Legend International Holdings, Inc



Combined Reporting Group GR-140/09

Group Annual Report 2012



EXPLORATION LICENCES EL26397, EL23117, EL23118, EL27342

ABNER PROJECT

COMBINED ANNUAL REPORT (GR-140/09) FOR THE PERIOD

3 AUGUST 2011 TO 2 AUGUST 2012

BY

A. Raza

PRIVATE AND CONFIDENTIAL

NOT TO BE COPIED OR DISTRIBUTED

Level 8, 580 St Kilda Road, Melbourne, Victoria, 3004, Australia

Telephone: +61 3 8532 2810 Facsimile: +61 3 8532 2805

DISTRIBUTION:

Department of Resources, NT

GR-140/09_GA_2012_01



TENEMENT REPORT INDEX

TENEMENT HOLDER:	Legend International Holdings Inc.
TENEMENT MANAGER:	Legend International Holdings Inc.
PROJECT:	ABNER PROJECT
COMBINED REPORTING GROUP:	GR-140/09
TENEMENTS:	SEL26397, EL23117, EL23118, EL27342
JOINT REPORT PERIOD:	3 AUGUST 2011 TO 2 AUGUST 2012
DUE DATE:	October 2012
AUTHOR:	A. Raza
STATE:	Northern Territory
LATITUDE:	16° 10'00"S to 17° 01'00"S
LONGITUDE:	135° 30'00"E to 136° 10'00"E
MGA (easting):	556930mE - 620700mE
MGA (northing):	8117740mN - 8210675mN
1:250,000 SHEET:	SE53-03 Bauhinia Downs, SD53-07 Walhallow
1:100,000 SHEET:	6164 Glyde, 6064 Mallapunyah, 6065 Batten
COMMODITY:	Diamonds
KEYWORDS:	Diamonds, data review, target generation, heavy mineral sampling



Contents

TENEMENT REPORT INDEX	2
Contents	3
List of Figures	3
List of Tables	3
SUMMARY OF EXPLORATION ACTIVITIES	4
TENEMENT STATUS	4
LOCATION AND ACCESS	4
GEOLOGY	6
REGIONAL GEOLOGY	6
STRATIGRAPHY	7
LOCAL GEOLOGY	7
EXPLORATION	9
Historical Exploration Work	9
Exploration Work Completed by Legend	10
2009-2010 Exploration Summary	10
2010-2011 Exploration Summary	11
2011-2012 Exploration Work	11
DISCUSSION & FUTURE WORK PROGRAM	13
BIBLIOGRAPHY	13
List of Figure a	

List of Figures

Figure 1: Location Plan	5
Figure 2: Regional Geology	8
Figure 3: Map depicting composite loam sample locations in El26397.	12

List of Tables

Table 1: Summary of significant historical work completed	10
Table 2: Summary of work completed by Legend during the reporting period 2009-2010	10
Table 3: Summary of work completed during the reporting period 2010-2011	11



SUMMARY OF EXPLORATION ACTIVITIES

This report describes exploration activities conducted over tenements that comprise the GR140/09 Combined Reporting Group between 3 August 2011 and 2 August 2012. Combined Reporting Group GR140/09 consists of tenements SEL26397, EL23117, EL23118, and EL27342 (Figure 1).

A renewal application, which was lodged in February 2011 for EL23117 and EL23118, has been approved. These tenements now expired on 2 March 2013.

Exploration activities completed during the reporting period include:

• Collection of 161 heavy mineral loam samples.

Exploration for the coming year will focus on processing of collected loam samples and resolving the source of recovered anomalous chromites and diamonds. Company is confident that additional kimberlites occur in the area. In addition, the Company will conduct, if require, infill loam sampling, geochemistry of recovered indicator minerals and geophysical program to define precise location of a prospective kimberlite.

TENEMENT STATUS

The history of each tenement within the Abner Reporting group is outlined below.

EL26397: was granted on 26 March 2008. A waiver of reduction was applied for and granted in 2011. Renewal application was approved by the Department on 20 September 2012 and EL now expired on 25 March 2014.

EL23117: was granted on 3 March 2003. A reduction deferral has been granted several times over the tenement life. In March 2009, a renewal application was lodged, which was granted on 3 March 2009 to provide additional time for adequate exploration in the area. A second renewal application was lodged on 16th February 2011. This application has been approved and tenement now expired on 2 March 2012.

EL23118: was granted on 3 March 2003. A reduction deferral has been granted several times over the tenement life. In March 2009, a renewal application was lodged, which was granted on 3 March 2009 to provide additional time for adequate exploration in the area. A second renewal application was lodged on 16th February 2011. This application has been approved and tenement now expired on 2 March 2012.

EL27342: was granted on 25 November 2009. Application for waiver of reduction in area was lodged to the Department and has been approved on 15 December 2011. EL continues to consist of 15 blocks.

LOCATION AND ACCESS

The Abner Project is situated approximately seven hundred (700) kilometres southeast of Darwin, and less than one hundred (100) kilometres southwest of Borroloola. The project area can be reached from Darwin along the Stuart Highway to Daly Waters, then along the sealed Carpentaria Highway to Cape Crawford. Dirt roads and station tracks service the project area away from the main highways. The Tablelands Highway



intersects the Carpentaria Highway closer to northwestern boundary of Abner Range at Cape Crawford (Figure 1), offering an alternative route to access the Abner Project.



Figure 1: Location Plan



Established aviation facilities at Borroloola and McArthur River mine provide an alternative means to approach the Abner Project. Some locations within the project area are considerably remote; if travelling by vehicle, sufficient fuel and supplies should be carried while operating in this region.

Land use within the tenement holding is predominantly pastoral leasehold for cattle grazing (PPL1051 McArthur River and PPL1075 Mallapunyah Springs).

GEOLOGY

REGIONAL GEOLOGY

All the known economic diamond deposits and other significantly diamondiferous occurrences in Australia are located within the North Australian Craton (NAC), which also hosts some of the largest ore deposits of base metal, gold and uranium. The NAC covers the Kimberley region of northern WA, the northern two thirds of the NT and the northwestern part of Queensland.

The NAC is surrounded in the south and southwest by the Musgrave and Paterson Orogens, and its eastern boundary is marked by the Tasman Line separating it from the Terra Australis Orogen. The NAC formed about 1850Ma ago during the Barramundi Orogeny by the amalgamation of Archean and early Paleoproterozoic rocks. The younger Late Paleoproterozoic to Phanerozoic igneous and sedimentary rocks conceal large parts of the NAC; as such the Archean rocks of the NAC are scarcely exposed and are limited to the Rum Jungle and Nanumbu Complexes of Pine Creek Orogen and Billabong Complex of the Tanami Region.

The McArthur Basin is one of many basins to develop above the NAC between 1800-1500Ma. The sediments of the basin consist of unmetamorphosed and mildly deformed rocks of carbonate, siliciclastic and interbedded volcanics deposited in a shallow intracratonic setting. The sedimentary sequences of the southern McArthur Basin has been divided into four groups named, from oldest to youngest, the Tawallah, McArthur, Nathan and Roper Groups. The boundaries of these groups are punctuated by regional unconformities.

The remnants of the Cambrian Bukalara Sandstone and the Cretaceous sediments of the Dunmarra Basin overlie the McArthur Basin.

There is a widespread distribution of Cainozoic sandy soil, laterite and alluvium along drainage systems.

Major structural elements of the basin include the north-trending Batten Fault Zone and its northern equivalent the Walker Fault Zone separated by the east-trending Urapunga Fault Zone (Pietsch, Rawlings, Creaser, Kruse, Ahmad, Ferenczi, and Findhammer 1991). The spatial association between the major structures and basemetal deposits in the McArthur Basin suggests that these fault zones provided an important control on mineralization. The McArthur Basin hosts large lead-zinc-silver and copper deposits and several occurrences of small uranium and base metal mineralization. A number of varying size economical and sub-economical diamond bearing kimberlite pipes has been discovered in the basin. They are part of the sporadic volcanic activity occurring in the post-Cambrian period in the NAC.

The large time span for the intrusion of diamondiferous rocks, 367 Ma (Devonian age) for the Merlin kimberlite field, 179 Ma (Jurassic age) for the Timber Creek kimberlite field, and the 22 Ma (Miocene age)



lamproite field in the Ellendale (West Kimberley) area, makes the NAC very prospective for diamond exploration. It is expected that kimberlites would occur in the central parts of the NAC and lamproites would be favored in the marginal areas and in cross cutting Proterozoic mobile zones. Kimberlites and lamproites of the NAC tend to occur along major northwest and northeast trending structures. These structures can be seen in the gravity data crossing the NAC and have a strike length of many hundreds of kilometres. These structures are interpreted to be fundamental fractures in the NAC and are potential channel ways for diamondiferous intrusives.

STRATIGRAPHY

Project area lies within the McArthur Basin, which is at places covered with Phanerozoic sedimentary sequence. Brief description of the stratigraphy of the McArthur Basin is given below:

McArthur Basin: Four groups, namely the Tawallah, McArthur, Nathan and Roper Groups, make up the sedimentary succession in the McArthur Basin. The brief description of each group is given below, however, for a full description of the geology of the McArthur Basin, see Peitsch et al (1991).

Tawallah Group The stratigraphic units assigned to the Tawallah Group are the oldest in the McArthur Basin succession and are predominantly ridge–forming sandstones, with bimodal igneous intrusions and lavas, lutite, conglomerate, and dolostone. The succession in the Tawallah Group is up to five kilometres thick of which four kilometres of section belongs to the two basal sandstone units- Yiyintyi Sandstone and Sly Creek Sandstone.

McArthur Group The stratigraphic units of the McArthur Group are restricted to the Batten Trough and form an interbedded sequence of carbonates, shale, siltstone and less common arenites. The McArthur Group has been subdivided in two subgroups: the Umbolloga Subgroup and the overlying Batten Subgroup.

Nathan Group Lying unconformably above the McArthur Group sequence are the units of the Nathan Group. The Nathan Group comprises an interbedded sequence of carbonates and clastic rocks.

Roper Group The Roper Group is a distinctly different assemblage of sediments compared to its precursor McArthur and Nathan Groups. It is almost entirely siliciclastic and hosts cyclic sequences of resistant quartz sandstone and recessive mudstone and siltstone that have accumulated in a shallow intracratonic basin.

LOCAL GEOLOGY

The Abner Project lies within the Batten Trough of the Southern McArthur Basin. In the Batten Trough, formations of the older Tawallah and McArthur Groups dominate in outcrop; however, in the Abner Range syncline the younger Nathan Group and lower Roper Group are exposed.





Figure 2: Regional Geology



Combined Reporting Group GR-140/09

Group Annual Report 2012

The Abner Project encompasses the Abner Range Plateau and surrounding low-lying area. The majority of the area is underlain by Mesoproterozoic Roper Group sediments (predominantly sandstones and minor siltstones) and minor volcanics as well as dolomitic sediments of the Nathan Group. However, EL23117 is and EL27342 are dominated by formations of the McArthur Group with minor Roper Group occurrences.

Pockets of Cambrian Bukalara Sandstone and Cretaceous sediments occur at top of the Abner Plateau and in sourrounding areas resting above the Proterozoic rocks, with minor dolerite sills intruding the upper part of the Roper Group. Bedrock units are commonly covered by laterite, lateritic soils and Quaternary deposits (Figure 3). Basement sediments are folded, with bedding dipping on average 20-30 degrees.

The Tawallah and Hot Springs Faults, that trend approximately N-S, lie on the western and eastern margins of the Abner Range syncline, respectively. These two major faults are parallel to, and probably broadly sympathetic to, and coeval with, the Emu Fault that defines the eastern margin of the Batten Trough. The lower Devonian diamond pipes of the Merlin field lie proximal to the Emu Fault. The north trending faults exhibit observable strike-slip movement. The Mallapunyah Fault is one such fault mapped to the south, however, other faults are apparent to the north.

The Abner Plateau is known to host a kimberlite pipe and is a key target area during the current phase of exploration. Due to the proximity to the other known deposits of diamond and base metals and having all relevant geological features that control their occurrence, the project area is classified as highly prospective and holds excellent potential for another major discovery.

EXPLORATION

Historical Exploration Work

Extensive work has been conducted over the Abner Range in the last few decades. Major contributors in the region included CRAE and Ashton and then later Gravity Diamonds. Each has conducted several episodes of HMA sampling, as well as geochemical soil/loam sampling and drilling. Gravity Diamonds located the Abner Pipe, ABN21, in 2004 using a combination of the Falcon Gravity Survey, ground gravity and geochemical analysis of the earlier Ashton sampling.

Surface sampling by CRAE and Ashton was completed over the majority of the project area during the 1980s with some follow-up infill sampling during the 1990s. This sampling identified widespread microdiamonds and indicator minerals, mainly chromite grains. No kimberlites were discovered during this period in the Abner Group region, and the source of the anomalous indicator mineral grains remained unknown.

Several airborne geophysical surveys have been flown over the Abner region including Aeromagnetics, HoistEM, Airbourne Gravity. Of these the Falcon[®] airborne gravity gradiometer survey flown in 2003 was perhaps the most significant in the recent history and helped lead to the discovery of the ABN21 Pipe.

Two Falcon surveys were flown covering a substantial part of the Abner tenements. One was centered over SEL26397. Flight lines were on an east-west orientation, 100m apart at a mean terrain clearance of 80m. Detailed interpretation, anomaly ranking and exploration targeting from the Falcon survey was completed in the following years. Reprocessing of the original Falcon [™] gravity data was carried out by BHPB Falcon



operation with updated noise suppression algorithms that lowered the noise in the original data set from approximately 10 Eotvos to 3 Eotvos. A kimberlite (ABN21) pipe was discovered by Gravity Diamond at Abner Range that had a negative gravity response of 22 Eotvos.

In early 2009, Gravity Diamonds signed a sales contract with Legend International Holdings Inc (Legend) for the sale of all of its Australian based properties and rights to tenements held by third parties such as SEL26397. Although the contract was binding, its completion was subject to a particular condition precedent involving the owners of the tenement that unexpectedly held up its completion and therefore limiting planning for the field season.

Following table summarised past exploration work carried out within the Abner Project.

Table 1: Summary of significant historical work completed

Tenement	Previous Work Completed
SEL26397	1980's-1990's HMA lag grid and stream sampling along the northeastern structure identified several
	anomalous clusters but no source.
	Falcon Gravity survey conducted in 2003: Discovery of the ABN21 Pipe in 2003-2004 when Ground Gravity
	distinctly identifies ABN21 and small southern pipe.
	Diamond and RC Drilling in 2004-2005. 4 diamond holes and 44 RC holes on the Abner Plateau
	Bulk Sampling of ABN21
EL23117	HoistEM survey flown in 2005
	HMA sampling, MMI sampling, 3 HMA Stream samples were collected in 2006 draining from an EM anomaly.
	All results were negative.
EL23118	HoistEM survey flown in 2005
	Three BQ drillholes (ABDD4, ABDD5, ABDD6) drilled in 2007 targeted ABEM5-2 an EM and Magnetic
	anomaly. ABDD5 and ABDD6 do not intersect anything that explains the magnetic anomaly in the area.
	ABDD4 perhaps did not reach target depth. None of the holes were sampled.
	HMA Stream samples collected in 2006 and 2007 have all been negative.

Exploration Work Completed by Legend

After acquiring tenements from Gravity, Legend conducted considerable exploration work within the Abner Project. Below is the summary of this work completed by Legend:

2009-2010 Exploration Summary

Table 2: Summary of work completed by Legend during the reporting period 2009-2010

Tenement	Work Completed
SEL26397	Data Review – open file and geophysical, target generation, Helicopter and ground-based field HMA Sampling. Fifteen (15) HMA Samples collected. Detailed Heavy mineral probe analysis, Photogeological Interpretation, MMP report and drilling preparation
EL23117	Data Review – open file and geophysical, target generation, HMA and MMI sampling, Two (2) HMA samples collected, Detailed Heavy mineral probe analysis, Photogeological Interpretation
EL23118	Data Review – open file and geophysical, target generation, HMA Sampling, Two (2) HMA samples



	collected, Detailed Heavy mineral probe analysis – Wayne Taylor, Target review, Previous Legend geological drill logs were reviewed and core was relogged, showing nothing distinctive in the holes. Photogeological Interpretation
EL27342	Data Review-open file and geophysical, prior exploration is minimal

2010-2011 Exploration Summary

Table 3: Summary of work completed during the reporting period 2010-2011

Tenement	Work Completed
SEL26397	Helicopter and ground-based field HMA Sampling. Thirty-one (31) HMA Samples collected and processed, Photogeological Interpretation, Drilling, Ground gravity surveying
EL23117	Helicopter and ground-based HMA sampling, Five (5) HMA samples collected and processed, Photogeological Interpretation, Ground gravity surveying
EL23118	Photogeological Interpretation, Ground gravity surveying
EL27342	Ground-based HMA sampling. Thirty-four (34) samples collected and processed.

2011-2012 Exploration Work

During the current reporting year, EL26397 has been focus of exploration where loam-sampling program was conducted. Aim of the sampling program was to assess the significance of geophysical anomalies identified from the Falcon Airborne Gravity Survey conducted in 2003 by the previous operator- 'Gravity Diamonds Ltd'. Understanding was that some of these anomalies are the projection of concealed kimberlite pipes. Occurrence of diamond indicator minerals in loam samples will confirm the potential of these anomalies for hosting kmberlites and validate the prospectivity of the sampled area.

One hundred and sixty-one (161) composite loam-samples (LEG-11-226-001 to LEG-11-226-161) were collected from the EL26397 (Figure 3). Each composite loam sample was collected from a pre-defined location and consisted of combination of loam material gathered from five adjacent spots; each being 50 m apart from the other. Sample size collected from each spot consisted of two bags full loam material sieved to -1 mm, weighing approximately 40 kg. The cumulative weight of each composite loam sample was 200 kg.

All loam samples have been shipped to the North Australian Diamond's laboratory in Perth to recover heavy minerals concentrate for further analysis. Laboratory results have not yet been received.





Figure 3: Map depicting composite loam sample locations in El26397.



DISCUSSION & FUTURE WORK PROGRAM

The Company considers the Abner Group of tenements to be the core focus in the NT and is confident that additional kimberlite pipes can be discovered. During 2011-2012 period, collection of composite loam samples targeted to assess the diamond potential of identified geophysical anomalies. Laboratory results of this work will generate areas of interest for further follow-up work. The future work may include follow-up infill loam sampling, geochemistry of identified diamond indicator minerals and ground geophysical survey.

BIBLIOGRAPHY

Pietsch, B.A., Rawlings D.J., Greaser P.M., Kruse P.D., Ahmad M., Ferenzi P.A., and Findhammer T.L.R., 1991: <u>Bauhinia Downs SE5303, 1:250,000 Geological Map Series, Explanatory Notes</u>, Northern Territory Geological Survey, Darwin.



Combined Reporting Group GR-140/09

Group Annual Report 2012

APPENDIX 1: HMA Sample Locations 2011-2012

(GR 140-9_2012_GA_02_SurfaceLocations.txt)