposits in Australia to have Available Alumina with so much silica. The only conclusion is that this is not pure Mottled zone. It is either very low grade bauxite or as seen in Tasmanian bauxite the bauxite and mottled zone are mixed together. The recovery for bauxite on this target was moderate at 64.8% but there were only few samples.

Table 3 - DL005

Sample No	Al ₂ O ₃ avl	Rx SiO ₂	Al ₂ O ₃	SiO ₂	Fe ₂ O ₃	LOI	Rx & Avl	Total	Recovery %
							A/S AV/RX	A/S	+0.26mm
DL00501	4.5	8.9	20.2	41.5	18.25	6.38	0.51	0.49	64.9
DL00502	10	16.8	29.4	20.3	29.7	16.21	0.60	1.45	65.1
DL00503	4.2	22	27.4	25.9	27.5	14.57	0.19	1.06	81.9
DL00504	33.3	4.1	41.3	5.19	25	24.42	8.12	7.96	58.7
DL00505	19.7	12	35.3	14.55	26.1	19.55	1.64	2.43	57.8

Please see Appendix E for complete assay results.

EXPLORATION COMPLETED DURING THE REPORTING PERIOD Cont

The average grade for bauxite for Holes DL011-DL012, DL049-DL052 and DL076-DL079 with a cut off grade of 2.5 aA/rS ratio is: 30.44% Available Alumina (avl Al₂O₃), 4.66% Reactive Silica (rx SiO₂), 40.0% Total Alumina, 6.7% Total Silica and 27.3 % Iron oxide.

Table 4 - DL076

Sample No	Al ₂ O ₃ avl	Rx SiO ₂	Al ₂ O ₃	SiO ₂	Fe ₂ O ₃	LOI	Rx & Avl	Total	Recovery %
							A/S AV/RX	A/S	+0.26mm
DL07601	28.2	7	40.6	8.99	27.2	19.72	4.03	4.52	48.2
DL07602	46.7	4.1	52.4	4.88	12.1	29.05	11.39	10.74	32.9
DL07603	36.6	4	41.8	4.6	26.4	25.1	9.15	9.09	33.5
DL07604	39.5	4.3	45.9	5.14	20.6	26.25	9.19	8.93	24.7

Please see Appendix E for complete assay results.

There are still possibly 3 targets at Quamby View which have not yet been drilled. These targets are potentially significant and should be high grade.

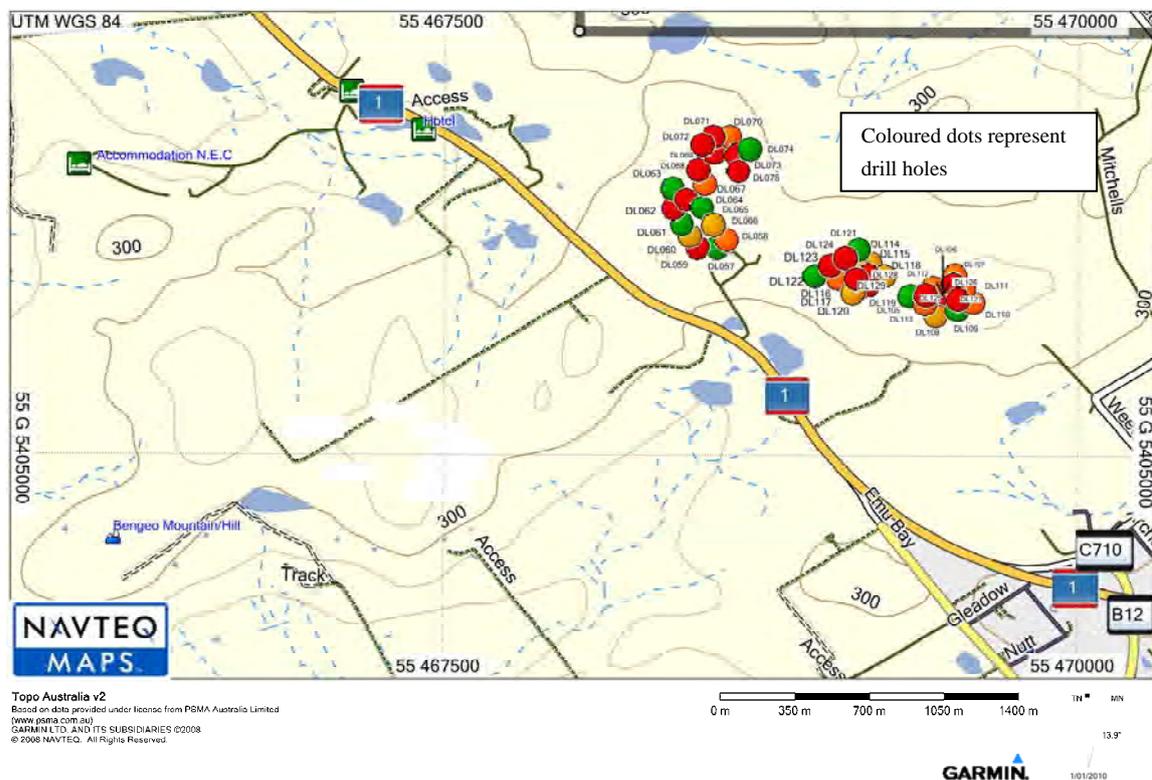
Sieving increased the grade significantly in samples which had less than 13% reactive silica but the recovery for almost all high grade samples suffered severely. The material which has higher Silica appears very similar to the bauxite that failed to upgrade significantly.

EXPLORATION COMPLETED DURING THE REPORTING PERIOD Cont

Wattle Bank Targets

Total holes: 54/369m

Wattle bank Target area is 6km long and consists of a ridge line with larger hills on top. These hills constitute the bauxite targets.



Map 4 – Wattle Bank Targets

Wattle Bank Targets:

1. The target located on the northern side of the bass highway is approximately 200m x800m in a 'Y' shape and is a non-continuous bauxite layer (complicated). The average grade for bauxite for Holes DL057-DL075 with a cut off grade of 2.5 aA/rS ratio is: 35.5% Available Alumina (avl Al₂O₃), 4.9% Reactive Silica (rx SiO₂), 43.1% Total Alumina, 6.2% Total Silica and 24.1 % Iron oxide. To the east there is a house and some sheds on the bauxite outcrop. This area cannot be drilled and will sterilize part of the deposit.
2. The target is 300m in diameter, and has fresh basalts exposed at surface along the northern part of the ridge which has not been properly explored. The average grade for bauxite for Holes DL114-DL124 and DL128-DL129 with a cut off grade of 2.5 aA/rS ratio is: 30.6% Available Alumina (avl Al₂O₃), 5.7% Reactive Silica (rx SiO₂), 39.3% Total Alumina, 3.2% Total Silica and 28.4% Iron oxide.

EXPLORATION COMPLETED DURING THE REPORTING PERIOD Cont

Table 5 - DL128

Sample No.	Al ₂ O ₃ avl	Rx SiO ₂	Al ₂ O ₃	SiO ₂	Fe ₂ O ₃	LOI	Rx & Avl	Total	Recovery %
							A/S AV/RX	A/S	+0.26mm
DL12801	28	0.7	31.8	1.06	44.4	18.27	40.00	30.00	81.2
DL12802	41.5	0.5	45	0.79	24.8	26.3	83.00	56.96	88.3
DL12803	25.8	4.1	33.8	4.92	35.1	21.08	6.29	6.87	71.2
DL12804	36.8	7	47.1	7.84	17.15	25.8	5.26	6.01	43.5
DL12805	31.7	7.2	41.6	8	23.6	23.62	4.40	5.20	41.7
DL12806	38.1	6	46	6.66	19.1	25.62	6.35	6.91	42.9
DL12807	34.6	4.9	42.3	5.45	24.7	24.29	7.06	7.76	60.5
DL12808	14.5	16.8	32.9	18.85	26.7	18.07	0.86	1.75	51.9

Please see Appendix E for complete assay results.

- This target is possibly 250m x 700m and only half of the target has been drilled. The average grade for bauxite for Holes DL105-DL113 and DL125-DL127 with a cut off grade of 2.5 aA/rS ratio is: 31.1% Available Alumina (avl Al₂O₃), 8.0% Reactive Silica (rx SiO₂), 41.2% Total Alumina, 2.2% Total Silica and 24.7.3 % Iron oxide.
- This target is approximately 200m x 500m and is located on the Weetah Road through a Small village with about 6 houses. This target has not been drilled and drilling in the future is unlikely.
- The last target is approximately 100m x400m with good possibilities of extension to new areas. This target has not been drilled but drilling is likely with landowner permission.

Average Recovery is 46% which is a bit low but results in significant improvement of the product through reduction in the reactive silica content. Total and available alumina increased significantly with an increase in iron. More work is required to find optimum sieve size for Deloraine deposits.

Other Targets in the Deloraine Region

Bengeo

Bengeo target which resulted in fantastic surface samples during reconnaissance stage could not be drilled because the paddock had just been plowed and the soil was too soft for a drill rig. The Bengeo target is unfortunately incredibly small (200m x 200m) and is unlikely to be of any economic value. Two other ridges in the area occurring at the same RL are suspected to be the host of a volcanic unit, which can look very similar to the grey volcanic bauxite but it generally had a higher SG (it's heavier).

5 DISCUSSION OF RESULTS

The bauxite mineralization in the Deloraine tenement is generally confined to hills, ridges and plateaus of bauxitised volcanoclastic deposits. There are multiple different forms of bauxite in Tasmania which results in different geochemical characteristics in individual deposits. What's difficult about Tasmanian bauxite is that it is often very friable with no typical cementitious nature and it often has a very similar consistency to clay. The main sort of bauxite that often has these characteristics is the Yellow Volcanic bauxite which is generally fine grain yellow friable and/or vuggy but can also be very rich in Silica. High grade zones of this material can be indicated by vughs or hard flat brick-like bauxite at surface. The presence of the Grey volcanic bauxite which looks almost exactly like vuggy basalt is usually also associated with high grade zones. The distinctive differences between vuggy basalt and grey volcanic bauxite is that the bauxite is high grade and will have an SG 1.8. The vughs will also be coated in red and yellow clay. The grey volcanic bauxite can also have white blebs and spots of pure gibbsite. This bauxite contains around 1% Reactive silica, 5% iron and >50% total alumina. Rare quartz rich bauxites were also drilled in the southern area of Quamby View, but these were located mostly at surface and had low quartz higher grade bauxites at depth. Classical Inverell bauxite of ABx2 Pty Ltd (ABx2) from EL 6997 – NSW was common to the Quamby View targets along with the Yellow volcanic bauxite. Typical Inverell style bauxite is generally bright red with 24% iron and 4% reactive silica and has yellow coated vughs in high grade areas. In one or two targets a similar bauxite contained shiny black pisolites in a red matrix, this was typically very high in Iron >40%.

Unlike the bauxite in Taralga EL 7357 of ABx2, the bauxite at Deloraine had no stratigraphy between the different bauxite types - just the typical stratigraphy of bauxite mottled zone or bauxite/volcanic host rock (the later was more common). The volcanic host rock was usually partially laterised to bauxite which made it look very similar to the grey volcanic bauxite but it was slightly heavier. The volcanic host rock was described as a red, yellow or grey volcanic tuff with white spots and had a cheese like texture. It also contained about 10% available alumina with 15% reactive silica and 30% total alumina and was initially mistaken for bauxite at the Quamby View targets. Younger volcanic occurred throughout all the valleys in the Deloraine area and at the top of one or two ridges in the Wattle Bank area. Dolerite which is very common in Tasmania and which can look very similar occurred at the perimeter of the tenement in every direction and it has also been laterised. However bauxite deposits associated or in contact with the Tasmania dolerites have been incredibly small so far.

Small amounts of Boehmite sometimes occurred in the top meter of bauxite but it was always less than 6%. There were sometimes a small zone of Boehmite in the centre of the bauxite layer but this was very uncommon. Boehmite should not be an issue for the Deloraine deposits.

A significant issue with the bauxite at Deloraine is that it occurs directly adjacent to high quality farm land. The high quality land and the high grade bauxite areas do not overlap directly because the bauxite areas are marked by soft rocky outcrops which are poor for ploughing. The high quality farm land is the mottled zone and soft clayey partially laterised volcanics or younger gilgai soils.

Sieving and sieve size:

Wattle Bank Target has low recovery but sieving obtained incredible improvements in grades. A smaller sieve size may improve the recovery without lowering the grade. Sieving of the Quamby View bauxite also generated incredible grades. There were some very low recoveries but this was directly associated with a proportional increase in grade, e.g. 80% was clay and it was wash out leaving 20% pure bauxite. The partially laterised volcanic (or very low grade bauxite) layers showed little

DISCUSSION OF RESULTS Cont

improvement in grade with sieving and perhaps a new method of silica removal may result in a better grade with sieving.

A possible method of silica removal which is of interest and may improve grade for all deposits is soaking the bauxite for 24 hours before sieving. This could change the nature of the clay particles to become soft and less sticking allowing it to wash out easily. A problem could occur if the bauxite is soaked for 3 weeks as the nature of the clay changes again to incredibly sticky clay which will not wash out easily. This theory will need testing.

6 CONCLUSIONS AND RECOMMENDATIONS

Over the reporting period, a total of 129 holes were drilled for 837m. Most holes intercepted bauxite mineralization averaging 3m in thickness to a maximum of 9m but varied from a very high to a very low grade. A total of 480 samples were selected for analysis by XRF and analysed for available alumina and reactive silica after wet screening at 260 microns. An additional 82 samples were selected for analysis without screening. Extra samples will be submitted to the laboratory for assaying. Some samples are those not included in previous sampling, while others are extra samples to ensure a sufficient buffer zone is taken around the zones of known ore occurrences.

Recommendations for future work include:

1. Detailed geological mapping, including geomorphological mapping and study of satellite images to define the areas with the best potential for bauxite.
2. Systematic sampling of natural outcrops and exposures in road cuts of lateritic weathering profile.
3. Chemical analyses of samples, including specialist analyses to determine total and available alumina, total and reactive quartz, loss on ignition and sieving (+0.26mm) at 260 microns as required in the bauxite search.
4. Drill testing of zones with best potential with an RC drill rig mounted on a light six wheel truck to get samples representing the whole lateritic weathering profile (from upper-most iron rich zone through alumina rich zone down into mottled and pallid saprolite zone).
5. Systematic sampling and drilling at waypoints with best bauxite potential.
6. Sieve testing to find optimal sieve size for Tasmanian bauxites.
7. Detailed analysis of assay results to determine assaying strategy for future drilling.
8. Testing new sample processing techniques to improve silica reduction.

7 ENVIRONMENT

Surface Disturbing Operations:

ABx4's surface disturbing operations are minimal.

Drilling is conducted by an RC drill rig mounted on a light Mitsubishi 12 tonne truck. All drill holes are filled immediately after completion.

Existing tracks are used wherever possible. In the event that any specific access is required for drill rigs and/or service vehicles, track construction will be minimised and in accordance with directions of any landowners who may be affected.

Surveys (archaeological, botanical):

A botanical survey was conducted by Philip Milner Consultant Pty Ltd covering EL 9/2010.

No detailed report was considered warranted. All areas surveyed were located in arable farmland which consisted of crops and no remnant areas of native vegetation communities were observed at any of the sites surveyed.

Please refer to Appendix B for the complete Survey.

Rehabilitation:

All drill holes are filled immediately after completion.

All landholders sign a rehabilitation statement at the completion of each program confirming their satisfaction with the rehabilitation completed.

8 EXPENDITURE

Table 6 – Exploration Activity and Expenditure Table for reporting period 14 September 2010 – 13 August 2011

Exploration Category	Description of Activity	Quantity	Expenditure
Office Administration			
Authority Management	Environment		\$2,250
Office Activities	Data Processing & Interpretation		
Field Activities	Geological Mapping		\$66
	Sampling	core storage	\$600
	Equipment Hire		
	Accommodation/Field Camp	Days	\$14,118
	Travel	Vehicle Hire	\$3,495
	Land Holder Liaison		
	Field Supplies	Equipment	\$8,278
	Other	Freight Charges	\$2,134
	Geophysics		
	Airborne		
	Type	Line kms	
	Ground		
	Type	Line kms	
	Drilling (program cost)		
	RAB/AC	Holes/total metres	
	RC	129 holes for 837 metres	\$74,549
	Diamond	Holes/total metres	
	Other	Holes/total metres	
Laboratory	ME-XRF 13B, Reactive Silica & Available Alumina	480 samples	\$34,851
Salaries / Wages	Employees	Drilling Supervision & Field Assistance Nov 2010	\$13,935
	Contractors	3 personnel Nov2010 - Dec2010	\$15,137
		Grand Total	\$169,413

Note: Office Administration and Activities were met by parent company – Australian Bauxite Limited.

9 REFERENCES

Miss S.E. Close, Feb 1970, Scintillometer Search for Bauxite, Northwest Tasmania, *CRA Exploration Pty Limited*

Miss S.E. Close, June 1971, Final Report on Bauxite Search, Devonport E.L. 36/70 Tasmania, *CRA Exploration Pty Limited*

First Annual Report

on

EL 9/2010 – DELORAINE

APPENDIX A – HISTORICAL REPORTS

ABx4 Pty Ltd

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C.R.A. EXPLORATION PROPRIETARY LIMITED

867001

Ref. No. GENERAL
TASMANIA

SUBJECT: FINAL REPORT ON BAUXITE SEARCH,
DEVONPORT E.L. 36/70 TASMANIA.

AUTHOR: Miss S. E. Close

DATE: 23rd June, 1971.

The contents of this report remain the property of C.R.A. Exploration Pty. Limited and may not be published in whole or in part nor used in a company prospectus without the written consent of the Company.

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Final Report Bauxite Search
E.L. 36/70 Devonport - CRA
by
S.E. Close
23/6/71

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867002

C.R.A. EXPLORATION PTY. LIMITED



23 June, 1971

MEMORANDUM TO : G. W. PATTERSON

Copy to : C. L. Knight

From : Miss S. E. Close

Final Report on Bauxite Search, Devonport E.L. 36/70 Tasmania

Final testing of this area in central northern Tasmania was carried out using a Gemco Model 210A auger drill. A total footage of 1148 feet was drilled in 57 holes and 206 samples were sent to Zinc Corporation for Al_2O_3 , SiO_2 and Fe_2O_3 analysis.

Drilling was concentrated on the two most promising areas, near Sassafras and near Deloraine, although all areas of soil over basalt within the E.L. were tested.

CONCLUSION

It is recommended that the E.L. be relinquished before the renewal date of 24th June, 1971. A memo has already been written to this effect.

No worthwhile results were obtained. Most of the 206 samples contained less than 30% total alumina, while 8 contained between 30 and 40% total alumina, but were also high in Fe_2O_3 and SiO_2 . The higher values occurred in holes B20 and B25.

GENERAL DISCUSSION

As stated before, the drilling was carried out on all the areas of soil over basalt within the E.L. These have been described in preceding reports.

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As the thickness of possible bauxite was expected to be less than 10 feet, or even less than 5 feet, drillholes were spaced widely apart and still covered a minimum area for an economic deposit. For example, using a factor for bauxite of 1×10^6 tons/sq. mile foot and 50×10^6 tons for a minimum size orebody, with five foot thickness the minimum area is 10 sq. miles and with a ten foot thickness the minimum area is 5 sq. miles.

The E.L. was taken up on the only ground available. Areas to the west near the coast may be more prospective, but would probably only consist of very small patches of bauxite grade. For example, the deposits at Myalla described in Owen's B.M.R. Bulletin 24 and the small area near Forth which gave high alumina values in the hand augering program.

DRILLING

The contractors were R. & F. Diamond Drilling Co. The Gemco Model 210A proved to be the most successful yet used for this type of work. The drilling rate was faster than for the older lower powered models. However, the rods still tended to stick in damp clay, so the new Gemco Model 210B would probably be the most suitable one for bauxite drilling.

SEC:ry

S. E. Close

KEYWORDS

Bauxite, laterite, drilling - auger, assays - drill, basalt.

Locality : Tasmania 1:250,000 Sheet 3 Burnie
Sheet 4 Launceston

ATTACHMENTS

Auger drill log and assay sheets.

002

867004

- 3 -

LIST OF PLANS

<u>Plan No.</u>	<u>Title</u>	<u>Scale</u>
T783	Devonport E L 36/70 Gemco Auger Hole Locations.	1:250,000

AUGER DRILL LOG & ASSAY SHEET

Key 1

LOCALITY *Devonport EL 36/70.*

CO-ORDINATES.....

DATE DRILLED *4.5.71*

SAMPLE DISPATCHED.....

D.P.O. No. *13561*

ANALYSED BY *ZC*

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	S ₂ O	Al ₂ O ₃	Fe ₂ O ₃	T ₂ O	LOI	AI
B1	214201	0	5	Brown soil	43.2	13.4	27.2			
<i>Not analysed</i> 488887	214202	5	11	Yellow sticky clay with some grey clay + small amt. red clay.	41.6	24.5	16.9			
	203	11	15	grey + red + orange clays.	39.8	25.5	18.4			
	204	15	21	Brown + blue clays.	29.6	23.5	27.4			
	214205	21	26	Light brown clay.	29.7	26.3	23.5			
B2	488891	0	3	Brown black soil + 3ft fairly fresh basalt.	44.6	17.2	15.4			
B3	488895	0	4	Red clay with pisolites	47.3	8.7	34.6			
	208	4	11	Pink & grey-green clays.	49.4	27.7	8.6			
	214209	11	17	Tan clay.	51.5	27.6	6.0			

REMARKS:-

AUGER DRILL LOG & ASSAY SHEET

Page 2.

LOCALITY *Levanport EL 36/70*

SAMPLE DISPATCHED.....

CO-ORDINATES.....

D.P.O. No. *13561*DATE DRILLED *4.5.71*ANALYSED BY *2C*

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	S ₂ O ₃	Al ₂ O ₃	Fe ₂ O ₃	TiO ₂	LOI	AI
<i>B4</i>	<i>214210</i>	<i>0</i>	<i>3</i>	<i>tan clay</i>	<i>60.1</i>	<i>23.3</i>	<i>4.9</i>			
<i>485897</i>	<i>211</i>	<i>3</i>	<i>5</i>	<i>red clay</i>	<i>58.4</i>	<i>19.9</i>	<i>10.3</i>			
	<i>212</i>	<i>5</i>	<i>10</i>	<i>pink + white clay</i>	<i>54.3</i>	<i>28.9</i>	<i>3.1</i>			
	<i>214213</i>	<i>10</i>	<i>12</i>	<i>yellow clay</i>	<i>58.7</i>	<i>24.4</i>	<i>3.5</i>			
<i>B5</i>	<i>214214</i>	<i>0</i>	<i>4</i>	<i>Red clay</i>	<i>33.4</i>	<i>20.7</i>	<i>28.6</i>			
<i>481897</i>	<i>214215</i>	<i>4</i>	<i>6</i>	<i>Bract with some red clay</i>	<i>35.1</i>	<i>20.0</i>	<i>23.7</i>			
<i>B6</i>	<i>214216</i>	<i>0</i>	<i>5</i>	<i>Orange red clays</i>	<i>44.2</i>	<i>24.5</i>	<i>16.4</i>			
<i>477886</i>	<i>217</i>	<i>5</i>	<i>11</i>	<i>Red & grey clay</i>	<i>43.1</i>	<i>24.2</i>	<i>18.6</i>			
	<i>218</i>	<i>11</i>	<i>17</i>	<i>Red with some grey clay</i>	<i>45.6</i>	<i>25.7</i>	<i>15.0</i>			
	<i>219</i>	<i>17</i>	<i>24</i>	<i>Mostly red clays</i>	<i>45.5</i>	<i>24.7</i>	<i>16.2</i>			
	<i>214220</i>	<i>24</i>	<i>30</i>	<i>ditto</i>	<i>36.4</i>	<i>25.2</i>	<i>21.6</i>			
	<i>214221</i>	<i>30</i>	<i>36</i>	<i>Light brown clays</i>	<i>36.8</i>	<i>28.2</i>	<i>16.9</i>			
<i>B7</i>	<i>214222</i>	<i>0</i>	<i>5</i>	<i>Light brown soil</i>	<i>67.5</i>	<i>9.9</i>	<i>13.9</i>			
<i>476883</i>	<i>223</i>	<i>5</i>	<i>11</i>	<i>Red grey + white clay, some fissile</i>	<i>51.0</i>	<i>20.1</i>	<i>16.4</i>			
	<i>224</i>	<i>11</i>	<i>17</i>	<i>Red + grey clays, more grey near base</i>	<i>50.1</i>	<i>24.1</i>	<i>14.4</i>			
	<i>225</i>	<i>17</i>	<i>23</i>	<i>grey clay, some red, brown colours</i>	<i>52.4</i>	<i>26.9</i>	<i>6.8</i>			

REMARKS:-

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C.R.A. EXPLORATION PTY. LIMITED

CRAE FORM 66

AUGER DRILL LOG & ASSAY SHEET

Sheet 3

LOCALITY Reemport EL 36/70

SAMPLE DISPATCHED.....

CO-ORDINATES.....

D.P.O. No. 13561 to end of 884 then 13562

DATE DRILLED 4.5.71

ANALYSED BY ZC

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	TiO ₂	LOI	AI
B8	214226	0	6	Yellow clay	53.0	20.1	12.2			
467885	227	6	12	Red brown clay.	50.9	20.1	14.1			
	228	12	18	Light brown clay.	46.4	23.0	13.1			
	229	18	24	ditto.	46.0	23.5	13.6			
B9	214230	0	6	Top 2ft brown soil	35.5	23.0	24.0			
464883				not sampled. Sample is red soil with nodules.						
	231	6	12	Orange clay.	32.7	27.3	21.1			
	232	12	18	Pale orange clay.	28.0	23.6	25.2			
	233	18	24	Fawn mud.	27.4	22.4	25.5			
	214234	24	29	ditto	41.4	18.4	16.4			
B10	214235	0	4	Light brown soil.	49.5	18.6	14.4			
461884				Abandoned as basalt impedes drilling.						
B11	214236	0	6	Brown orange clay.	67.3	11.6	10.3			
464886	237	6	12	brown clay.	44.3	18.6	17.5			
	238	12	18	Fawn mud.	27.8	22.5	24.5			
	214239	18	23	Brown clay with slightly weathered basalt fragments	44.4	17.4	16.7			

REMARKS:-

AUGER DRILL LOG & ASSAY SHEET

Sheet 4

007

LOCALITY Levonport EL 36/70
 CO-ORDINATES.....
 DATE DRILLED 5.5.71

SAMPLE DISPATCHED.....
 D.P.O. No. 13562
 ANALYSED BY ZC

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	S ₂ O ₂	Al ₂ O ₃	Fe ₂ O ₃	T ₂ O ₂	LOI	AI
B12 473886	214240	0	6	Black soil & clay. Stopped because of basalt chips	44.4	15.4	14.6			
B13 457888	214241	0	6	Red brown soil & clay.	50.2	18.2	16.9			
	242	6	12	Light brown sandy material.	87.8	7.7	3.2			
	243	12	15	ditto	84.3	8.4	3.9			
	244	15	21	grey brown then light brown sandy material.	71.7	12.7	8.2			
	245	21	27	light brown sandy material.	44.5	16.4	13.9			
	214246	27	30	ditto	45.7	20.7	17.7			
B14 455890	214247	0	6	Brown & grey-green clays.	48.6	20.6	16.3			
	248	6	12	Grey-green clays.	49.8	16.0	14.4			
	249	12	18	ditto, basalt beginning	43.7	16.1	14.1			

REMARKS:-

AUGER DRILL LOG & ASSAY SHEET

Sheet 5

LOCALITY *Sevenport EL 36/70*

SAMPLE DISPATCHED.....

CO-ORDINATES.....

D.P.O. No. *13562*DATE DRILLED *5.5.71*ANALYSED BY *Z.C.*

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	S ₁ O ₂	Al ₂ O ₃	Fe ₂ O ₃	T ₁ O ₂	LOI	AI
B15	214250	0	6	Light brown clay	54.4	14.3	12.9			
453891	251	6	12	Light grey-green clay.	44.0	16.0	15.8			
	214252	12	18	Light khaki coloured clay.	41.7	17.0	15.9			
	214253	18	24	ditto	39.7	16.3	15.3			
B16	214254	0	6	Light brown clay.	46.3	18.2	15.2			
452887	255	6	12	Light brown yellow clay with very weathered basalt.	42.0	20.5	16.0			
	214256	12	17	ditto. Stopped by basalt.	41.8	20.1	16.4			
B17	214257	0	6	Red-brown clay.	43.5	18.1	21.0			
453885	258	6	12	light red red clay grading into dark sand clay.	53.9	19.5	12.3			
	259	12	18	Orange clay.	45.7	16.0	24.8			
	260	18	24	ditto, slightly paler	54.6	18.0	13.6			

REMARKS:-

AUGER DRILL LOG & ASSAY SHEET

Sheet 6.

LOCALITY Devonport EL 36/70.

SAMPLE DISPATCHED.....

CO-ORDINATES.....

D.P.O.No. 13562

DATE DRILLED 5.5.71

ANALYSED BY ZC.

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	S ₂ O ₂	Al ₂ O ₃	Fe ₂ O ₃	TiO ₂	LOI	AI
B18 457887	214261	0	5	Red clayey soil Abandoned at 5ft because of fresh basalt	41.1	17.7	24.9			
B19 462890	214262	0	4	Red clayey soil Abandoned at 5ft because of fresh basalt.	34.9	30.3	16.6			
B20 458889	214263	0	6	Red clay with traces of ferruginised basalt.	11.9	39.4	22.6			
	264	6	12	Red clay.	3.7	38.4	30.2			
	265	12	18	Red brown clay.	16.9	31.9	28.5			
	266	18	24	Red clay with with green clay nodules	23.1	29.0	27.3			
	267	24	30	ditto	27.2	30.3	23.3			
	268	30	36	ditto	27.1	28.3	24.3			
	269	36	42	ditto	26.8	27.1	25.8			
	270	42	48	ditto	28.1	26.7	25.8			

REMARKS:-

AUGER DRILL LOG & ASSAY SHEET

Sheet 7

010

LOCALITY *Devonport EL36/70*

SAMPLE DISPATCHED.....

CO-ORDINATES.....

D.P.O. No. *13562*

DATE DRILLED *6.5.71*

ANALYSED BY *P.C.*

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	TiO ₂	LOI	AI
B21	214271	0	6	Red clay	36.2	21.7	21.7			
458890	272	6	9	ditto. Abandoned due to fresh basalt.	31.3	24.9	22.7			
B22	214273	0	6	Dark grey - brown clay	80.0	7.3	7.4			
451897	274	6	12	Yellow brown clay	65.8	15.2	9.3			
	275	12	18	ditto	62.8	15.6	10.2			
	276	18	24	ditto	74.6	11.5	5.9			
	277	24	30	ditto	60.3	16.5	10.6			
B23	214278	0	6	Light grey, brown very weathered basalt.	47.0	16.3	12.6			
450898	279	6	12	ditto. Abandoned due to fresh basalt.	47.0	15.2	11.4			
B24	214280	0	6	Grey clay	61.5	11.5	15.1			
448902	281	6	12	light brown, yellow & red clay.	89.6	11.8	8.9			
	282	12	15	yellow clay & then grey weathered basalt.	72.1	13.0	5.1			

REMARKS:-

AUGER DRILL LOG & ASSAY SHEET

Sheet 8

011

LOCALITY... Devonport EL 36/70

SAMPLE DISPATCHED.....

CO-ORDINATES.....

D.P.O. No. 13563

DATE DRILLED... 6.5.71

ANALYSED BY... ZC

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	TiO ₂	LOI	AI
B25	214283	0	6	Red sandy material	46.1	20.6	18.7			
447899	284	6	12	Orange red clay	34.1	31.2	17.9			
	285	12	18	Orange clay	28.9	33.5	18.7			
	214286	18	24	ditto. Stopped by basalt chips	25.3	35.0	19.4			
B26	214287	0	6	Yellow clay	50.6	23.3	11.4			
448897	288	6	12	ditto	49.4	23.3	11.0			
	289	12	14	greyish clay	47.6	19.3	14.2			
				Stopped by basalt						
B27	214290	0	6	Light yellow brown clay	43.3	18.7	17.7			
449894	291	6	8	ditto stopped by basalt	45.0	17.8	16.2			
B28	214292	0	6	Red clay	41.4	26.7	17.3			
454893	293	6	12	ditto	41.9	25.9	18.2			
	294	12	18	ditto	42.1	25.3	18.1			
	295	18	24	orange brown clay	42.5	24.9	17.9			
	214296	24	30	orange brown mud	43.3	24.9	17.3			

REMARKS:-

AUGER DRILL LOG & ASSAY SHEET

LOCALITY... *Barroisart EL 36/70*
 CO-ORDINATES.....
 DATE DRILLED... *7.5.71*.....

SAMPLE DISPATCHED.....
 D.P.O. No. *13563*
 ANALYSED BY... *Z.C.*.....

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	TiO ₂	LOI	AI
B29	214297	0	6	Yellow brown clay	39.4	21.4	18.8			
452891	298	6	12	Grey clay	63.4	18.9	16.7			
	299	12	18	ditto	43.7	18.2	16.4			
B30	214300	0	6	Yellow-orange clay	42.1	16.4	19.6			
449891	301	6	12	ditto	44.0	15.7	16.4			
	302	12	18	Light brown clay with weathered basalt.	44.9	15.0	14.9			
B31	214303	0	6	grey brown very weathered basalt.	46.5	15.2	13.2			
446894	304	6	12	yellow brown weathered basalt.	46.0	13.9	12.8			
B32	214305	0	6	grey brown weathered basalt.	44.9	15.3	13.6			
445892	214306	6	9	as above, stopped by fresh basalt	45.0	14.6	13.4			
B33	214307	0	6	Yellow clay	77.2	11.5	5.2			
441895	308	6	12	yellow sandy clay	74.0	13.5	5.7			
	309	12	18	ditto	67.2	16.3	7.6			
	310	18	24	Red grey & yellow clay. Hole abandoned due to hard rock	68.1	15.7	7.5			

REMARKS:-

AUGER DRILL LOG & ASSAY SHEET

013

LOCALITY... *Revenyork EL 36/70*

SAMPLE DISPATCHED.....

CO-ORDINATES.....

D.P.O. No. *13563*

DATE DRILLED... *7.5.71*

ANALYSED BY... *ZC*

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	TiO ₂	LOI	AI
<i>B34</i>	<i>214311</i>	<i>0</i>	<i>6</i>	<i>Red brown clay.</i>	<i>39.2</i>	<i>19.5</i>	<i>20.4</i>			
<i>443895</i>				<i>Hole abandoned for basket cobbles</i>						
<i>B35</i>	<i>214312</i>	<i>0</i>	<i>3</i>	<i>red brown soil.</i>	<i>46.9</i>	<i>16.0</i>	<i>18.7</i>			
<i>445898</i>				<i>Hole abandoned due to hard rock</i>						
<i>B36</i>	<i>214313</i>	<i>0</i>	<i>6</i>	<i>Red brown sandy clay.</i>	<i>68.5</i>	<i>12.7</i>	<i>9.9</i>			
<i>442901</i>				<i>Hole abandoned due to hard rock</i>						
<i>B37</i>	<i>214314</i>	<i>0</i>	<i>6</i>	<i>Light red-brown clay.</i>	<i>41.2</i>	<i>23.3</i>	<i>17.7</i>			
<i>440898</i>	<i>214315</i>	<i>6</i>	<i>12</i>	<i>Yellow clay. Hole abandoned due to hard rock</i>	<i>49.8</i>	<i>18.1</i>	<i>15.5</i>			
<i>B38</i>	<i>214316</i>	<i>0</i>	<i>6</i>	<i>Orange red sandy clay.</i>	<i>71.9</i>	<i>12.1</i>	<i>9.8</i>			
<i>439902</i>	<i>317</i>	<i>6</i>	<i>12</i>	<i>Yellow sandy clay.</i>	<i>77.5</i>	<i>12.5</i>	<i>4.9</i>			
	<i>318</i>	<i>12</i>	<i>18</i>	<i>ditto</i>	<i>85.4</i>	<i>9.1</i>	<i>3.7</i>			
	<i>214319</i>	<i>18</i>	<i>24</i>	<i>ditto</i>	<i>85.1</i>	<i>8.8</i>	<i>3.6</i>			

REMARKS:-

AUGER DRILL LOG & ASSAY SHEET

014

LOCALITY *Abouant EL 36/70*

SAMPLE DISPATCHED.....

CO-ORDINATES.....

D.P.O. No. *13563 including B39 then 13561*

DATE DRILLED *7.5.71*

ANALYSED BY *ZC*

571

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	TiO ₂	LOI	AI
<i>B39</i>	<i>214320</i>	<i>0</i>	<i>3</i>	<i>Red brown soil</i>	<i>39.4</i>	<i>23.5</i>	<i>18.4</i>			
<i>441903</i>				<i>Abandoned due to hard rock.</i>						
<i>B40</i>	<i>214321</i>	<i>0</i>	<i>6</i>	<i>Red-brown clay</i>	<i>36.7</i>	<i>21.6</i>	<i>21.0</i>			
<i>444915</i>	<i>322</i>	<i>6</i>	<i>12</i>	<i>ditto</i>	<i>32.2</i>	<i>21.8</i>	<i>22.5</i>			
	<i>323</i>	<i>12</i>	<i>18</i>	<i>grey-brown clay.</i>	<i>32.4</i>	<i>21.2</i>	<i>21.4</i>			
	<i>324</i>	<i>18</i>	<i>24</i>	<i>ditto</i>	<i>34.7</i>	<i>21.0</i>	<i>21.6</i>			
	<i>214325</i>	<i>24</i>	<i>29</i>	<i>brown clay</i>	<i>34.0</i>	<i>21.9</i>	<i>20.7</i>			
<i>B41</i>	<i>214326</i>	<i>0</i>	<i>6</i>	<i>Red brown sandy clay.</i>	<i>32.8</i>	<i>23.6</i>	<i>22.2</i>			
<i>444917</i>										
	<i>327</i>	<i>6</i>	<i>12</i>	<i>ditto</i>	<i>33.4</i>	<i>24.1</i>	<i>22.5</i>			
	<i>328</i>	<i>12</i>	<i>18</i>	<i>ditto</i>	<i>33.7</i>	<i>24.3</i>	<i>22.1</i>			
	<i>329</i>	<i>18</i>	<i>24</i>	<i>Orange brown with some white clay.</i>	<i>31.0</i>	<i>24.2</i>	<i>21.7</i>			
	<i>330</i>	<i>24</i>	<i>30</i>	<i>Light brown sandy clay</i>	<i>29.4</i>	<i>24.4</i>	<i>22.1</i>			
	<i>331</i>	<i>30</i>	<i>35</i>	<i>ditto</i>	<i>28.8</i>	<i>24.1</i>	<i>22.3</i>			
<i>B42</i>	<i>214332</i>	<i>0</i>	<i>6</i>	<i>Light brown sandy clay</i>	<i>35.1</i>	<i>24.8</i>	<i>20.9</i>			
<i>445916</i>										
	<i>333</i>	<i>6</i>	<i>12</i>	<i>ditto</i>	<i>30.9</i>	<i>24.7</i>	<i>22.3</i>			
	<i>334</i>	<i>12</i>	<i>18</i>	<i>grey clay.</i>	<i>29.9</i>	<i>20.4</i>	<i>20.6</i>			
	<i>335</i>	<i>18</i>	<i>23</i>	<i>ditto</i>	<i>33.8</i>	<i>22.1</i>	<i>21.5</i>			

REMARKS:-

Blank lines for remarks.

867016

Sheet 12

AUGER DRILL LOG & ASSAY SHEET

515

LOCALITY Devonport EL 36/70

SAMPLE DISPATCHED.....
D.P.O. No. 13564 include B63 then 13565

CO-ORDINATES.....

DATE DRILLED 8.5.71

ANALYSED BY ZC

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	TiO ₂	LOI	AI
B43 445915	214336	0	6	Dark red sandy clay.	33.7	19.5	25.8			
	337	6	12	Red orange sandy clay.	31.1	23.0	25.0			
	338	12	18	Ditto Stopped by hard rock	31.4	22.7	24.0			
B44 447914	214339	0	6	grey-brown sandy clay.	38.0	17.0	27.2			
	340	6	12	brown sandy clay then yellow brown clay.	42.1	21.3	19.6			
	341	12	18	yellow brown sandy clay.	44.4	24.2	15.8			
	342	18	24	Ditto	44.2	23.7	15.6			
	343	24	29	Ditto	46.6	22.8	13.7			
B45 451912	214344	0	6	Orange with a little grey sandy clay.	71.3	12.1	8.8			
	345	6	12	red-orange sandy clay with small quartz pebbles.	86.4	6.3	5.5			
	346	12	17	Ditto	79.8	9.3	6.8			
	347	17	19	Orange + grey clay stopped by hard rock	71.0	15.2	5.9			

REMARKS:-

No.

AUGER DRILL LOG & ASSAY SHEET

LOCALITY... *Levenport EL 36/70*

SAMPLE DISPATCHED.....

CO-ORDINATES.....

D.P.O.No. *13565*

DATE DRILLED... *8.5.71*

ANALYSED BY *ZC*

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	TiO ₂	LOI	AI
<i>B46</i>	<i>214348</i>	<i>0</i>	<i>6</i>	<i>grey soil on top then</i>	<i>48.4</i>	<i>20.8</i>	<i>16.8</i>			
<i>447913</i>				<i>red sandy clay.</i>						
	<i>349</i>	<i>6</i>	<i>12</i>	<i>light red sandy</i>	<i>39.9</i>	<i>28.4</i>	<i>16.2</i>			
				<i>clay.</i>						
	<i>350</i>	<i>12</i>	<i>18</i>	<i>light red - brown</i>	<i>42.0</i>	<i>26.4</i>	<i>15.4</i>			
				<i>sandy clay.</i>						
	<i>214351</i>	<i>18</i>	<i>20</i>	<i>brown sandy clay</i>	<i>42.5</i>	<i>26.8</i>	<i>14.8</i>			
				<i>Stopped due to hard rock</i>						
<i>B47</i>	<i>214352</i>	<i>0</i>	<i>6</i>	<i>brown sandy clay.</i>	<i>52.0</i>	<i>14.6</i>	<i>18.7</i>			
<i>446917</i>	<i>353</i>	<i>6</i>	<i>12</i>	<i>yellow brown</i>	<i>46.4</i>	<i>16.8</i>	<i>21.0</i>			
				<i>sandy clay.</i>						
	<i>354</i>	<i>12</i>	<i>18</i>	<i>brown sandy clay</i>	<i>37.0</i>	<i>23.5</i>	<i>21.1</i>			
	<i>214355</i>	<i>18</i>	<i>23</i>	<i>ditto</i>	<i>38.8</i>	<i>22.8</i>	<i>19.9</i>			
<i>B48</i>	<i>214356</i>	<i>0</i>	<i>6</i>	<i>Dark brown</i>	<i>33.7</i>	<i>22.4</i>	<i>22.1</i>			
<i>447918</i>				<i>sandy clay.</i>						
	<i>357</i>	<i>6</i>	<i>12</i>	<i>red orange</i>	<i>33.2</i>	<i>25.2</i>	<i>21.6</i>			
				<i>sandy clay.</i>						
	<i>358</i>	<i>12</i>	<i>18</i>	<i>ditto</i>	<i>33.6</i>	<i>24.5</i>	<i>22.3</i>			
	<i>359</i>	<i>18</i>	<i>24</i>	<i>red brown sandy</i>	<i>33.6</i>	<i>23.7</i>	<i>22.2</i>			
				<i>clay.</i>						
	<i>360</i>	<i>24</i>	<i>30</i>	<i>ditto</i>	<i>33.4</i>	<i>24.2</i>	<i>22.9</i>			
	<i>361</i>	<i>30</i>	<i>35</i>	<i>yellow brown mud.</i>	<i>34.8</i>	<i>22.6</i>	<i>22.5</i>			
				<i>Drilling stopped</i>						
				<i>little return.</i>						

REMARKS:-

AUGER DRILL LOG & ASSAY SHEET

LOCALITY... *Levonsport EL 36/70*

SAMPLE DISPATCHED.....

CO-ORDINATES.....

D.P.O. No. *13566*

DATE DRILLED... *9.5.71*

ANALYSED BY... *ZC*

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	TiO ₂	LOI	AI
<i>B49</i>	<i>214362</i>	<i>0</i>	<i>6</i>	<i>red-brown sandy clay.</i>	<i>38.4</i>	<i>22.8</i>	<i>19.6</i>			
<i>449918</i>	<i>363</i>	<i>6</i>	<i>12</i>	<i>ditto.</i>	<i>32.0</i>	<i>25.4</i>	<i>23.8</i>			
	<i>364</i>	<i>12</i>	<i>18</i>	<i>ditto</i>	<i>73.4</i>	<i>12.4</i>	<i>7.6</i>			
	<i>365</i>	<i>18</i>	<i>26</i>	<i>reddish then yellow sandy clay.</i>	<i>71.0</i>	<i>13.2</i>	<i>8.4</i>			
	<i>366</i>	<i>24</i>	<i>30</i>	<i>yellow sandy clay.</i>	<i>73.6</i>	<i>13.0</i>	<i>6.1</i>			
	<i>367</i>	<i>30</i>	<i>35</i>	<i>ditto</i>	<i>82.7</i>	<i>9.1</i>	<i>4.0</i>			
<i>B50</i>	<i>214368</i>	<i>0</i>	<i>6</i>	<i>grey-brown sand + yellow sandy clay.</i>	<i>86.0</i>	<i>6.9</i>	<i>4.6</i>			
<i>650920</i>	<i>369</i>	<i>6</i>	<i>12</i>	<i>yellow sandy clay.</i>	<i>82.0</i>	<i>8.5</i>	<i>6.2</i>			
	<i>370</i>	<i>12</i>	<i>18</i>	<i>ditto</i>	<i>82.8</i>	<i>7.4</i>	<i>6.9</i>			
	<i>371</i>	<i>18</i>	<i>24</i>	<i>ditto</i>	<i>75.9</i>	<i>11.3</i>	<i>7.4</i>			
	<i>372</i>	<i>24</i>	<i>30</i>	<i>ditto</i>	<i>79.1</i>	<i>8.7</i>	<i>8.0</i>			
	<i>373</i>	<i>30</i>	<i>35</i>	<i>ditto</i>	<i>82.3</i>	<i>8.5</i>	<i>6.9</i>			
<i>B51</i>	<i>214374</i>	<i>0</i>	<i>6</i>	<i>red sandy clay.</i>	<i>39.8</i>	<i>23.4</i>	<i>20.1</i>			
<i>446919</i>	<i>375</i>	<i>6</i>	<i>12</i>	<i>ditto</i>	<i>30.5</i>	<i>25.1</i>	<i>24.7</i>			
	<i>376</i>	<i>12</i>	<i>18</i>	<i>red brown sandy clay.</i>	<i>30.5</i>	<i>24.5</i>	<i>25.0</i>			
	<i>377</i>	<i>18</i>	<i>24</i>	<i>yellow brown sandy clay.</i>	<i>31.6</i>	<i>24.2</i>	<i>26.4</i>			
	<i>214378</i>	<i>24</i>	<i>28</i>	<i>ditto</i>	<i>34.7</i>	<i>23.7</i>	<i>21.8</i>			

REMARKS:-

Blank lines for remarks.

AUGER DRILL LOG & ASSAY SHEET

018

LOCALITY *Levonport EL 36/70*

CO-ORDINATES.....

DATE DRILLED *9.5.71*

SAMPLE DISPATCHED.....

D.P.O. No. *13566* *including B52 then 13567*

ANALYSED BY *ZC*

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	TiO ₂	LOI	AI
B52	214379	0	6	Brown silt +	44.6	16.3	21.4			
	445022			fine clay						
	380	6	12	yellow sandy clay	40.6	21.0	20.7			
	381	12	18	yellow mud.	42.0	20.6	18.6			
				Stopped due to hard rock						
B53	214382	0	6	red-brown sandy clay	56.7	14.2	15.0			
	447922									
	383	6	12	red pink clay	43.1	24.0	16.5			
	384	12	18	pink + grey clay	41.2	28.0	13.4			
	385	18	24	pink clay	38.1	25.4	17.9			
	386	24	30	orange clay	35.1	22.1	25.1			
	387	30	36	yellow orange clay	35.6	21.4	25.3			
	388	36	42	ditto	36.3	20.2	25.9			
	389	42	47	ditto	38.8	20.3	23.1			
B54	214390	0	6	red brown sandy clay	47.9	17.5	18.9			
	449022									
	391	6	12	red clay	46.2	17.7	19.5			
	392	12	18	ditto	35.6	24.3	22.2			
	393	18	24	ditto	34.0	24.9	22.2			
				Hole abandoned due to hard rock						

REMARKS:-

AUGER DRILL LOG & ASSAY SHEET

018

LOCALITY *Devonport EL3670*

SAMPLE DISPATCHED.....

CO-ORDINATES.....

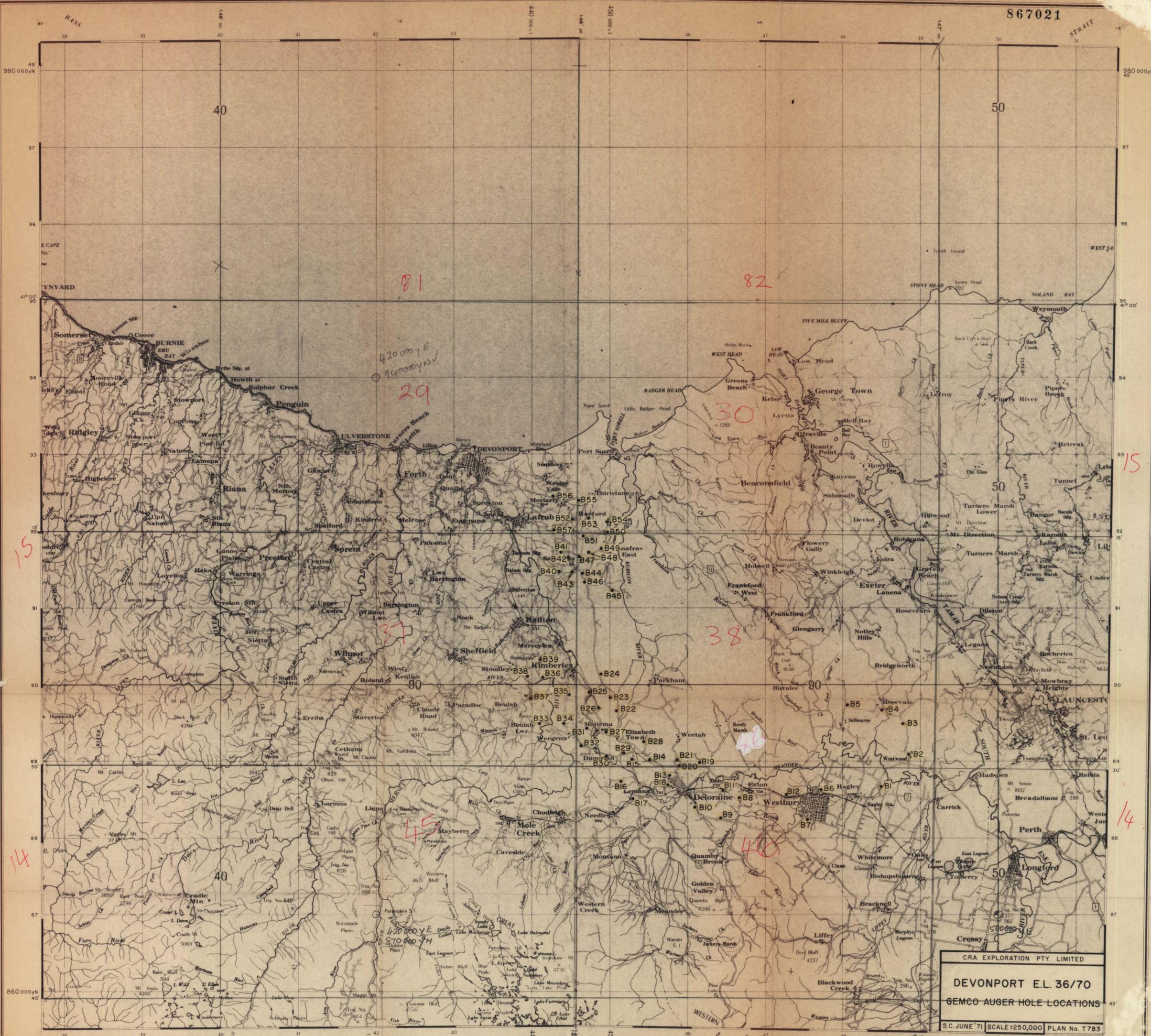
D.P.O. No. *13567*

DATE DRILLED *9.5.71*

ANALYSED BY *ZC*

HOLE No.	SAMPLE NUMBER	FROM	TO	DESCRIPTION	S ₂ O ₂	Al ₂ O ₃	Fe ₂ O ₃	T ₂ O ₂	LOI	AI
B55	214394	0	4	red sandy clay	36.0	19.5	24.2			
	446924			Hole abandoned due to hard rock.						
B56	214395	0	6	red sandy clay	55.6	18.6	13.0			
	443923	396	6 12	ditto	82.1	8.6	6.0			
		397	12 18	orange red sandy clay	91.2	5.8	3.6			
		398	18 24	ditto	90.5	5.7	3.5			
	214399	24	30	ditto	91.8	5.3	3.8			
	214400	30	35	ditto	92.0	5.3	3.4			
B57	214401	0	6	Red brown sandy clay	66.0	14.3	11.1			
	443920									
		402	6 12	ditto	54.4	18.8	13.9			
		403	12 18	red with some white clay	76.2	11.2	7.3			
		404	18 24	red + yellow sandy clay	84.7	8.2	4.6			
		405	24 30	light red sandy clay	88.8	6.0	3.3			
		406	30 35	yellow brown sandy clay	92.8	4.4	2.4			

REMARKS:-



BASE MAP: From published BURNIE and LAUNCESTON 1:250,000
 Topographical map supplied by courtesy of the
 Tasmanian Lands and Surveys Department.

CRA EXPLORATION PTY. LIMITED
DEVONPORT E.L. 36/70
 GEMCO AUGER HOLE LOCATIONS
 S.C. JUNE '71 SCALE 1:250,000 PLAN No. T783

Q2 9, 37, 45, 46

025001

C.R.A. EXPLORATION PROPRIETARY LIMITED

Ref. No. General/Tasmania

Q37 No 14

70-615

SUBJECT: SCINTILLOMETER SEARCH FOR BAUXITE, NORTHWEST TASMANIA.

AUTHOR: Miss S. E. Close

DATE: February, 1970.

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Scintillometer Search for Bauxite N.W. Tas E.L. 36/70, C.R.A.

by Miss S.E. Close Feb 1970

025E

MICROFILMED

February, 1970.

Memorandum to: C. L. KNIGHT

Copies: H. J. Evans
G. W. Patterson

From: Miss S. E. Close

Scintillometer Search for Bauxite, Northwest Tasmania

Deep red soils over basalt were seen on the northwest coastal areas of Tasmania in February, 1968 and this, together with a bauxite location at Myalla reported by Owen in B.M.R. Bulletin 24, rendered the area interesting for bauxite in view of the known locality, the large possible area, and the proximity to an alumina refinery.

After a quick orientation survey on the ground and in the air, the area was flown with a scintillometer. This was also a test case for flying over basalts in a temperate climate.

SUMMARY

Readings have been plotted and contoured. Some anomalous areas exist. However, the readings are approximately $1\frac{1}{2}$ times background. At this stage it is not known if the anomalies have any significance at all, and follow up ground work will be essential in determining this. Also the other half of the original area should be flown, as this included the bauxite area at Myalla.

INSTRUMENTS

The readings were taken at 500 feet above ground level from a Cessna 185 flying at about 85 knots. Cessna 175's and 185's are the only aircraft available for hire in the area and are obtained from Devonport Air Charter Services based at both Devonport and Wynyard.

001

The scintillometer used was hired from McPhar and had a separate probe with a 2 inch crystal. Readings were taken and written down every 5 seconds by Rudi Klaric.

DESCRIPTION

In order to determine where to traverse, the basalt areas on the 8 miles to one inch geological map of Tasmania were roughly transferred on to the Burnie and Launceston 1 : 250,000 map sheets.

Traverses were drawn up to cover these areas and were spaced at one mile intervals, as any area less than 1 square mile would be of no commercial interest.

It was found that further inland there were no deep red soils, but mainly outcropping basalt. For example, Borradaile Plains, an outcropping basalt area which was flown in order to give some comparison between outcropping basalt and the red soils.

The traverses yet to be flown are plotted on the 4 mile to one inch map and it is suggested that the Waratah region from south of Hampshire not be flown, as this does not have red soil. The cut-off point can be decided visually.

Due to commitment to another project, I cannot comment on the results fully as plotting was still in progress when I left Melbourne office. However, H. J. Evans and G. W. Patterson are familiar with the project.

SEC:jm

S. E. Close

KEYWORDS

Bauxite, basic lavas, radioactivity.

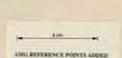
Locality: Burnie SK 55-3 1 : 250,000 map sheet.
Launceston SK 55-4 1 : 250,000 map sheet.

PLAN

Scale

T.769 Airborne Scintillometer Survey -
Part of N.W. Tasmania.

2 mls. to 1"



- Areas of deposit, delineated from data of the Geological Survey of Tasmania
- 1000 contour line (where shown)
- ▲ Position, by 100 000 scale, of points

G. A. EXPLORATION PTY. LIMITED
 AIRBORNE SCINTILLOMETER SURVEY
 PART OF
 N.W. TASMANIA
 925014
 EAST 444 000 NORTH 5007 000 SCALE 1:50 000

First Annual Report

on

EL 9/2010 – DELORAINE

APPENDIX B – BOTANICAL SURVEY

ABx4 Pty Ltd

From: Philip Milner [<mailto:philip.milner@bigpond.com>]
Sent: Tuesday, 26 October 2010 9:38 PM
To: Leon Hawker
Subject: Re: Deloraine Access & Flora study

Leon,

this email confirms the results of the botanical surveys undertaken today over your Deloraine Target Areas.

All areas surveyed across each of the properties were located in arable farmland which consisted of crops such as poppies, peas, lucerne, cereal crops and sown pastures or were in varying stages of cultivation and preparation.

No remnant areas of native vegetation communities were observed at any of the sites surveyed. An occasional paddock tree of mainly mature *White Gum Eucalyptus viminalis* and *Blackwood Acacia melanoxylon* was present in some locations although most were in decline and in varying stages of senescence.

No remnant indigenous ground stratum vegetation was observed on any of the sites surveyed and a detailed vegetation report of the Deloraine targets surveyed is not considered warranted.

Regards

Philip

PHILIP MILNER LANDSCAPE CONSULTANT PTY LTD

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philip.milner@bigpond.com