

Second Annual Report
on
EL 4/2010 – EVANDALE

Reporting Period: 14 September 2011 – 13 August 2012
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NOTE: All Garmin maps use WGS – 84

APPENDICES

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1 ABSTRACT

Objective:

Exploration Licence (EL) 4/2010 “Evandale” 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 penepained 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 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:

The bauxite in Evandale tenement is generally low grade with small potential tonnage. The bauxite mostly occurs in bauxitised basaltic volcaniclastic or dolerite deposits in the highest points of the terrain. Because of the tenement’s proximity to the port, small tonnages may still be of economic significance. Most of the bauxite deposits are primarily located on moderate to low value of agricultural land or bush land.

ABx4 is partially relinquishing 113sq km. The partial relinquishment focuses on removing towns, settlements, rivers, mountains and exclusion areas from the current tenement. Many of these areas are unlikely to have bauxite and those areas with bauxite would have significant constraints on any future potential developments.

The majority of the land usage in the tenement is agricultural land with land categories between 3 and 7. Gaining access to farming properties was very successful. All landowners contacted by ABx4 allowed the drill rig to operate on their property and no problems were encountered.

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.

ABSTRACT Cont

- 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.
- 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 drilling at close spacings to obtain data for preliminary resource estimation in the best target areas defined by program.
- Systematic sampling and drilling at waypoints with best bauxite potential.
- Detailed analysis of assay results to determine assaying strategy for future drilling.

2 INTRODUCTION

Exploration Rationale

Exploration Licence (EL) 4/2010 “Evandale” 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 penepained 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 12 tonne truck.

Geological Setting

In the Evandale 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 has formed in the lower areas of central Tasmania between two massive plateaus of dolerite. The large valley is made up of dolerite, young volcanics, recent sediment and some sandstone which have been extensively laterised. There is a small amount of older volcanics in the bauxite areas which are believed to be the source rock for the bauxite.

Tenement Information

EL 4/2010 “Evandale” was granted on and from 14 September 2010 for a period of 5 years to ABx4 Pty Ltd (ABx4).

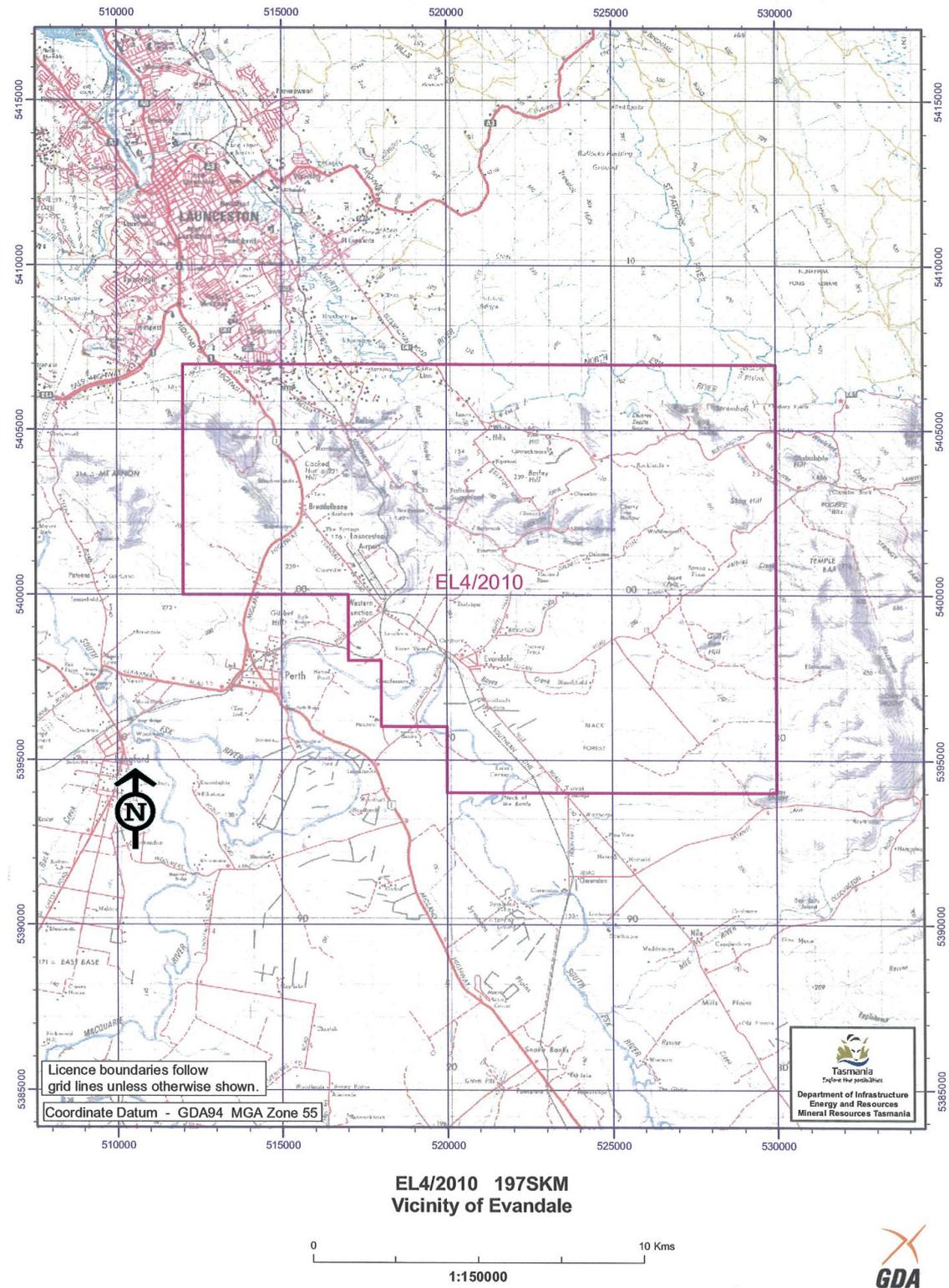
This is the Second Annual Report for the reporting period 14 September 2011 - 13 August 2012 incorporating the results of work completed during the second year of tenure.

The original area of the licence is 197sq km. ABx4 however is relinquishing 113sq km to bring the remaining total area to 84sq km. The Mineral Category for EL 4/2010 is 1 – Metallic Minerals and Atomic Substances.

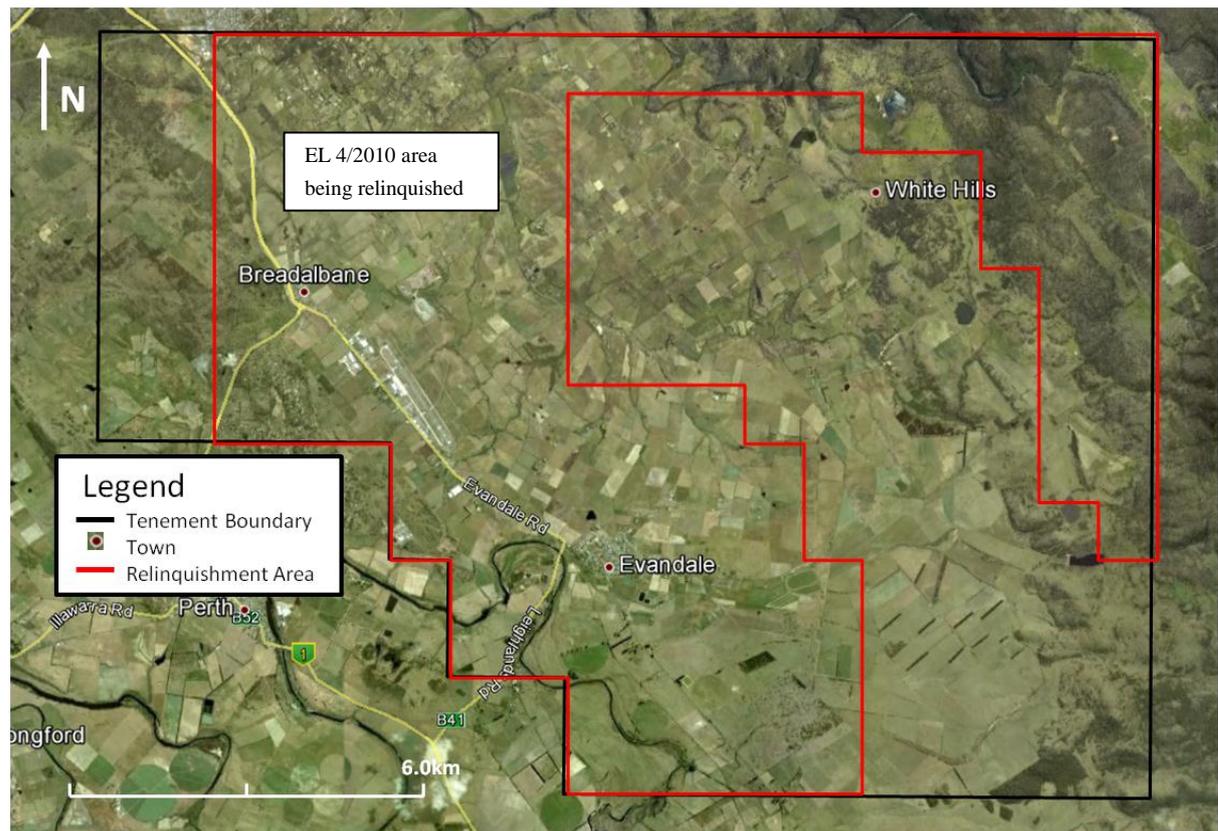
Location

The Evandale tenement is located from the edge of Launceston to Campbelltown 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 Tenements are often over the working railway lines. EL 4/2010 is close to the City of Launceston which could offer a wide range of services and skilled work force.

INTRODUCTION Cont



Map 1 – Location Map of EL 4/2010 “Evandale”

INTRODUCTION Cont

Map 2 – Overview Map of EL4/2010 with proposed relinquishment area outlined in red

Area to be relinquished

ABx4 proposes to relinquish 113sq km of EL 4/2010 in order to focus exploration on the most prospective zones for finding bauxite. The partial relinquishment focuses on removing towns and settlements, rivers and mountains and exclusion areas from the current tenement. Many of these areas are unlikely to have bauxite and those areas with bauxite would have significant constraints in any potential developments.

Tenure, including joint venture details and title transfers

EL 4/2010 “Evandale” is 100% owned by ABx4 which is a 100% owned subsidiary of Australian Bauxite Limited.

3 REVIEW OF PREVIOUS WORK

Prior to Current Tenement

Historical references for bauxite in the Evandale tenement are reported by H.B. Owen in his book "Bauxite in Australia", 1954, most notably in White Hills which was the basis for initial exploration of the area.

- H.B. Owen, 1954, Bauxite in Australia, Bulletin 24

The following geological map which identified a bauxite deposit has also been referred to:

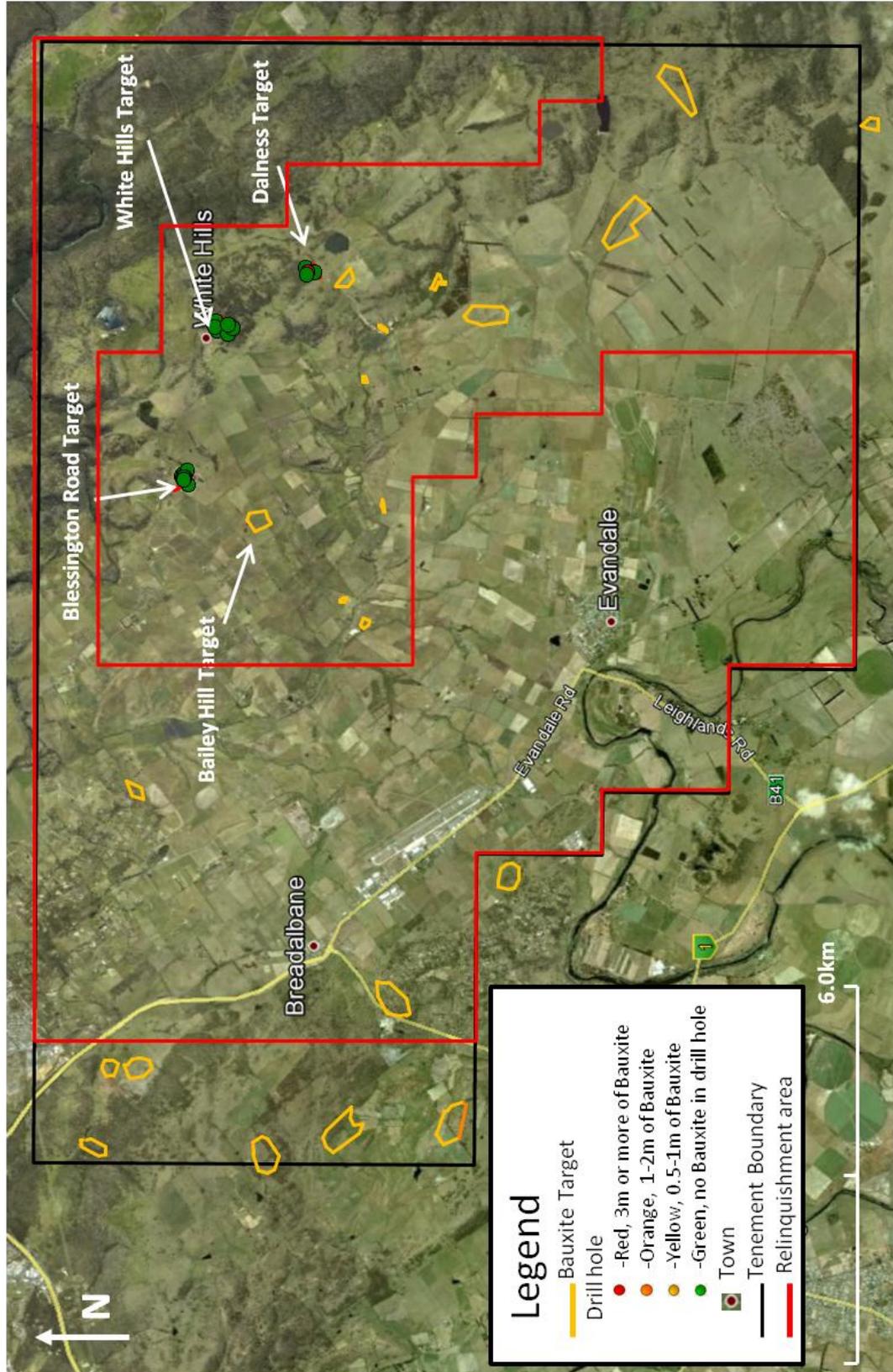
- F. Blake (1959). Longford 1:6336000 geological map, Geological survey of Tasmania - Department of Mines

During current Tenement (from first year of tenure)

Historical references of bauxite in the Evandale area were recorded in H.B. Owens's book; most notably at White Hills which was the basis for Initial exploration of the area. In December 2010 a total of 21 holes were drilled in the Evandale Tenement with a total of 126m. Only two holes intersected the bauxite zone which had an average thickness of 2.5m and had an average grade of 33.0% Available Alumina (avl Al₂O₃), 3.4% Reactive Silica (rx SiO₂), 38.6% Total Alumina, 4.6% Total Silica and 30.1% Iron Oxide. Approximate tonnage for the area is 100,000 tonnes and exploration around the area had revealed other outcrops of red material from lateritic weathering but which failed to achieve a significant grade.

4 EXPLORATION COMPLETED DURING THE REPORTING PERIOD

Regional Exploration Activities



Map 3 – EL4/2010 Drill-hole and Target Map with Relinquishment Boundary

EXPLORATION COMPLETED DURING THE REPORTING PERIOD Cont

Literature Review

H.B. Owen, 1954, Bauxite in Australia, Bulletin 24

F. Blake (1959). Longford 1:6336000 geological map, *Geological survey of Tasmania -Department of Mines*

Area to be relinquished

ABx4 proposes to relinquish 113sq km of EL 4/2010 in order to focus exploration on the most prospective zones for finding bauxite. The partial relinquishment focuses on removing towns and settlements, rivers and mountains and exclusion areas from the current tenement. Many of these areas are unlikely to have bauxite and those areas with bauxite would have significant constraints in any potential developments.

Access and Land usage

The majority of the land usage in the tenement is agricultural land with land categories between 3 and 7. Gaining access to farming properties was very successful. All landowners contacted by ABx4 allowed the drill rig to operate on their property. No problems were encountered.

White Hills, Blessington Road, Dalness and Bailey Hill Targets



Map 4 – White Hills and Blessington Road Drill-holes and Targets

A detail study of geological mapping, satellite images and literature was conducted to define the areas with best potential for bauxite. Exploring on foot focused on the old ternary surface, analysing erosional patterns and looking for escarpments exposing red soil on a number of private properties. Areas where there is no bauxite potential, towns, settlements, rivers, mountains and exclusion areas are being relinquished.

EXPLORATION COMPLETED DURING THE REPORTING PERIOD Cont**White Hills Target**

The White Hills Target consists of two steep sided hills which have bauxite exposed on the escarpment and riling down the slope. The host volcanics outcrop in a road cutting below the deposit. The bauxite appears to be derived from the grey vuggy light-weight volcanic.

Despite good grades from reconnaissance sampling, the bauxite averaged 12% reactive silica and recoveries for the area were very poor. The low grade bauxite did contain some higher grade zones with only 4% reactive silica and highly gibbsitic. The eastern hill was not drilled well because of the thick scrub and steep terrain. The bauxite targets are very small but could still be of economic significance.

Blessington Road Target

The Blessington Road Target follows along the Blessington Road a few hundred meters in an escarpment of pink bauxite. Behind the escarpment are mostly younger basalts that could have overlain the bauxite and could have had significant tonnage. Drilling showed a near vertical contact between the bauxite and the basalt. The bauxite appears to snake around the edge of the basalt flow and in only a few meters wide. This formation could have occurred during the eruption of the younger volcanics when the heavy basalt flows 'push' the less solid bauxite down a hill like a bulldozer. It is seen in many areas where basalts are present next to bauxite and the 'push zones' are characterize by a long skinny deposit with thick intercepts but near vertical contacts with the basalt (bauxite can still form under the basalt but at Inverell 6m of bauxite was found 27m below the basalt, making it uneconomic).

Textures in this bauxite are similar to textures found in Dolerite, with pink breccia bauxites and relic dolerite crystal structures. Bauxite deposits hosted in Dolerite are considered unfavourable because dolerite is a hard impermeable rock. Hence all bauxite deposits identified in contact with dolerite have been very small. The mottled zone beneath doleritic bauxite appears quite unique with black and white clay with dendritic textures.

Three holes intersected bauxite with an average thickness of 3.5m and a maximum thickness of 5m. The average grade for bauxite in holes VD001-VD008 with a cut-off grade of 2.5 A/S ratio is: 29.0% Available Alumina (avl Al₂O₃), 8.5% Reactive Silica (rx SiO₂), 39.8% Total Alumina, 10.5% Total Silica and 22.5% Iron Oxide. Recoveries for the area were quite low averaging 53%. Sieving also was not very effective with only minor reductions in Total Silica. Total Silica is too high in this target for it to be of any economic value.

Dalness Targets (VD018-VD021)

The Dalness Targets are very small bauxite occurrences, which are probably formed on dolerite, which is the major rock type for the area. The large ridged occurrences looked promising but were actually mostly dolerite with one corner of bauxite. The second area had a large pit but the occurrence was round but still very small.

Only one hole (VD019) intersected the bauxite zone which was 4m thick. The average grade for bauxite in VD019 with a cut-off grade of 2.5 A/S ratio is: 25.9% Available Alumina (avl Al₂O₃), 2.9% Reactive Silica (rx SiO₂), 32.4% Total Alumina, 4.5% Total Silica and 39.0% Iron Oxide. Recoveries for the area were quite low averaging 57%. Sieving appeared to be effective at reducing total and reactive silica but more results are required for accurate comparisons.

EXPLORATION COMPLETED DURING THE REPORTING PERIOD Cont

Exploration around the area has revealed other outcrops of red material from lateritic weathering but failed to achieve a significant grade.

Bailey Hill Target

Identified by F. Blake in the Longford Geological Map 1959 - the Bailey Hill Target is a small bauxite deposit confined to the highest point of terrain.

5 DISCUSSION OF RESULTS

The bauxite mineralization in the Evandale region is generally confined to hills, ridges and plateaus of weathered/bauxitised basaltic volcanoclastic or dolerite deposits. The bauxite is only partially continuous along the ridge tops and seems to form pockets of bauxite on the old surface. The original bauxite layer was probably more extensive and has eroded away over time. Volcaniclastics outcrop directly below the White Hills Targets on Blessington Road. The bauxite has also retained strong volcanic textures. The target south of Dalness occurs on the side of a dolerite ridge and shows a grading from red/pink bauxite into a black and white mottled zone into weathered dolerite. The Blessington Road Target also contains pink bauxite with a black and white mottled zone. This indicates that White Hills Target is derived from volcanoclastic and the Blessington Road Target is derived from dolerite and could be of different ages. There is also a possibility that thin layers of volcanic tuff have overlain the dolerites and been bauxitised making the dolerite appear to be bauxitised.

The bauxite mineralization in Tasmania is generally confined to hills, ridges and plateaus of bauxitised Volcaniclastics or Dolerites. 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 they are often very friable without the typical cementaceous nature and often have a very similar consistency to clay. The main sort of bauxite that has this characteristic is the fine grained yellow vuggy bauxite which is generally friable with micro vughs but is often rich in Silica and low in Iron. High grade zones of this material can be indicated by the number of vughs or the finding of hard flat brick-like bauxites at surface. The presence of the Grey volcanic bauxite which looks almost exactly like vuggy basalt is also usually associated with high grade zones in the Volcanoclastic bauxites. 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.

Typical Doleritic bauxites often have a Pisolitic cap (Poorly Diffracting Material (**PDM**)) with red very Iron rich bauxite at surface which then grades into a brecciated Red/Yellow bauxite which is sometimes vuggy. Doleritic bauxite profiles also have a lot of tubular vughs which can be filled with gibbsite or clay. Yellow friable vuggy bauxite very similar to the volcanic material is common near the base of the doleritic bauxite layer and will often contain strong dolerite textures which grade into a mottled zone once again with the exact same dolerite textures. Large weathered dolerite boulders occur within and above the bauxite layer particularly around the edges of the deposits. Dolerite boulders become more common in the mottled zone and often have 2inch crusts of mottled material as a rim.

Table 1 - Example of assay results for the different types of bauxite

Sample No.	AvlAl ₂ O ₃	RxSiO ₂	Al ₂ O ₃	SiO ₂	Fe ₂ O ₃	LOI	Avl/Rx	A/S	TiO ₂	ZrO ₂
Doleritic Bauxite	29.6	1.2	33.7	1.72	35	20.82	24.7	19.6	7.65	0.06
Volcanic Bauxite	43.1	1.6	48.8	2.53	18.1	27.41	26.9	19.3	2.61	0.03

6 CONCLUSIONS AND RECOMMENDATIONS

The bauxite in Evandale tenement is generally low grade with small potential tonnage. The bauxite mostly occurs in bauxitised basaltic volcanoclastic or dolerite deposits in the highest points of the terrain. Because of tenement's proximity to the port small tonnages may still be of economic significance. Most of the bauxite deposits are primarily located on moderate to low value of agricultural land or bush land. A partial relinquishment of 113sq km focuses on removing towns, settlements, rivers, mountains and exclusion areas from the tenement because bauxite potential is low or not economic in these areas.

Recommendations for future work include:

- 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.
- 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 drilling at close spacings to obtain data for preliminary resource estimation in the best target areas defined by program.
- Systematic sampling and drilling at waypoints with best bauxite potential.
- Detailed analysis of assay results to determine assaying strategy for future drilling.

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 the White Hills Target Area within EL 4/2010.

Please refer to Appendix A of the 'First Annual Report for EL 4/2010 – August 2011' for the complete Survey.

Rehabilitation:

All drill holes and tracks are fully rehabilitated immediately after drilling. Drill-holes are plugged using octo-plugs at a depth of 1.5m and re-filled using innocuous material from the drill hole.

8 EXPENDITURE

Table 2 – Exploration Activity and Expenditure Table for reporting period 14 September 2011 – 14 September 2012

Exploration Category	Description of Activity	Quantity	Expenditure
Office Administration			
Authority Management	Rent		\$4,551
Office Activities	Data Processing & Interpretation		
Field Activities	Geological Mapping		
	Sampling	core storage	
	Equipment Hire		
	Travel & Accommodation		\$1,590
	Vehicle Hire		\$235
	Vehicle Petrol		\$148
	Field Supplies		\$198
	Geophysics		
	Airborne		
	Type	Line kms	
	Ground		
	Type	Line kms	
	Drilling (program cost)		
	RAB/AC	Holes/total metres	
	RC	Holes/total metres	
	Diamond	Holes/total metres	
	Other	Holes/total metres	
Laboratory	ME-XRF 13B, Reactive Silica & Available Alumina	Samples	
Salaries / Wages	Employees	Reconnaissance	\$2,400
		Grand Total	\$9,121

Note: Office Administration was met by parent company – Australian Bauxite Limited.

ABx4 has 11 tenements in Tasmania, 3 of which are still pending grant. Although expenditure was low this last reporting period, ABx4 is planning to undertake a scoping study of the economic potential for developing a Tasmanian Bauxite Project this September. Please see ASX announcement in Appendix A.

9 REFERENCES

H. B. Owen (1954). *Bauxite in Australia*, Bureau of Mineral Resources Bulletin no. 24

F. Blake (1959). Longford 1:6336000 geological map, *Geological survey of Tasmania -Department of Mines*

T. Coyte, J. Rebek, First Annual Report on EL 4/2010 August 2011 – Evandale, *ABx4 Pty Ltd*