

# MANDALAY RESOURCES EXTENDS THE NEWLY DISCOVERED SHEPHERD ZONE AND PROVIDES UPDATE ON THE COSTERFIELD MINERAL SYSTEM

Eastern and Western veining horizons are extended in the Shepherd Zone, with numerous high-grade gold intercepts along a 400 metre strike extent

TORONTO, ON, June 8, 2021 – Mandalay Resources Corporation ("Mandalay" or the "Company") (TSX: MND, OTCQB: MNDJF) is pleased to provide an update on the newly discovered Shepherd Zone at its Costerfield Operation in Victoria, Australia.

The Eastern vein has now been traced over 300 metres ("m") of strike length and approximately 100 m in vertical extent. The mineralization remains open to the south and at depth (Figure 2).

The Western vein has now been traced over 400 m of strike length and approximately 100 m in vertical extent and remains open to the south and at depth (Figure 4).

## **New Drilling Highlights:**

## **Eastern Veining**

- **172.3** g/t gold over true width of **0.27** m in BC213; and
- **69.5 g/t gold over true width of 1.11 m** in BC210 including:
  - o 406.0 g/t gold over true width of 0.14 m

#### **Western Veining**

- **33.7** g/t gold over true width of **3.22** m in BC201 including:
  - o 127.0 g/t gold over true width of 0.69 m;
- 712.8 g/t gold over true width of 0.10 m in BC205; and
- 19.4 g/t gold over true width of 4.84 m in BC210 including:
  - o 657.3 g/t gold over true width of 0.13 m

Note: Further intercept details including significant intercepts within composite intervals can be found in Table 1 in the Appendix to this document.

Dominic Duffy, President and CEO of Mandalay, commented: "Over the past month, Mandalay's increased focus on the Shepherd Zone has demonstrated great success with the Eastern and Western veining horizons extending 300 m and 400 m in strike length, respectively. The grades shown along strike within the Eastern veining are consistently high, with significant visible gold identified within each intercept along the top of the zone, demonstrating an exciting new high grade gold vein system (Figures 1,2 and 4)."

Mr. Duffy continued, "Mandalay is also encouraged by the indication that the two veining horizons merge towards the south, in an area that exhibits elevated widths and grades. This southern area remains unconstrained at depth."

Mr. Duffy continued, "To date, drilling has been concentrated in the upper portions of the zone with a focus on optimizing the knowledge of the geometries and grades for near term mine

planning. During the near-term, additional underground exploration drill platforms will be developed allowing for optimum drill intercept angle, which will slow the drill rates into the Shepherd Zone. Infill drilling will continue at an accelerated rate in the upper areas of the Shepherd Zone for medium-term mine planning, as well as to test for extensions of the vein system to the south and at depth."

Mr Duffy concluded, "We are extremely excited about this discovery and the continuity of very high grades over many hundreds of meters in strike length. It is obviously important to understand the full dimensions of this vein system and the economic portions of the deposit to determine its overall impact on Costerfield's long-term future. A video has been prepared by Mr. Chris Davis, Vice President of Operational Geology and Exploration, to further explain the information in this release. The video can be found on Mandalay's website or by clicking here."

## **The Shepherd Zone Extension**

Since Mandalay's last release on the Shepherd Zone drilling (April 26, 2021), drilling rates have been increased with a total of four underground drill rigs operating on the program. An additional 22 holes have been drilled with 29 significant intercepts assayed. Due to the accelerated nature of the program, not all significant intercepts have been assayed at present. Drilling to date has focused on delineating the upper reaches of the Shepherd system in support of short term mine planning activities, with further exploration at depth being prioritized in the following months once drill platforms have been established.

In general terms, the original interpreted orientation of the veining has been supported by the new drilling, and the two major horizons continue with new high-grade intercepts located as far as approximately 300 m south of the initial intercept encountered in BC176. The southern intercepts support the interpretation of a subvertical system extending down from the west dipping Youle structure with a shallow northern plunge to the interaction point. The concept of a convergence of these vein systems has also been demonstrated with the interpretation of this interaction at approximately 7000N leading to a zone of wide and high-grade veining to the south of the convergence. The southerly extension of the converged vein system is untested and represents an ongoing priority drill target.

Although the depth extension to this drilling has not been the recent focus, inferences of the system framework have been made with the forward modelling of results from the 2019 Costerfield Deeps drilling program. This work highlights a potentially significant interrupted anticlinal position at depth which has been shown to be anomalously mineralized within CD001 to the south. Vectoring analysis of the mineralization from the original Costerfield veining at surface to the Shepherd veining at depth suggest that this increasingly favourable environment exists approximately 400 m north of the CD001 intercept (initial Costerfield Deeps dill hole), indicating that this drill hole has intercepted south of the main endowment at depth (Figure 1).

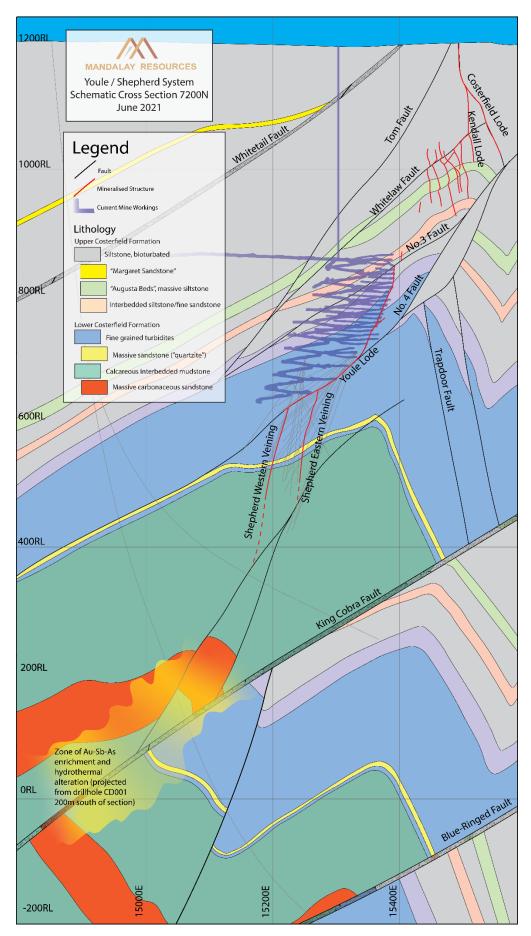


Figure 1. Schematic cross-section of the Shepherd vein system highlighting its relationship to Youle and potential targets at depth.

# Eastern Veining

A further 13 intercepts have been added to the previously defined Eastern veining. Excitingly, and consistent with targeting models, high grades have been discovered to the south underneath the southern high-grade domain of the currently modelled extents of Youle. Highlights include BC213 with 172.3 g/t gold over a true width of 0.27 m and BC212A with 69.5 g/t gold over a true width of 1.11 m. To date, consistent high grades are noted along the upper portion of the system with an approximate strike length of 200 m as shown in Figure 2.

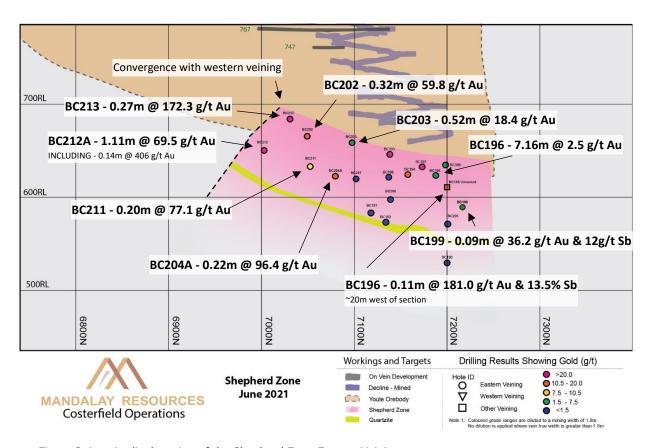


Figure 2. Longitudinal section of the Shepherd Zone Eastern Veining

Within the Eastern horizon, quartz veining becomes more consolidated south of BC187 and dispersed to the north with stibnite present alongside quartz veining within, and to the north of, BC187. Mineralogy remains consistent with the majority of gold as grains of up to 2mm hosted in quartz (Figure 3). At depth grades appears to diminish towards to the quartzite layer within the centre of the horizon shown in Figure 2.Drilling to date has not tested the corridor below the quartzite which has been known to be a disrupter of grade within the Cuffley orebody that lies approximately 2 km to the south of the Shepherd Zone. It is significant to note from the accumulated knowledge acquired from mining the Cuffley deposit that grade returns to the veining below the quartzite. Further drilling is therefore required to test this hypothesis at Shepherd.

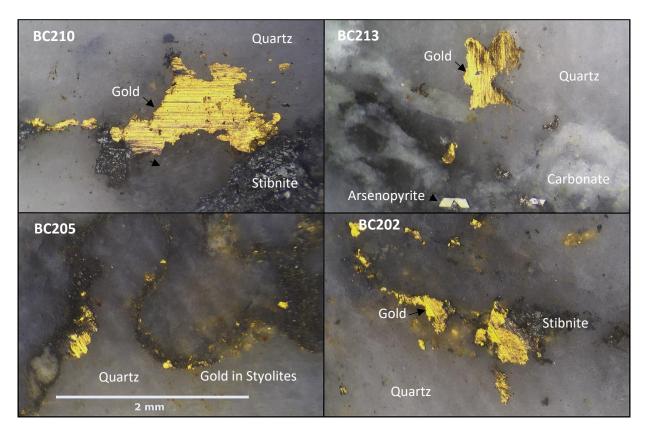


Figure 3. Photomicrograph of gold within the vein at 193.21m of BC187 highlighting the spatial relationship with quartz, carbonate, stibnite and siltstone.

# **Western Veining**

The Western veining has also been intercepted repeatedly with recent drilling. Although intercepts have been less consistent in grade compared to the Eastern veining, structural continuity has been demonstrated to be consistent throughout the horizon indicating a strike length of approximately 400 m. The southernmost intercept BC210 is significant in both grade and width (19.4 g/t gold over a true width of 4.84 m), while BC201, approximately 40 m above, is likewise significant (33.7 g/t gold over a true width of 3.22 m) showing the mineralization is open still to the south. To the north the veining has been shown to extend up to the Youle structure with significant grades found in BC205 (712.8 g/t gold over a true width of 0.10 m). There is also veining approximately 20 m to the east of the Western veining intercepted in BC196 (58.8 g/t gold and 13.5% antimony over a true width of 0.23 m) and BC206 (115.0 g/t gold and 3.0% antimony over a true width of 0.14 m).

Gold bearing veining has been intercepted below the quartzite layer, however not to comparable levels of grade as encountered above the quartzite. Analysis of analogues within the Costerfield mineral field suggest that a westward shift of mineralization should be anticipated at depth, however, to date the area has not been adequately tested. Exploration of this area is expected in the coming months.

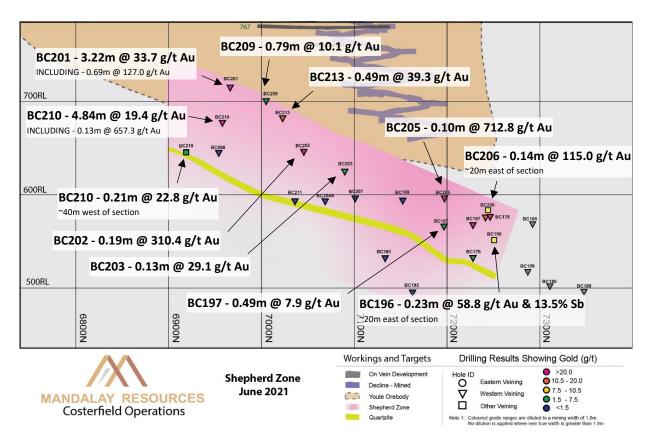


Figure 4. Longitudinal section of the Shepherd Zone Western Veining

# **Reassessing the Costerfield Mineral System**

In 2015, Mandalay embarked on a drilling campaign to identify the depth extension of the Cuffley mineralization. This was undertaken drilling from East to West to test this sub-vertical system and identified a series of veins analogous in orientation and mineralization to those noted in the Shepherd Zone. Significant grades were encountered within the area, however the intercepts were deep and were lower priorities than follow-up of nearer surface extensions to Cuffley. The discovery of the westerly dipping Youle deposit highlights an exploration target opportunity for a westerly dipping mineralized system, analogous to Youle, that the 2015 exploration program would not have tested effectively due to the orientation of drilling being sub parallel to the target system. This is a target currently under investigation and the results of the 2015 program are being reviewed in detail in conjunction with the evolving Shepherd interpretation. This updated targeting exercise aims to pursue a significant parcel of mineralization under the mined extent of the Cuffley orebody that mirrors the mode of mineralization of the Youle / Shepherd system.

# **Drilling and Assaying**

All drilling reported in this document was completed from underground in Youle using 3 x LM90 and 1 x LM30 Boart Longyear diamond drill rigs operated by drill contractor Starwest Pty Ltd. All diamond drill core was logged and sampled by Costerfield geologists. All samples were sent to On Site Laboratory Services (OSLS) in Bendigo, Victoria, Australia, for sample preparation and analysis by fire assay for gold, and Atomic Absorption Spectroscopy (AAS) for antimony. Samples featuring coarse grained visible gold were assayed using a variant of fire assay known

as screen fire assay. This method is routinely used to mitigate potential problems associated with heterogeneity in the distribution of coarse gold within drill samples. The procedure collects all heterogenous coarse gold by screening at 75µm after crushing and pulverisation, and subsequently fire assays the full resultant +75µm mass to extinction. A mass weighted average of gold grade of the sample is subsequently calculated from the +75µm fraction and 3 x splits of the -75µm fraction of the sample. Site geological and metallurgical personnel have implemented a QA/QC procedure that includes systematic submission of standard reference materials and blanks within batches of drill and face samples submitted for assay. Costerfield specific reference materials produced from Costerfield ore have been prepared and certified by Geostats Pty Ltd., a specialist laboratory quality control consultancy. See Technical Report entitled "Mandalay Resources - Costerfield Operation NI 43-101 Report" dated March 30, 2021, available on SEDAR (<a href="https://www.sedar.com">www.sedar.com</a>) for a complete description of drilling, sampling, and assaying procedures.

### **Qualified Person:**

Chris Davis, Vice President of Operational Geology and Exploration at Mandalay Resources, is a Chartered Professional of the Australasian Institute of Mining and Metallurgy (MAusIMM CP(Geo)), and a Qualified Person as defined by NI 43-101. He has reviewed and approved the technical and scientific information provided in this release.

# **For Further Information**

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#### **About Mandalay Resources Corporation**

Mandalay Resources is a Canadian-based natural resource company with producing assets in Australia (Costerfield gold-antimony mine) and Sweden (Björkdal gold mine), with projects in Chile and Canada under care and maintenance, closure or development status. The Company is focused on growing its production profile and reducing costs to generate significant positive cashflow.

Mandalay's mission is to create shareholder value through the profitable operation of both its Costerfield and Björkdal mines. Currently, the Company's main objective is to continue mining the high-grade Youle vein at Costerfield, which continues to supply high-grade ore, and also focus on extending Youle's Mineral Reserves at depth. At Björkdal, the Company will aim to increase production from the Aurora zone in the coming years, in order to maximize profit margins from the mine.

#### **Forward-Looking Statements:**

This news release contains "forward-looking statements" within the meaning of applicable securities laws, including statements regarding the exploration and development potential of the

Shepherd zone (Costerfield). Readers are cautioned not to place undue reliance on forwardlooking statements. Actual results and developments may differ materially from those contemplated by these statements depending on, among other things, changes in commodity prices and general market and economic conditions. The factors identified above are not intended to represent a complete list of the factors that could affect Mandalay. A description of additional risks that could result in actual results and developments differing from those contemplated by forward-looking statements in this news release can be found under the heading "Risk Factors" in Mandalay's annual information form dated March 31, 2021, a copy of which is available under Mandalay's profile at www.sedar.com. In addition, there can be no assurance that any inferred resources that are discovered as a result of additional drilling will ever be upgraded to proven or probable reserves. Although Mandalay has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forwardlooking statements.

# **Appendix**

**Table 1.** Shepherd Drilling Composites

DRILL HOLE ID	FROM (M)	то (м)	DRILL WIDTH (M)	TRUE WIDTH (M)	AU GRADE (G/T)	SB GRADE (%)	AU (G/T) OVER MIN. 1.8M MINING WIDTH	VEIN NAME
BC188	294.87	295.08	0.21	0.11	1.0	LLD	0.1	Western Veining
BC191	204.67	204.87	0.20	0.16	0.4	LLD	0.0	Eastern Veining
BC191	278.18	278.37	0.19	0.07	3.9	0.10	0.2	Western Veining
BC196	148.19	158.5	10.31	7.16	2.5	LLD	3.0	Eastern Veining
BC196	177.77	177.98	0.21	0.11	181.0	13.1	11.3	Unnamed
BC196	260.9	261.26	0.36	0.23	58.8	13.5	9.3	Unnamed
BC197	120.07	120.67	0.60	0.49	7.9	0.02	2.1	Western Veining
BC199	200.01	200.21	0.20	0.09	36.2	12	2.5	Eastern Veining
BC201	139.8	144.3	4.5	3.22	33.7	0.02	33.7	Western Veining
INCLUDING	141.78	142.63	0.85	0.69	127.0	0.04		
BC202	141.54	141.92	0.38	0.32	59.8	LLD	10.6	Eastern Veining
BC202	170.87	171.09	0.22	0.19	310.4	LLD	32.5	Western Veining
BC203	67.68	68.30	0.62	0.52	18.4	LLD	5.3	Eastern Veining
BC203	101.19	101.32	0.13	0.10	29.1	LLD	1.6	Western Veining
BC204A	105.35	105.82	0.47	0.22	96.4	LLD	11.8	Eastern Veining
BC204A	143.61	144.19	0.58	0.22	0.5	LLD	0.1	Western Veining
BC205	105.49	105.63	0.14	0.10	712.8	0.02	40.5	Western Veining
BC205	146.14	146.34	0.20	0.14	8.9	LLD	0.7	Eastern Veining
BC206	131.39	131.56	0.17	0.14	115.0	2.98	9.0	Unnamed
BC207	104.62	105.02	0.40	0.23	1.9	LLD	0.2	Eastern Veining
BC207	133.8	134.06	0.26	0.20	0.2	LLD	0.0	Western Veining
BC208	123.5	123.75	0.25	0.11	7.2	LLD	0.5	Eastern Veining
BC209	124.95	126.15	1.20	0.79	10.1	LLD	4.4	Western Veining
BC210	171.58	177.9	6.32	4.84	19.4	LLD	19.4	Western Veining

INCLUDING	176.98	177.15	0.17	0.13	657.3	LLD		
BC210	231.28	231.69	0.41	0.21	22.8	5.00	3.2	Unnamed
BC211	138.77	139.08	0.31	0.20	77.1	LLD	8.5	Eastern Veining
BC211	186.72	191.88	5.16	3.65	0.3	LLD	0.3	Western Veining
BC212A	153.66	155.5	1.84	1.11	69.5	0.04	42.8	Eastern Veining
INCLUDING	155.12	155.35	0.23	0.14	406.0	0.21		
BC213	91.87	92.70	0.83	0.27	172.3	10.20	27.4	Eastern Veining
BC213	101.9	102.51	0.61	0.49	39.3	LLD	10.8	Western Veining

Note: LLD signifies an undetectable amount of antimony. Detection limit for the analysis used is 0.01%