



ASX: **BCA** 21 August 2024

Fig Tree IP Survey Results

HIGHLIGHTS

- Induced Polarisation (IP) surveys have been completed at Fig Tree targeting hydrothermal manganese mineralisation similar to the high-grade Woodie Woodie manganese mine.
- A Dipole-Dipole IP survey (DDIP) extended over a 1,400m long northwest extension of the HD1 prospect where previous RC drill results included:¹
 - o 7m @ 33.2% Mn from 2m (HADRC017)
 - o 3m @ 17.0% Mn from surface (HADRC018)
- The DDIP survey detected a number of near surface targets coincident with outcropping manganese mineralisation (34.2% Mn¹) and subsurface IP responses interpreted to represent shallow down dip extensions.
- A Gradient Array IP (GAIP) survey, located about 35 km south and along strike of the Woodie Woodie mine was designed to test for mineralisation within an interpreted "Woodie" structural corridor and identified several chargeability anomalies that warrant follow-up
- The Fig Tree IP survey was co-funded to a maximum of \$57,875 under the State Government's 2024-2025 geophysics co-funded Exploration Incentive Scheme (EIS).

Australian manganese explorer and developer, Black Canyon Limited (**Black Canyon** or **the Company**) (**ASX: BCA**) is pleased to announce the results of Induced Polarisation (IP) Surveys across subcropping mineralisation and structural targets at the Fig Tree Project, part of the Carawine Joint Venture with Carawine Resources Ltd (ASX: CWX).

Surface mapping, sampling and RC drilling completed by previous explorers identified and returned high-grade manganese results from multiple prospects across the Fig Tree tenement which is located 35km south of the Woodie Woodie operations. The IP results have generated a number of targets that require infill geophysical surveys prior to drill testing.

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Capital Structure (ASX: BCA)

Shares on Issue80.9MTop 20 Shareholders47%Board & Management9%Funds & Institutions15 %

Board of Directors

Graham Ascough Non-Executive Chairman

Brendan Cummins Managing Director

Simon Taylor Non-Executive Director

Adrian Hill Non-Executive Director

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.

*BCA Announcement 12/12/23





Black Canyon's Managing Director Brendan Cummins said:

"After the success of discovering large shale-hosted manganese deposits across the Balfour Manganese Field, the Company is now turning some of its attention to exploring for near-surface high grade mineralisation at its Wandanya and Fig Tree projects. Several prospects along the Fig Tree Manganese Trend have been mapped and drilled in the past, establishing the tenement's potential to host higher-grade, hydrothermal-style mineralisation. Its geological similarities to Woodie-Woodie and previous RC drilling have confirmed the prospectivity of the tenement, which is located only 35km south of Woodie-Woodie. Manganese deposits are often associated with chargeability anomalies which can be detected using IP techniques, so we were keen to deploy IP to the area and now have several new targets that warrant follow-up."

Black Canyon used the high-quality historic exploration datasets at Fig Tree to evaluate the known manganese prospects, and then used this information to generate new IP survey targets. The DDIP survey has confirmed chargeable responses co-incident with outcropping manganese mineralisation and extending down dip. The GAIP surveys have also yielded several large sub-surface chargeable anomalies. Further IP surveys are planned to better resolve the size and strength of these new chargeable anomalies and establish their significance prior to refining potential drill targets in addition to other prospects across the Fig Tree tenement.

Carawine JV Tene (BCA 75%) 8 46/1116 80000mN 7580000ml 0 ConsMin Tene Gradient Array IP Survey Dipole-dipole IP Survey Officer Basir Oakover Basir Fortescue Group HW1 Gregory Range Granite HD1 Mapped Mn Outcrop Historic Manganese @ 33.2% Mn fr 2 Woodie Woodie HADRC018 7575000 Mines @ 17% Mn fr S Operations Faults Interpreted Faults Synclines ZLRC016 13m @ 13.6% Mn fr 13i A m @ 18.3% Mr E46/1116 1m @ 18.8% Mn fr 66n @ 16.8% GAIP Target Area Carawine JV Ter (BCA 75%) ZL1 CO C015 6m @ 16.8% Mn fr 7m 7575000mN 7575000mN SU2RC011 m @ 18.5% Mn fr 52m Cara Pinjin Chert Breccia **Fig Tree** 8m @ 27.8% Mn 6 Manganese Group Fortescue Group • m @ 21.4% Mn @ 8.8% Mn fr Su ncl. 4m @ 13.1% Mapped Mn Outcrop 15.0% Mn fr 62n Drill Hole Faults 4% Mn fr Surfac Interpreted Faults Surface Samples @ 17.5% Mn fr 8m I. 2m @ 24.9% Mn > 30% Mr 10 - 30% Mr @ 15.3% Mn fr Surfa 5 - 10% Mn 2.5 - 5% Mn @ 20.2% Mn fr Surfac < 2.5% Mr 325000 300000mF

Fig Tree Project

Figure 1. LHS - Fig Tree Project areas tenement showing the location of Woodie Woodie and RHS - completed DDIP, GAIP geophysical surveys and historic exploration data.



HW1 Dipole-Dipole IP Survey Results

The DDIP survey was designed to test a 1,400m long zone of subcropping manganese mineralisation along strike from the historic HD1 prospect where rockchip samples and limited RC drilling encountered medium to high grade manganese. The DDIP lines were spaced between 200 and 600m apart along the target horizon providing a cross-strike coverage between 600m and 950m.

Several near-surface chargeable anomalies, coincident with outcropping manganese mineralisation (Figure 2) and subsurface chargeable anomalies were detected with the DDIP survey. The subsurface responses are interpreted to represent shallow down-dip extensions to the surface mineralisation. are estimated to range between 10 to 25m thick from surface to depths of 50m and persist across 4 sections extending over 1,000m of strike (Figure 3) (Appendix 1).

The underlying geology is dominated by ferruginous chert and Pinjian Chert inferred to overlie close to surface Carawine Dolomite. The area is also bisected by a number of northeast and northwest trending faults and fractures. The manganese lenses form isolated subcrops 50 to 100m long and manganese disperses 20 to 40m from the subcrops.

Infill DDIP lines are required to provide more detailed chargeability mapping to resolve the potential strength and continuity of the anomalies. The HW1 target has never been drill tested and subject to further evaluation a drill program can be planned.



Figure 2. DDIP Line 6500N and location of historic rock chip sample PMI 102265 that yielded 34% Mn.





Figure 3. HW1 - DDIP points and chargeability sections shown below the survey lines.

Gradient Array IP Results

The BCA Fig Tree GAIP survey was designed to test a prospective corridor interpreted to have similarities with the structurally controlled Woodie Woodie mineralisation to the north, hosted in the Pinjian Chert or Carawine Dolomite units west of the Fortescue Group.

There is minor subcrop observed within the GAIP target corridor, but the area is mostly covered by transported ferruginous lag, thin laterite and semi-residual ferruginous cherts.

The GAIP results reported here have been merged with the 2022 and 2023 datasets that extend over 4km of strike and up to 2km width. Figure 4 shows the chargeability contours overlying the resistivity image with several discrete and linear chargeability anomalies associated with variably resistive units. Follow up DDIP surveys are being considered over the more discrete chargeable anomalies, in addition to the continued extension of GAIP further to the northwest. Refer to Appendix 1 for further details of the GAIP survey.





Figure 4. GAIP survey showing chargeability contours overlying a resistivity image shaded to show more resistive units in red and least resistive in blue

Previous Exploration - HD1 and HW1 Prospects

High grade mineralisation was previously sampled and drilled at the HD1 Prospect (*Refer to ASX release 15 July 2021*). The outcrop is 170m long with a width ranging from 10 to 20m. An interpreted structurally controlled NW-trending corridor extending for 2,500m from the HD1 prospect has been mapped highlighting three manganese enriched outcrops over 1,600m of strike. A historic rock chip sample was taken at one of the three outcrops and returned 34.2% Mn (PM102265) which supports the grade potential of the additional targets.

The historic rock chip samples taken across the HD1 and HW1 prospects are presented in Table 1.



Table 1. Rock chip data from across the HD1 & HW1 prospects

Sample ID	Prospect	East (GDA94)	North (GDA94)	RL	Mn (%)	Fe (%)	Previous Company	Sample Date
HAD001	HD1	319249	7576411	400	53.9	1.84	Consolidated Minerals	16/04/2010
HAD002	HD1	319252	7576402	400	55.6	1.69	Consolidated Minerals	16/04/2010
HAD003	HD1	319243	7576401	400	56	1.09	Consolidated Minerals	16/04/2010
HAD004	HD1	319238	7576407	400	54.6	1.27	Consolidated Minerals	16/04/2010
HAD005	HD1	319226	7576406	400	57.5	1.23	Consolidated Minerals	16/04/2010
HAD006	HD1	319215	7576423	400	57.3	0.82	Consolidated Minerals	16/04/2010
HAD007	HD1	319225	7576428	400	52.7	0.82	Consolidated Minerals	16/04/2010
HAD008	HD1	319214	7576431	400	53.5	0.44	Consolidated Minerals	16/04/2010
HAD009	HD1	319225	7576432	400	55.3	0.79	Consolidated Minerals	16/04/2010
HAD010	HD1	319221	7576448	400	53.3	6.35	Consolidated Minerals	16/04/2010
HAD011	HD1	319162	7576512	400	37.1	12.8	Consolidated Minerals	16/04/2010
HAD012	HD1	319161	7576498	400	57	1.09	Consolidated Minerals	16/04/2010
HAD013	HD1	319174	7576492	400	57.6	0.89	Consolidated Minerals	16/04/2010
HAD014	HD1	319151	7576502	400	50.2	7.16	Consolidated Minerals	16/04/2010
PM106826	HD1	319244	7576407	400	52.8	1.4	Consolidated Minerals	27/01/2009
PM102265	HW1	318290	7576730	400	34.2	4.91	Consolidated Minerals	10/10/2008

The mineralisation at HD1 appears to be structurally controlled with high grade manganese remobilising into structures within the Pinjin Chert above the Carawine Dolomite basement contact. This is evident in hole HADRC017 that encountered 7m @ 33.2% Mn from 2m.

The DDIP survey has tested the 1,400m long HW1 zone of outcropping manganese with a total of 5 lines to determine if the targets have depth potential. Previous significant drill results from HD1 are presented in Table 2.

Table 2. Significant drill intersects from the HD1 prospect.

			Drill Collar Information				Interval						
J	Hole ID	Prospect	East (GDA94)	North (GDA94)	RL	Depth	Dip	Azimuth	From (m)	To (m)	Width (m)	Mn (%)	Fe (%)
	HADRC008	HD1	319159	7575905	343	151	-60	270	83	85	2	13.1	3.6
2	HADRC010	HD1	319487	7576041	345	154	-60	90	67	71	4	6.3	4.2
	HADRC013	HD1	319211	7575995	345	154	-62.4	286.2	46	52	6	8.2	8.8
	HADRC014	HD1	319214	7576057	342	154	-60.1	266.1	52	55	3	12.2	4.9
	HADRC015	HD1	319154	7576084	343	124	-60.2	273.6	44	49	5	7.5	3.7
	HADRC017	HD1	319234	7576419	348	82	-62.3	89.6	2	9	7	33.2	4.5
\leq	HADRC018	HD1	319164	7576505	344	82	-62	94.5	0	3	3	17	15.2





Figure 5. HD1 prospect showing manganese outcrops (looking east). Inset - manganese sample from HD1

Fig Tree is part of Black Canyon's Carawine Project which is subject to a joint venture agreement with Carawine Resources Ltd (**CWX**). Black Canyon has earnt a 75% interest in the Carawine JV Project tenements while CWX holds the remaining 25%, with both parties contributing to JV expenditure according to their interests.

-END-

For further details:

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

Reference List:

1. ASX Announcement 15 July 2021 – High-Grade Hydrothermal Manganese confirmed at the Oakover East Project

About Black Canyon



Black Canyon has consolidated a significant land holding totalling 2,100km² 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 within the Balfour licenses 100% Manganese Field along with a 75% interest in the Carawine Joint Venture with ASX listed Carawine Resources Limited. A Global Mineral Resource (Measured, Indicated & Inferred) of 314 Mt @ 10.4% Mn has been defined across the Balfour Manganese Field projects.

Manganese continues to have attractive long-term fundamentals where it is essential and nonsubstitutable 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 2 July 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 in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 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. 	 Results in this ASX release relate to geophysical IP survey data Geophysical survey details including sample spacing are reported in this Table.
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 	Not applicable



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Criteria	JORC Code explanation	Commentary
	tails, face-sampling bit or other type, whether core is	
Drill sample recovery	 oriented and it so, by what method, etc). Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/nain 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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	Not applicable
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. 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. Whether sample sizes are appropriate to the grain size of the material being sampled. 	Not applicable
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. 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. 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. 	Not applicable
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	Not applicable
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. Specification of the grid system used. Quality and adequacy of topographic control. 	 Coordinates reported are GDA Zone 51. The IP surveys were located using handheld GPS +/- 5m. Accuracy and quality of location data is appropriate to the survey method and results in the context in which they are reported
Data spacing and distribution	 Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied. 	 DDIP Geophysical Technique: Time Domain Induced Polarisation / Resistivity Array Type: Inline Dipole-Dipole (DDIP) IP Transmitter: 10kW GDD IP Receiver: GDD Rx-II Program Size: 5 x 0.6 km lines – total 3.0 lkm Receiver Dipole Spacing: 50 m Receiver Station Spacing: 50 m Receiver Array Dipoles: 8



Criteria	JORC Code explanation	Commentary
Criteria	JORC Code explanation	 Commentary Transmitter Dipole Spacing: 50 m Transmitter Station Spacing: 50 m Line Direction: 0490 (Local Grid North = MGA 3110) Transmitter Frequency: 0.125Hz (2 sec time base) GAIP Geophysical Technique: Time Domain Induced Polarisation / Resistivity Array Type: Gradient Array IP Transmitter: 10kW GDD IP Receiver: GDD Rx-II Program Size: 15 x 1.0 km lines – total 15 km
		 Receiver Dipole Spacing: 50 m Receiver Station Spacing: 50 m Receiver Line Spacing: 100 m Receiver Line Direction: 0450 (Local Grid North = MGA 3150) Transmitter Dipole Spacing: 2000 m Transmitter Frequency: 0.125Hz (2 sec time base)
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. 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. 	Not applicable
Sample security	The measures taken to ensure sample security.	Not applicable
Audits or reviews	 The results of any audits or reviews of sampling techniques and data 	Not applicable

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary	
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. 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 IP surveys were completed on tenement E46/1116 Black Canyon owns 75% of E46/1116 with the remaining 25% owned by Carawine Resources. Both parties are contributing to JV expenditure according to their relative interests. Heritage Surveys were not required for geophysical surveys. Heritage Surveys will be required prior to commencement of ground disturbing activities such as drilling. 	
Exploration done by other parties	 Acknowledgment and appraisal of exploration by other parties. 	 Previous exploration is presented in ASX Announcement 15 July 2021 – High-Grade Hydrothermal Manganese confirmed at the Oakover East Project 	
Geology	 Deposit type, geological setting and style of mineralisation. 	The tenement is located within the Oakover Basin, the edges of which are defined by the Neoarchaean Fortescue Group. Most of the tenements are covered by quaternary alluvium, sheetwash and outcrop only exists within the southern part and consists of rocks of the Manganese Group, mainly	



Criteria	JORC Code explanation	Commentary
		 the Encheddong Dolomite and Balfour Formation. The tenements contain widespread manganese scree associated with manganese enriched Balfour Formation shales The hydrothermal styles of mineralisation are typically located inside and at the contact between the Carawine Dolomite and the Pinjian Chert from the upper Hamersley Group. The mineralisation shows a distinct alteration haloe with the high core dominated by manganese radiating out to iron oxides such as geothite and limonite.
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: easting and northing of the drill holes: 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. 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. 	Not applicable
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. 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. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	Not applicable
Relationship between mineralisation widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. 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 drill widths or intervals reported
Diagrams	 Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should 	See body of the release for diagrams



Criteria	JORC Code explanation	Commentary
	include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	
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 program and results have been reported in the body of the text
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.	All information considered material to the reader's understanding and context of the Exploration Results have been reported.
Further work	 The nature and scale of planned further work (eg 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. 	Further work is planned that includes detailed site inspections, further geophysical surveys, Heritage surveys and RC or AC drilling of the priority targets.