



# HAVIERON PROJECT MINERALISATION REPORT



MINERALISATION REPORT IN SUPPORT OF  
MINING LEASE APPLICATION OVER  
EXPLORATION LICENCE 45/4701

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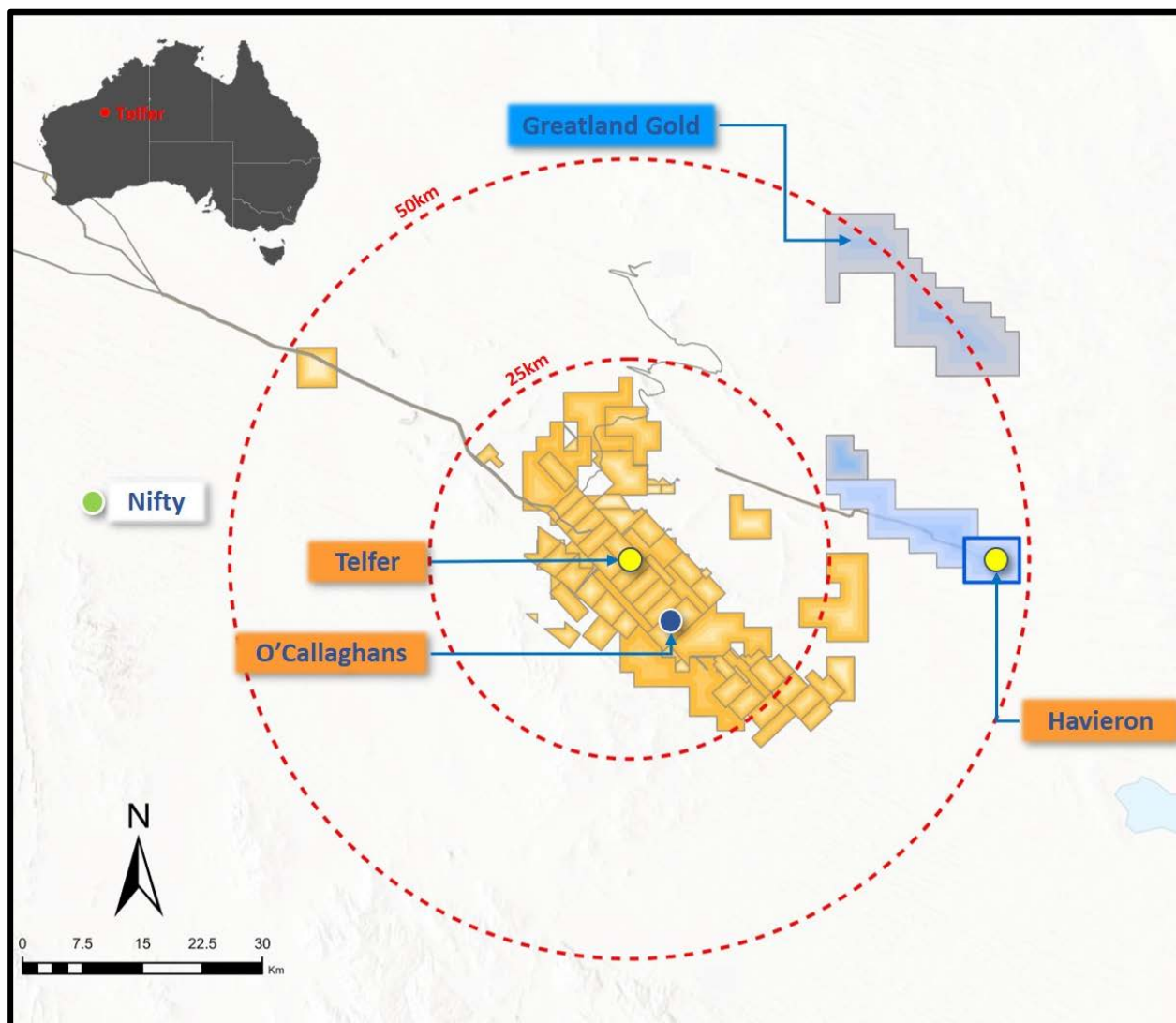
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## 1. Summary

This “Mineralisation Report” is submitted in accordance with Section 74(1)(ca)(ii) of the *Mining Act (1978)* in support of an application for a mining lease which covers a portion of Exploration Licence 45/4701, held by Greatland Gold Pty Ltd (**Greatland**) and Newcrest Operations Limited (**Newcrest**). This report details the discovery and description of significant gold mineralisation contained within E45/4701, located within the Telfer Mining District of the Pilbara Mineral Field, which is host to the Telfer Gold mine (**Figure 1**).

**Figure 1:** Havieron Project Location Map



A total of sixty (60) drill holes have been completed at the Havieron Project to 31 May 2020. Newcrest Mining Limited completed six (6) diamond core holes in the vicinity of the Havieron Project from 1991 to 2003. Greatland Gold completed drill targeting and drilling of nine (9) reverse circulation (RC) drill holes with diamond tails for a total of approximately 6,800m in 2018. Newcrest has subsequently completed an additional forty five (45) drill holes including wedges, at the project.

Gold and copper mineralisation at Havieron consist of breccia, vein and massive sulphide replacement gold and copper mineralisation typical of intrusion-related and skarn styles of mineralisation. Mineralisation at the prospect is hosted by metasedimentary rocks (meta-sandstones, meta-siltstones and meta-carbonate) and intrusive rocks of an undetermined age. The main mineral assemblage contains well developed pyrrhotite-chalcopyrite and pyrite sulphide mineral assemblages as breccia and vein infill, and massive sulphide lenses. The main mineralisation event is associated with amphibole-carbonate-biotite-sericite-chlorite wall rock alteration. Drilling has partially defined the extents of mineralisation which are observed over 450 m strike extent within an arcuate shaped mineralised zone, and to depths of up to -1,100m below surface.

## 2. Statement that a deposit of minerals has been defined within the boundaries of the area applied for and the results of exploration activities indicate that there is a reasonable expectation that mining operations can be undertaken to extract minerals.

A total of sixty (60) drill holes have been completed within the Havieron Project area to 31 May 2020. The Havieron Project is entirely contained within twelve (12) sub-blocks of E 45/4701, which is 60% held by Greatland Pty Ltd and 40% held by Newcrest Operations Limited. Newcrest entered into a Farm-In Agreement (FMA) with Greatland Pty Ltd and Greatland Gold Plc on 12 March 2019, with Newcrest as Manager of the Havieron Project. Newcrest can earn up to a 70% joint venture interest through expenditure of US\$65 million and the completion of a series of exploration and development milestones over a 6-year period. Newcrest may acquire an additional 5% interest at the end of the farm-in period at fair market value.

E45/4701 was granted on 17 July 2017 for a term of five (5) years, expiring 16 July 2022. All obligations with respect to legislative requirements including minimum expenditure and technical reporting are maintained in good standing. The Newcrest Mining Project Area Indigenous Land Use Agreement was entered into between Newcrest and WDLAC on 4 December 2015 (Newcrest ILUA). The recent exploration activity undertaken by Newcrest on the Havieron Project has been conducted pursuant to the Newcrest ILUA.

A total of seven (7) public releases of Exploration Results for the Havieron Project have been made by Newcrest. The initial Newcrest release is dated 25 July 2019. The second release is dated 10 September 2019. The third release is dated 24 October 2019. The fourth release is dated 2 December 2019. The fifth release is dated 30 January 2020 and the sixth release is dated 11 March 2020. The most recent release is dated the 30 April 2020.

Results from these releases continue to demonstrate a significant accumulation of metal with indications suggesting a reasonable expectation that future mining operations can be undertaken to extract the gold and copper.<sup>1</sup> Newcrest considers that there is potential to commence commercial production within two to three years from commencement of the decline.<sup>2</sup>

## 3. Plan showing the outline of the deposit of minerals (projected to the surface), the boundaries of the existing tenement (where applicable), and the proposed boundaries of the mining lease application

A plan showing the outline of the Havieron deposit projected to the surface, the boundaries of E45/4701, the boundaries of the Havieron area that is the subject of the FMA (twelve sub-blocks within E45/4701) and the proposed boundaries of the mining lease application is provided on the following page as **Figure 2**.

A plan showing the outline of the Havieron deposit projected to the surface including drill hole positions, significant intercepts and deposit geology is provided on the following pages as **Figure 3**.

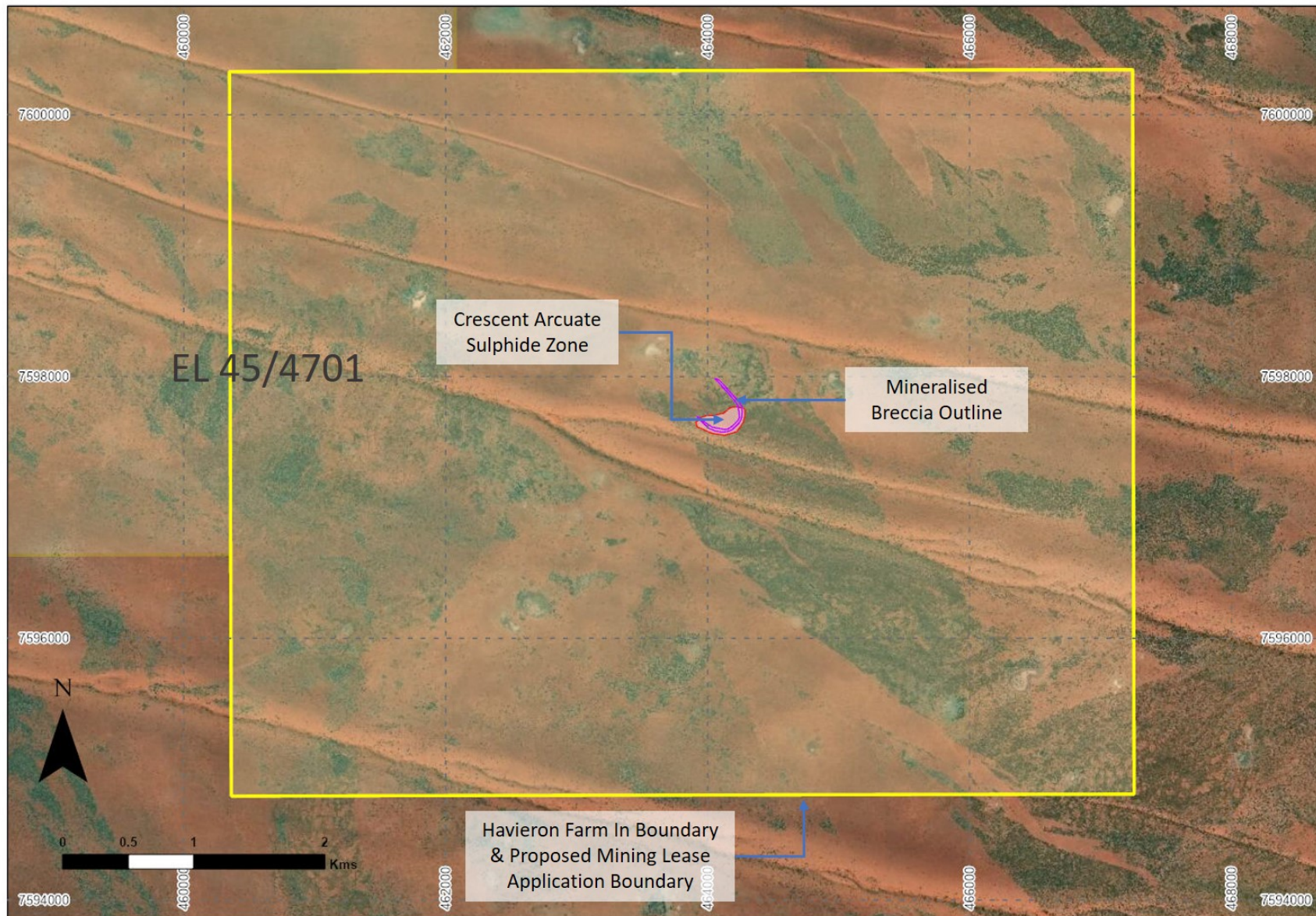
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<sup>1</sup> Subject to market operating conditions, receipt of all necessary permits, regulatory requirements and Board approvals and further works..

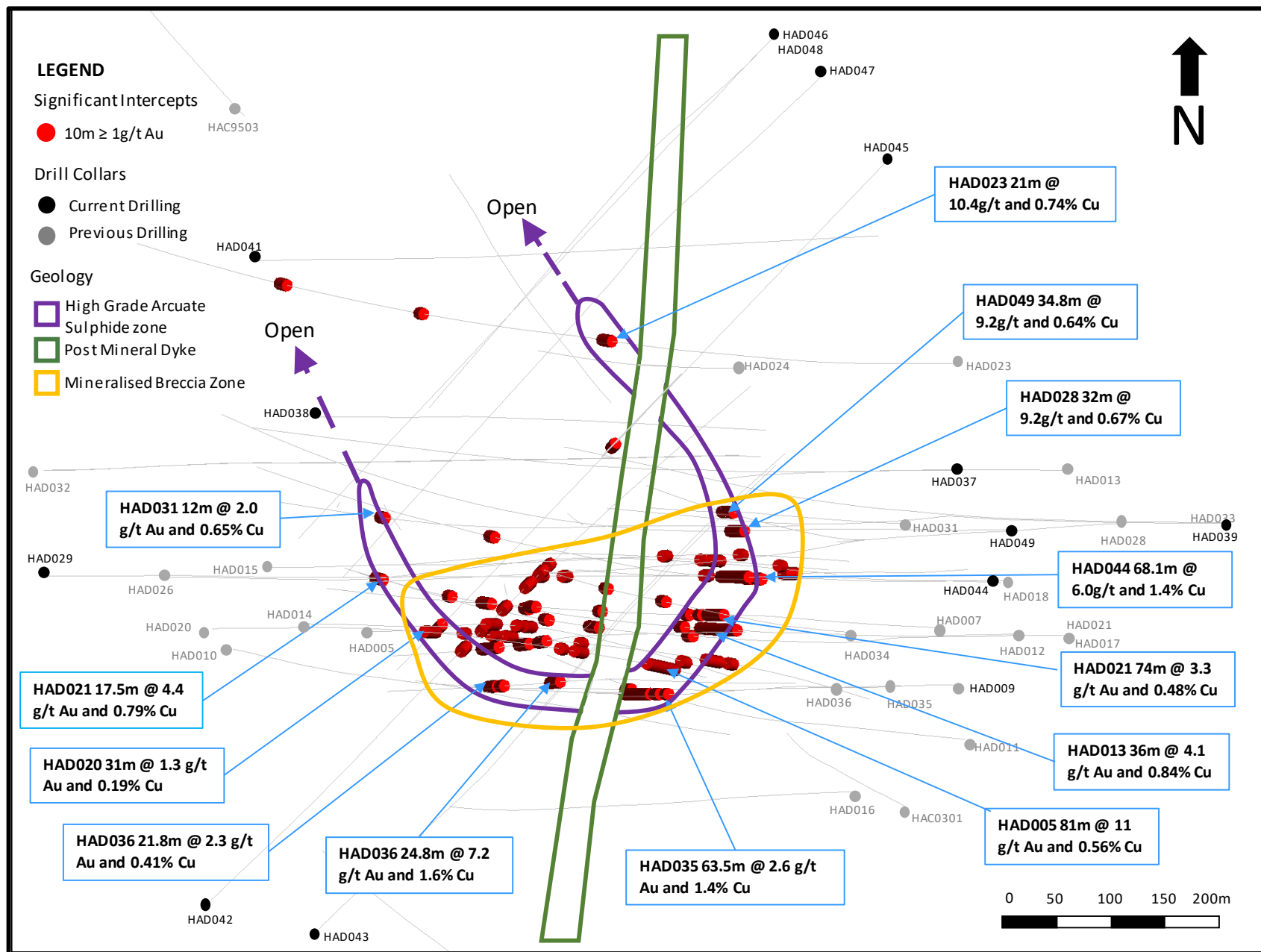
<sup>2</sup> Subject to market operating conditions, receipt of all necessary permits, regulatory requirements and Board approvals and further works.



**Figure 2:** Outline of the Havieron deposit projected to the surface, existing tenement boundaries and proposed boundaries of the mining lease application



**Figure 3:** Outline of the Havieron deposit projected to the surface including drill hole positions, significant intercepts and deposit geology





#### 4. List of minerals that have been defined within the deposit

Value at Havieron is driven by the presence of gold and copper of varying proportions.

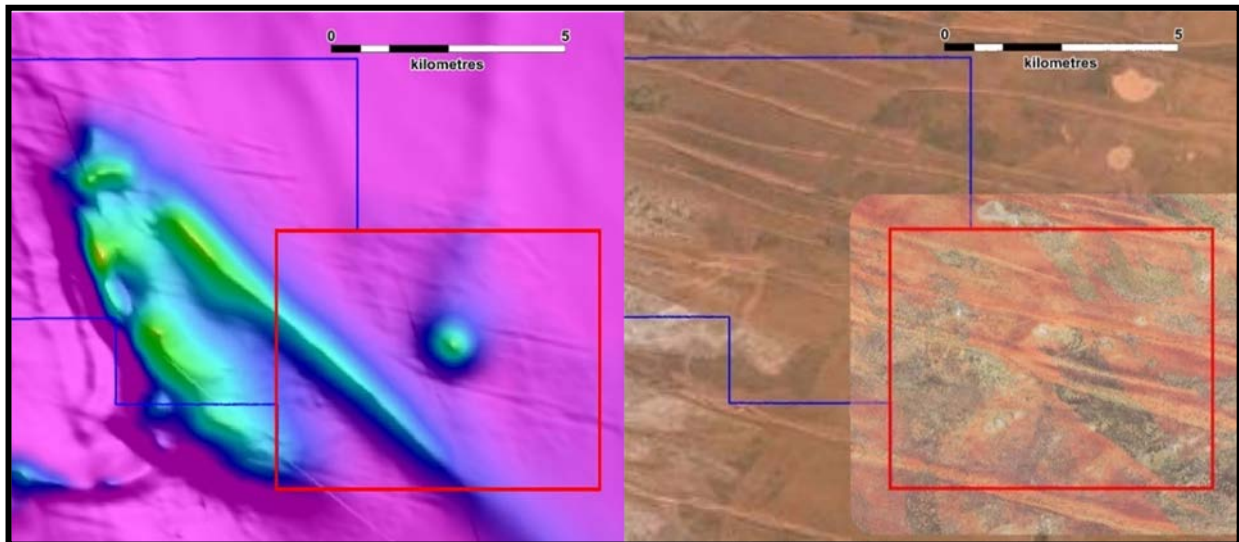
Mineral assemblages are dominated by coarse-grained carbonate (calcite, dolomite), quartz, sulfides (pyrrhotite, pyrite, chalcopyrite) and lesser actinolite, biotite, and trace allanite, apatite, monazite. In addition, marcasite, arsenopyrite, galena, sphalerite, native gold, native bismuth, bismuthinite, maldonite, hedleyite, magnetite, scheelite, tourmaline, chlorite, potassium feldspar and albite are observed.

#### 5. Methods of defining the zone, including historical work undertaken by previous tenement holders of the same ground.

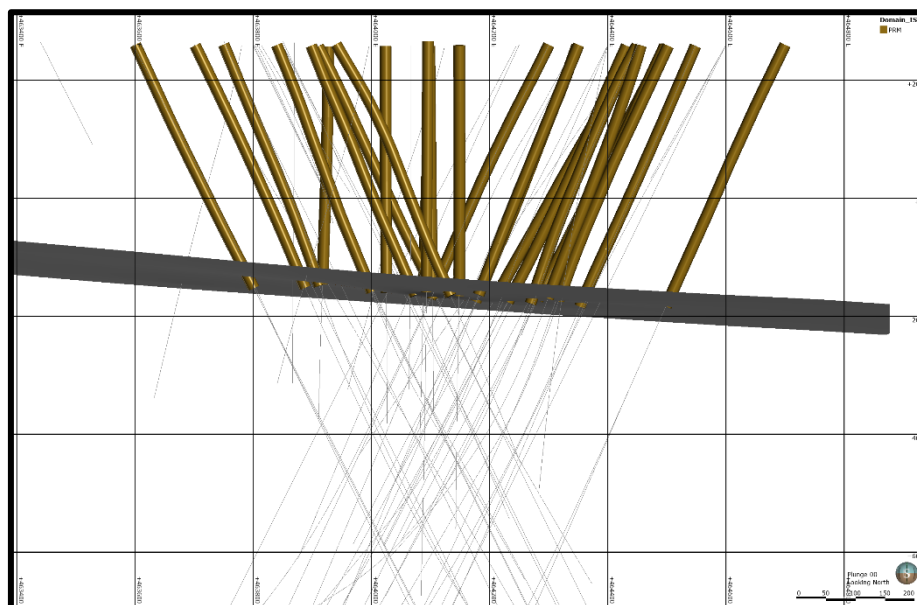
Regional generative activities in the 1990's identified Havieron as a prominent magnetic anomaly under Permian cover sequences (**Figure 4**).

The Havieron deposit lies unconformably below approximately 420m of post-mineral, flat-lying Permian fluvio-glacial sediments attributed to basal sequence rocks of the Palaeozoic Canning Basin. The surface is relatively flat, however does dip gently to the east (**Figure 5**).

**Figure 4:** Magnetic anomaly at Havieron



**Figure 5:** Permian cover sequence at Havieron



The discovery and definition of the Havieron deposit is completed entirely by drill testing.

The Permian Paterson Formation cover sequence has been drilled using the mud rotary drilling technique. Depth of cover is typically observed to approximately 420m vertically below surface. Steel casing is emplaced to secure the pre-collar.

Diamond drilling is advanced from the base of the cover sequence with PQ3, HQ3 and NQ2 diameter coring configuration.

Diamond core from inclined drill holes are oriented on 3m and 6m runs using an electronic core orientation tool (Reflex ACTIII). At the end of each run, the bottom of hole position is marked by the driller, which is later transferred to the whole drill core run length with a bottom of hole reference line.

## 6. List of analytical results and brief discussion to demonstrate the existence of significant grades and widths of mineralisation

Drill data results to date demonstrate a significant volume of Au and Cu mineralisation within a mineralised footprint measuring 400m by 150m and >600m vertically below cover defined by the extents of a broad mineralised breccia envelope Internal to the mineralised breccia exists a continuous crescent shaped massive sulphide bearing high grade zone, measuring 450m in strike, of variable width up to 30m and 600 vertical open in all directions extent and contains the higher grade intersections as shown in the table of results.

Both the high grade crescent sulphide zone and the surround breccia mineralisation have demonstrated significant widths and potentially economic grades present for assessment of both selective and bulk underground mining options.

**Table 1:** Havieron Project table of analytical results

Hole ID	Hole Type	Easting (m)	Northing (m)	RL (m)	Total Depth (m)	Azimuth	Dip	From (m)	To (m)	Interval (m)	Au (ppm)	Cu (pct)	Cut off
Greatland Gold exploration programs 2018 – Results re-calculated by Newcrest													
HAD001	RC-DD	464098	7597650	258	622.9	360	-90	497	618	121	2.9	0.23	0.2 g/t Au
							<i>Incl</i>	497	536.5	39.5	1.4	0.33	1.0 g/t Au
							<i>incl</i>	568.5	618	49.5	6	0.28	1.0 g/t Au
							<i>incl</i>	568.5	579.5	11	19	0.69	0.5% Cu
HAD002	RC-DD	463927	7597744	257	601.1	360	-90	437	461	24	0.4	0.03	0.2 g/t Au
								567	601.1	34.1	0.21	0.02	0.2 g/t Au
HAD003	RC-DD	464024	7597694	258	590.3	360	-90	418	439	21	3.8	0.44	0.2 g/t Au
							<i>incl</i>	419.5	439	19.5	4	0.47	1.0 g/t Au
								518	546	28	0.2	0.12	0.2 g/t Au
HAD004	RC-DD	464097	7597749	257	625	360	-90	432	450	18	0.31	0.03	0.2 g/t Au
								479	521.5	42.5	0.21	0.01	0.2 g/t Au
								592	625	33	0.28	0.04	0.2 g/t Au
HAD005	RC-DD	463898	7597649	259	821.2	90	-70	459	562	103	3.5	0.93	0.2 g/t Au
							<i>incl</i>	462.5	531	68.5	5.1	1.2	1.0 g/t Au
								660	788	128	7.4	0.54	0.2 g/t Au
							<i>incl</i>	663	744	81	11	0.56	1.0 g/t Au
HAD006	RC-DD	464094	7597602	259	838.1	360	-90	471	525	54	2.7	0.79	0.2 g/t Au
							<i>incl</i>	471.5	497	25.5	4.1	1.4	1.0 g/t Au



Hole ID	Hole Type	Easting (m)	Northing (m)	RL (m)	Total Depth (m)	Azimuth	Dip	From (m)	To (m)	Interval (m)	Au (ppm)	Cu (pct)	Cut off
							<i>incl</i>	510	525	15	2.5	0.3	1.0 g/t Au
								547.9	727	179.1	1.4	0.47	0.2 g/t Au
							<i>incl</i>	547.9	560.8	12.9	1.7	0.48	1.0 g/t Au
							<i>incl</i>	577	604.5	27.5	1.9	1.4	1.0 g/t Au
							<i>incl</i>	617	654.5	37.5	3.8	0.44	1.0 g/t Au
								671.5	688.5	17	0.69	0.61	0.5% Cu
								741	765	24	0.66	0.28	0.2 g/t Au
								810.5	833	22.5	0.23	0.2	0.2 g/t Au
HAD007	RC-DD	464348	7597648	258	754.5	270	-70	468	506	38	0.53	0.22	0.2 g/t Au
								518	551	33	0.87	0.07	0.2 g/t Au
								602	666.5	64.5	0.34	0.16	0.2 g/t Au
							<i>incl</i>	604	614.5	10.5	1	0.28	1.0 g/t Au
								721	754.5	33.5	0.41	0.14	0.2 g/t Au
HAD008	RC-DD	464148	7597602	259	772.4	360	-90	426	493	67	2	0.91	0.2 g/t Au
							<i>incl</i>	426.5	468	41.5	1.2	1.2	1.0 g/t Au
HAD009	RC-DD	464456	7597548	259	932.1	270	-74.7	755	805	50	0.23	0.21	0.2 g/t Au
								844	902	58	0.33	0.42	0.2 g/t Au
					6557.6			913	923.5	10.5	0.58	0.65	0.5% Cu
<b>Newcrest exploration program – from May to December 2019</b>													
HAD006	RC-DD	464094	7597602	259	1216.3	360	-90	792	893	101	0.33	0.57	0.5% Cu
								844	941	97	0.48	0.26	0.2 g/t Au
							<i>incl</i>	872	895	23	1	0.19	1.0 g/t Au
								1071	1083	12	3.1	0.08	1.0 g/t Au
								1122	1174	52	7	0.17	0.2 g/t Au
							<i>incl</i>	1153	1170	17	21	0.39	1.0 g/t Au
HAD010	MR-DD	463940	7597603	260	733	97	-59	No significant result					
HAD0011	MR-DD	464450	7597598	259	1275.6	270	-61	570	635	65	0.27	0.04	0.2 g/t Au
								682	735	53	0.2	0.25	0.2 g/t Au
								712	724	12	0.25	0.95	0.5% Cu
								754	793	39	1.1	0.82	0.5% Cu
								779	793	14	2.9	1.1	1.0 g/t Au
								838	886	48	0.59	0.9	0.2 g/t Au
HAD012	MR-DD	463803	7597709	258	1157	88	-64	509.9	540.1	30.2	0.25	0.02	0.2 g/t Au
								865.7	1005	139.4	2.9	0.39	0.2 g/t Au
							<i>incl</i>	900	943	43	7.9	0.83	1.0 g/t Au
								1056	1083	27	0.99	0.1	0.2 g/t Au
							<i>incl</i>	1056	1066	10	2.5	0.2	1.0 g/t Au
HAD013	MR-DD	464432	7597652	258	1254	270	-65	479	579.9	100.9	2	0.48	0.2 g/t Au
							<i>incl</i>	481	517	36	4.1	0.84	1.0 g/t Au
							<i>and</i>	525	535	10	2	0.72	1.0 g/t Au
							<i>and</i>	550	561	11	1.3	0.18	1.0 g/t Au
								590	647	57	0.47	0.28	0.2 g/t Au
								712	874.3	162.3	0.89	0.17	0.2 g/t Au
							<i>incl</i>	725.7	735.8	10.2	2.5	0.69	1.0 g/t Au
							<i>and</i>	855	870.3	15.3	2.2	0.17	1.0 g/t Au

Hole ID	Hole Type	Easting (m)	Northing (m)	RL (m)	Total Depth (m)	Azimuth	Dip	From (m)	To (m)	Interval (m)	Au (ppm)	Cu (pct)	Cut off
								917.9	1064	146.1	0.93	0.1	0.2 g/t Au
								1128	1149.8	21.8	0.25	0.02	0.2 g/t Au
HAD014	MR-DD	463839	7597656	259	955	90	-67	450	694.6	244.6	2.0	0.4	0.2 g/t Au
							<i>incl</i>	465	494.3	29.3	4	0.86	1.0 g/t Au
							<i>and</i>	539	549	10	2.7	0.53	1.0 g/t Au
							<i>and</i>	557	579.4	22.4	4.3	0.82	1.0 g/t Au
								705	731.6	26.6	0.99	0.81	0.2 g/t Au
								816.6	891.9	75.3	3.4	0.43	0.2 g/t Au
							<i>incl</i>	859.3	872.5	13.2	16	0.93	1.0 g/t Au
HAD015	MR-DD	464548	7597799	258	1634.3	272	-67	979	1007	28	0.96	0.07	0.2 g/t Au
								1186	1244	58	0.38	0.51	0.2 g/t Au
								1327	1355	28	0.28	0.19	0.2 g/t Au
								1436	1480	44	0.29	0.05	0.2 g/t Au
HAD016	MR-DD	464350	7597498	260	986.4	269	-68	No significant result					
HAD017	MR-DD	464548	7597645	259	1616.6	270	-63	653	677	24	0.24	0.01	0.2 g/t Au
								740	766	26	0.25	0.01	0.2 g/t Au
								780	904	124	1.6	0.35	0.2 g/t Au
							<i>incl</i>	880.2	895.4	15.2	5.7	1.2	1.0 g/t Au
								1011.4	1061	49.6	2.9	0.12	0.2 g/t Au
								1077	1122	45	7.1	0.08	0.2 g/t Au
							<i>incl</i>	1095	1121	26	3.8	0.12	1.0 g/t Au
								1177	1321	144	0.33	0.04	0.2 g/t Au
							<i>incl</i>	1211	1225	14	1.3	0.12	1.0 g/t Au
								1388	1422	34	0.23	0.01	0.2 g/t Au
								1452	1522	70	0.78	0.12	0.2 g/t Au
HAD018	MR-DD	464496	7597696	258	1577.1	270	-65	597.3	673	75.7	1.9	0.5	0.2 g/t Au
							<i>incl</i>	607	624	17	1.4	0.99	1.0 g/t Au
							<i>and</i>	632.8	649	16.2	6.7	0.56	1.0 g/t Au
								916.4	1012.9	96.4	4.5	0.14	0.2 g/t Au
							<i>incl</i>	928.5	943.9	14.4	20	0.32	1.0 g/t Au
								1140	1315	175	0.43	0.13	0.2 g/t Au
							<i>incl</i>	1193.1	1206	12.9	1	0.41	1.0 g/t Au
HAD019	MR-DD	464450	7597497	259	480	269	-65	No significant result					
HAD020	MR-DD	463749	7597651	260	1402.1	91	-68	527	609.4	82.4	0.71	0.09	0.2 g/t Au
							<i>incl</i>	547	578	31	1.3	0.19	1.0 g/t Au
								622.4	659.2	36.8	0.53	0.14	0.2 g/t Au
							<i>incl</i>	639.8	650.8	11	1.6	0.36	1.0 g/t Au
								673	795.9	122.9	1.7	0.36	0.2 g/t Au
							<i>incl</i>	705	719.6	14.6	9.1	0.48	1.0 g/t Au
							<i>and</i>	718	719	1	81	0.63	30 g.m. Au
								809.2	924	114.8	0.84	0.13	0.2 g/t Au
							<i>incl</i>	895	905	10	3.4	0.01	1.0 g/t Au
								1096.5	1281	184.5	0.81	0.44	0.2 g/t Au
							<i>incl</i>	1134	1161.2	27.2	2.8	0.54	1.0 g/t Au
							<i>and</i>	1172	1184	12	2.0	0.44	1.0 g/t Au

Hole ID	Hole Type	Easting (m)	Northing (m)	RL (m)	Total Depth (m)	Azimuth	Dip	From (m)	To (m)	Interval (m)	Au (ppm)	Cu (pct)	Cut off
								1298	1336	38	0.25	0.22	0.2 g/t Au
HAD021	MR-DD	464502	7597646	258	1407.8	270	-65	513	533	20	0.31	0.01	0.2 g/t Au
								670	798	128	3.4	0.44	0.2 g/t Au
							incl	670	744	74	3.3	0.48	1.0 g/t Au
							incl	680	681	1	38	3.1	30 g.m. Au
							and	770	783	13	13	1.1	1.0 g/t Au
							incl	773	774	1	38	0.12	30 g.m. Au
							and	776	777	1	52	0.98	30 g.m. Au
								890.9	945	54.1	0.68	0.09	0.2 g/t Au
								998	1026	28	1.6	0.04	0.2 g/t Au
							incl	1011	1012	1	32	0.61	30 g.m. Au
								1039.3	1150	110.7	1.9	0.12	0.2 g/t Au
							incl	1060	1072	12	1.7	0.12	1.0 g/t Au
							and	1100	1101	1	36	1.0	30 g.m. Au
							and	1129	1150	21	3.1	0.15	1.0 g/t Au
								1190	1222	32	0.97	0.06	0.2 g/t Au
							incl	1202	1212.2	10.2	2.7	0.16	1.0 g/t Au
								1332.2	1356	23.8	3.3	0.58	0.2 g/t Au
							incl	1332.2	1349.7	17.5	4.4	0.79	1.0 g/t Au
							and	1332.2	1333	0.8	44	0.25	30 g.m. Au
HAD023	RC-DD	464448	7597900	257	1588.2	270	-64	494	522	28	0.26	0.01	0.2 g/t Au
								656	763	107	2.2	0.22	0.2 g/t Au
							incl	665	686	21	10	0.74	1.0 g/t Au
							incl	684	685	1	65	1.2	30 g.m. Au
								997	1056	59	0.65	0.28	0.2 g/t Au
							incl	1035	1045	10	1.7	0.37	1.0 g/t Au
								1273	1397	124	1.0	0.06	0.2 g/t Au
							incl	1300	1316	16	3.3	0.04	1.0 g/t Au
							incl	1302	1303	1	30	0.01	30 g.m. Au
HAD024	RC-DD	464244	7597896	257	408	270	-64	Hole abandoned in cover sequence.					
HAD025	MR-DD	463910	7597711	257	973.1	90	-63	580	698	118	0.99	0.08	0.2 g/t Au
							incl	612	624	12	3.9	0.21	1.0 g/t Au
								764	803	39	6.5	0.40	0.2 g/t Au
							incl	764.9	775.5	10.6	22	1.3	1.0 g/t Au
							incl	764.9	766	1.1	36	1.5	30 g.m. Au
							and	767.7	768.9	1.3	46	0.7	30 g.m. Au
							and	770	772	2	37	1.5	30 g.m. Au
								864.9	894	29.1	0.39	0.28	0.2 g/t Au
HAD026	MR-DD	463701	7597699	259	1357.2	91	-63	515.3	579	63.8	2.3	0.28	0.2 g/t Au
							incl	557	557.3	0.3	154	2.9	30 g.m. Au
								598	665	67	0.59	0.17	0.2 g/t Au
								707	732.2	25.2	0.21	0.02	0.2 g/t Au
								809	853.7	44.7	0.22	0.05	0.2 g/t Au
								863.8	885.9	22.1	0.44	0.01	0.2 g/t Au
								970	1024.5	54.5	1.3	0.12	0.2 g/t Au



Hole ID	Hole Type	Easting (m)	Northing (m)	RL (m)	Total Depth (m)	Azimuth	Dip	From (m)	To (m)	Interval (m)	Au (ppm)	Cu (pct)	Cut off
								1039	1072.8	33.8	0.3	0.07	0.2 g/t Au
HAD027	RC	463700	7597805	257	252	91	-65	Hole abandoned in cover sequence.					
HAD028	MR-DD	464499	7597744	258	1582	270	-63	543.2	589	45.8	6.8	0.51	0.2 g/t Au
							<i>incl</i>	555	587	32	9.2	0.67	1.0 g/t Au
							<i>incl</i>	578	580	2	48	1.1	30 g.m. Au
								635	660	25	1.5	0.02	0.2 g/t Au
							<i>incl</i>	636.9	638	1.1	30	0.08	30 g.m. Au
								825	851	26	0.34	0.02	0.2 g/t Au
								865	888	23	0.84	0.06	0.2 g/t Au
								975	998	23	0.43	0.03	0.2 g/t Au
								1013	1109	96	0.57	0.11	0.2 g/t Au
								1139	1170.1	31.1	0.44	0.13	0.2 g/t Au
								1184	1316	132	0.41	0.07	0.2 g/t Au
HAD030	MR-DD	463439	7597420	264	144	89	-60	Hole abandoned in cover sequence.					
HAD031	MR-DD	464303	7597748	258	1135.3	270	-64	719	746	27	0.49	0.10	0.2 g/t Au
								862	924	62	1.7	0.18	0.2 g/t Au
							<i>incl</i>	902	914	12	2.0	0.65	1.0 g/t Au
								936	957.1	21.1	0.21	0.05	0.2 g/t Au
								1015	1041	26	1.0	0.16	0.2 g/t Au
HAD032	MR-DD	463592	7597800	257	1447.1	90	-64	630	694	64	0.68	0.14	0.2 g/t Au
								748.5	800.7	52.2	0.44	0.08	0.2 g/t Au
								827	892.3	65.3	0.42	0.10	0.2 g/t Au
								907.1	975	67.9	1.1	0.23	0.2 g/t Au
								988	1015.2	27.2	0.29	0.07	0.2 g/t Au
								1364	1415.1	51.1	1.2	0.12	0.2 g/t Au
HAD033	MR-DD	464705	7597751	258	1431.3	270	-64	1399.2	1429.4	30.2	0.38	0.14	0.2 g/t Au
HAD034	MR-DD	464250	7597650	260	835.1	270	-65	462.5	492.2	29.7	1.2	0.63	0.2 g/t Au
							<i>incl</i>	462.5	485.5	23	1.4	0.64	1.0 g/t Au
								504	640	136	2.9	0.6	0.2 g/t Au
							<i>incl</i>	504	532	28	2.7	0.72	1.0 g/t Au
							<i>and</i>	577.9	621.4	43.5	6.1	1.18	1.0 g/t Au
							<i>incl</i>	595	597	2	62	1.3	30 g.m. Au
								708	787	79	3.8	0.15	0.2 g/t Au
							<i>incl</i>	768	769	1	38	0.6	30 g.m. Au
							<i>and</i>	782	783.8	1.8	66	2.0	30 g.m. Au
								805	826	21	0.58	0.15	0.2 g/t Au
HAD035	MR-DD	464400	7597600	260	913.8	270	-67	573	683.5	110.5	1.8	0.97	0.2 g/t Au
							<i>incl</i>	620	683.5	63.5	2.6	1.4	1.0 g/t Au
								810	839	29	0.51	0.06	0.2 g/t Au
								868	913.8	45.8	0.28	0.03	0.2 g/t Au
HAD036	MR-DD	464297	7597600	258	912.3	270	-64	513	586	73	3.2	0.67	0.2 g/t Au
							<i>incl</i>	525	549.8	24.8	7.2	1.6	1.0 g/t Au
							<i>incl</i>	544	545	1	47	1.2	30 g.m. Au
								639.7	735.2	95.5	1.6	0.39	0.2 g/t Au
							<i>incl</i>	650.8	661.9	11.1	1.1	1.1	1.0 g/t Au

Hole ID	Hole Type	Easting (m)	Northing (m)	RL (m)	Total Depth (m)	Azimuth	Dip	From (m)	To (m)	Interval (m)	Au (ppm)	Cu (pct)	Cut off
							and	667	688.8	21.8	2.3	0.41	1.0 g/t Au
								747.2	819	71.8	0.59	0.12	0.2 g/t Au
								870	912.3	42.3	0.57	0.06	0.2 g/t Au
HAD022*	MR-DD	464345	7597648	258	901.6	270	-60	534	676	142	1.9	0.38	0.2 g/t Au
							incl	572.3	588	15.7	9.8	0.61	1.0 g/t Au
							incl	574	575	1	34	1.4	30 g.m. Au
							and	576	577	1	37	0.91	30 g.m. Au
							incl	594.7	614.7	20	2.4	0.87	1.0 g/t Au
							incl	620	636	16	1.5	0.52	1.0 g/t Au
								688	730	42	0.48	0.16	0.2 g/t Au
								755	792.2	37.2	1.4	0.29	0.2 g/t Au
								804	897	93	1.1	0.11	0.2 g/t Au
							incl	821	834.8	13.8	2.4	0.48	1.0 g/t Au
							incl	867.3	868	0.7	50	2.2	30 g.m. Au
HAD029*	MR-DD	463597	7597701	260	1717.2	90	-63	612	648	36	0.83	0.13	0.2 g/t Au
								660	747.8	87.8	0.29	0.10	0.2 g/t Au
								760	804.9	44.9	0.34	0.08	0.2 g/t Au
								837.6	991.4	153.8	0.66	0.08	0.2 g/t Au
							incl	931.9	933	1.1	32	0.35	30 g.m. Au
								1003.3	1110	106.7	1.8	0.02	0.2 g/t Au
							incl	1026	1041	15	2.6	0.05	1.0 g/t Au
							incl	1059.7	1060.5	0.8	95	0.15	30 g.m. Au
							incl	1077	1090.1	13.1	3.7	0.03	1.0 g/t Au
								1125.5	1192.4	66.9	0.21	0.05	0.2 g/t Au
								1217.4	1265	47.6	0.42	0.07	0.2 g/t Au
								1334.5	1363	28.5	2.2	0.12	0.2 g/t Au
							incl	1347.9	1360	12.1	4.5	0.25	1.0 g/t Au
								1460	1594.2	134.2	0.81	0.23	0.2 g/t Au
							incl	1473	1496	23	2.7	0.14	1.0 g/t Au
HAD037	MR	464450	7597800	258	480.7	270	-62	Hole abandoned in cover sequence					
HAD038*	MR-DD	463849	7597850	257	949.2	90	-62	451.3	661.7	210.4	0.32	0.07	0.2 g/t Au
HAD039	MR-DD	464600	7597750	260	1278.9	266	-60	693	779.6	86.6	2.8	0.37	0.2
							incl	710.9	738	27.1	4.4	0.74	1
							incl	715	716	1	62	1.1	30 g.m. Au
							incl	761	762	1	52	0.43	30 g.m. Au
								919.9	951	31.1	0.31	0.06	0.2
								1022	1147	125	2.1	0.05	0.2
							incl	1077	1078	1	47	0.27	30 g.m. Au
							incl	1103.9	1104.8	0.9	43	0.33	30 g.m. Au
							incl	1134	1145	11	7.5	0.11	1
							incl	1143.9	1144.2	0.3	129	0.16	30 g.m. Au
								1164	1227	63	3.1	0.14	0.2
							incl	1168	1168.9	0.9	33	0.28	30 g.m. Au
							incl	1202.1	1219.4	17.4	8.0	0.32	1
							incl	1205	1205.4	0.4	118	0.38	30 g.m. Au

Hole ID	Hole Type	Easting (m)	Northing (m)	RL (m)	Total Depth (m)	Azimuth	Dip	From (m)	To (m)	Interval (m)	Au (ppm)	Cu (pct)	Cut off
HAD039 W2	MR-DD	464600	7597750	260	1278.9	266	-60	668	816	148	2.7	0.45	0.2
							<i>incl</i>	700	753	53	6.2	0.71	1
							<i>incl</i>	711	712	1	97	1.1	30 g.m. Au
HAD040	MR-DD	464000	7597703	258	75	270	-60	Hole abandoned in cover sequence					
HAD041	MR-DD	463793	7597996	256	445	90	-61	Pre-collar only, in progress					
HAD042*	MR-DD	463749	7597397	261	1284.9	45	-58	622.1	710.9	88.8	1.2	0.18	0.2 g/t Au
							<i>incl</i>	638	653.7	15.7	1.4	0.31	1.0 g/t Au
							<i>incl</i>	686	703	17	2.8	0.20	1.0 g/t Au
								734	858	124	3.9	0.21	0.2 g/t Au
							<i>incl</i>	737	751	14	4.7	0.30	1.0 g/t Au
							<i>incl</i>	790.7	808	17.3	19	0.62	1.0 g/t Au
							<i>incl</i>	804	807.1	3.1	91	2.0	30 g.m. Au
							<i>incl</i>	824	837.3	13.3	3.4	0.14	1.0 g/t Au
							<i>incl</i>	843	853	10	1.9	0.26	1.0 g/t Au
								877	930	53	0.45	0.04	0.2
								944.1	975	30.9	1.6	0.07	0.2
								1002.6	1050	47.4	0.26	0.07	0.2
HAD043	MR-DD	463850	7597370	266	1160.4	45	-58	608	775.4	167.4	2.4	0.66	0.2
							<i>incl</i>	626.7	641.5	14.8	1.3	1.4	1
							<i>incl</i>	679	693	14	2.1	1.1	1
							<i>incl</i>	712.3	735	22.8	9.3	0.96	1
							<i>incl</i>	723.4	724.6	1.2	37	0.89	30 g.m. Au
							<i>incl</i>	741.2	758.3	17.1	4.7	0.53	1
							<i>incl</i>	757	758.3	1.3	36	2.1	30 g.m. Au
								919	944	25	0.30	0.05	0.2
								986	1018.2	32.2	1.8	0.14	0.2
							<i>incl</i>	1005.3	1018.2	12.9	1.4	0.16	1
HAD043 W1	MR-DD	463850	7597370	266	1160.4	45	-58	608	692	84	0.73	0.55	0.2
							<i>incl</i>	634.2	645.6	11.4	1.1	1.1	1
							<i>incl</i>	671	682	11	1.2	0.42	1
								768.2	834	65.8	2.0	0.63	0.2
							<i>incl</i>	768.2	779	10.8	1.9	2.3	1
							<i>incl</i>	790.1	791	1.0	61	0.87	30 g.m. Au
							<i>incl</i>	808	819.4	11.4	3.2	0.79	1
								852.5	881	28.5	4.7	0.28	0.2
							<i>incl</i>	861	873	12.1	11	0.39	1
							<i>incl</i>	865	866	1	54	0.04	30 g.m. Au
								896.4	939	42.7	3.4	0.38	0.2
							<i>incl</i>	913	930.8	17.8	6.5	0.70	1
								922	923	1	39	1.9	30 g.m. Au
HAD044*	MR-DD	464489	7597695	258	920.1	270	-59	489.5	572.8	83.3	5.0	1.1	0.2 g/t Au
							<i>incl</i>	489.5	557.6	68.1	6.0	1.4	1.0 g/t Au
							<i>incl</i>	511	513	2	32	1.4	30 g.m. Au
							<i>and</i>	524	525	1	30	2.5	30 g.m. Au



Hole ID	Hole Type	Easting (m)	Northing (m)	RL (m)	Total Depth (m)	Azimuth	Dip	From (m)	To (m)	Interval (m)	Au (ppm)	Cu (pct)	Cut off
								585	622	37	0.64	0.09	0.2 g/t Au
								848	880	32	0.37	0.16	0.2 g/t Au
HAD045	MR-DD	464383	7598090	257	1176.5	225	-55	634.3	786	151.7	0.60	0.08	0.2 g/t Au
							<i>incl</i>	649.2	661.5	12.3	1.7	0.30	1.0 g/t Au
								887.7	910	22.3	0.32	0.01	0.2 g/t Au
								922	957	35	0.27	0.01	0.2 g/t Au
								968	1004	36	2.9	0.03	0.2 g/t Au
							<i>incl</i>	1000	1001.20	1.2	84	0.22	30 g.m. Au
								1014.2	1036	21.8	0.51	0.02	0.2 g/t Au
								1070	1083	13	1.2	0.70	1.0 g/t Au
HAD046	MR-DD	464273	7598202	257	440	225	-62	Pre-collar only, in progress					
HAD047	MR-DD	464320	7598168	257	741.7	225	-55	533	578	45	0.36	0.05	0.2 g/t Au
HAD048	MR-DD	464274	7598204	257	425.2	225	-67	Pre-collar only, in progress					
HAD049*	MR-DD	464400	7597750	260	684.8	270	-67	461	543	82	6.1	0.41	0.2 g/t Au
							<i>incl</i>	461.2	496	34.8	9.2	0.64	1.0 g/t Au
								462	463.2	1.2	43	0.01	30 g.m. Au
								466	467	1	110	0.02	30 g.m. Au
								512	512.7	0.7	63	2.3	30 g.m. Au
								540.2	540.7	0.5	159	0.83	30 g.m. Au
								569	592	23	0.30	0.04	0.2 g/t Au
HAD050	MR-DD	463651	7597429	265	1180	45	-54	615	692.3	77.3	1.1	0.09	0.2
							<i>incl</i>	635	647	12	3.5	0.36	1
								706	707	1	49	0.15	30 g.m. Au
								870.9	897	26.1	0.34	0.27	0.2
								1143	1165	22	0.31	0.01	0.2
HAD051	MR-DD	464351	7597486	258	1033.1	302	-63	508	545	37	3.6	1.1	0.2
							<i>incl</i>	517	534	17	7.5	2.1	1
							<i>incl</i>	528	529.2	1.2	62	1.6	30 g.m. Au
								555.1	569	13.9	4.3	0.72	1
								636.7	721.1	84.5	0.58	0.15	0.2
							<i>incl</i>	662	673.8	11.8	2.4	0.50	1
								734.83	785	50.2	0.29	0.16	0.2
								801	821	20	0.27	0.14	0.2
								860.2	888	27.8	0.48	0.07	0.2
								990.6	1033.1	42.5	0.27	0.04	0.2
HAD052	MR-DD	464415	7597490	259	915.7	307	-67	563	797	234	1.7	0.29	0.2
							<i>incl</i>	614.2	676.1	62	3.8	0.50	1
							<i>incl</i>	635	636.1	1.1	38	1.8	30 g.m. Au
							<i>incl</i>	648.7	649.8	1.0	34	1.1	30 g.m. Au
							<i>incl</i>	654.4	655.1	0.72	57	1.4	30 g.m. Au
							<i>incl</i>	762.8	775	12.2	2.1	0.19	1
							<i>incl</i>	782	797	15	3.6	0.44	1
								856	896	40	5.0	0.20	0.2
							<i>incl</i>	865	879	14	14	0.23	1
							<i>incl</i>	868	870	2	68	0.49	30 g.m. Au

## 6.1. Drill sampling techniques, methods and recoveries

Cover sequence drilling by the mud-rotary drilling method did not yield recoverable samples.

Diamond core samples were obtained from diamond drilling in Proterozoic basement lithologies. PQ-HQ and NQ diameter diamond core was drilled on a 6m run.

Diamond core recovery is systematically recorded from the commencement of diamond coring to end of hole, by reconciling against driller's depth blocks in each core tray with data recorded in the database. Drillers depth blocks provided the depth, interval of core recovered, and interval of core drilled. Diamond core recoveries were typically 100%, with isolated zones of lower recovery.

Diamond core was cut and sampled at the Telfer and Havieron core processing facility. Sampling intervals defined by the Geologist are electronically assigned sample identification numbers prior to core cutting. Corresponding sample numbers matching pre-labelled calico bags are assigned to each interval. Half core samples were collected in the pre-numbered calico bags and grouped in plastic bags for dispatch to the laboratory. Sample weights typically varied from 0.5 to 4 kg.

Electronically generated sample submission forms providing the sample identification number accompany each submission to the laboratory. Assay results from the laboratory with corresponding sample identification are loaded directly into Newcrest's acQuire database.

The sampling techniques, sample preparation and quality control protocols used are considered appropriate for the material being sampled.

## 6.2. Sample preparation, sample analysis and quality of analytical data

Sample preparation was conducted at Intertek Laboratory, Perth. Samples were dried at 105°C, crushed to 95% passing 4.75 mm, and split to obtain up to 3 kg sub-sample, which was pulverised (using LM5) to produce a pulped product with the minimum standard of 95% passing 106 µm. Duplicate samples were collected from crush and pulp samples at a rate of 1:20. Duplicate results show an acceptable level of variability for the material sampled and style of mineralisation. Periodic size checks (1:20) for crush and pulp samples and sample weights are provided by the laboratory and recorded in Newcrest's acQuire database.

Assaying of diamond drill core samples was conducted at Intertek, Perth. All samples were assayed for 48 elements using a 4-acid digestion followed by ICP-AES/ICP-MS determination (method 4A/MS907). Gold analyses were determined by 50 g fire assay with AAS finish (method FA50N/AA). Sampling and assaying quality control procedures consisted of the inclusion of certified reference material (CRMs), and coarse residue and pulp duplicates with each batch (at least 1:20).

Laboratory quality control data, including laboratory standards, blanks, duplicates, repeats and grind size results are captured in Newcrest's acQuire database and have been assessed for accuracy and precision for recent data. Extended quality control programs have commenced with pulp samples submitted to an umpire laboratory and combined with more extensive re-submission programs. Analysis of the available QC sample assay results indicate that an acceptable level of accuracy and precision has been achieved, and the database contains no analytical data that has been numerically manipulated.

All sampling and assay information is stored in a secure acQuire database with restricted access.

The sample preparation, assaying techniques and quality control protocols used are considered appropriate for the data to be used for reporting exploration drilling results.

Reported significant assay intervals have been verified by re-logging of diamond drill core intervals and assessment of high-resolution core photography. The verification of significant intersections has been completed by company personnel and the Competent Person.

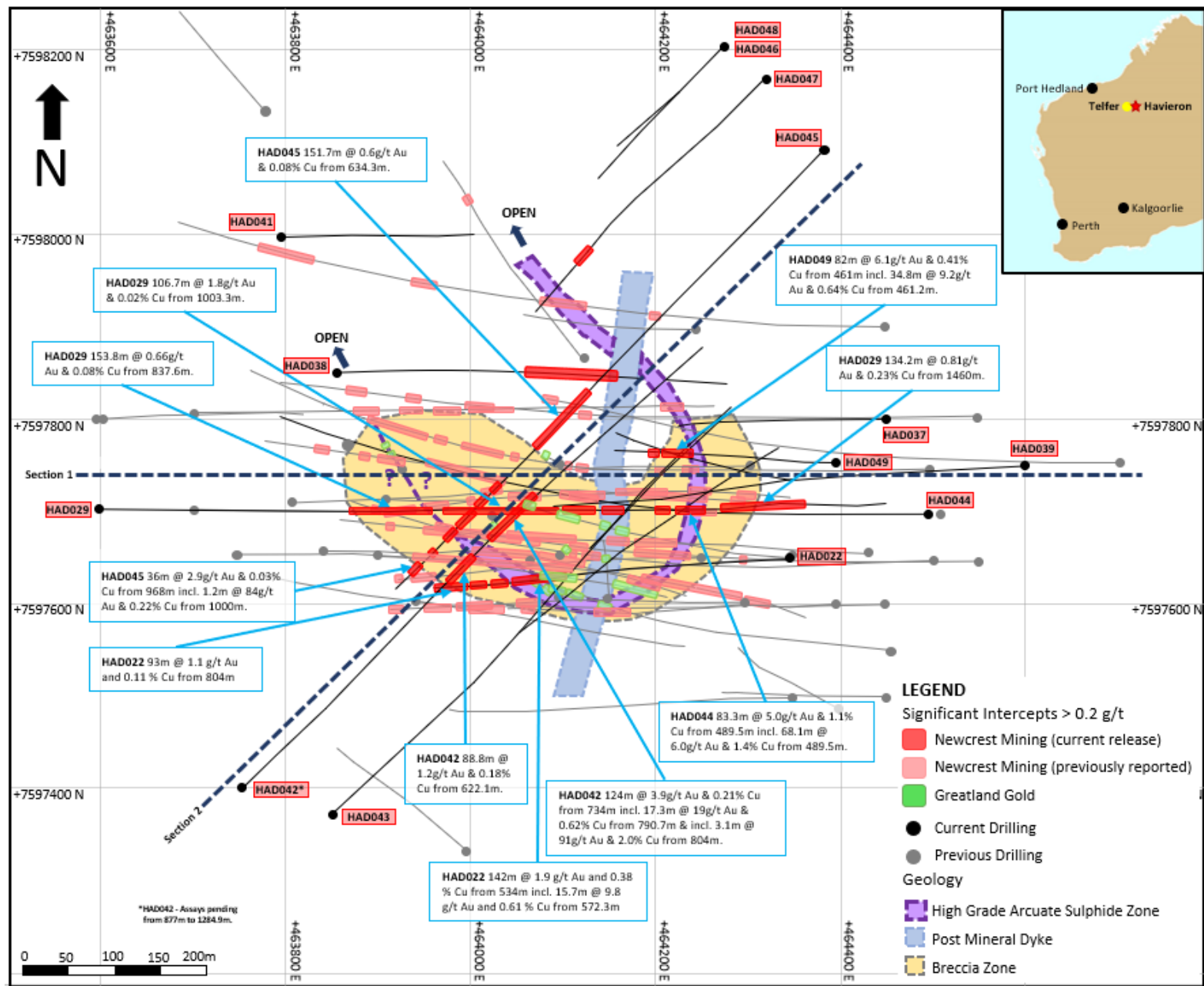
No adjustments are made to assay data, and no twinned holes have been completed. Drilling intersects mineralisation at various angles.

7. Plan showing the outline of the deposit of minerals (projected to the surface) and the positions of all drill holes, costeans, adits, etc. that have intersected the deposit. the plan should also show the locations of two or three representative cross sections (or one or two long sections).

A plan showing an outline of the Havieron deposit projected to surface, positions of all drill holes that have intersected the deposit, and the location of two representative cross sections is provided on the next page as **Figure 6**.



**Figure 6:** Havieron deposit projected to surface including drill hole positions and representative cross section locations (Section 1 & Section 2)



8. Cross sections / long sections (with drill profiles and/or costean outlines) to show intersections of mineralisation and its host rocks, together with analytical results in a generalised format

Figure 7: Havieron deposit Section 1

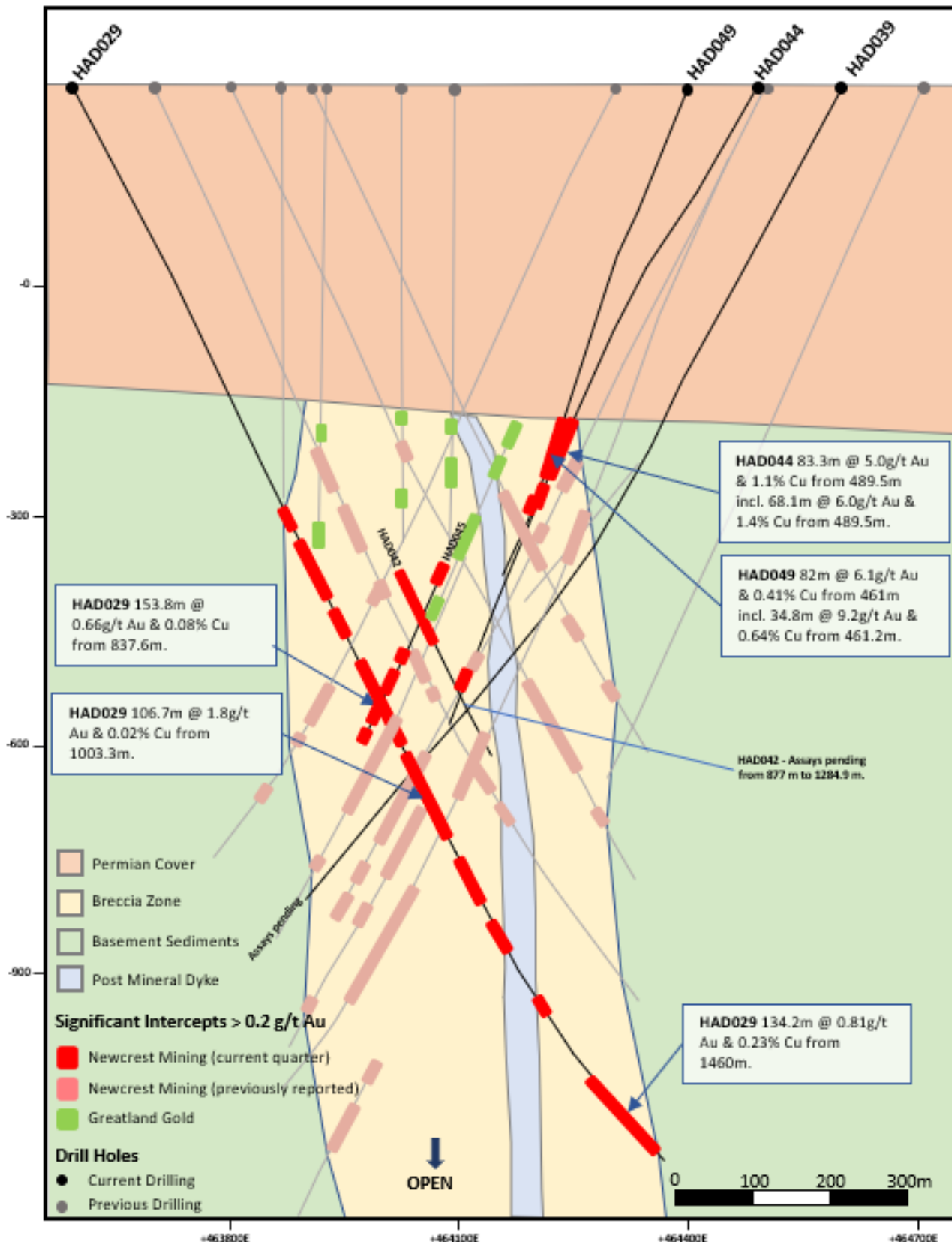
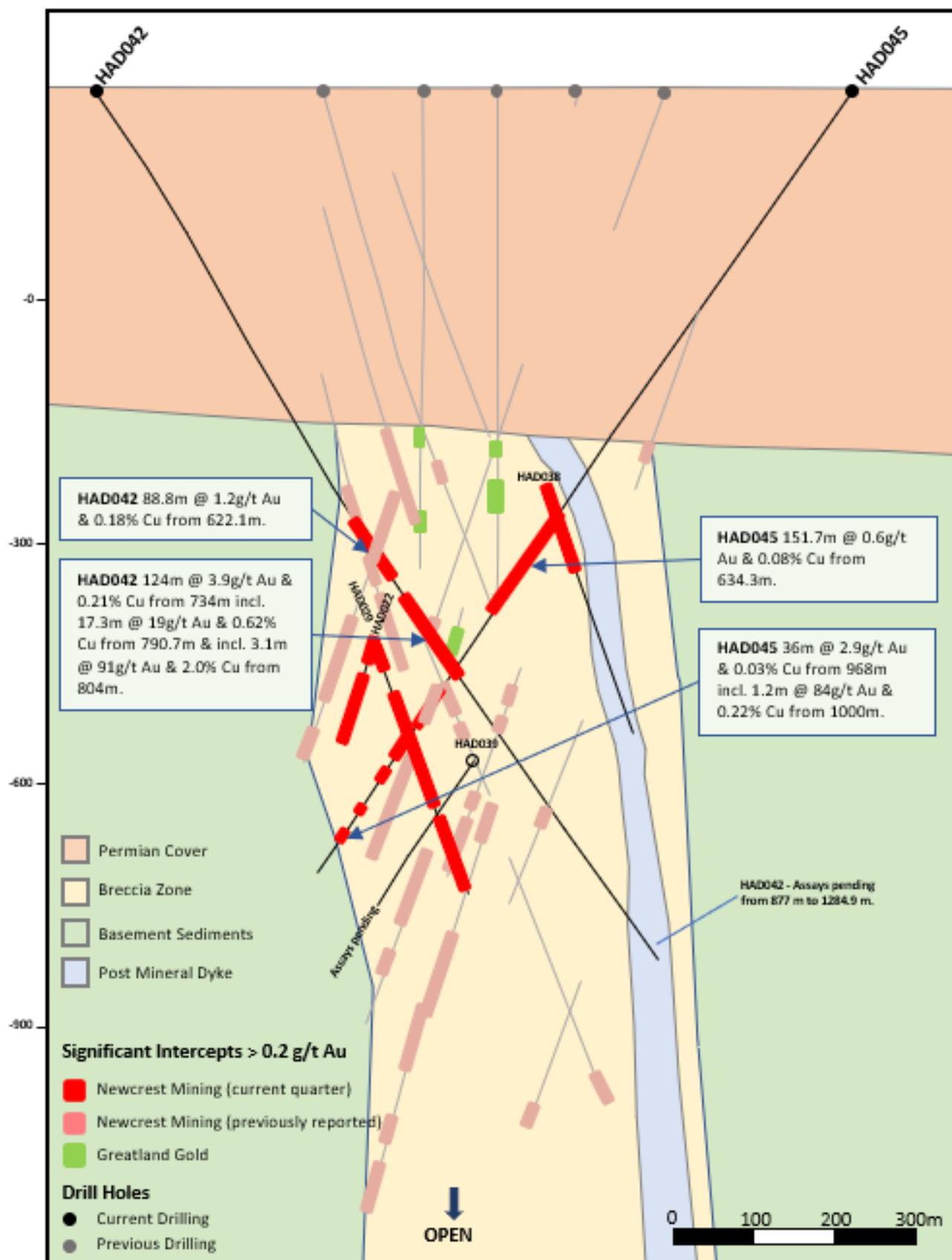


Figure 8: Havieron deposit Section 2



## 9. Additional information

### 9.1. Proposed program of work and expenditure to be undertaken to upgrade the status of the deposit of minerals

The proposed program of work to be undertaken at the Havieron Project includes:

- Ongoing resource definition diamond drilling to provide data for resource delivery
- Additional infill diamond drilling to increase confidence level of resource to indicated status
- Geotechnical drilling
- Metallurgical sample collection and testing
- Environmental baseline data collection (flora, fauna, subterranean)
- Mining studies
- Infrastructure studies

The anticipated expenditure for the above listed programs and studies is estimated in excess of US\$25M for the next 12-24 months.

### 9.2. Metallurgical test results

Preliminary testwork is underway to understand, at a high level, how Havieron ore would respond to the established Telfer flowsheet and what, if any, modifications/additions would be required. The testwork conducted to date is preliminary and over a wide range of ore types.

### 9.3. Bulk densities of mineralised material

Bulk densities of both mineralised material and waste are collected on a regular basis.

### 9.4. Geotechnical characteristics of the deposit of minerals and its host rocks

Both bulk and selective mining methods will be considered to assess the viability of the project under different operating scenarios. The likely methods to be reviewed include:

- Long hole open stoping - both selective and highly selective (higher grade)
- Transverse sub-level cave
- Block cave
- Combination of block cave with highly selective long hole open stoping

Preliminary review of the available geotechnical data does not highlight any fatal flaws in the five discrete mining methods considered. These mining methods will be reassessed as improved data becomes available from geotechnical domain logging and material strength testing.

Hydrogeology testwork to date has been limited, with no site testing being conducted. Anecdotal drilling observations indicate that aquifers are to be expected in the Permian cover however, no significant water has been intersected during recent drilling in the mineralised host sediment. Both caving and stoping mining methods have been successfully implemented in similar environments, including Newcrest's Telfer mine.

## 10. Qualified person statement

The information in this report that relates to Exploration Targets, Exploration Results, and related scientific and technical information, is based on and fairly represents information compiled by Mr C. K Switzer. Mr Switzer is the Regional Exploration Manager – Asia Pacific and a full-time employee of Newcrest Mining Limited. He is a shareholder in Newcrest Mining Limited and is entitled to participate in Newcrest's executive equity long term incentive plan, details of which are included in Newcrest's 2019 Remuneration Report. He is a Member of the Australasian Institute of Mining and Metallurgy and a



Member of the Australian Institute of Geoscientists. Mr Switzer has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the JORC Code. Mr Switzer consents to the inclusion in this report of the matters based on his information in the form and context in which it appears including sampling, analytical and test data underlying the results.