ASX Announcement
1 June, 2021

ASX: MKR

'Wonawinta Deeps' Proof-of-Concept Drilling Successful – Aggressive Follow Up Planned

Manuka Resources Ltd - ASX:MKR ('Manuka' or 'the Company'), is pleased to release results from the recently completed "Wonawinta Deeps" Proof-of-Concept drilling program.

Highlights

- **'Proof-of-Concept' drill program has successfully tested for presence of carbonate-hosted sulphides in the Winduck Shelf strata down-dip from existing Wonawinta open pits encountering lead-zinc-silver mineralisation over 3km strike**
- **Sample assays from an initial 18 hole, 5,000m drilling program were highly encouraging and support the existence of lead-zinc-silver sulphide mineralisation with Mississippi Valley Type (MVT) affinities.**
- **The Booth Limestone investigated in this program comprised 3km of a total 15km strike length held by Manuka on the western flank of the Cobar Basin.**
- **Planning has begun for a targeted geophysics survey in Sept Quarter along the entire Wonawinta Trend to be followed by further drilling in the Dec Quarter**
- **The success of the initial Wonawinta Deeps program supports the Company's ambitions to add a production facility producing base metals concentrates from a flotation circuit at Wonawinta.**

Executive Chairman Dennis Karp commented: *The geology at depth beneath Wonawinta's existing large silver oxide resource has, in our view, always had the potential to add material value to Manuka. Cobar is well known for its long-life mines which continue to grow well beyond initial expectations.*

Historically there has been little drilling below 100m depth at Wonawinta. Manuka is the first Company to target Wonawinta's sulphide mineralisation and whilst it is early days, the results from our initial Proof of Concept drilling confirms the potential for the carbonate hosted sulphides to yield an MVT style base metal & silver asset. This could add significantly to the revenue stream flowing from the silver production at Wonawinta commencing later this calendar year. Manuka is extremely encouraged by these results and we look forward to further highly targeted geological programs in the coming months"

Mineralised intervals include:

- **20m @ 1.98% Pb+Zn, 43 g/t Ag = 110 g/t AgEq (94 - 114m in DBM003)**
    - **Including 4m @ 6.34% Pb+Zn, 63 g/t Ag = 372 g/t AgEq (101 - 105m)**
- **11.4m @ 1.23% Pb+Zn, 83.5 g/t Ag = 125.5 g/t AgEq (130 - 141.4m in DBM004)**
- **5.0m @ 2.52% Pb+Zn, 128 g/t Ag = 201 g/t AgEq (63-68m in DBL003)**

Single-meter assays include:

- **1.0m @12.18% Pb+Zn, 343 g/t Ag = 732 g/t AgEq (104-105m in DBM003)**
- **1.0m @11.93% Pb+Zn, 314 g/t Ag = 701g/t AgEq (101-102m DBM003)**
- **1.0m @ 4.2% Pb+Zn, 419 g/t Ag = 561g/t AgEq (135-136m in DBM004)**
- **1.0m @5.94% Pb+Zn, 339 g/t Ag = 505 g/t AgEq (66-67m in DBL003)**
- **1.0m @ 5.02% Pb+Zn, 347g/t Ag = 485 g/t AgEq (105 - 106m in DMA002)**
- **1.0m @4.72% Pb+Zn, 183 g/t Ag = 330 g/t AgEq (67-68min DBL003)**
- **1.5m @ 1.35% Pb+Zn, 192g/t Ag = 231 g/t AgEq (131.7-133.2m in DBM004)**

Wonawinta Deeps Program

The existing oxide resource at Wonawinta ends in transitional mineralisation in weathered limestone and the Wonawinta Deeps objective was to confirm sulphide mineralisation into fresh rock. Prior to Manuka taking ownership there was no exploration drilling at the Project since 2013. Previous owners did not target sulphide mineralisation, with most drill holes terminating at base of weathering. The strike and lateral extent of Booth Limestone represents a large potential sulphide resource at the Project. Drilling for this program commenced in January, was completed in early April and the company received independent laboratory assays by mid-May.

The program comprised eighteen holes in four widely spaced fence-lines of vertical drill holes across the ML (Figure 1). Most of the drill holes comprised a reverse circulation percussion (RC) pre-collar through the overlying clastic units with a diamond drill (DDH) tail designed to penetrate the thickness of the target unit (Booth Limestone Member of the Winduck Group). The deepest holes at the western end of the Bimble Manuka and Boundary lines were drilled full depth as RC holes.

The program targeted lead-zinc-silver (Pb-Zn-Ag) sulphide mineralisation at depths from 80-250 metres below surface in the upper part of the Booth Limestone, which is part of an elongate carbonate shelf along the western edge of the Cobar Basin (Figure 2).

Sections along the four lines showing mineralised intercepts are appended below as Figures 5-8. Significant intercepts have verified the concept proposed by the Company that there is carbonate-hosted sulphide mineralisation within the Booth Limestone below and down-dip laterally from the existing open pits. (Figure 3).

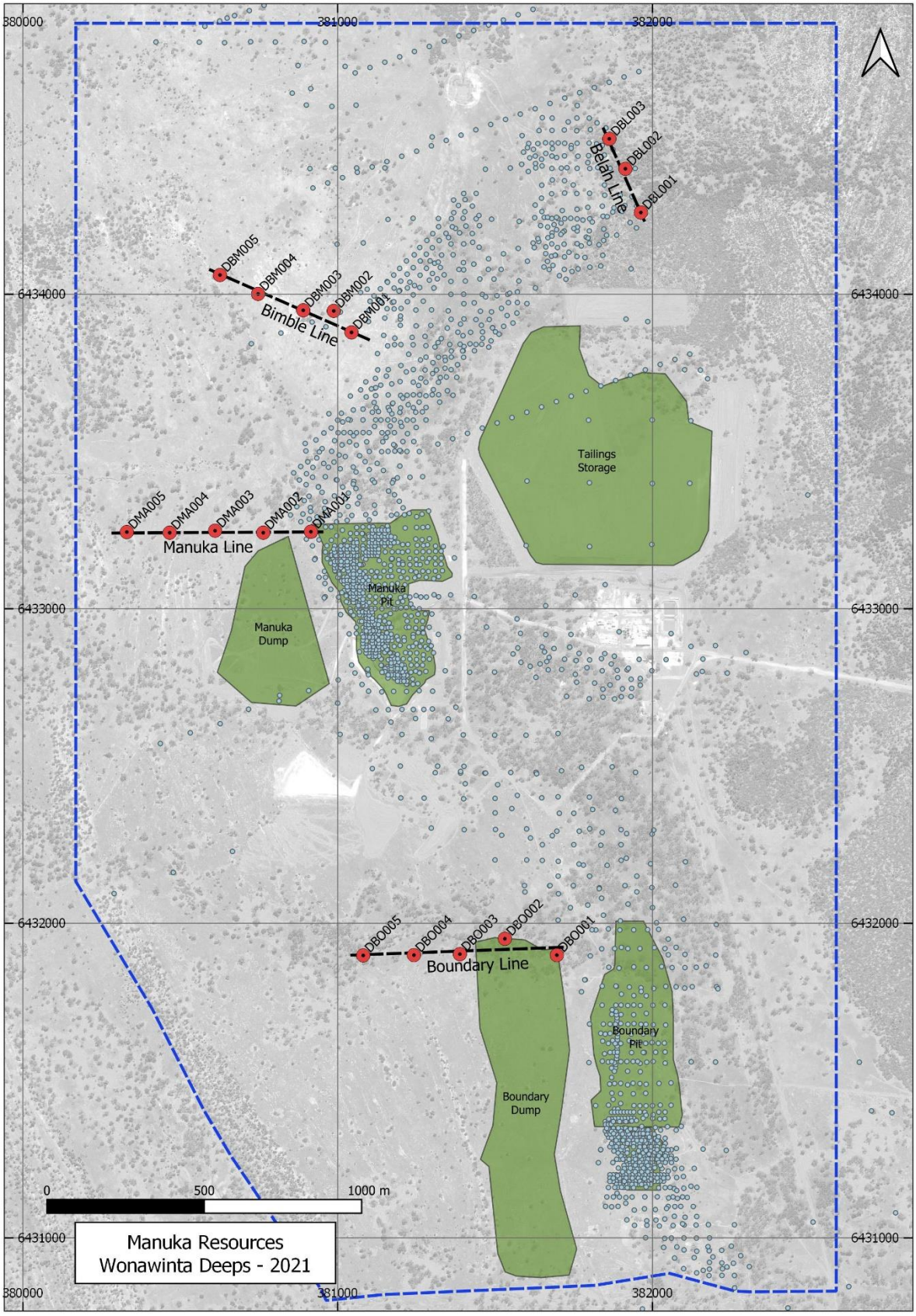


Figure 1: Wonawinta Mining Lease ML 1659 with Wonawinta Deeps hole locations

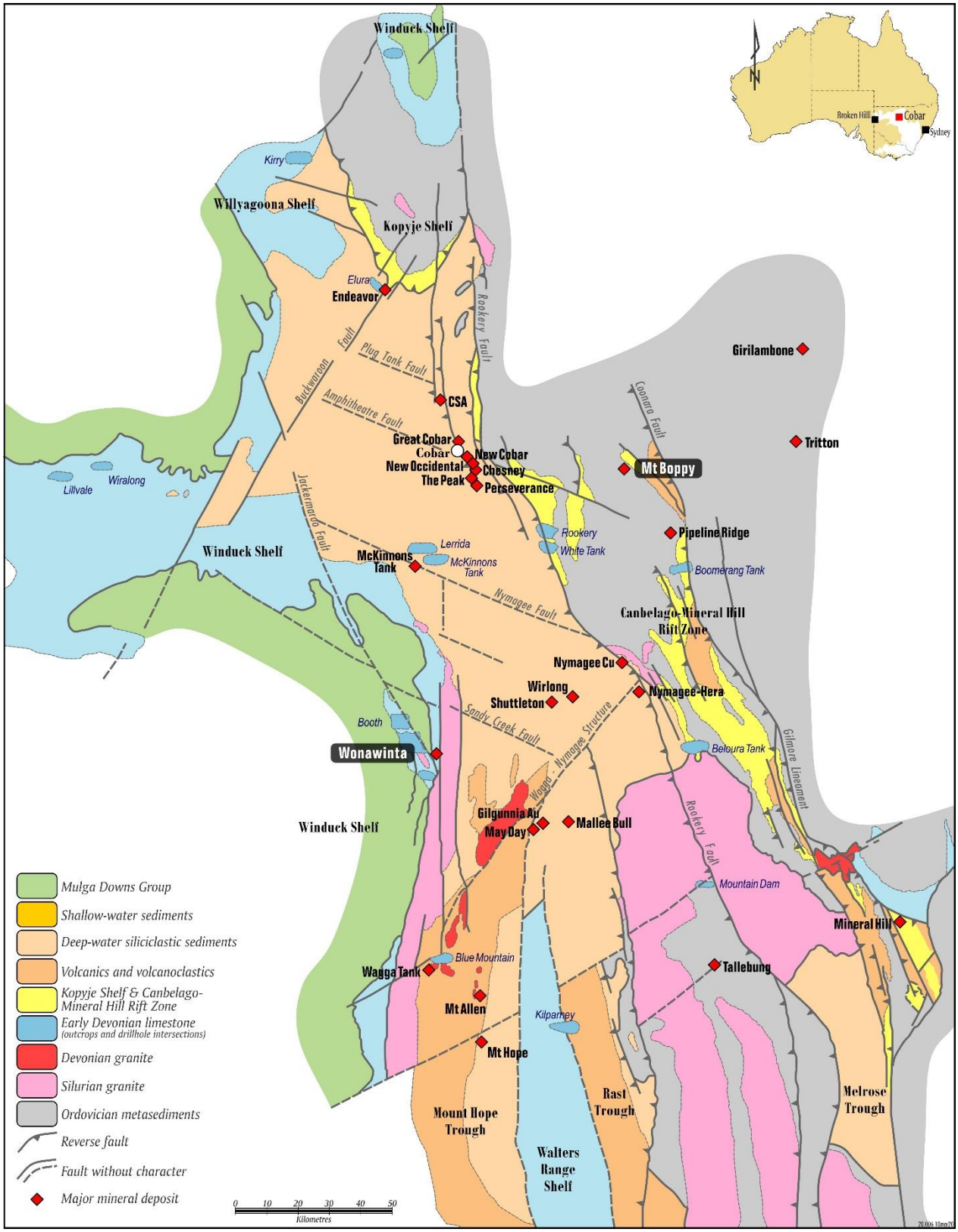


Figure 2: Location of Wonawinta on the Winduck Shelf along the western margin of the Cobar Basin

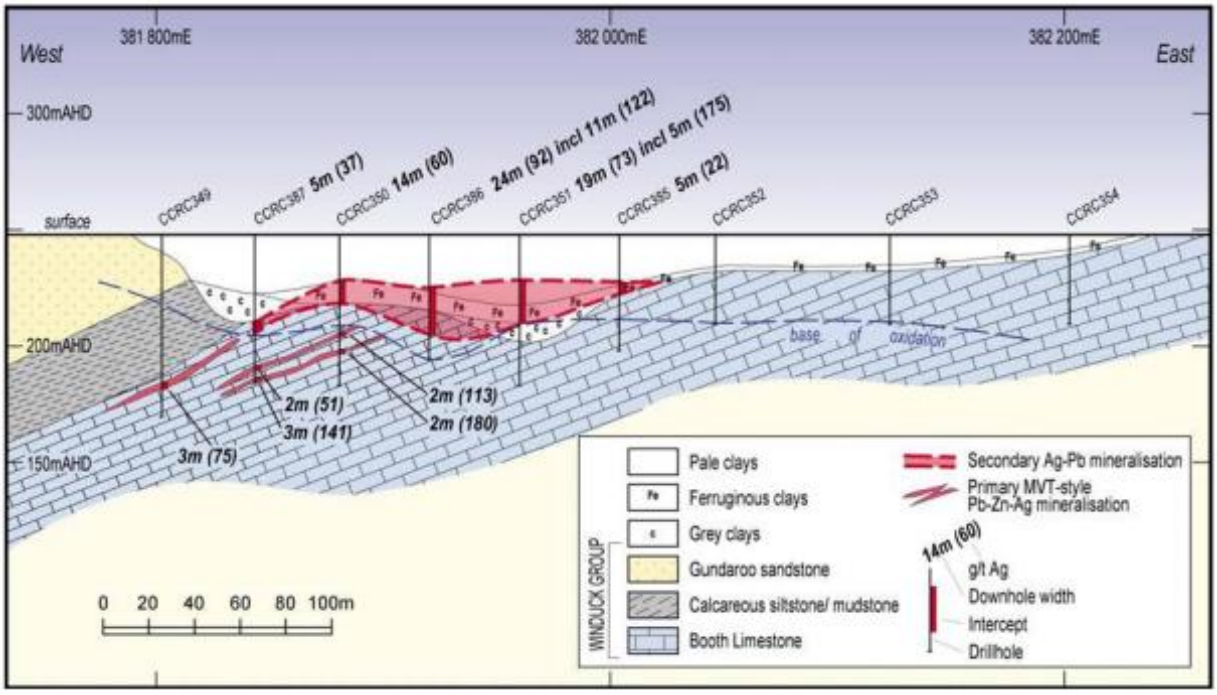


Figure 3: Typical cross section through mineralisation at Wonawinta showing Booth Limestone and MVT style mineralisation beneath and down dip of Wonawinta silver open oxide pits

Carbonate-Hosted Sulphide Deposits

(The following discussion is derived from Leach et al, 2010; USGS Report 2010-5070-A)

Mississippi Valley Type (MVT) lead-zinc deposits are found throughout the world and comprise predominantly sphalerite and galena with silver commonly an important occurrence. The deposits are commonly laterally discordant on a deposit scale but continuous on a district scale over several kilometres. MVT deposits have a broad range of relationships with their host rocks that includes stratabound, stratiform and vein mineralisation.

The most important characteristics of MVT ore deposits are that they are hosted by dolostone and limestone in platform carbonate sequences and usually located at the flanks of basins or foreland thrust belts. They have no spatial or temporal relation to igneous rocks, which distinguishes them from skarn or other intrusive-related lead-zinc ores. MVT ore fluids are postulated to be derived mainly from evaporated seawater (basinal brines) and driven within platform carbonates by compaction and large-scale tectonic events.

MVT deposits usually occur in extensive districts consisting of several to several hundred discrete deposits. Processing of the ore is easier than most sediment-hosted ores due to the typically large grain size; the carbonate host-rocks mitigate environmental issues.

Wonawinta similarities to the MVT model

Wonawinta mineralisation shows an affinity with MVT deposit characteristics.

- Mineralisation occurs in the upper Booth Limestone Member within fossiliferous reef to shelfal dolostone, a limestone that has been extensively altered by dolomitisation.
- Sulphide mineralisation - primarily sphalerite & galena with minor pyrite - is observed (Figure 7):
    - In abundant stylolites (serrated surfaces resulting from pressure dissolution of

the original rock),

- Along the margins of abundant quartz veins and crystalline cavity fill (vughs),
- Commonly in the interstitial matrix of fossiliferous coral reef debris material,
- In rare, thin sulphide veins.

- The Booth Limestone is draped over the older Thule Granite, but the mineralisation has no spatial or genetic relationship to that intrusive.
- Alteration comprises mainly dolomitisation, host rock dissolution and brecciation.

There are several differences identified from characteristic MVT deposits, but none that suggest a different style of mineralisation.

- MVT deposits typically have zinc predominant over lead, whereas these initial Wonawinta assays show zinc and lead abundances being roughly equal.

- The median reported grade of silver in global MVT deposits is 32.5g/t Ag. Preliminary Wonawinta results show a higher silver content in “ore-grade” mineralised intercepts, together with elevated mercury, arsenic and antimony.

Assays

The mineralised intercepts for the reported holes are shown in Appendix 1. Hole locations and depths are shown in Table 1; Mineralised intercepts are presented in Table 2 and all individual metre assays with silver equivalent (AgEq) values over 50ppm are presented in Table 3.

Assays returned from ALS laboratories are presented as parts per million (ppm). Any sample that assays over 100ppm Ag or over 10,000 ppm (1%) lead or zinc is routinely re-assayed as an “ore grade” assay. As the Company will be producing silver from its Wonawinta oxide - and to consider these initial assay results in that context - the combined zinc and lead assays in ppm were added to the silver assay value and recalculated to a silver equivalent. For this calculation, the Company used a zinc price of $US3,000/t ($0.003/g); a lead price of $US2,200/t ($0.0022/g) and silver price of $US25/oz ($0.80g)

For this calculation, metallurgical recoveries have been assumed to be equal for all metals. The silver equivalent (AgEq) assays quoted in this release use the following formula.

Ag EQ = Ag ppm + [(Zn ppm * Zn price/g) + (Pb ppm * Pb price/g)]/Ag price/g]

Further Work

Manuka has begun planning geophysical programs that will better define the location and dimensions of target carbonate-hosted mineralisation and allow better a focus in follow-up exploratory drilling. A close-spaced ground gravity survey will be undertaken in Q3 2021 along the interpreted strike length of the Wonawinta Trend. Further drilling will follow in Q4 2021.

Downhole magnetometric resistivity (DHMMR) has successfully been used to delineate lead/zinc targets that do not respond to conventional EM techniques. DHMMR is being considered as it requires lower absolute conductivity in the target body, it works well in defining elongate and stratabound structures and allows a greater area of investigation around a drill hole. These parameters should work for zinc sulphides in the target unit.

The geophysical and drilling information gleaned from within Wonawinta ML will then be applied up the 15km strike length of the Booth Limestone member of the Winduck Shelf which is covered by the company’s portfolio of exploration licences (EL).

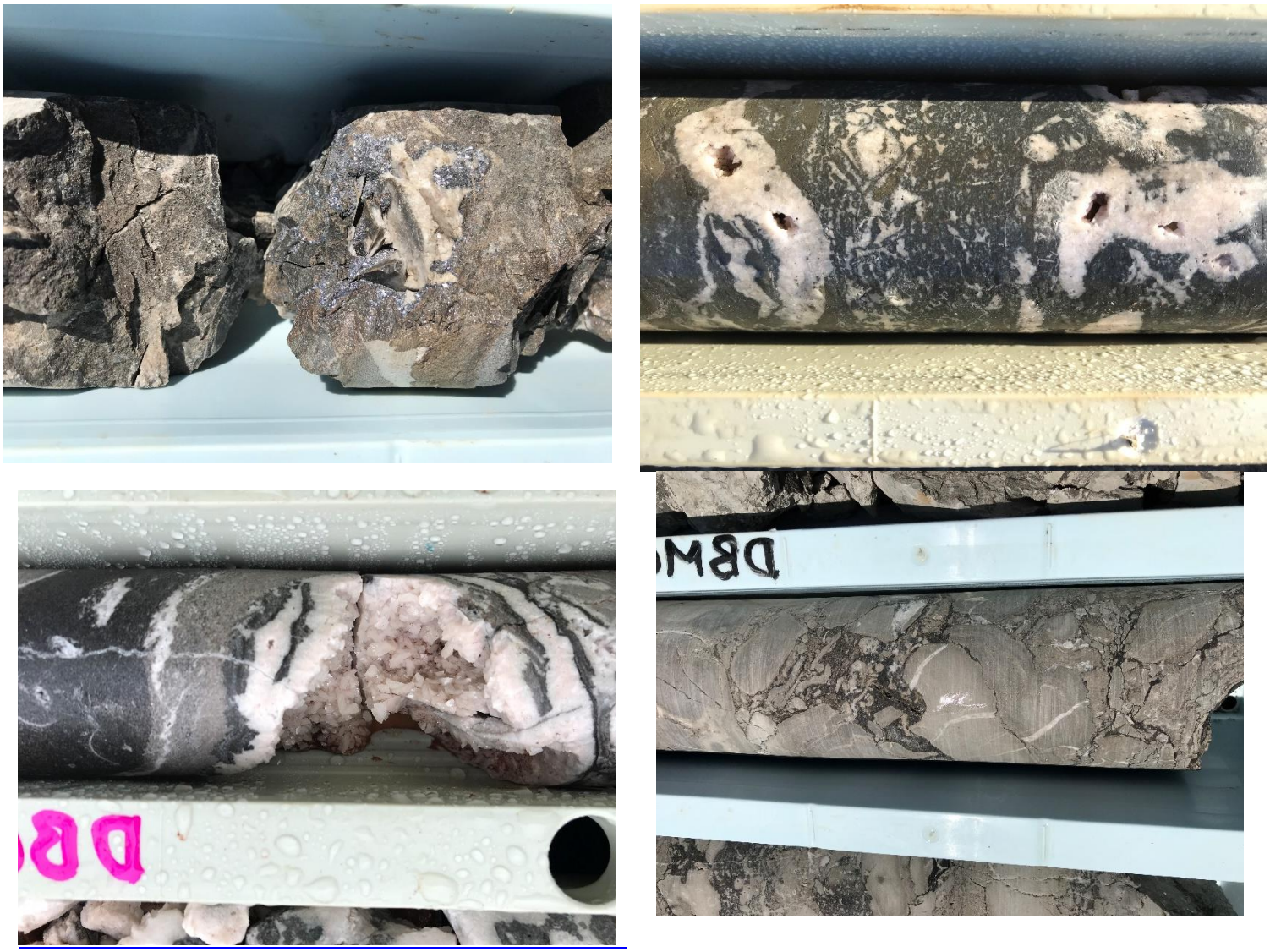
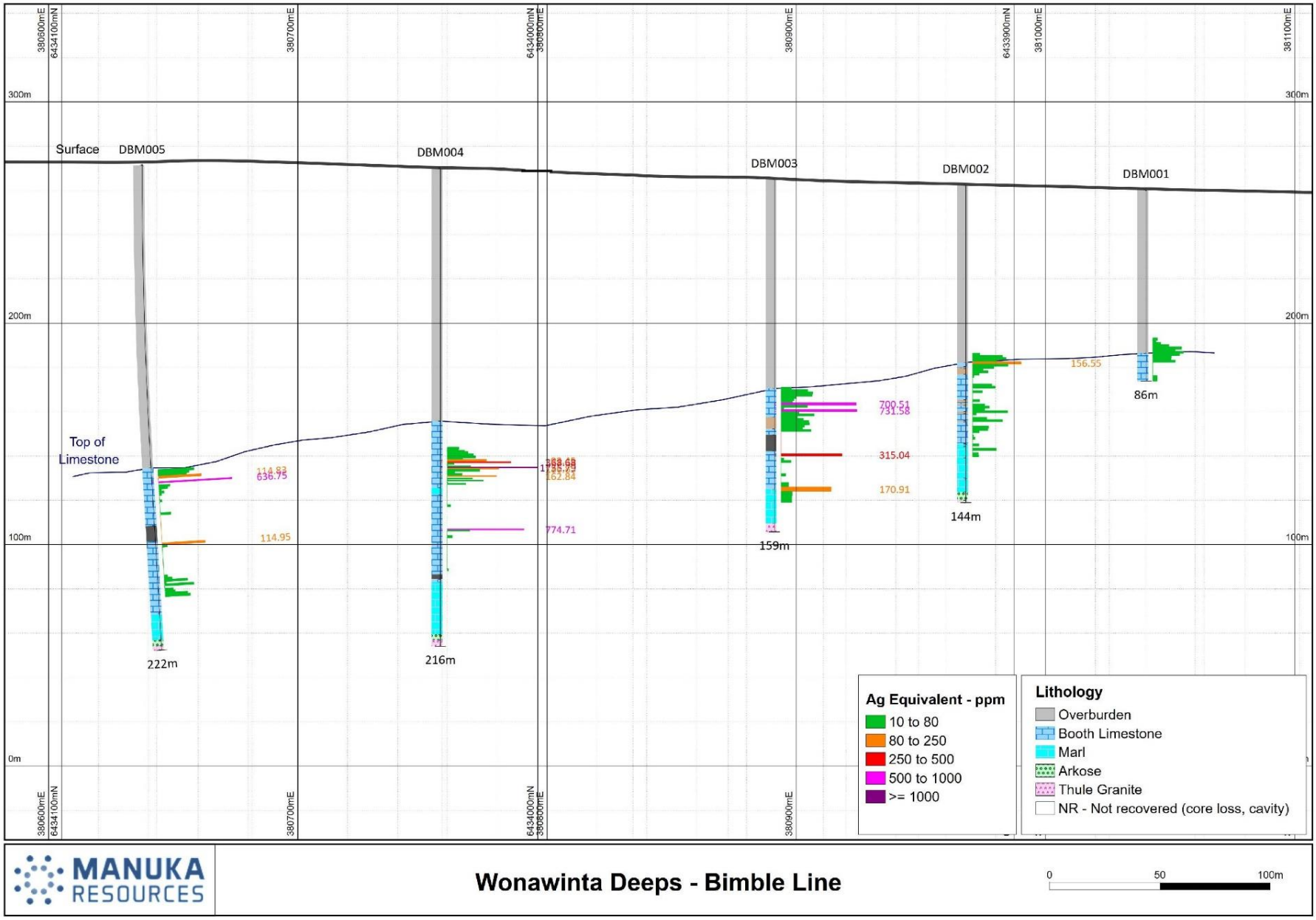
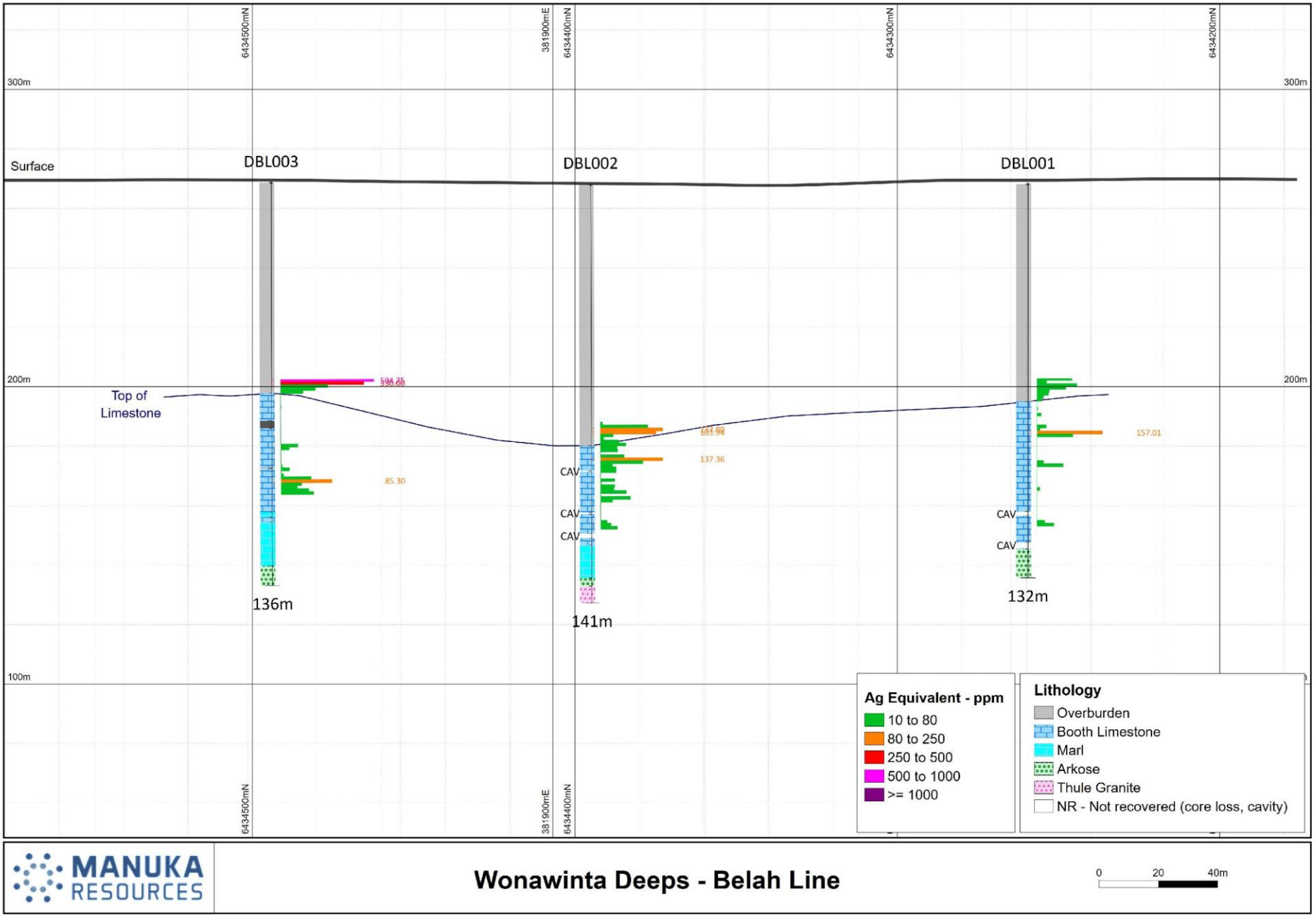
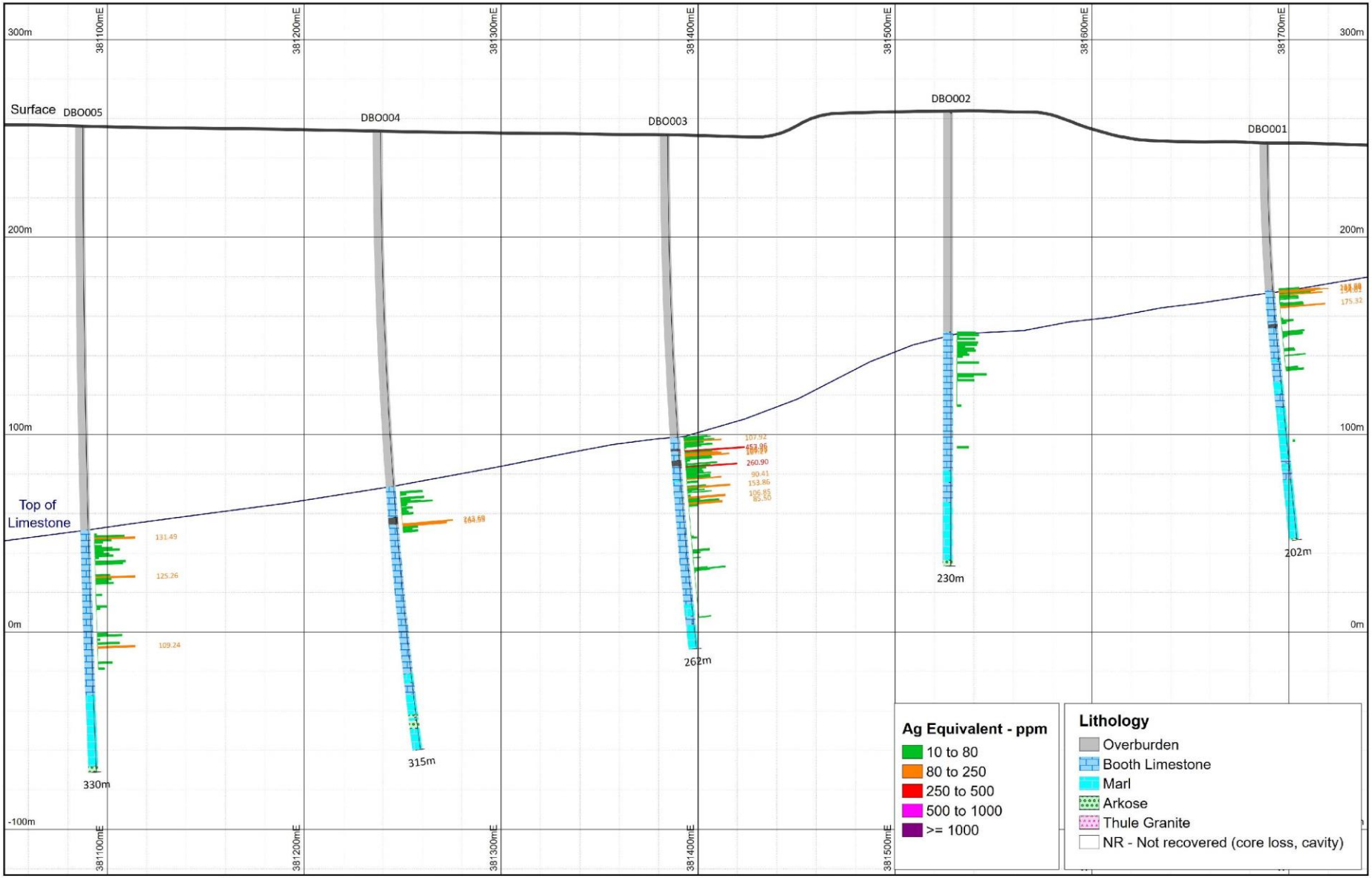


Figure 4: Typical sulphide mineralisation (galena and sphalerite) examples; along margins of quartz-filled vugs (top right, lower left); associated with brecciated quartz veins (top right); and in stylolites and interstitial matrix of fossiliferous dolostone (lower right). For scale, core widths are 64 mm (HQ)

Figures 5 to 8 (following pages) - Cross sections along the four drill fences comprising Wonawinta Deeps drill program, with mineralised intercepts reported as silver equivalents




6434500mN
381900mE
6434400mN
6434300mN
6434200mN
300m
200m
100m
Surface
DBL003
DBL002
DBL001
Top of
Limestone
85.30
137.36
157.01
CAV
CAV
CAV
CAV
CAV
136m
141m
132m
Ag Equivalent - ppm
10 to 80
80 to 250
250 to 500
500 to 1000
>= 1000
Lithology
Overburden
Booth Limestone
Marl
Arkose
Thule Granite
NR - Not recovered (core loss, cavity)
MANUKA
RESOURCES
Wonawinta Deeps - Belah Line
0
20
40m


300m
200m
100m
0m
-100m
381100mE
381200mE
381300mE
381400mE
381500mE
381600mE
381700mE
Surface
DBO005
DBO004
DBO003
DBO002
DBO001
Top of Limestone
131.49
125.26
109.24
330m
315m
262m
230m
202m
Ag Equivalent - ppm
10 to 80
80 to 250
250 to 500
500 to 1000
>= 1000
Lithology
Overburden
Booth Limestone
Marl
Arkose
Thule Granite
NR - Not recovered (core loss, cavity)
MANUKA RESOURCES
Wonawinta Deeps - Boundary Line
0
50
100m

About Manuka

Manuka Resources Limited (ASX: MKR) is an Australian mining company located in the Cobar Basin, central west NSW and is the 100% owner of a gold and a silver project. Its Mt Boppy gold project is currently in production and processing its gold ore through the Company's processing plant at Wonawinta.

The Company's Wonawinta silver project (51 million ounces of silver grading 41 g/t silver) is expected to be producing silver doré in 2H 2021, following the completion of gold mining at Mt Boppy.

This announcement has been approved for release by the Board of Directors of Manuka Resources Limited.

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Important Information

This report includes forward-looking statements and comments about future events, including the Company's expectations about the performance of its businesses. Forward-looking words such as "expect", "should", "could", "may", "predict", "plan", "will", "believe", "forecast", "estimate", "target" or other similar expressions are intended to identify forward-looking statements. Such statements involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company and which may cause actual results, performance or achievements to differ materially from those expressed or implied by such statements. Forward-looking statements are provided as a general guide only and should not be relied on as an indication or guarantee of future performance. Given these uncertainties, recipients are cautioned to not place undue reliance on any forward-looking statement. Subject to any continuing obligations under applicable law, the Company disclaims any obligation or undertaking to disseminate any updates or revisions to any forward-looking statements in this report to reflect any change in expectations in relation to any forward-looking statements or any change in events, conditions or circumstances on which any such statement is based. No Limited Party or any other person makes any representation or gives any assurance or guarantee that the occurrence of the events expressed or implied in any forward-looking statements in the report will occur.

Competent Person Statement

Information in this announcement that relates to Exploration Results and Resource Updates is based on, and fairly represents, information and supporting documentation prepared by Dr Simon McDonald, a Competent Person who is a Member of the Australian Institute of Geoscientists and Fellow of the Geological Society (London). Dr McDonald has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person (or "CP") as defined in the 2012 Edition of the Australasian Code for Reporting of Information in this announcement that relates to Exploration Results. Dr McDonald consents to the inclusion in this announcement of all technical statements based on his information in the form and context in which they appear.

Appendix 1: JORC Code 2012

Table 1. Completed Wonawinta Deeps holes, reported drill hole details.

Drill hole ID	Drilled depth (m)	RC Depth	DDH Depth	Easting MGA zone 55	Northing MGA zone 55	RL (m)	Date completed	Collar dip degrees
DBM001	84	0-40.5	40.5-84	381043	6433878	260.35	16/01/2021	-90
DBM002	143.6	0-75	75-143.6	380987	6433946	262.55	25/01/2021	-90
DBM003	159.3	0-93	93-159.3	380890	6433948	265.04	20/01/2021	-90
DBM004	213.5	0-119	119-213.5	380747	6434001	270.09	10/02/2021	-90
DBM005	221	0-138	138-221	380626	6434061	271.32	16/02/2021	-90
DBL001	132	0-65	65-132	381962	6434259	268.11	8/02/2021	-90
DBL002	137	0-60	60-137	381913	6434398	268.06	20/02/2021	-90
DBL003	131	0-66	66-131	381862	6434493	268.64	24/02/2021	-90
DMA001	146	0-20	20-146	380914	6433244	257.88	24/02/2021	-90
DMA002	207	0-98	98-207	380763	6433241	264.34	7/03/2021	-90
DMA003	289	0-206	206-289	380610	6433248	266.02	4/03/2021	-90
DMA004	416	0-261	261-416	380466	6433241	268.11	31/03/2021	-90
DMA005	427	0-427	-	380330	6433244	250.0	1/03/2021	-90
DBO001	201	0-71	71-201	381696	6431899	250.0	13/03/2021	-90
DBO002	230	0-110	110-230	381531	6431951	252.0	21/03/2021	-90
DBO003	262	0-153	153-262	381388	6431902	251.0	4/04/2021	-90
DBO004	315	0-179	179-315	381242	6431899	253.0	5/04/2021	-90
DBO005	330	0-330	-	381090	6431900	258.0	12/03/2021	-90

Table 2. Details of drill hole intercepts for reported results.

Drill hole ID	Depth From (m)	Depth To (m)	Interval (m)	Ag assay (g/t)	Pb Assay (%)	Zn Assay (%)	Ag Equivalent (g/t)
DBM002	77	87	10	17	0.31	0.04	49.31
Including	80	81	1	92.4	1.4	0.7	156.55
And	81	82	7	30.9	0.4	0.9	74.58
	102	103	1	16	0.3	1.6	72.61
DBM003	94	114	20	43	0.9	1.0	110.11
Including	101	105	4	63	3.2	3.2	372.08
Including	101	102	1	314	5.9	6.0	700.51
and	104	105	1	343	6.6	5.6	731.58
	124	125	1	80.6	1.2	5.4	315
	139	141	2	63.7	1.8	1.6	170.91
DBM004	130	141.4	11.4	83.5	0.4	0.8	125.5
Including	131.7	139.4	7.7	122.3	0.6	1	174.04
Including	131.7	133.2	1.5	192.1	1.2	0.2	231.1
and	135	136	1.0	419.3	1.4	2.8	561.6
	163	167	4.0	70.83	0.07	0.4	106.6
Including	163	164	1.0	140	1.4	0.9	209
DBM005	138.9	145.2	6.3	47.1	0.6	0.3	75.3
Including	144.6	145.6	1.0	62	0.8	0.7	111.3
DBL001	51	57	6.0	61.7	0.72	0.44	97.05
Including	53	54	1.0	99	1.18	0.181	138.1
and	54	55	1.0	75.5	0.957	0.1405	106.9
	57	58	1.0	72.7	0.307	0.985	117.9
DBL003	63	69	6.0	111.1	1.8	0.55	179.8
Including	63	64	1.0	76.1	1.265	0.0971	114.3
and	66	67	1.0	339	5.6	0.3	504.8

and	67	68	1.0	183	2.9	1.8	330
DMA002	98	106.0	8.0	69	1.1	0.1	101.1
Including	98	99	1.0	116	2.2	0.1	179
and	105	106	1.0	347	5.0	0.1	485.1
DMA003	210	217	7.0	42	0.7	0.6	83.1
Including	215	216	1.0	136	1.9	0.6	213
and	216	217	1.0	76.4	1.3	0.3	124
DMA004	290.9	295	4.1	68.5	1.1	0.2	101
Including	291.4	292.25	0.9	100	1.3	0.1	140.1
and	293.4	294.4	1.0	80.5	1.9	0.3	119
DBO001	75	77.5	2.5	98.7	1.3	0.2	140
	83	84	1.0	32.2	0.1	3.8	175.3
DBO003	160.3	163.6	3.3	116	2.0	0.1	172.8
DBO004	199	201	2.0	102	1.2	0.1	139
DBO005	208	210	2.0	49	0.1	3.3	193
Including	208	209	1.0	18	0.4	6.1	253
and	209	210	1.0	80.3	1.0	0.7	131

Table 3. Details of individual 1-metre assays over 50 ppm silver equivalent (AgEq).

hole_ID	Depth from	Depth to	Ag ppm	Pb ppm	Zn ppm	Pb+Zn+Ag as Ag Equiv
DBM001	71	72	26.6	3050	4300	51.0
DBM001	73	74	33.6	5360	2430	57.3
DBM002	77	78	26.1	4730	4230	54.8
DBM002	78	79	57	1050	1790	66.6
DBM002	80	81	92.4	14100	6850	156.6
DBM002	81	82	30.9	3730	8970	74.6
DBM002	102	103	15.8	13000	5690	72.6
DBM002	106	107	23.8	3730	5500	54.5
DBM003	96	97	9.3	12450	4430	59.9
DBM003	97	98	22.4	6800	4420	57.5
DBM003	101	102	314	59000	60300	700.5
DBM003	104	105	343	66300	55500	731.6
DBM003	106	107	11.3	1020	13550	64.7
DBM003	110	111	18.3	2590	6590	50.0
DBM003	113	114	11.9	3430	8860	54.4
DBM003	124	125	80.6	12300	53800	315.0
DBM003	139	141	63.7	17900	15600	170.9
DBM004	130	131	32.8	5360	774	50.4
DBM004	131.7	132.7	73.2	5680	1260	93.4
DBM004	132.7	133.2	311	17450	2660	368.7
DBM004	135	135.5	786	22500	23800	936.4
DBM004	135.5	136	52.5	6000	31600	186.9
DBM004	136	137	14	2190	11800	64.0
DBM004	139	139.4	48.1	3060	28500	162.8
DBM004	141	141.4	8.9	968	17650	77.4
DBM004	163	163.5	268	25600	11700	381.7
DBM005	138.9	140	51	8050	1080	77.1
DBM005	140	141	42.1	4500	836	57.5
DBM005	142	143	68.3	9980	5150	114.8
DBM005	144.6	145.2	123	15900	12600	213.5
BEL055	50	51	13.2	8750	7440	64.9

BEL055	52	53	12.4	13150	851	51.6
BEL055	53	54	99	11800	1810	138.0
BEL055	54	55	75.5	9570	1405	106.9
BEL055	56	57	26.2	5290	8970	74.2
BEL055	57	58	72.7	3070	9850	117.9
BEL055	58	59	72.5	3420	5700	103.1
BEL055	61	62	25	2980	4740	50.8
DBL001	67	68	45.3	813	1510	53.2
DBL001	83	84	103	18100	1200	157.0
DBL002	81	82	39.1	5990	4730	73.1
DBL002	82	83	57	17250	9000	137.8
DBL002	83	84	64.7	10300	2960	103.9
DBL002	92	93	97.8	11700	2020	137.4
DBL002	93	94	41.1	5280	1160	59.9
BEL057	63	64	76.1	12650	971	114.3
DBL003	66	67	339	56200	3200	504.8
DBL003	67	68	183	29100	18050	330.0
DBL003	68	69	28.6	3360	9450	73.1
DBL003	100	101	37.4	4780	9330	85.3
DMA001	45	46	104	6000	979	124.1
DMA001	46	47	17.1	1350	15050	77.0
DMA001	47	48	165	1650	2840	180.1
DMA001	51	52	91.3	742	983	97.0
DMA002	98	99	116	22300	539	179.0
DMA002	105	106	347	49500	707	485.1
DMA003	210	211	24.7	5940	16000	100.7
DMA003	214	215	38.6	6310	9100	89.8
DMA003	215	216	136	19400	6470	213.2
DMA003	216	217	76.4	13400	2880	123.8
DMA003	235	236	57.8	9030	70	82.8
DMA004	290.9	291.4	69	13650	91	106.7
DMA004	291.4	292.25	100	13400	921	140.1
DMA004	292.25	292.9	62.4	8880	245	87.6
DMA004	292.9	293.4	50.5	6990	1000	73.4
DMA004	293.4	294	42.1	6510	1100	64.0
DMA004	294	294.4	119	18800	3000	181.6
DMA004	294.4	295	36.4	6560	433	56.0
DBO003	174.8	175.3	57.4	11950	83	90.4
DBO003	179	179.8	85.9	17850	5120	153.9
DBO003	184	185	77.4	10650	80	106.8
DBO003	186	187	36.3	9490	2300	70.9
DBO003	187	188	29.1	8020	9230	85.5
DBO003	220.85	221.5	42.4	10600	524	73.4
DBO004	199.4	200	176	22100	1930	243.7
DBO004	200	201	125	13400	771	164.6
DBO004	209.4	210	167	19150	40	219.6
DBO005	208	209	17.7	4240	60100	253.6
DBO005	209	210	80.3	9760	6560	131.5
DBO005	221	222	49.6	5370	1440	69.7
DBO005	222	223	30.9	3370	4750	57.9
DBO005	229	230	100	7240	1190	124.3
DBO005	265	266	54.2	6340	29100	180.2

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	
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.*	• Diamond Drill hole core (DDH) samples were recovered from downhole and placed from the core splits into core trays and logged & photographed. • HQ core was cut into halves, and PQ core cut into quarters using a powered core saw. • Each half- or quarter-core sample was bagged in 1-metre lengths, designated a unique sample number and sent to ALS in Orange for crushing, pulverizing and multi-element ICP assay. • RC sampling from within target zones utilised a rig-mounted cyclone and cone splitter to obtain one sample per metre, each weighing between 1.5 kg & 3.0 kg. • Each bag was designated a unique sample number and sent to ALS in Orange for pulverizing and multi-element ICP assay. • Sampling was undertaken for each individual metre down all holes.
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).*	• The drilling program was undertaken by Resolution Drilling, using one Reverse Circulation RC rig (Rig 1) and two diamond coring (DDH) rigs (Rigs 3 and 5) drilling either in PQ or HQ gauge with triple tube core recovery system. • For most holes Rig 1 drilled a vertical RC pre-collar hole from surface down to target & 12 m PVC casing was reamed into the top hole for stability. • A DDH rig then set up over the hole and vertically cored out the required interval. Table 1 (attached) shows hole depths including RC and DDH intervals. • The top-hole section of the three Belah holes was created by reaming out a pre-existing RC hole, and each hole then completed as above. Holes DBO005 and DMA005, being the deepest holes at the western end of their respective fence, were drilled entirely as RC holes. • The RC rig used a 5½ inch face-sampling bit for all RC drill top-holes and holes.
Drill sample recovery	• *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/gain of fine/coarse material.*	• RC sample recoveries were assessed from chip bag sizes & classified as 'good' or 'poor'. None of the reported holes include unsampled intervals. • All RC samples from logged and sampled intervals were recovered dry or moist and there was no noted sample bias from loss of fines. The only significant artesian water encountered during RC drilling was in the unlogged top-hole section of holes DMA003 and DMA004
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.*	• Lithology, quartz/carbonate veining percent, fracture density, alteration style, intensity and estimated % of sulphides was recorded on a per-metre basis for the entire DDH section of each hole. • All core was photographed in the split whenever possible, in the core tray before logging and again as part of the logging process. • In all some 2648m of diamond core (either HQ or PQ gauge) was logged. • Lithology, quartz/carbonate veining percent, alteration style, intensity and estimated % of sulphides was recorded on a per-metre basis for the logged RC section of each hole.
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.*	• Diamond Drill hole core (DDH) samples were recovered from downhole and placed from the core splits into core trays and logged & photographed. • HQ core was cut into halves, and PQ core cut into quarters using a powered core saw. • Each half- or quarter-core sample was bagged in 1-

Criteria	JORC Code explanation	
	• *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.*	metre lengths, designated a unique sample number and sent to ALS in Orange for crushing, pulverizing and multi-element ICP assay. • RC sub-samples were obtained from a cone splitter mounted on the drill rig cyclone. • Off-siders regularly inspected and cleaned the splitter. The splitter was removed during hole cleaning and returned to position upon commencement of drilling. • One duplicate sample within each drill hole was collected. • The DDH and RC sub-sample size is considered appropriate for the carbonate-hosted sulphide mineralisation.
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.*	• All samples were analysed at ALS Laboratories Orange using multi-element ICP technique. • Duplicate and standard samples were included in batches sent to ALS at a rate of 1 standard for every 25 routine samples and one or two duplicates per hole. No issues were noted with duplicates and standard analysis. • ALS laboratories undertake internal QC checks including standards, blanks and duplicates.
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.*	• Significant intersections have been verified by other company personnel and consultants. • RC holes from this program are not twin holes. • Samples were collected in pre-numbered bags with sample numbers assigned to the appropriate intervals and entered in a relational database. • Assay results were received from laboratories in digital format and matched to sampled intervals using database queries. • No adjustments have been made to assay data.
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.*	• Hole locations were initially plotted using a Garmin handheld GPS with +/- 3m accuracy in the horizontal plane and +/- 5m accuracy in the vertical plane. • Drill collars were subsequently located by a contract surveyor using Differential GPS & surveying to an accuracy of less than 1cm in horizontal and vertical planes using the Map Grid of Australia zone 55 coordinate system. • Downhole surveys for azimuth and dip were undertaken at the end of the hole every 30 m downhole using a Reflex EZ-Trac single shot tool.
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.*	• Reported drill holes were a test of Proof of Concept that carbonate-hosted sulphide mineralisation existed within ML1659 (Manuka). The drill spacing was exploratory and not considered sufficient for definition of Inferred resources. • No sample compositing has been applied.
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.*	• Reported holes were drilled vertical, due uncertainly of attitude of dipping substrata. From drill intercepts of the top of carbonate unit, dip angle of the Booth Limestone varied from 7 to 25 degrees apparent to the west. Drilling the holes at an incline would have introduced complications to interpretation. • Sampling orientation is considered to have achieved unbiased sampling.
Sample security	• *The measures taken to ensure sample security.*	• Individual 1m samples were collected in pre-numbered calico bags. These were put in groups of 6 samples (there being 6m per drill rod) and dispatched to ALS within larger polyweave sacks secured with zip ties. Sample pickup and delivery were through a local freight company. Sample numbers received by ALS were checked against dispatched numbers.

Criteria	JORC Code explanation	
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits/reviews of sampling techniques and data have been undertaken on this drill program

Section 2 Reporting of Exploration Results

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.*	• *ML1659 is held by Manuka Resources Limited (MKR) MKR is holder of 7 exploration licences in the district, being EL 6155, EL 6302, EL6623, EL 6482, EL 7515, EL 8498 and EL 7345.* • *The pastoral property Manuka, on which the ML is situated, is owned by MRL.* • *The ML occurs in the Western Lands Leases of NSW where Native Title has been extinguished. However, where disturbance could occur by mining operations or drilling, Aboriginal heritage surveys are undertaken in consultation with traditional owners.* • *The Company notes that no land within the licence area may be classified as sensitive land. No further approvals other than those required under the Mining Act 1992 are required.*
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• *Stream sediment sampling by Geopeko in 1989 resulted in the discovery of significant base metal sample values. Drilling programs (RAB, RC and diamond) were carried out by Geopeko, CRA, Savage Resources, Pasminco and Triako. Follow up work by CCR resulted in definition of the Wonawinta silver - lead deposits. BOK completed some RC grade control drilling in one open pit.*
Geology	• *Deposit type, geological setting and style of mineralisation.*	• *The Wonawinta silver-lead-zinc project, is a carbonate-hosted Pb-Zn-Ag deposit with affinities to MVT-style mineralisation. The primary host is the dolomitised upper fossiliferous portion of the Booth Limestone member of the Early Devonian Winduck Group.* • *Oxide Ag-Pb-Zn mineralisation is developed as a gently-dipping blanket up to 160m wide and averaging 13m thick on and around the contact between the Booth Limestone and an overlying thick quartz-kaolinite-illite-muscovite clay sequence. Discrete silver minerals are rare with the bulk of the silver associated with lead and iron oxides and sulphates, and lead and zinc carbonates and dolomite. Primary mineralisation consists of vein, breccia and replacement style marcasite, galena and sphalerite.* • *The NNW-trending, strata-bound Wonawinta deposit extends for about 6km along the western flank of the Wonawinta Anticline.*
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 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.* • *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.*	• *Drillhole data and results are too numerous to list. All new exploration results are included as tables in this announcement.* • *Summary drillhole information was prepared and first disclosed under the JORC Code 20012.* • *Drilling by MKR has been publicly disclosed under the JORC Code 2012 on an ongoing basis as appropriate.*

Criteria	JORC Code explanation	Commentary
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.*	• *All new exploration results are included in this announcement, with individual one-meter assays over a nominal threshold of 50ppm silver equivalent presented as table 3.* • *Silver equivalence, being lead plus zinc plus silver recalculated as a silver grade (AgEq) are presented as table 3. The calculation to quote zinc and lead as silver equivalent is shown within the text.* • *Intercepts were most commonly sampled and assayed as one metre intervals. In several cases where a narrow, higher grade zone was logged, this was samples and assayed at shorter widths – any occurrence of narrow sample widths with AgEq over 50ppm has been shown in Summary Table 3.*
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').*	• *The 18 holes comprising this drill program were all drilled vertically, due to the presumed westerly dip of unknown magnitude for the Bimble, Manuka and Boundary Lines and Eastern dip for the Belah lines.* • *Analysing geological intercepts (eg top of Booth Limestone) in the completed holes suggest that the apparent westerly dip in Bimble line was 7 degrees, in Manuka Line, 12 degrees and in Boundary Line 25 degrees.* • *Proximity of the Belah holes to the Jackermaroo thrust fault meant there was no definitive structural data gleaned from geological intercepts.* • *The relationship between mineralisation widths and intercept lengths is close, with a vertical metre representing approximately 90% of true width*
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.*	• *Appropriate diagrams in relation to the deposit, including plans and cross sections, accompany this announcement.* • *The drill program was preliminary in nature and comprises widely spaced drill lines that intersected the Booth Limestone.* • *All mineralised intercepts are shown on relevant cross sections but do not imply continuity of mineralisation between these intercepts.*
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 avoiding misleading reporting of Exploration Results.*	• *It is not practical to list total individual metre assay results there being over 5,000 in total. Significant individual metre assays & mineralised intervals for the drill holes concerned are shown in the Summary Tables 2 and 3*
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.*	• *No other exploration data has been collected or is considered material to this announcement.* • *Follow-up geophysical work will be reported on in due course.*
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.*	• *MKR intends to undertake follow-up geophysical programs including close-spaced ground gravity and downhole magnetometric resistivity (DHMMR) to further define the potential for MVT style mineralisation at Wonawinta*