Third Annual Report

on

EL 6/2010 – CLEVELAND

Reporting Period:	14 September 2012 – 13 September 2013
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MAPS

NOTE: All Garmin maps use WGS84

1 ABSTRACT

Objective:

Exploration Licence (**EL**) 6/2010 "Cleveland" 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 peneplained 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 spacing's to obtain data for resource estimation in the best target areas defined by programme under 4.

Results

Exploration in EL6/2010 identified two areas of bauxite mineralisation. The Nile Road Target consists of multiple bauxite targets located in grassy paddocks on the edge of Cleveland EL6/2010 and Conara EL 7/2010. The Conara EL7/2010 contains a JORC resource for the Nile Road Bauxite deposit of approximately 0.7Mt.

The Nile North target area is a large area of laterites forming in conjunction with Tertiary volcanics. Numerous samples were taken on the field trips and a bauxite target was identified north of a large dam. The Bauxite outcrop is difficult to define and may dip below cover in an easterly direction.

These areas are recommended to be drilled in the future focusing on drilling below cover to the east of bauxite outcrops.

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.
- 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.
- Detailed analysis of assay results to determine assaying strategy for future drilling.

2 INTRODUCTION

Exploration Rationale

ABx4 Pty Ltd the holder of Category 1 Exploration Licences EL37/2010 a wholly owned subsidiary of Australian Bauxite Ltd. Australian Bauxite Limited (ABx) (ASX: ABZ) is an exploration company that holds the core of the Tasmanian Bauxite Province with all tenements selected on 3 principles:

- Quality – good quality bauxite with potential for significant resource tonnages;
- Proximity – easy access to infrastructure connected to export ports; and
- Accessibility – free of socio-environmental or native title land constraints.

Land within the tenement consists of freehold agricultural land with some forests and plantations. Bauxite targets are located mostly on freehold land.

EL 6/2010 "Cleveland" 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 peneplained surfaces preserved as plateaus. The goal of the program was 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

Bauxite mineralization is generally confined to hills, ridges, plateaus, and channels of bauxitised volcaniclastics which drape the paleo-topography. The bauxite was formed during the Lower Tertiary period when volcanism commenced and extreme tropical climatic conditions prevailed – at the boundary between the Cretaceous Era and the onset of the Tertiary Era which is often referred to as the K-T boundary commonly associated with the extinction of the dinosaurs, approximately 60 million years ago. The bauxite occurs on the old lateritic surface, where the processes of laterisation in the Tertiary period has removed silica from the rock, leaving mainly Aluminium and Iron rich minerals behind.

Tenement Information

EL 6/2010 "Cleveland" was granted on and from 14 September 2010 for a period of 5 years to ABx4 Pty Ltd (**ABx4**).

This is the Third Annual Report for the reporting period 14 September 2012 - 13 September 2013 incorporating the results of work completed during the Third year of tenure.

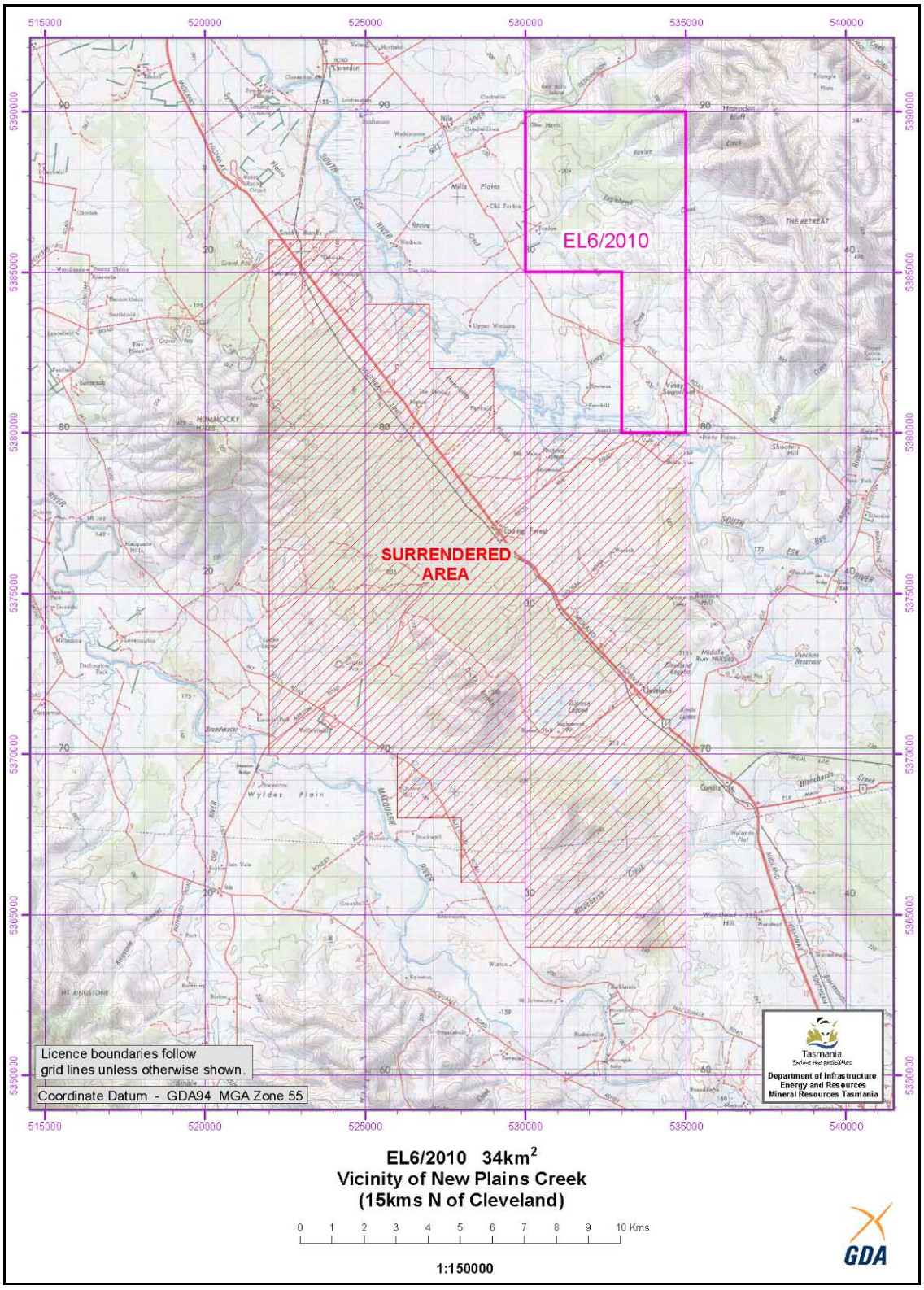
Total area of the Licence is 34 sq km and its Mineral Category is 1 – Metallic Minerals and Atomic Substances. ABx4 relinquished 202sq km in 2012 in order to focus on those areas most prospective for bauxite discovery.

Tenure, including joint venture details and title transfers

EL 6/2010 "Cleveland" is 100% owned by ABx4 which is a 100% owned subsidiary of Australian Bauxite Limited.

Location

EL 6/2010 is centred on the town of Epping Forest. The tenement covers an active railway with a siding at Conara 10km to the south-east and is only 75km away from the deep water port at Bell Bay. The tenement is close to the City of Launceston which could offer a wide range of services and skilled work force.



Map 1 – EL 6/2010 Cleveland Original Tenement Boundary Location Map

3 REVIEW OF PREVIOUS WORK

Prior to Current Tenement

Historical references for bauxite in the Cleveland Tenement are reported by H.B. Owen in his book "Bauxite in Australia", 1954, which was the basis for Initial exploration of the area. Bauxite was also mapped in the 1950's by F. Black.

- H.B. Owen, 1954, Bauxite in Australia, Bulletin 24
- F. Blake (compiler) 1959. Geological Atlas 1:63360 Series, Sheet No. 478 Longford, Division of Soils C.S.I.R.O.

Summary of Work Completed in 1st & 2nd Years of Tenure

In October 2010 a drilling program was organized which drilled 4 holes into the Powranna target totalling 46m using an RC drill rig mounted on a light Mitsubishi 12 tonne truck. Only one hole PW004 was drilled on EL 6/2010 Cleveland tenement as seen in Map 3 below. These holes were to test the large plateaus of laterite which had formed in the central region of Tasmania. The 4 holes intersected a laterite profile rich in clay quartz and iron but very poor in alumina. The composition of the laterite suggests it's derived from tertiary sediments. If tertiary volcanics exist in the area, they could be worth exploring because they would make a good alumina rich host rock for bauxite to form.

Map 2 – Base map (Google Earth Imagery) of 4 holes drilled at Powranna Target including PW004 on EL6/2010

Assay results

A total of 13 samples were sent to the lab for sieved analysis and an extra 4 samples were assayed whole. A typical assay at Powranna Target is: 0.6% Available Alumina (avl Al2O3), 28.6% Reactive Silica (rx SiO2),27% Total Alumina, 38.2% Total Silica and 19.85% Iron oxide. All the Alumina in the samples will be bound up in clay minerals.

Table 1 – Assay results from Hole PW004 – sieved at 0.26mm

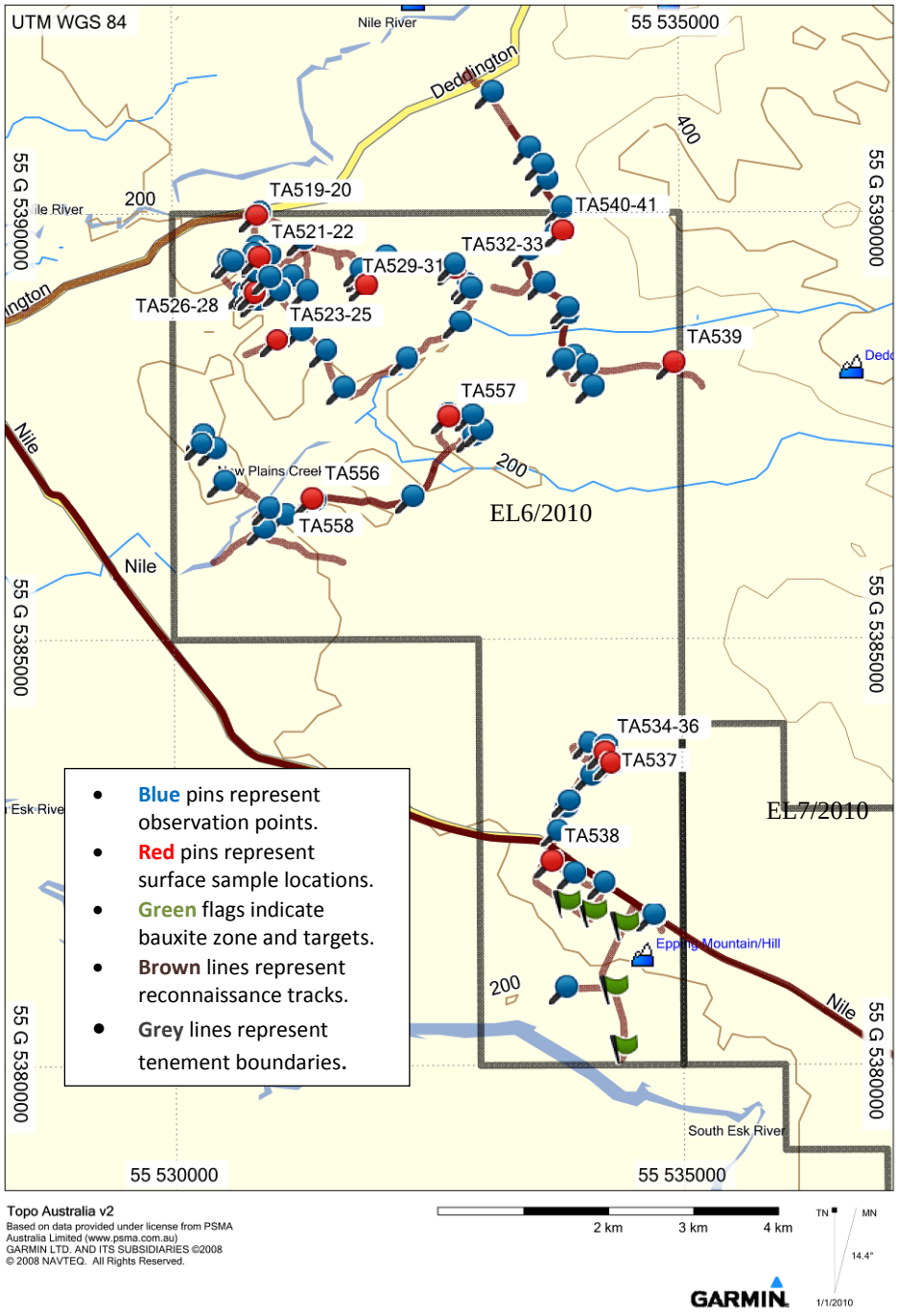
From	To	Al_2O_3avl	Rx SiO_2	Al_2O_3	SiO_2	Fe_2O_3	TiO_2	LOI	Recovery
0	1	0.5	7.6	8.15	33.5	53.7	0.76	3.36	13.3

Complete assay results are found in Appendix B, C and D of First Annual Report EL 6/2010 - August 2011.

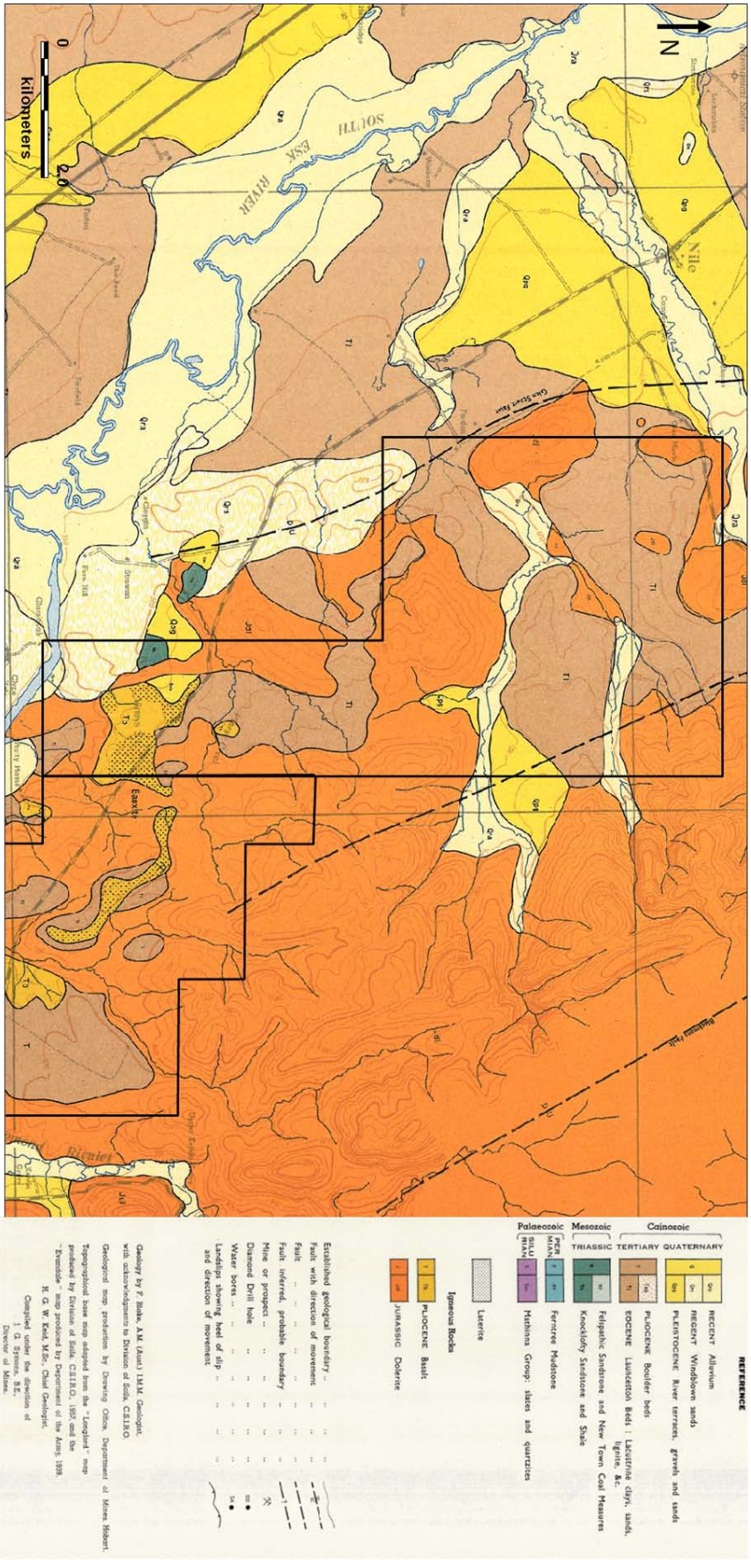
4 EXPLORATION COMPLETED DURING THE REPORTING PERIOD

Regional Exploration Activities

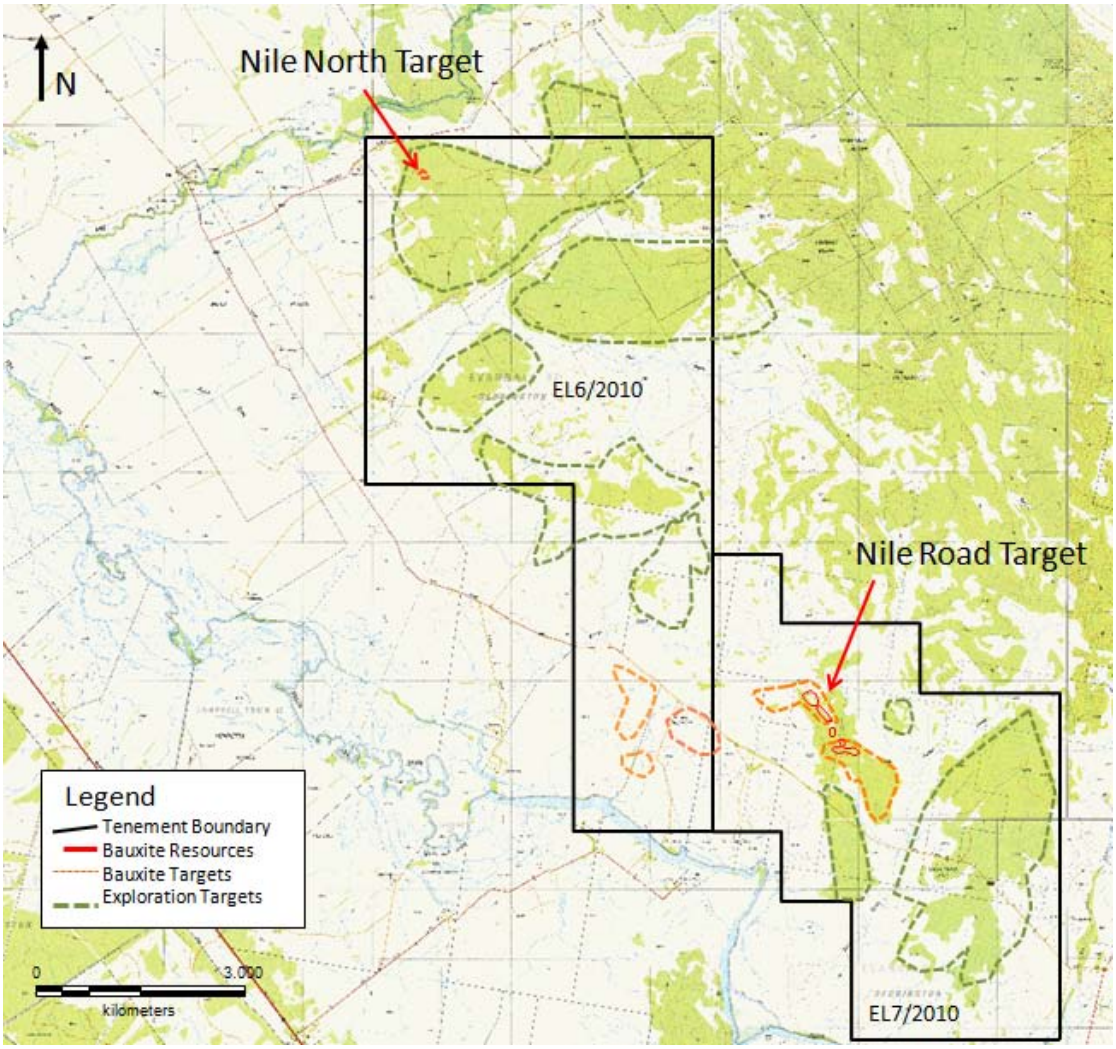
Map 3 - Location of Exploration observation points for EL 6/2010 Cleveland, showing adjacent tenements



Map 4 - Geological map of the Cleveland Tenement, F. Blake (compiler) 1959. Geological Atlas 1:63360 Series, Sheet No. 478 Longford, Division of Soils C.S.I.R.O.



Map 5 - Map of bauxite and exploration targets in EL6/2010



Nile Road Target

The Nile Road Target consists multiple bauxite targets located on the edge of Cleveland EL6/2010 and Conara EL 7/2010. In the Conara EL7/2010 contains a JORC resource of the Nile Road Bauxite deposit of approximately 0.7Mt.

On foot exploration was carry out on bauxite targets to the west of the main Nile Road deposit. High grade bauxite lumps were exposed at surface in grassy paddocks. Viney's Sugar loaf was also defined as a small remnant bauxite deposit. These bauxite appears to be remnant because of the relatively small number of bauxite nodules exposed at surface. The nodules were also gibbsitic and had strong volcanic textures. This indicated the nodules are from lower layers of bauxite. The bauxite is probably mostly eroded and was once very extensive. Sampling was not necessary, grade was visually very good and in close proximity to many known bauxite localities.

Samples were taken from area north of the remnant bauxite deposits. This area consisted of Iron rich laterites with a dolerite basement (TA534-38). The Laterite had a similar structure to a bauxite profile with laterite draping a small remnant hill.

Table 2 - Assay Results for Surface samples taken from the Nile Road Targets

SAMPLE	Al_2O_3avl	Rx SiO_2	Al_2O_3	SiO_2	Fe_2O_3	TiO_2	LOI
TA534	1.4	4.1	4.64	8.08	74	0.17	12.6
TA535	1.4	12.7	13.65	19	57.4	1.22	8.06
TA536	0.8	1.5	0.96	2.53	83.3	0.02	12.56
TA537	1.4	2.9	4.47	5.46	76.1	0.1	13.33
TA538	1.4	15.4	15.1	17.75	54.4	1.64	10.32

Nile North Target

The Nile North target area is a large area of laterites forming in conjunction with Tertiary volcanics. Multiple field trip were taken to explore the area both on foot and in a vehicle covering large areas by driving on tracks.

Numerous samples were taken on the field trips (TA519-533, TA539-541 & TA556-558), but only 3 sample tested positive for bauxite mineralisation. A small area of bauxite outcrops above a large dam (TA521-522). The area in general is surrounded by unusual ferruginous lateritic formations. The Bauxite outcrop is difficult to define and may dip below cover in an easterly direction. Sample TA526 was taken from 300m away on the other side of the dam. The analysis of this sample could not be repeated from this area and is likely to be a lump of bauxite sitting in the waste zone below the bauxite profile.

This area is recommended for drilling in the future focusing on drilling below cover to the east of the outcrop.

Table 3 - Assay Results for Surface samples taken from the Nile North Target

SAMPLE	Al_2O_3avl %	Rx SiO_2 %	Al_2O_3 %	SiO_2 %	Fe_2O_3 %	TiO_2 %	LOI
TA519	1.4	17.2	17.65	23.9	43.4	1.6	12.9
TA520	1.3	16.6	16.6	24	49.5	1.39	7.76
TA521	35.3	4.5	41	5.2	25.7	3.12	24.31
TA522	35.7	7.3	44.3	8.03	18.8	2.81	25.57
TA523	1	9.3	9.53	16.7	59.8	0.38	12.86
TA524	1.4	9.2	10.3	16.45	59.8	0.44	12.37
TA525	1.1	8.9	8.64	15.8	61.6	0.34	12.85
TA526	23.1	11.8	36	13.35	26.5	1.26	22.1
TA527	2	35.2	33.4	38.5	11.1	1.66	14.91
TA528	1.7	13.9	14.8	16.85	54.2	1.16	12.34
TA529	1.3	13.6	13.25	21.6	51.3	0.78	12.03
TA530	1.6	5.4	6.61	10.65	75.6	0.28	8.52
TA531	1.4	10.3	11.05	17.65	57.2	0.74	12.65
TA532	1.1	5	7.01	39.1	46.9	1.78	4.64
TA533	1.1	4.6	4.79	47.5	42.8	1.52	2.87
TA539	0.9	9.9	9.93	49.2	32	1.68	6.64
TA540	1.3	7.9	9.93	31.6	46.1	2	9.76
TA541	1.1	8.2	9.35	38.4	40.6	2.42	8.58
TA556	1.4	14.9	14.55	34.5	39.3	1.64	9.55
TA557	1.6	11.7	13.35	13.1	57.5	1.69	13.49
TA558	1.4	13	13.2	18.6	53.7	0.54	13.1

5 DISCUSSION OF RESULTS

Geology and Structure

The bauxite mineralization in the Cleveland Tenement occurs on the edge of the Tertiary Basin hosted in Tertiary volcanics in contact with Jurassic Dolerite. The mineralisation occurs as channels or sheets of bauxitised volaniclastics, which drape the paleo topography. The bauxite most likely formed in the Lower Tertiary period when volcanism commenced and extreme wet-tropical climatic conditions prevailed. The bauxite occurs on the old surface, where processes in the Tertiary period has removed silica from the rock, leaving mainly Aluminium and Iron rich minerals behind.

In bauxite outcrops in EL6/2010 occur as eroded remnants of a once more extensive bauxite area. The old surfaces is more preserved in the eastern part of the tenement and is covered by laterites of a similar or younger age. It is possible that bauxite occurs under the laterites and is only exposed where more erosion has occurred.

Bauxite types and Mineralogy

The bauxite in the Cleveland tenement is predominantly composed of red hematitic bauxite, which often contains pale gibbsite. Gibbsite forms as either, clear white crystals up to 1mm or as amorphous pink gibbsite – the pink colour being fine grained particles of hematite. The other minerals are hematite-rich masses, minor clay kaolinite clay and titania minerals including anatase and trace ilmenite. This bauxite has retained strong volcanic textures such as volcanic breccias and relic crystal distribution and structures. This type of bauxite is generally associated with the basal layers of bauxite and support the theory that these bauxite exposures are erosional remnants.

All types of bauxite can contain small amounts of quartz grains but is usually less than 5%. Quartz is an inert mineral in the processing of bauxite at low temperature, and the only deleterious trait is it dilutes the ore slightly.

6 CONCLUSIONS AND RECOMMENDATIONS

Exploration in EL6/2010 identified two areas of bauxite mineralisation. The Nile Road Target consists of multiple bauxite targets located in grassy paddocks on the edge of Cleveland EL6/2010 and Conara EL 7/2010. The Conara EL7/2010 contains a JORC resource for the Nile Road Bauxite deposit of approximately 0.7Mt.

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Recommendations for future work include:

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- 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 spacing's 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:

No surface disturbing operations were undertaken by ABx4 in the Third year of tenure.

Existing public roads were used for traversing.

ABx4's surface disturbing operations are minimal.

Surveys (archaeological, botanical):

No Botanical Survey were completed within this reporting period

Rehabilitation:

No rehabilitation was required by ABx4 during the Third year of tenure.

No drill holes were drilled during the reporting period.

8 EXPENDITURE

Table 4 – Exploration Activity and Expenditure Table for reporting period 14 September 2012 – 14 September 2013

Exploration Category	Description of Activity	Quantity	Expenditure
Office Administration			
Authority Management	Rent		
Office Activities	Data processing and interpretation		$1594
Field Activities	Geological Mapping		$833
	Sampling	core storage	
	Equipment Hire	Vehicle Hire	$989
	Travel & Accommodation		$3389
	Field Supplies		$190
	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	Geologists	Reconnaissance	$4170
	Employees		$6077
		Grand Total	**$17,242**

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

9 REFERENCES

T. Coyte, J.Rebek, EL 6/2010 *Cleveland First Annual Report - August 2011*, ABx4 Pty Ltd

T. Coyte, J.Rebek, EL 6/2010 *Cleveland Second Annual Report - August 2012*, ABx4 Pty Ltd

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

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