



29 August 2014

ASX Code: WCN

Visible Gold identified in Channel Samples: Drilling Commenced

Highlights – Chanach Copper-Gold Project

- **Visible gold identified in road cutting channel samples, results include:**
 - 3 metres at 12.2 g/t gold including 1 metre at 28.9 g/t with visible gold
 - 8 metres at 2.09 g/t gold including 2 metres at 5.38 g/t gold
 - 4 metres at 2.26 g/t gold including 2 metres at 3.75 g/t gold
- **Drilling has commenced at the Chanach Aucu prospect**

White Cliff Minerals Limited (“**White Cliff**” or the “**Company**”) is pleased to report that results from new rock chip channel sampling along road cuttings at its Chanach copper-gold project Aucu discovery has identified visible gold and extensive mineralisation within multiple shear zones at the Lower Gold Zone (LGZ). Results include:

- 3 metres at 12.2 g/t gold including 1 metre at 28.9 g/t with visible gold
- 8 metres at 2.09 g/t gold including 2 metres at 5.38 g/t gold
- 4 metres at 2.26 g/t gold including 2 metres at 3.75 g/t gold

The results from the road cutting channel samples confirm the high grade gold results from Aucu trenches 14 and 15 which identified:

- 22 metres at 2.5 g/t gold including;
- 4 metres at 4.5 g/t gold and;
- 6 metres at 5.5 g/t gold
- 5 metres at 3 g/t gold

The orientation of the LGZ has been confirmed, by the shear zones visible in the road cuttings, to be trending at 320 degrees (NW) and dipping sub-vertically. The road cuttings have provided additional exposure to define the location of the mineralised zones providing greater confidence that drilling can be accurately targeted.

In addition, road cuttings have been completed to provide better access to the Copper-Gold Zone (CGZ) and several drill pads have been prepared in this zone. The road cuttings have exposed several mineralised shear zones that have been sampled and sent to for assaying.

Drilling Commenced

Reverse Circulation drilling is underway at Aucu targeting the CGZ high grade mineralisation (10m at 2.94% copper and 8 g/t gold) identified in trenches. A total of ten holes covering 500 metres of strike have initially been planned for the GCZ with depths ranging between 100 and 150 metres. Typical drilling progress is expected to be between 50 and 100 metres per day.

Managing Director Todd Hibberd commented that “It is very satisfying to see the drilling program commence on schedule with multiple drill sites ready to go. The most exciting aspect of the project is being able to walk up and touch the outcropping mineralised zones in the road cuttings and identify visible gold in rock samples with the naked eye. It’s not often that a geologist can do that in Western Australia. The scale and grade of the mineralised system is outstanding and augers very well for the future of the project and the Company”.

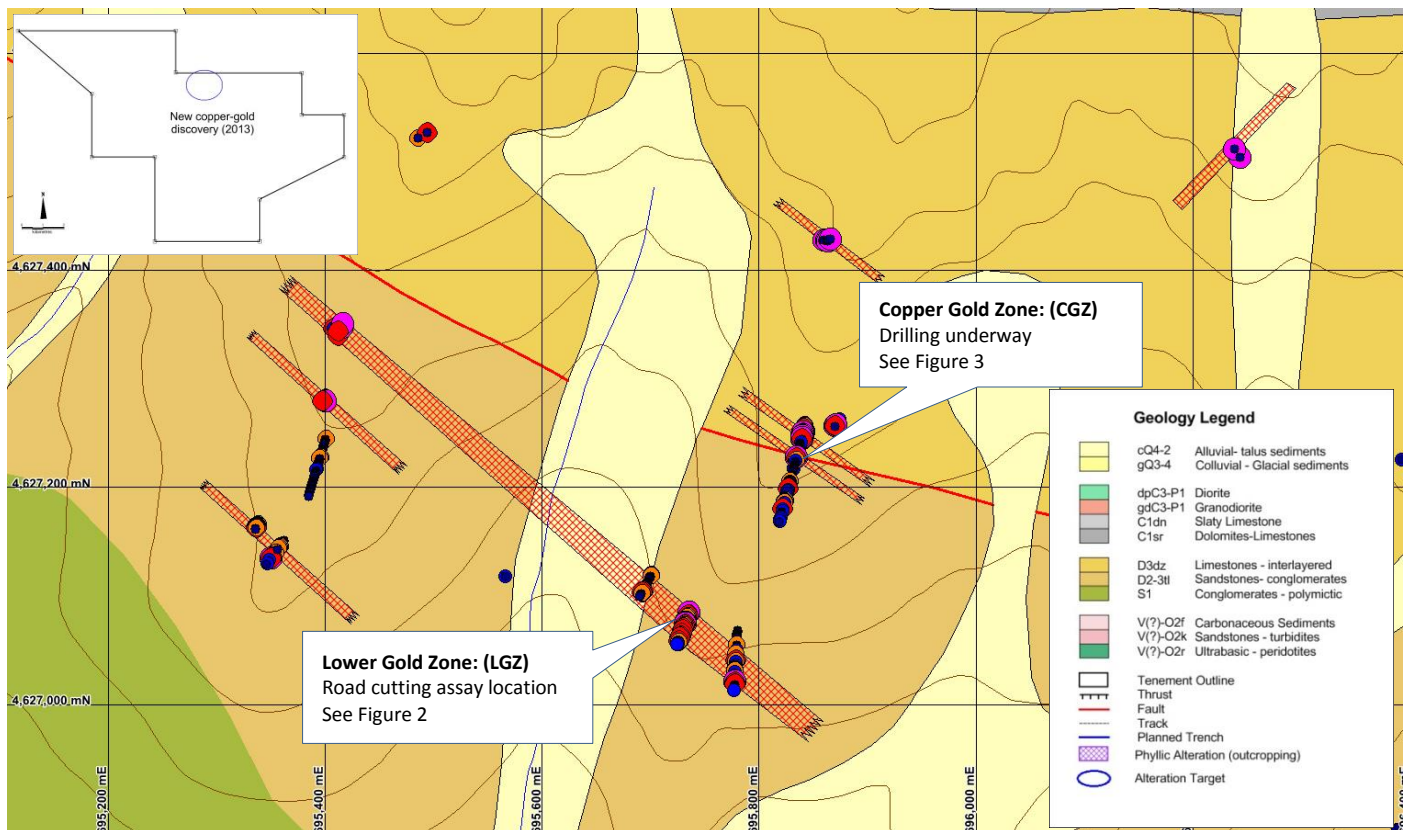


Figure 1 Interpreted mineralised zones (red hatched areas) with sampling and drilling locations.

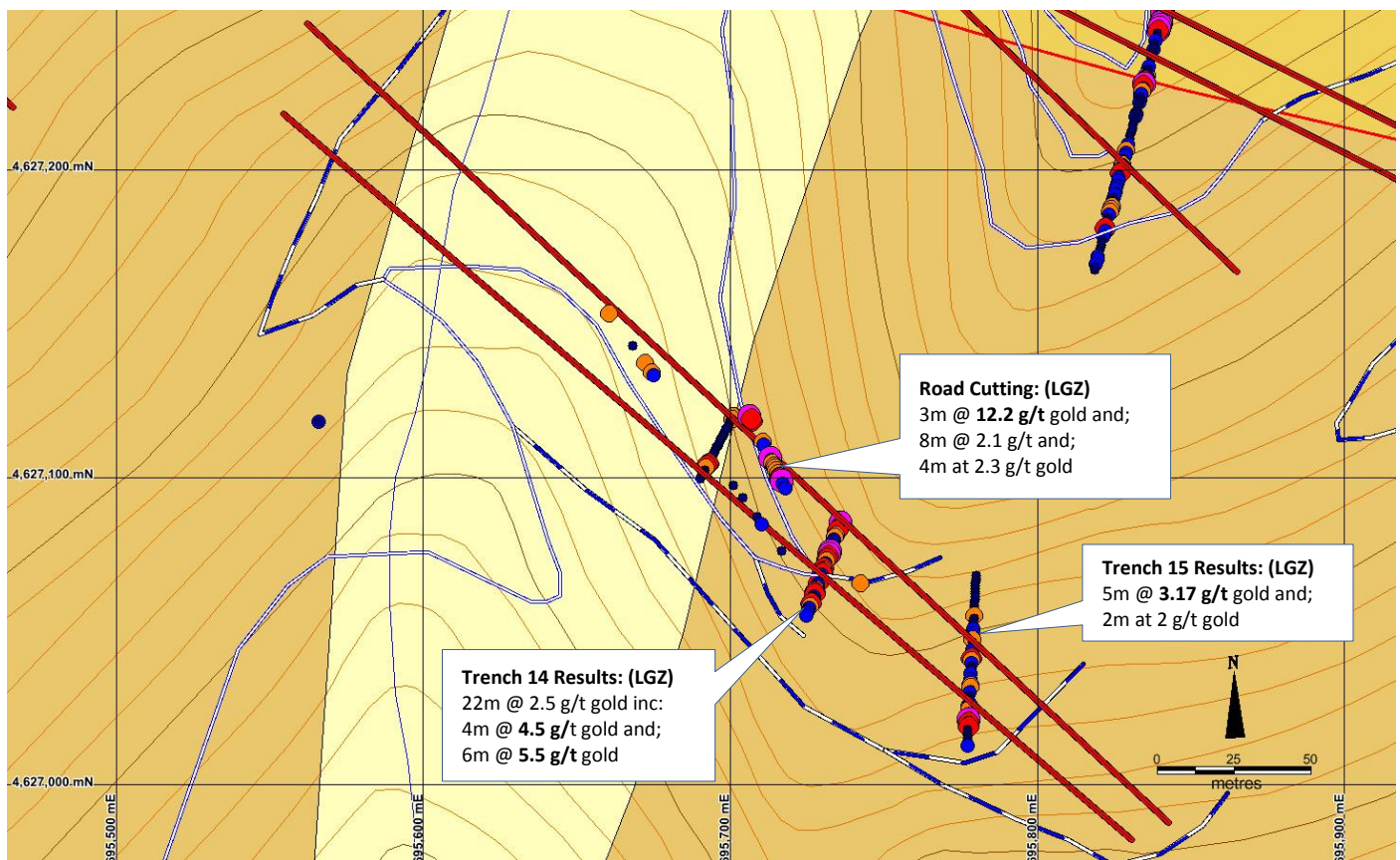


Figure 2 Lower Gold Zone (LGZ) map showing road cutting assay results. Roads in blue, planned roads dashed blue lines and mineralised zone in red

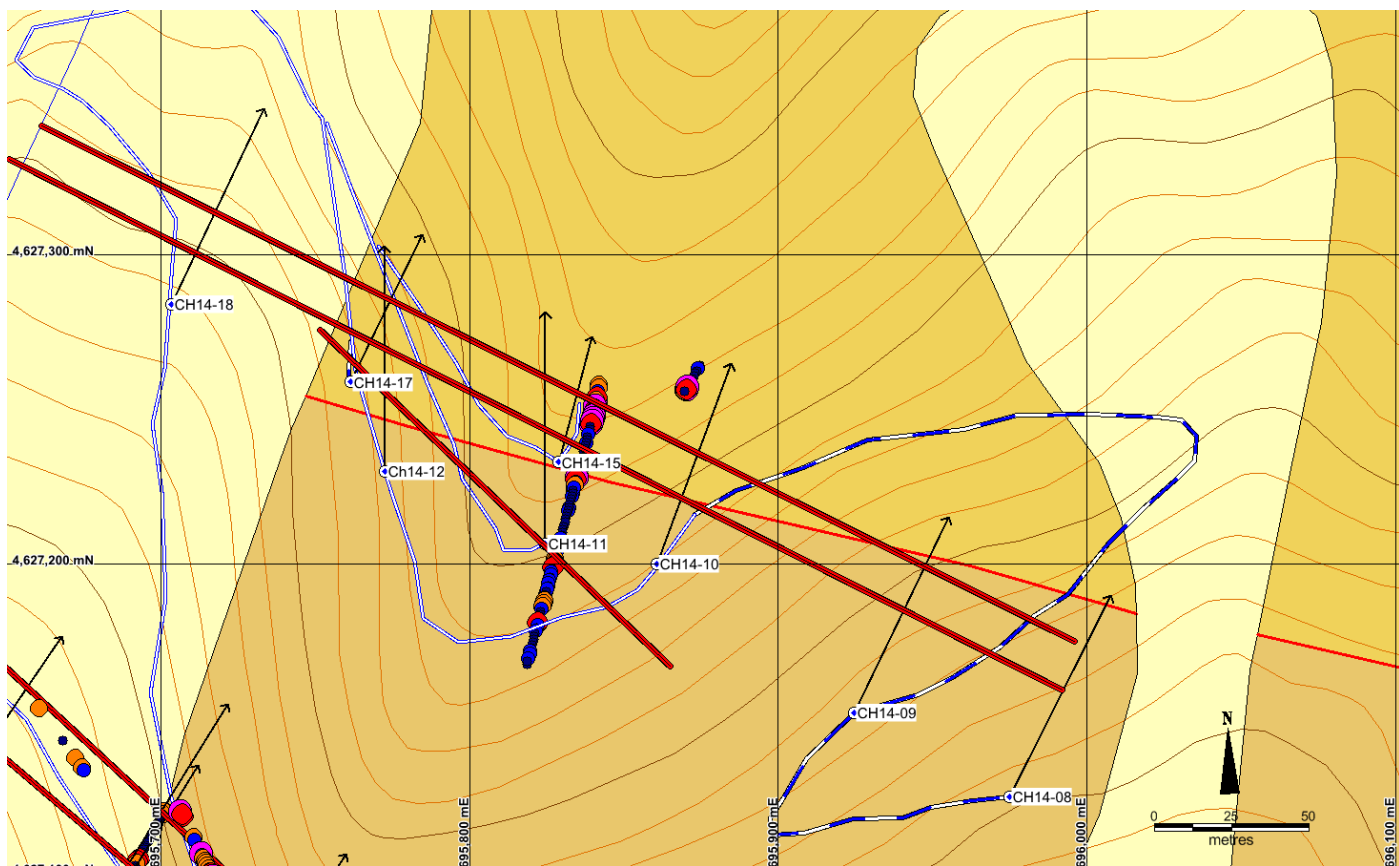


Figure 3 Copper Gold Zone (CGZ) map showing planned drill hole locations, roads in blue, planned roads dashed blue lines and mineralised zone in red



Figure 4 Interpreted mineralised zones (red areas) with possible extensions over aerial photography. White boxes are alteration targets.

Table 1 Copper and Gold channel rock chip sample results from LGZ road cutting

Sample ID	Location	Zone	North	East	Gold (g/t)	Copper %
CHC14-3-41	Road Cut	LGZ	4,627,120	695,706	28.90	0.009
CHC14-3-43	Road Cut	LGZ	4,627,118	695,707	2.98	0.005
CHC14-3-42	Road Cut	LGZ	4,627,119	695,707	4.84	0.007
CHC14-3-50	Road Cut	LGZ	4,627,112	695,710	- 0.05	0.058
CHC14-3-51	Road Cut	LGZ	4,627,112	695,710	1.29	0.018
CHC14-3-52	Road Cut	LGZ	4,627,111	695,711	0.26	0.017
CHC14-3-56	Road Cut	LGZ	4,627,107	695,712	1.20	0.036
CHC14-3-57	Road Cut	LGZ	4,627,107	695,713	6.30	0.014
CHC14-3-58	Road Cut	LGZ	4,627,106	695,713	0.13	0.018
CHC14-3-59	Road Cut	LGZ	4,627,105	695,714	0.70	0.013
CHC14-3-60	Road Cut	LGZ	4,627,104	695,714	1.18	0.009
CHC14-3-61	Road Cut	LGZ	4,627,103	695,715	0.97	0.006
CHC14-3-62	Road Cut	LGZ	4,627,102	695,715	0.88	0.006
CHC14-3-63	Road Cut	LGZ	4,627,101	695,715	0.59	0.011
CHC14-3-64	Road Cut	LGZ	4,627,101	695,716	1.64	0.009
CHC14-3-65	Road Cut	LGZ	4,627,100	695,716	4.11	- 0.005
CHC14-3-66	Road Cut	LGZ	4,627,099	695,717	6.64	0.005
CHC14-3-67	Road Cut	LGZ	4,627,098	695,717	0.28	- 0.005
CHC14-3-68	Road Cut	LGZ	4,627,097	695,717	- 0.05	- 0.005
CHC14-3-69	Road Cut	LGZ	4,627,096	695,718	0.09	- 0.005
CHC14-3-115	Road Cut	LGZ	4,627,065	695,742	1.70	0.278
CHC14-4-06	Road Cut	LGZ	4,627,153	695,660	0.79	- 0.005
CHC14-4-19	Road Cut	LGZ	4,627,143	695,668	- 0.05	- 0.005
CHC14-4-26	Road Cut	LGZ	4,627,137	695,672	1.49	- 0.005
CHC14-4-30	Road Cut	LGZ	4,627,134	695,674	0.67	- 0.005
CHC14-4-31	Road Cut	LGZ	4,627,133	695,675	0.16	0.005

Table 2 Copper and gold Channel rock chip sample results from Trenches 14 and 15

Sample ID	Location	Zone	North	East	Gold (g/t)	Copper %
CHT14-14-01	Trench_14	1	695,735.720	4,627,085.230	15.20	- 0.01
CHT14-14-02	Trench_14	1	695,735.440	4,627,084.460	0.26	0.01
CHT14-14-03	Trench_14	1	695,735.160	4,627,083.691	0.29	0.01
CHT14-14-04	Trench_14	1	695,734.879	4,627,082.921	2.16	0.01
CHT14-14-05	Trench_14		695,734.599	4,627,082.151	- 0.05	0.01
CHT14-14-06	Trench_14		695,734.319	4,627,081.381	0.52	0.02
CHT14-14-07	Trench_14		695,734.039	4,627,080.612	0.31	- 0.01
CHT14-14-08	Trench_14		695,733.759	4,627,079.842	0.19	- 0.01
CHT14-14-09	Trench_14		695,733.479	4,627,079.072	0.22	- 0.01
CHT14-14-10	Trench_14		695,733.198	4,627,078.302	0.18	- 0.01
CHT14-14-11	Trench_14		695,732.918	4,627,077.533	0.23	- 0.01
CHT14-14-12	Trench_14	2	695,732.638	4,627,076.763	2.37	- 0.01
CHT14-14-13	Trench_14	2	695,732.358	4,627,075.993	18.41	- 0.01
CHT14-14-14	Trench_14	2	695,732.078	4,627,075.223	5.14	- 0.01
CHT14-14-15	Trench_14	2	695,731.798	4,627,074.454	1.32	- 0.01
CHT14-14-16	Trench_14	2	695,731.517	4,627,073.684	1.73	- 0.01
CHT14-14-17	Trench_14		695,731.237	4,627,072.914	0.94	- 0.01

Sample ID	Location	Zone	North	East	Gold (g/t)	Copper %
CHT14-14-18	Trench_14		695,730.957	4,627,072.144	0.20	- 0.01
CHT14-14-19	Trench_14		695,730.677	4,627,071.375	0.24	0.02
CHT14-14-20	Trench_14		695,730.397	4,627,070.605	2.48	0.03
CHT14-14-21	Trench_14		695,730.117	4,627,069.835	0.28	- 0.01
CHT14-14-22	Trench_14		695,729.836	4,627,069.065	2.64	- 0.01
CHT 14-15-32	Trench_15	LGZ1	695,779	4,627,041	3.76	- 0.01
CHT 14-15-33	Trench_15	LGZ1	695,779	4,627,040	0.35	- 0.01
CHT 14-15-54	Trench_15	LGZ1	695,778	4,627,022	0.60	- 0.01
CHT 14-15-55	Trench_15	LGZ1	695,778	4,627,021	12.36	- 0.01
CHT 14-15-56	Trench_15	LGZ1	695,777	4,627,021	1.12	- 0.01
CHT 14-15-57	Trench_15	LGZ1	695,777	4,627,020	0.51	- 0.01
CHT 14-15-58	Trench_15	LGZ1	695,777	4,627,019	1.27	- 0.01

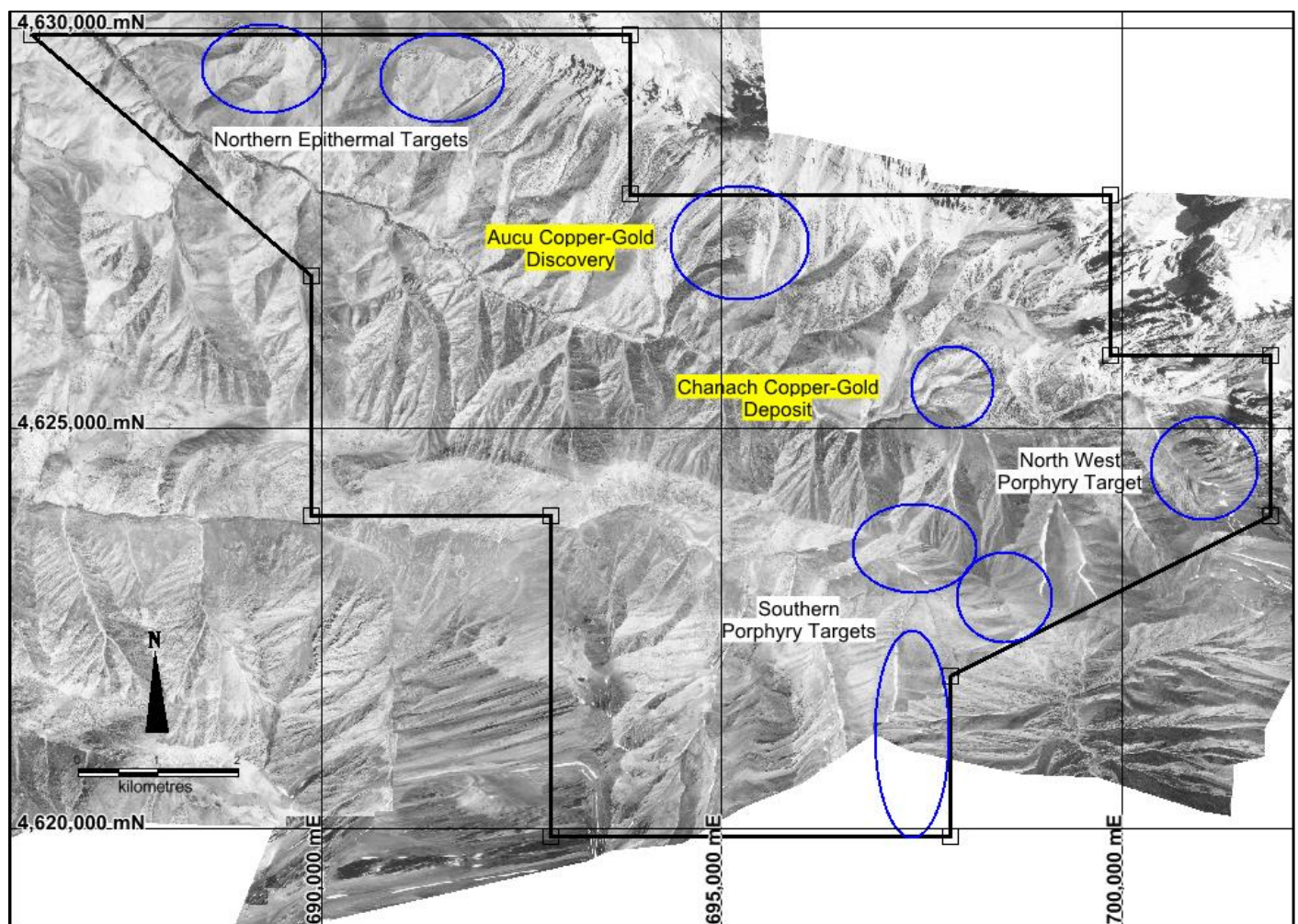


Figure 5 Map showing the location of the Aucu copper-gold discovery 2km to the NNW of the existing Chanach copper-gold deposit.

For further information please contact:

www.wcminerals.com.au
info@wcminerals.com.au

Todd Hibberd
Managing Director
+61 89321 2233

About White Cliff Minerals Limited

White Cliff Minerals Limited is a Western Australian based exploration company with the following main projects:

Kyrgyz Copper-Gold Project (88.7%): The project is located in the Kyrgyz Republic, 350km west-southwest of the capital city of Bishkek and covers 83 square kilometres. The Kyrgyz project is located in the western part of the Tien Shan Belt, a highly mineralised zone that extending for over 2500 km, from western Uzbekistan, through Tajikistan, Kyrgyz Republic and southern Kazakhstan to western China. Mineralisation occurs as porphyry and epithermal systems developed within magmatic arcs, and orogenic type gold deposits that are structurally controlled. Major deposits located within 100km of the project contain up to 93 million ounces of gold and 25 million tonnes of copper. Initial work indicates that the project may host porphyry and skarn style gold and copper mineralisation. Drilling during 2010-2013 has identified extensive copper-gold porphyry mineralisation with copper values of up to 2.1%.

Merolia Project (100%): The project consists of 771 square kilometres of the Merolia Greenstone belt and contains extensive ultramafic sequences including the Diorite Hill layered ultramafic complex, the Rotorua ultramafic complex, the Coglia ultramafic complex and a 51 kilometre long zone of extrusive ultramafic lava's. The Intrusive complexes are prospective for nickel-copper sulphide accumulations possibly with platinum group elements, and the extrusive ultramafic rocks are prospective for nickel sulphide and nickel-cobalt accumulations. The project also contains extensive basalt sequences that are prospective for gold mineralisation including the Ironstone prospect where historical drilling has identified 24m at 8.6g/t gold.

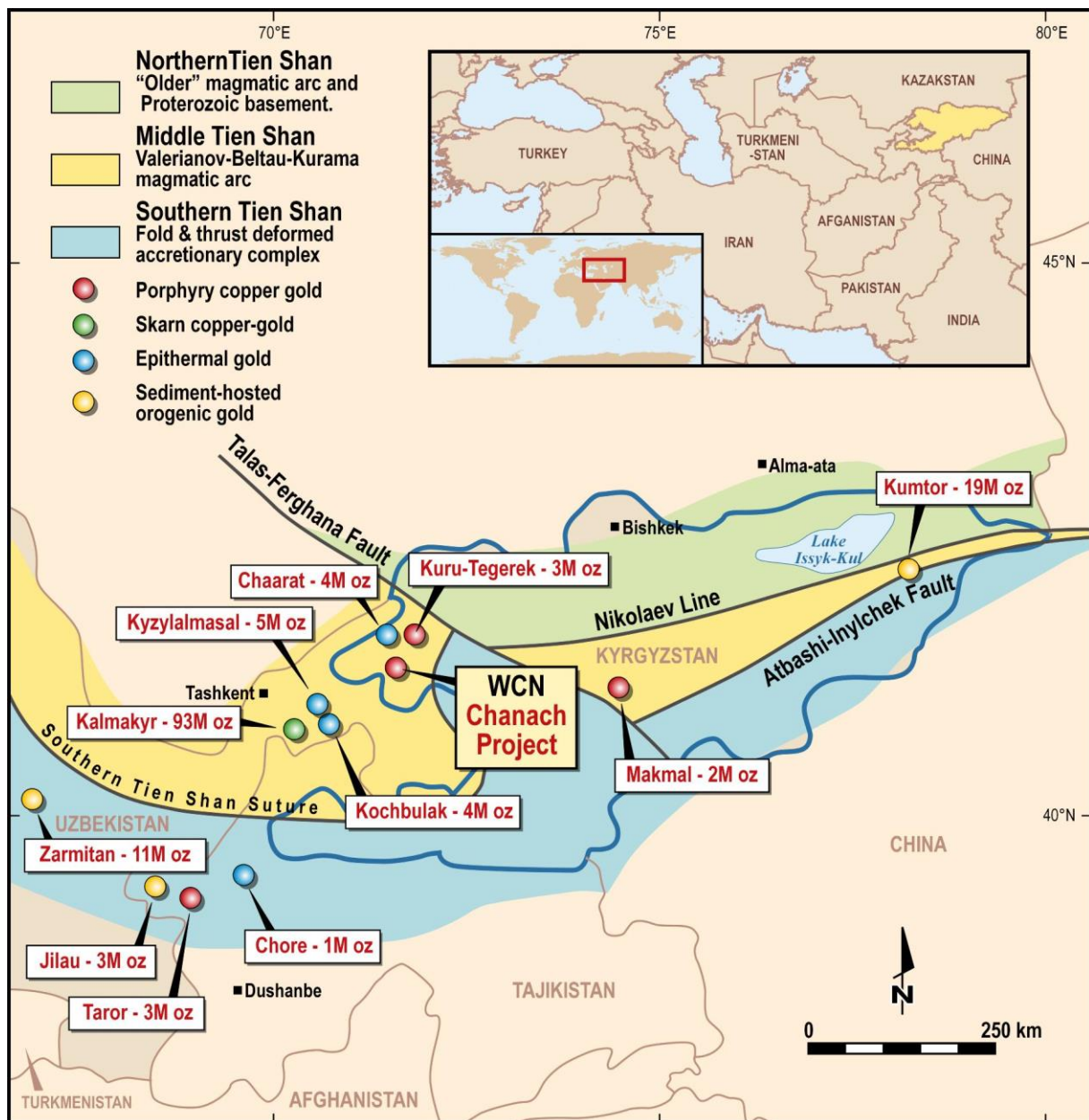
Lake Johnston Project (100%): The project covers over 127 square kilometres in the Lake Johnson Greenstone Belt, which contains the Emily Ann and Maggie Hayes nickel sulphide deposits. These mines have a total resource of approximately 140,000 tonnes of contained nickel. The project area has excellent prospectivity for both komatiite associated nickel sulphides and amphibolite facies high-grade gold mineralisation.

Laverton Gold Project (100%): The project consists of 136 square kilometres of tenement applications in the Laverton Greenstone belt. The core prospects are Kelly Well and Eight Mile Well located 20km southwest of Laverton in the core of the structurally complex Laverton Tectonic zone immediately north of the Granny Smith Gold Mine (3 MOz) and 7 kilometres north of the Wallaby Gold Mine (7MOz).

Mount Remarkable Project (100%): The project covers 185 square kilometres and is located approximately 170 km N-NE of Kalgoorlie and about 25 km SE of Kookynie in the Northern Goldfields. Included in the project area are the historic gold mining centres of Mt Remarkable and Yerilla which consists of several old workings. Major gold mines in the surrounding area include Sons of Gwalia, Tarmoola, Carosue Dam, Granny Smith, Wallaby and Sunrise Dam. The project includes several areas adjacent to and along strike from existing nickel deposits at Aublis, Yerilla and Boyce Creek. These deposits form Heron Resources' Yerilla Nickel Project which contains 135 Mt @ 0.77% Nickel and 0.05% Cobalt.

JORC Compliance

The Information in this report that relates to exploration results, mineral resources or ore reserves is based on information compiled by Mr Todd Hibberd, who is a member of the Australian Institute of Mining and Metallurgy. Mr Hibberd is a full time employee of the Company. Mr Hibberd has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the 'Australian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves (the JORC Code)'. Mr Hibberd consents to the inclusion of this information in the form and context in which it appears in this report.



Project Map. Kyrgyz Republic. Location of the Chanach Copper-Gold Project

Appendix 1

The following information is provided to comply with the JORC Code (2012) requirements for the reporting of the exploration results on tenement AP590.

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code Explanation	Commentary
Sampling Techniques	<p>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling</p> <p>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</p> <p>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</p>	<p>Trenches were sampled by hand using a rock hammer with samples collected in 1 metre intervals by chipping across the entire 1 metre rock face.</p> <p>Rock chip samples were collected by hand using a rock hammer with multiple pieces of rock collect at one location for each sample.</p> <p>The sample locations are picked up by handheld GPS. Sample rock types were recorded where the rock was identifiable. Sampling was carried out under standard industry protocols and QAQC procedures</p> <p>Samples ranged between 1 and 3 kg were crushed to 2mm and a 200 gram subsample was extracted and pulverized to produce a 1-2 gram sample for gold analysis by Aqua Regia digest and Atomic Adsorption Spectrophotometry (AAS), and for copper analysis via pressed pellet X-ray florescence (XRF).</p>
Drilling Techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	No drilling has been carried out
Drill sample recovery	<p>Method of recording and assessing core and chip sample recoveries and results assessed</p> <p>Measures taken to maximise sample recovery and ensure representative nature of the samples.</p> <p>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</p>	<p>No drilling has been carried out</p> <p>No drilling has been carried out</p> <p>No drilling has been carried out</p>
Logging	<p>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</p> <p>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) Photography</p> <p>The total length and percentage of the relevant intersections logged.</p>	<p>No drilling has been carried out</p> <p>No logging has been carried out. The samples collected are rock chips and trench samples. Sample lithology is qualitative</p> <p>Refer to text in the main body of the announcement</p>
Sub-sampling techniques and sample preparation	<p>If core, whether cut or sawn and whether quarter, half or all core taken.</p> <p>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</p> <p>For all sample types, the nature, quality and appropriateness of the sample preparation technique</p> <p>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples</p> <p>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling</p> <p>Whether sample sizes are appropriate to the grain size of the material being sampled</p>	<p>No drilling has been carried out</p> <p>Samples were collected directly from the rock. Samples taken were dry.</p> <p>Samples were collected directly from the trench or surface via rock hammer sampling. Rock samples are inherently variable and do not accurately represent the average grade of the surrounding rock. Rock samples are used as an non-quantitative guide for assessing prospectivity hence are regarded as suitable for this purpose</p> <p>At this stage of the exploration no sub sampling is undertaken during the collection stage</p> <p>The whole sample collected is crushed to 2mm and a 200g sub-sample pulverised. A 1-10 gram sub sample of the pulverised sample is analysed. Field duplicates are not routinely collected at the rock sampling stage of exploration</p> <p>The sample sizes are considered to be appropriate to correctly represent the sought after mineralisation style</p>
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	The analytical techniques used Aqua Regia digest, Atomic adsorption Spectrophotometry for gold analysis and XRF for copper analysis suitable for the reconnaissance style sampling undertaken.

Criteria	JORC Code Explanation	Commentary
	<p>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</p> <p>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established</p>	<p>Copper analysis was carried out by X-Ray Fluorescent Spectrometer Quant'X (Thermo Scientific (Austria-USA)). Analysis is performed at a rhodium tube with 30...50 kV voltage and 0, 13 mm palladium filter.</p> <p>Gold analysis was carried out using a Thermo Scientific Solar S2 AA-Spectrometer with Atom Trap STAT (Slotted Tube Atom Trap), gaseous hydride generation system (VP100 Continuous Flow Vapour System)</p> <p>Laboratory QAQC involves the use of internal lab standards using certified reference material, blanks, splits and replicates as part of the in house procedures.</p>
Verification of sampling and assaying	<p>The verification of significant intersections by either independent or alternative company personnel.</p> <p>The use of twinned holes</p> <p>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols</p> <p>Discuss any adjustment to assay data</p>	<p>An executive director has visually verified significant intersections in rock samples from the Chanach project.</p> <p>Not Applicable</p> <p>Primary data was collected using a set of standard Excel templates on paper and re-entered into laptop computers. The information was sent to WCN in-house database manager for validation and compilation into an Access database.</p> <p>No adjustments or calibrations were made to any assay data used in this report.</p>
Location of data points	<p>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</p> <p>Specification of the grid system used.</p> <p>Quality and adequacy of topographic control.</p>	<p>Sample locations were recorded using handheld Garmin GPS60s. Elevation values were in AHD RL and values recorded within the database. Expected accuracy is + or – 5 m for easting, northing and 10m for elevation coordinates.</p> <p>No down hole surveying techniques were used due to the sampling methods used.</p> <p>The grid system is WGS84 UTM (zone 42 north)</p> <p>Topographic surface uses handheld GPS elevation data, which is adequate at the current stage of the project.</p>
Data spacing and distribution	<p>Data spacing for reporting of Exploration Results.</p> <p>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</p> <p>Whether sample compositing has been applied.</p>	<p>The nominal sample spacing is 1 m (northing) by 1 m (easting).</p> <p>The mineralised domains have not yet demonstrated sufficient continuity in both geological and grade continuity to support the definition of Mineral Resource and Reserves, and the classifications applied under the 2012 JORC Code.</p> <p>Samples have not been composited</p>
Orientation of data in relation to geological structure	<p>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</p> <p>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material</p>	<p>The sampling method is used to provide a surface sample only.</p> <p>No orientation based sampling bias has been identified in the data at this point.</p>
Sample security	The measures taken to ensure sample security.	Sample security is managed by the Company. Since at this stage these are field analyses, no sample transit security has been necessary.
Audits of reviews	The results of any audits or reviews of sampling techniques and data.	The Company carries out its own internal data audits. No problems have been detected.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	Explanation	Commentary
Mineral tenement and land tenure status	<p>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</p> <p>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</p>	<p>The mineralisation is located within Exploration License AP590 which is a Joint Venture between White Cliff Minerals Limited (90%) and BW3 Pty Ltd (10%)</p> <p>There are no other material issues</p> <p>The tenement is in good standing and no known impediments exist.</p>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	None
Geology	Deposit type, geological setting and style of mineralisation.	The geological setting is of Cambrian to Permian aged intrusive porphyry systems, bounded by overlying basaltic,

Criteria	Explanation	Commentary
		and sedimentary rocks. Mineralisation is mostly situated within granitic porphyry units as broad alteration containing copper sulphides and within narrow quartz veins and faults.
Drill Hole Information	<p>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</p> <ul style="list-style-type: none"> easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. <p>If the exclusion of this information is justified on the basis that the information is not</p>	No drilling has been carried out
Data Aggregation methods	<p>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</p> <p>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</p> <p>The assumptions used for any reporting of metal equivalent values should be clearly stated</p>	<p>No length weighting has been applied due to the nature of the sampling technique. No top-cuts have been applied.</p> <p>Not applicable for the sampling methods used.</p> <p>No metal equivalent values are used for reporting exploration results.</p>
Relationship between mineralisation widths and intercept lengths	<p>These relationships are particularly important in the reporting of Exploration Results:</p> <p>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</p> <p>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</p>	The sampling technique used defines a surficial geochemical expression. No information is attainable relating to the geometry of any mineralisation based on these results.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Refer to figures in the body of text.
Balanced Reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results	All results within the mineralised zones are reported.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	NIL
Further Work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	RAB/AC drilling will be used to further define the nature and extent of the geochemical anomalism, and to gain lithological information.