BLACK CANYON

ASX: **BCA**

**27 November 2024**

# 3km Strike of Outcropping Manganese Confirmed from Wandanya

- Detailed mapping and rock chip sampling completed over the Wandanya project following successful RC drill[2] and previous rock chip sampling campaigns[1].
- Portable XRF (pXRF) analysis confirms multiple widespread rock chip samples with consistently similar grades to the RC drilling completed at W2, ranging **between 30 and 50% Mn**.
- **3km overall strike of outcropping manganese mineralisation** now confirmed with only 240m of this drill tested.
- Significant opportunity to expand the mineralised footprint with extensive manganese outcrops well exposed in multiple incised gulleys extending 150m cross strike and shallowly dipping to the east.
- Initial metallurgical testwork is underway to potentially produce a high-quality manganese concentrate for silico or ferro alloying and feedstock for high purity manganese sulphate (HPMSM) testwork.
- Additionally, rock chip sampling provided further evidence of **widespread hematite enriched sediments** that are similar to previously reported[1] iron rich formations that assayed **63.3%, 63.1 and 57.6% Fe**. The Company is awaiting laboratory-based iron XRF assays, as the preliminary pXRF results were beyond the accurate grade range of the pXRF

Australian manganese explorer and developer, Black Canyon Limited (**Black Canyon** or **the Company**) (**ASX: BCA**) is pleased to announce results from detailed mapping and pXRF analysis of rock chip samples undertaken within the manganese corridors at the Wandanya Project. The results show the scale potential of the manganese mineralisation discovered at Wandanya and potential for significant high grade iron formations, which had not been previously drilled or mapped prior to Black Canyon prospecting the targets.

**Cautionary Note in relation to visual estimates and pXRF readings:** The Company cautions that visual estimates and pXRF readings should never be considered a proxy or substitute for laboratory analyses. Laboratory assays (XRF for Mn & Fe suite of elements) are required to determine representative grades of the elements associated with the visible mineralisation reported from geological mapping and pXRF readings. Further details are found within Appendix 1.

Rock chip samples have been submitted to Bureau Veritas in Perth WA with analytical results expected in early to mid-December.



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**Capital Structure (ASX: BCA)**

| | |
|---|---|
| Shares on Issue | 87.4M |
| Top 20 Shareholders | 47% |
| Board & Management | 9% |
| Funds & Institutions | 15 % |



**Balfour Manganese Field Highlights**

Global MRE of 314Mt @ 10.5% Mn.

Largest Resource in Western Australia.

Development Options – Traditional Mn concentrate or HPMSM processing for EV's. *

***Black Canyon's Managing Director Brendan Cummins said:***

*"Following the successful recent RC drill program, detailed mapping and rock chip sampling assay results continue to impress. We are seeing strike extensive mineralisation along a 3km long corridor, which demonstrates the scale potential of this new and unique style of manganese mineralisation.*

*"Widespread outcrops and consistent high-grade manganese results from drilling and rock chip sampling are becoming a clear characteristic of the Wandanya discovery. In addition, we are eagerly awaiting the assay results from rock-chip sampling of the extensive hematite enriched iron formations also mapped in the area that look quite prospective.*

*"We look forward to returning with an RC rig in 2025 to further test these compelling targets along strike and down dip to determine their full-scale potential."*

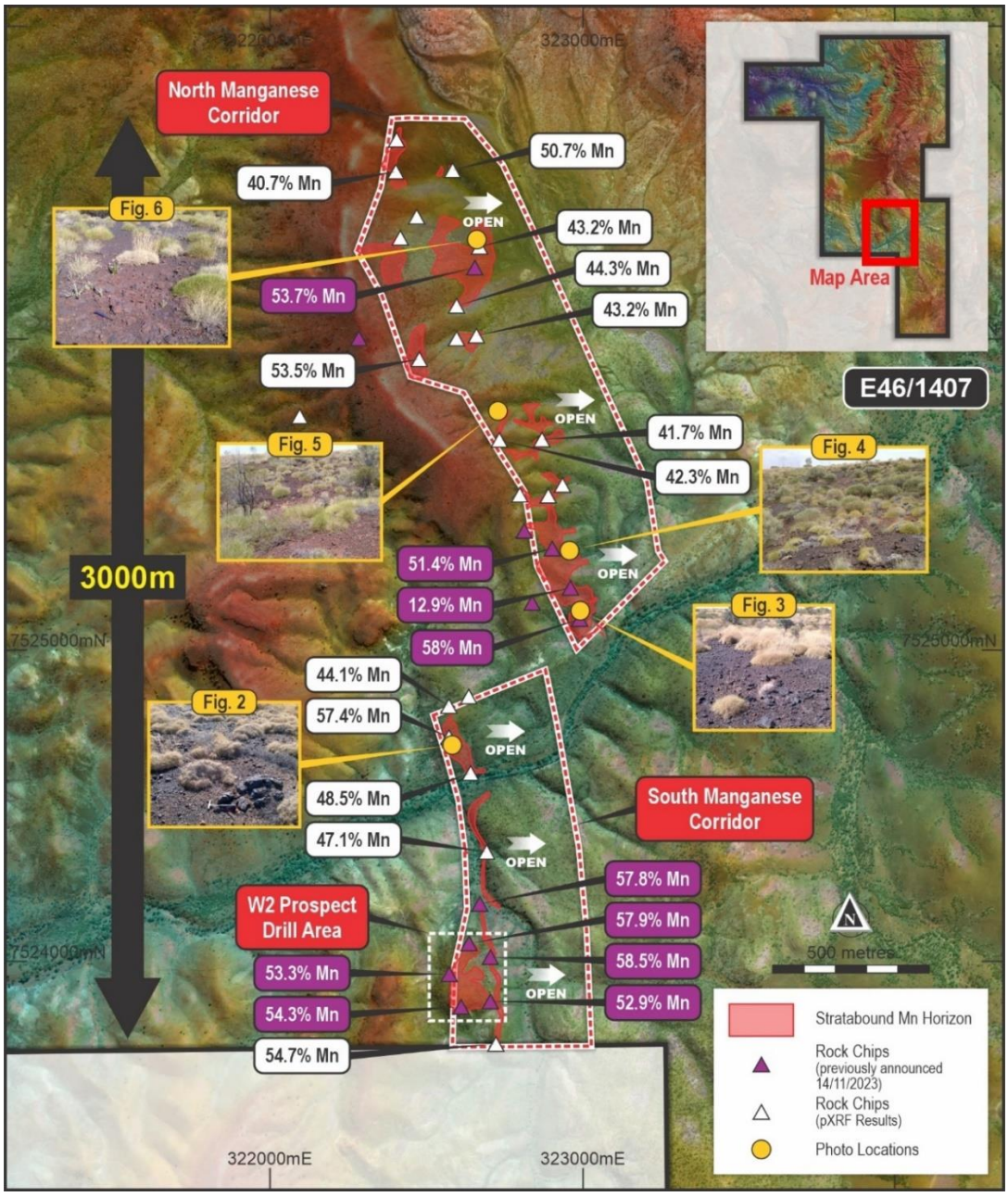


***Figure 1. Manganese corridors at the Wandanya Project with manganese results above 30% shown overlying topography (red=elevated) and satellite imagery. Photo locations are also shown for Figures 2-6.***

## W2 Prospect, Wandanya (BCA 100%)

The stratabound hosted manganese mineralisation has been traced along a 3km long corridor, is dipping shallowly to the east and remains open. The footwall and hangingwall units comprise of dolomite and calcareous siltstone respectively. The target manganese horizon is often well exposed by gulleys eroding through the hangingwall, forming continuous outcrops up to 150m cross-strike before the unit is overlain by shallow dolomite and cover sequences.

At the W2 prospect, only 240m of strike at a width of 200m has been drill tested with consistent grades and widths[2] including:

- **5m @ 31.1% Mn** from surface, including **2m @ 42% Mn** (WDRC005)
- **6m @ 26.3% Mn** from 4m, including **3m @ 40.1% Mn** (WDRC021)
- **6m @ 29.6% Mn** from surface, including **3m @ 41.0% Mn** (WDRC031)
- **6m @ 29.2% Mn** from 4m, including **3m @ 39.7% Mn** (WDRC032)
- **5m @ 32.4% Mn** from 3m, including **3m @ 40.1% Mn** (WDRC033)

To the west, multiple occurrences of hematite rich sediments were mapped and sampled, with the results from the pXRF readings exceeding the accurate range of the pXRF. Hence, these samples have been submitted to the laboratory and assay results will be reported when they have been received.

Technical details are provided in Appendix 1 (JORC Table 1) and all rock chip sampling pXRF Mn % results are provided in Appendix 2.

The significant pXRF manganese results are presented in Table 1.

***Table 1. Significant pXRF assay results from the rock chip sampling program***

| Sample Id | East GDA94 | North GDA94 | Tenement | Mn % (pXRF) | Description |
|---|---|---|---|---|---|
| WDRC014 | 322571 | 7524820 | E46/1407 | **44.1** | High-grade weakly bedded manganese |
| WDRC015 | 322571 | 7524720 | E46/1407 | **57.4** | High-grade weakly bedded manganese |
| WDRC016 | 322640 | 7524605 | E46/1407 | **48.5** | High-grade weakly bedded manganese |
| WDRC025 | 322507 | 7528493 | E46/1407 | **33.7** | Manganese in fault zone |
| WDRC026 | 322509 | 7528492 | E46/1407 | **20.0** | Mixed Mn chert and Mn bands in fault zone |
| WDRC027 | 322590 | 7528480 | E46/1407 | **37.1** | Manganese in fault zone |
| WDRC029 | 322454 | 7528577 | E46/1407 | **32.9** | Manganese chert |
| WDRC035 | 322869 | 7525675 | E46/1407 | **41.7** | High-grade weakly bedded manganese |
| WDRC036 | 322732 | 7525674 | E46/1407 | **42.3** | High-grade weakly bedded manganese |
| WDRC037 | 322659 | 7526009 | E46/1407 | **43.2** | High-grade weakly bedded manganese |
| WDRC039 | 322476 | 7525934 | E46/1407 | **53.5** | Very high-grade bedded manganese |
| WDRC040 | 322595 | 7526105 | E46/1407 | **44.3** | High-grade bedded manganese |
| WDRC041 | 322669 | 7526294 | E46/1407 | **43.2** | Widespread kanga and bedded manganese |
| WDRC044 | 322582 | 7526540 | E46/1407 | **50.7** | Very high-grade weakly bedded manganese |
| WDRC046 | 322400 | 7526536 | E46/1407 | **40.7** | High-grade Mn seam outcrop (botryoidal texture). |
| WDRC047 | 323139 | 7530563 | E46/1407 | **30.3** | Botryoidal Mn in subcrop |
| WDRC050 | 322692 | 7524352 | E46/1407 | **47.1** | High-grade weakly bedded manganese |
| WDRC051 | 322722 | 7523736 | E46/1407 | **54.7** | Very high-grade weakly bedded manganese |

*Figure 2. Outcrops associated with sample WDRC015 – 57.4% Mn (pXRF). Refer to Figure 1 for the location*

*Figure 3. Outcrops associated with sample WDRC002 – 58% Mn[1]. Refer to Figure 1 for the location*

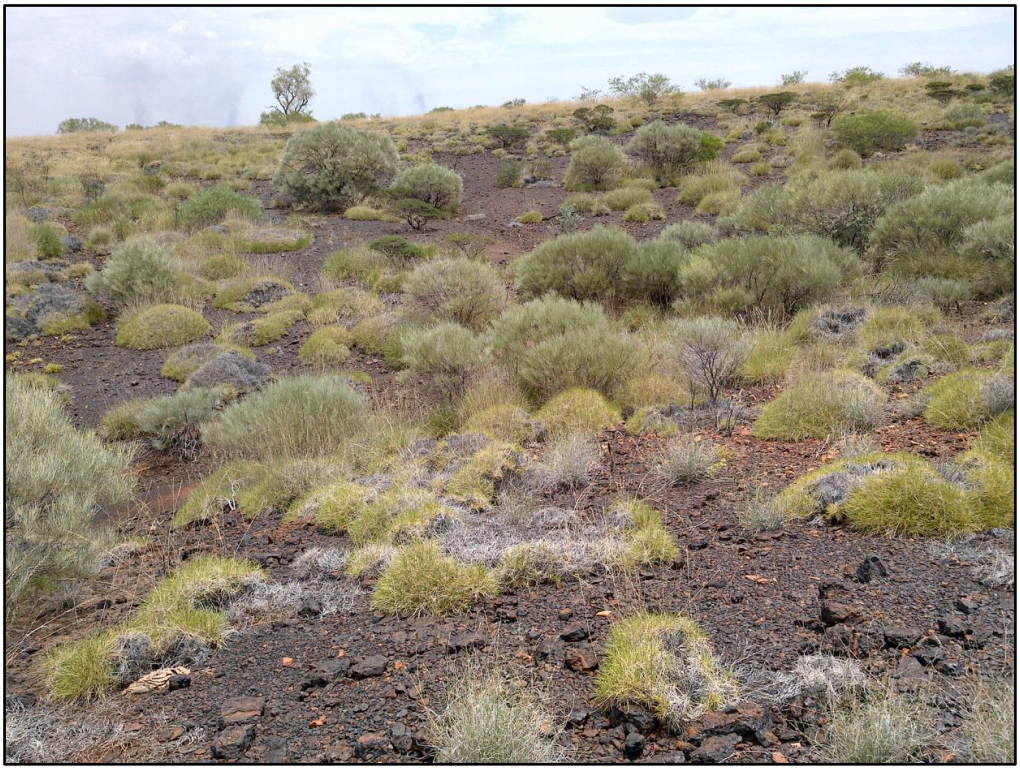

*Figure 4. A gulley from the northern manganese corridor exposing widespread manganese outcrop (looking south east). Refer to Figure 1 for the location*

*Figure 5. A gulley from the northern manganese corridor exposing widespread manganese outcrop (looking south west). Located north of sample WDRC036 – 42.3% Mn (pXRF). Refer to Figure 1 for the location*

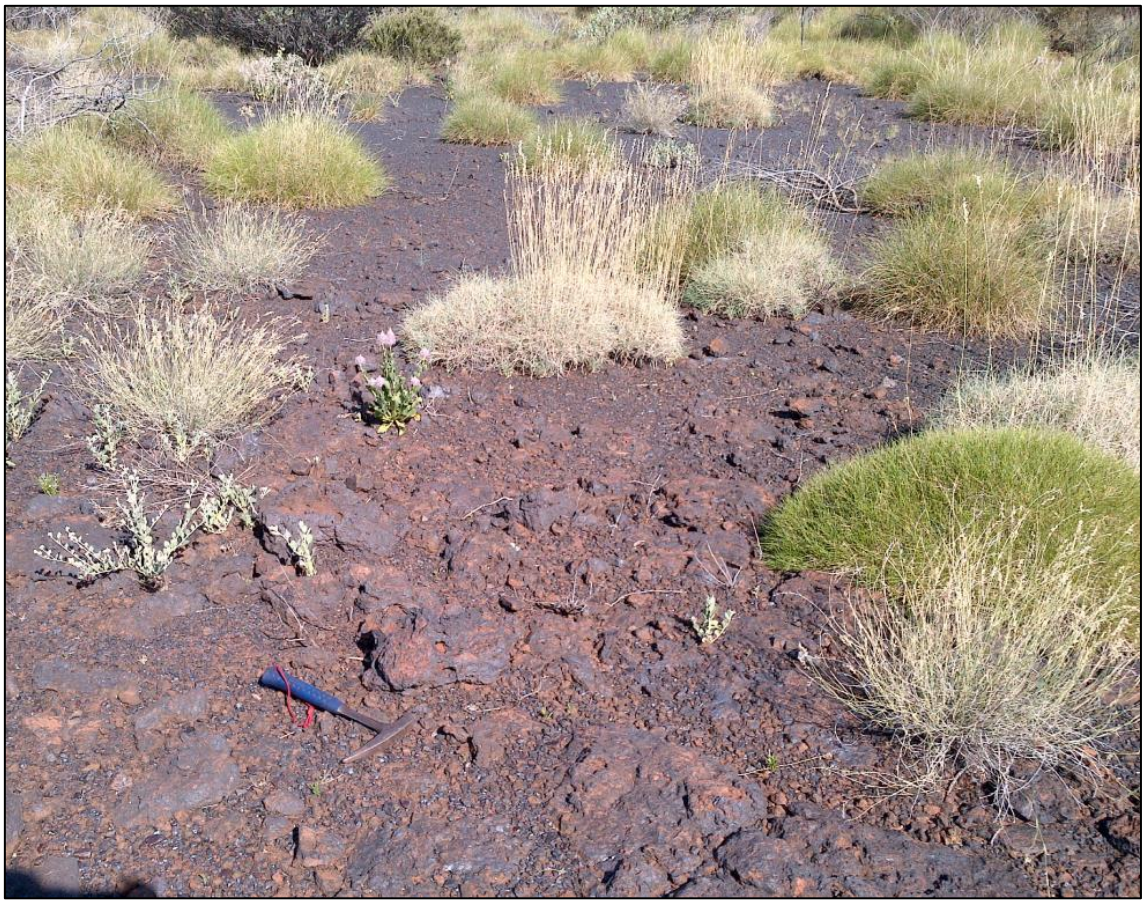

*Figure 6. Outcrops associated with sample WDRC041 – 43.2% Mn (pXRF). Refer to Figure 1 for the location*

**-END-**

**This announcement has been approved by the Board of Black Canyon Limited.**

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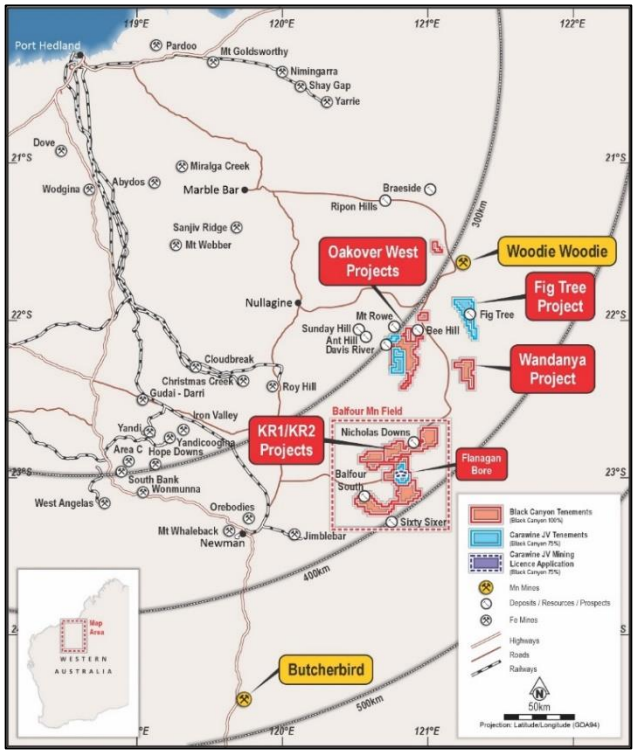
## Reference List:

1. ASX Announcement 14 November 2023 – Multiple high grade Manganese rock chip samples from Wandanya Project
2. ASX Announcement 8 October 2024 – Assays Confirm High Grade Manganese Discovery at Wandanya.

## About Black Canyon




Black Canyon has consolidated a significant land holding totalling 2,100km$^2$ in the underexplored Balfour Manganese Field and across the Oakover Basin, in Western Australia.

The emerging potential for the Balfour Manganese Field is evident by the size of the geological basin, mineral resources identified to date, distance from port, potential for shallow open pit mining and a likely beneficiated Mn oxide concentrate product grading between 30 and 33% Mn. Black Canyon holds several exploration licenses 100% within the Balfour Manganese Field along with a 75% interest in the Carawine Joint Venture with ASX listed Carawine Resources Limited. A Global Mineral Resource of 314 Mt @ 10.4% Mn has been defined across the Balfour Manganese Field projects. This MRE comprises 100Mt @ 10.4% Mn (Measured), 150Mt @ 10.1% Mn (Indicated) and 64Mt @ 11.9% Mn (Inferred) – refer to ASX release 12 Dec 2023.

Manganese continues to have attractive long-term fundamentals where it is essential and non-substitutable in the manufacturing of alloys for the steel industry and a critical mineral in the cathodes of Li-ion batteries.

**Compliance Statements**

Reporting of Exploration Results and Previously Reported Information

The information in this report that relates to Exploration Results is based on, and fairly represents, information and supporting documentation reviewed by Mr Brendan Cummins, Managing Director of Black Canyon Limited. Mr Cummins is a member of the Australian Institute of Geoscientists, and he has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which has been undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Cummins consents to the inclusion in this release of the matters based on the information in the form and context in which they appear. Mr Cummins is a shareholder of Black Canyon Limited.

For further information, please refer to ASX announcements dated 17 May 2021, 10 June 2021, 7 July 2021, 15 July 2021, 5 October 2021, 4 January 2022, 8 February 2022, 21 February 2022, 2 March 2022, 23 March 2022,13 April 2022, 9 June 2022, 7 September 2022, 15 September 2022, 11 October, 21 & 24 November 2022, 5 December 2022, 28 December 2022, 14 February 2023, 27 March 2023, June 1 2023, June 14 2023, June 17 2023, July 14 2023, 23 August 2023, 5 September 2023, 26 September 2023, 12 October 2023, 27 November 2023, 12 December 2023, 26 March 2024, and 1 May 2024, 2 July 2024, 21 August 2024, 25 September 2024, 27 September 2024, 8 October 2024 and 18 October 2024 which are available from the ASX Announcement web page on the Company's website. The Company confirms that there is no new information or data that materially affects the information presented in this release that relate to Exploration Results and Mineral Resources in the original market announcements.

## APPENDIX 1: JORC 2012: TABLE 1

| Section 1 Sampling Techniques and Data | | |
|---|---|---|
| **Criteria** | **Explanation** | **Comment** |
| *Sampling techniques* | *Nature and quality of sampling (eg 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.*<br><br>*Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*<br><br>*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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.* | *Point surface samples consisting of rock chips of outcropping rock, to a nominal 0.5 - 2kg weight.*<br><br>*Each sample was described at the site and time of collection to ensure accurate records of sampled material. Samples were selected based on mineralisation / alteration zones, or to distinguish low level alteration indicating potential mineralisation at depth.*<br><br>*The samples are selective but representative of the outcrop from which they were taken.*<br><br>*Rock chip sampling is an industry wide field technique for establishing metal content to understand potential tenor of the underlying mineralisation.* |
| *Drilling techniques* | *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).* | *Not Applicable* |

| | | |
|---|---|---|
| *Drill sample recovery* | *Method of recording and assessing core and chip sample recoveries and results assessed.*<br><br>*Measures taken to maximise sample recovery and ensure representative nature of the samples.*<br><br>*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.* | *Not Applicable* |
| *Logging* | *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.*<br><br>*Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*<br><br>*The total length and percentage of the relevant intersections logged.* | *All samples have been logged at the time and location of collection, enabling them to be placed in geological context.*<br><br>*All surface samples have been logged with this method.* |

| | | |
|---|---|---|
| *Sub-sampling techniques and sample preparation* | *If core, whether cut or sawn and whether quarter, half or all core taken.*<br><br>*If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*<br><br>*For all sample types, the nature, quality and appropriateness of the sample preparation technique.*<br><br>*Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*<br><br>*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.*<br><br>*Whether sample sizes are appropriate to the grain size of the material being sampled.* | *Samples were collected dry and consisted of multiple chips dislodged and fractured by a geological pick as a single point sample.*<br><br>*Samples were between a nominal 0.5-2kg weight and placed directly in to numbered calico bags at the collection point.*<br><br>*Appropriate assay techniques were designated at the point of collection based on the perspective commodity.*<br><br>*Selective rock chip sampling based on field observation and outcrops identified as hosting potential for mineralisation.*<br><br>*Should not be considered representative of the rock mass as a whole but an indication of the local grade at surface* |
| *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.*<br><br>*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.*<br><br>*Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.* | *The rock chip samples were submitted to Bureau Veritas in Canningvale, WA.*<br><br>*The samples were weighed and dried prior to pulverising 100% of the sample 95% passing 105µm.*<br><br>*Two 100g pulps were split from the master pulp. One of the pulps was provided to Black Canyon for pXRF while the other pulp was retained by the Laboratory for conventional XRF analysis.*<br><br>*Black Canyon has taken the pulverised sample and then transferred some of it into a circular plastic receptacle, encapsulated with a thin plastic film and compressed prior to pXRF analysis. The pXRF is able to undertake analysis through the thin plastic membranes.*<br><br>*The pXRF samples were determined using an INNOV-X Alpha series XRF analyser and analysed primarily for manganese (Mn) for which it was calibrated.*<br><br>*The pXRF unit was operated in Process Analytical mode and calibrated using three certified Mn standards with the pXRF unit analysing within +/-10% of the standards*<br><br>*The standards include:*<br><br>1. *OREAS 170a (45.06% Mn)*<br>2. *GMN-03 (44.25 % Mn)*<br>3. *GMN-04 (13.42% Mn)*<br><br>*Standards were re-tested over time during the analysis to recognise drift in the accuracy of the pXRF unit.* |

| | | |
|---|---|---|
| | | *During the testing of the rock chip samples no drift was noted and each sample was analysed for 30 seconds.*<br><br>*The Company has reviewed the pXRF data and standard data and is satisfied that acceptable levels for pXRF for precision and accuracy have been achieved through the sampling and analysis program and there is no evidence of bias.*<br><br>*The samples will also be analysed using laboratory based fusion XRF at the primary laboratory to provide the final analysis.*<br><br>*The CP is satisfied that the analysis was completed to an acceptable standard in the context in which the results have been reported.* |
| *Verification of sampling and assaying* | *The verification of significant intersections by either independent or alternative company personnel.*<br><br>*The use of twinned holes.*<br><br>*Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*<br><br>*Discuss any adjustment to assay data.* | *Adjustment of elemental oxides to primary element was completed using well known conversion factors.*<br><br>*In the Process analytical mode the assays were adjusted using a calibrated pXRF unit against known certified manganese standards.*<br><br>*Assay results summarised in the context of this report have been rounded appropriately.*<br><br>*The results have been reviewed by other technical members of the Board* |
| *Location of data points* | *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.*<br><br>*Specification of the grid system used.*<br><br>*Quality and adequacy of topographic control.* | *Sample locations were surveyed by a hand held GPS +/- 5m, at the time of sample collection.*<br><br>*RL was not recorded and is not relevant to surface point samples.*<br><br>*Coordinates reported are GDA Zone 51.*<br><br>*Location data is considered to be of sufficient quality for reporting of exploration results at this early stage.* |

| | | |
|---|---|---|
| *Data spacing and distribution* | *Data spacing for reporting of Exploration Results.*<br><br>*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.*<br><br>*Whether sample compositing has been applied.* | *Selective rock chip sampling based on field observation and outcrops identified as hosting potential for mineralisation.*<br><br>*Should not be considered representative of the rock mass as a whole but an indication of the local grade at surface.* |
| *Orientation of data in relation to geological structure* | *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*<br><br>*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.* | *Samples are representative only of the material sampled and based on surface outcrops it is unknown if the samples have a bias related to orientation of structures or mineralised horizons* |
| *Sample security* | *The measures taken to ensure sample security.* | *The samples are placed in a calico bag and then secured in a green miner bag that is zip locked.*<br><br>*The samples were delivered to Bureau Veritas by Company Personnel.*<br><br>*The analysing laboratory will normally report any tampering or missing samples.*<br><br>*This is not considered a high risk given the Project location.* |
| *Audits or reviews* | *The results of any audits or reviews of sampling techniques and data.* | *Not applicable at this early stage of exploration* |

## Section 2 – Reporting of Exploration Results

| Criteria | Explanation | Comment |
|---|---|---|
| *Mineral tenement and land tenure status* | *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.*<br><br>*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.* | *The rock chip samples were gathered from tenement E46/1407 held 100% by Black Canyon Ltd. Tenement E47/1407 was granted on the 11/04/2022 and expires on 10/04/2027*<br><br>*E46/1407 is subject to a native title agreement with the Karlka Nyiyaparli Aboriginal Corporation. Archaeologic and Ethnographic heritage surveys have been completed on the W2 deposits which has enabled the drilling to be completed. Further Heritage and monitoring surveys will be required to continue ground disturbing activities beyond the current drill areas.*<br><br>*There are no other known impediments to obtaining a licence to operate in the area.* |
| *Exploration done by other parties* | *Acknowledgment and appraisal of exploration by other parties.* | *No other historic exploration has been completed on the tenement for manganese on E46/1407.*<br><br>*For W2 Black Canyon completed a ground reconnaissance exercise in 2023 to initially map the manganese enrichments and determine down dip upside. The exercise proved significant manganese enrichment throughout the project areas both as outcropping, sub-cropping and as substantial float material. The early reconnaissance groundwork by Black Canyon was used as a basis for the 2023 DDIP survey and 2024 September RC drilling programme.* |
| *Geology* | *Deposit type, geological setting and style of mineralisation.* | *The mineralisation model at W2 is preliminary but it appears to be a fault related hydrothermal stratabound deposit. There may be a supergene overprint to the original hydrothermal mineralisation.*<br><br>*The mineralisation is located within a sedimentary sequence. From the base to the top of the sequence the geology comprises footwall dolomite, spotted manganese dolomite, massive manganese and manganese dolomite breccia overlain by hangingwall dolomite. The consistency of the mineralisation down dip and along strike has been interpreted to represent fault related, hydrothermal stratabound style of manganese mineralisation. Geothite alteration is common above the manganese zone and hematite was logged within the mineralised zones as jaspilitic bands. Manganese intensity increases towards the base of the sequence.*<br><br>*The overall geological sequence is dipping very shallowly to the east but is also openly folded with a northerly axial plane forming undulating outcrops. Several large north-easterly faults can be identified along strike associated with surface mineralisation.*<br><br>*The lithological sequence of the W2 prospect principally consists of the overlying Enachedoong Formation carbonates overlying the Stag Arrow Formation sediments from the Proterozoic Manganese Group of the southern Oakover Basin. The mineralisation style at W2 is* |

| Criteria | Explanation | Comment |
|---|---|---|
| | | *stratabound and maybe associated with hydrothermal fluids replacing a suitable reactive host work at the base of the Enachedong Formation. Faults and structure are considered important features of this style of mineralisation with multiple north east trending faults visible from surface imagery.* |
| *Drill hole Information* | *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:*<br>• *easting and northing of the drill hole collar*<br>• *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*<br>• *dip and azimuth of the hole*<br>• *down hole length and interception depth*<br>• *hole length.*<br>*If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.* | *All rock chip location data is presented in the Appendix 2.* |
| *Data aggregation methods* | *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.*<br>*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.* | *No data aggregation has been undertaken on the single point samples.* |

| Criteria | Explanation | Comment |
|---|---|---|
| | *The assumptions used for any reporting of metal equivalent values should be clearly stated.* | |
| *Relationship between mineralisation widths and intercept lengths* | *These relationships are particularly important in the reporting of Exploration Results.*<br>*If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*<br>*If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').* | *No new drill widths or intervals are reported in the release.* |
| *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 images within the body of this release for further details.* |
| *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.* | *Information considered material to the reader's understanding of the Exploration Results has been reported. in the body of the text and significant results have selectively been reported to provide the reader with the potential tenor and widths of the mineralisation*<br>*APPENDIX 2- does contain all of the pXRF results and also contains the location and a brief geological description of each rock chip sample.* |
| *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;* | *A modest RC drill program was completed in September 2024 and the results have been reported on the 14/11/2024*<br>*A number of iron rich sediment samples have also been submitted for laboratory derived XRF analysis. The samples were originally analysed using the pXRF but many of the samples were beyond the accurate grade range of the pXRF* |

| Criteria | Explanation | Comment |
|---|---|---|
| | *metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.* | *and cannot be reported with uncertainty in reporting an accurate analysis.*<br><br>*The samples will be reported for iron when the results have been received.* |
| *Further work* | *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*<br><br>*Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.* | *Further RC drilling is required to continue the evaluation of the Wandanya manganese targets*<br><br>*The iron rich sediment horizons require RC drilling to determine grade and thickness potential*<br><br>*Gravity and IP surveys might also detect deeper buried manganese mineralisation associated with the underlying sedimentary sequences.* |

## APPENDIX 2: All pXRF assays results for manganese

| Sample Id | East GDA94 | North GDA94 | Tenement | Mn pXRF | Description |
|---|---|---|---|---|---|
| WDRC013 | 322634 | 7524851 | E46/1407 | 1.6 | Iron rich sediment |
| WDRC014 | 322571 | 7524820 | E46/1407 | **44.1** | High-grade weakly bedded manganese |
| WDRC015 | 322571 | 7524720 | E46/1407 | **57.4** | High-grade weakly bedded manganese |
| WDRC016 | 322640 | 7524605 | E46/1407 | **48.5** | High-grade weakly bedded manganese |
| WDRC017 | 322935 | 7525529 | E46/1407 | 10.6 | Manganese enriched carbonate |
| WDRC018 | 322890 | 7525495 | E46/1407 | 11.7 | Mixed Mn/Fe enriched sediment |
| WDRC019 | 322797 | 7525498 | E46/1407 | 1.8 | Iron rich sediment |
| WDRC020 | 322339 | 7527546 | E46/1407 | 1.5 | Iron rich sediment |
| WDRC021 | 322525 | 7527935 | E46/1407 | 1.5 | Iron rich sediment |
| WDRC022 | 322539 | 7527955 | E46/1407 | 1.2 | Iron rich sediment |
| WDRC023 | 322493 | 7528284 | E46/1407 | 1.8 | Iron rich sediment |
| WDRC024 | 322436 | 7528458 | E46/1407 | 2.6 | Iron rich sediment |
| WDRC025 | 322507 | 7528493 | E46/1407 | **33.7** | Manganese in fault zone |
| WDRC026 | 322509 | 7528492 | E46/1407 | **20.0** | Mixed Mn chert and Mn bands in fault |
| WDRC027 | 322590 | 7528480 | E46/1407 | **37.1** | Manganese in fault zone |
| WDRC028 | 322617 | 7528377 | E46/1407 | 10.2 | Mixed iron, manganese and chert |
| WDRC029 | 322454 | 7528577 | E46/1407 | **32.9** | Manganese chert |
| WDRC030 | 322384 | 7528540 | E46/1407 | 2.6 | Iron rich sediment |
| WDRC031 | 322356 | 7528611 | E46/1407 | 1.9 | Iron rich sediment |
| WDRC032 | 323280 | 7528202 | E46/1407 | 4.1 | Iron rich sediment |
| WDRC033 | 322427 | 7529103 | E46/1407 | 1.4 | Iron rich sediment |
| WDRC034 | 322404 | 7527331 | E46/1407 | 1.3 | Iron rich sediment |
| WDRC035 | 322869 | 7525675 | E46/1407 | **41.7** | High-grade weakly bedded manganese |
| WDRC036 | 322732 | 7525674 | E46/1407 | **42.3** | High-grade weakly bedded manganese |
| WDRC037 | 322659 | 7526009 | E46/1407 | **43.2** | High-grade weakly bedded manganese |
| WDRC038 | 322595 | 7525999 | E46/1407 | 2.3 | Iron rich sediment |
| WDRC039 | 322476 | 7525934 | E46/1407 | **53.5** | Very high-grade bedded manganese |
| WDRC040 | 322595 | 7526105 | E46/1407 | **44.3** | High-grade bedded manganese |
| WDRC041 | 322669 | 7526294 | E46/1407 | **43.2** | Widespread kanga and bedded manganese |
| WDRC042 | 322415 | 7526323 | E46/1407 | 18.5 | Mixed Mn/Fe enriched sediment |
| WDRC043 | 322468 | 7526390 | E46/1407 | 6.5 | Iron rich sediment |
| WDRC044 | 322582 | 7526540 | E46/1407 | **50.7** | Very high-grade weakly bedded manganese |
| WDRC045 | 322403 | 7526638 | E46/1407 | 16.1 | Mixed Mn/Fe enriched sediment |
| WDRC046 | 322400 | 7526536 | E46/1407 | **40.7** | Hg Mn seam outcrop botryoidal texture. |
| WDRC047 | 323139 | 7530563 | E46/1407 | **30.3** | Botryoidal Mn subcrop |
| WDRC048 | 322987 | 7530868 | E46/1407 | 1.5 | Goethite cap |
| WDRC049 | 322092 | 7525750 | E46/1407 | 7.1 | Iron rich sediment |
| WDRC050 | 322692 | 7524352 | E46/1407 | **47.1** | High-grade weakly bedded manganese |
| WDRC051 | 322722 | 7523736 | E46/1407 | **54.7** | Very high-grade weakly bedded manganese |