ASX Announcement **27 July 2022**

Douglas Creek discovery continues to grow & deliver high grade

Highlights:

- **Mapping and sampling have defined three zones of extensive high grade IRGS (Intrusion-Related Gold System) mineralisation at Douglas Creek**
- **Zone 1: Gossanous breccia with a strike length >350m, averaging 20 to 30m wide**
  - **Sampling returns grades of up to 8.6 g/t Au, 194.1 g/t Ag, 1.0% Bi, 10.9% Cu & 0.2% Pb**
- **Zone 2: Mineralisation outcropping over an area of approx. 275m by 100m**
  - **Sampling returns grades of up to 6.0 g/t Au, 277.8 g/t Ag, 0.4% Bi, 0.3% Cu & 1.5% Pb**
- **Zone 3: Mineralised float and subcrop over an area of 450m by 20m**
  - **Sampling returns grades of up to 2.7 g/t Au, 77.2 g/t Ag, 0.5% Bi, 0.8% Cu & 0.1% Pb**
- **To date, soil sampling, mapping and rock sampling has been completed over approximately 125ha – identifying extensive soil anomalies and multiple mineralised zones which are open to the southeast and southwest**
- **New discovery – no historical workings and never been drilled**

Great Northern Minerals Limited (**ASX: GNM**) ("**GNM**" or the "**Company**") is pleased to announce the results of the latest exploration activities at its exciting Douglas Creek IRGS (Intrusion-Related Gold System) discovery, located on EPM 27522, part of GNM's Golden Ant Project in North Queensland.

GNM's geology team have completed an extensive program of geochemical sampling (soil and rock) and mapping to better understand the exciting new Douglas Creek discovery.

To date, an area of approx. 125ha has been mapped and sampled, with soil sampling being carried out on an initial soil grid of 100m N-S x 20m E-W spacing, subsequently infilled to 50m N-S x 20m E-W spacing (723 samples in total). In addition, a total of forty-nine rock samples were submitted for assay. To date, mapping and sampling have defined three zones of extensive high-grade mineralisation.

Zone 1 is a semi continuous gossan breccia zone with a strike length in excess of 350m, averaging 20-30m wide.

Zone 2 contains outcropping gossanous, quartz veined ± brecciation altered sandstone and rhyolitic rocks (limonitic-jarositic ± scorodite), spatially related to rhyolite dykes, over an area of 275m x 100m.

Zone 3 consists of scattered float and occasional sub crop over a NE-SW trending zone, approximately 450m long and 20m wide. Limited outcrop – highly anomalous soil geochemistry reflects subsurface anomalism.

The mineralised zones discovered are open to the southeast and to the southwest. GNM plans to carry out a further phase of exploration activities (mapping and geochemical sampling) to better understand the extent of the mineralisation prior to commencing drill design activities.

Further exploration is scheduled to occur in July and August, as GNM continues to grow this exciting new discovery.

GNM CEO & Managing Director, Cameron McLean said: *"Douglas Creek continues to deliver and to grow, with our geology team delivering a further series of outstanding results from the follow up from the discovery of mineralisation in May 2022.*

Mapping and sampling have defined an extensive intrusion-related gold system, with at least three zones of extensive outcropping mineralization.

Sampling has returned peak assays of up to 8.6 g/t Au, 194.1 g/t Ag and 10.9% Cu from Zone 1, 6.0 g/t Au, 277.8 g/t Ag and 0.3% Cu from Zone 2 and 2.7 g/t Au, 77.2 g/t Ag and 0.8% Cu from Zone 3.

Our geology team has been following up these exciting results with a detailed soil sampling program, further rock chip sampling planned to be completed in August. We are also commencing drill design and approval activities.

Douglas Creek represents a brand new discovery for the company with no historic drilling or workings."

Figure 1 Rock Sample DPRC016 (Zone 1: Gossanous-brecciated crystalline prismatic quartz veining)

DPRC016 – 2.5 g/t Au, 87.7 g/t Ag, 0.9% Bi, 0.9% Cu & 0.1% Pb

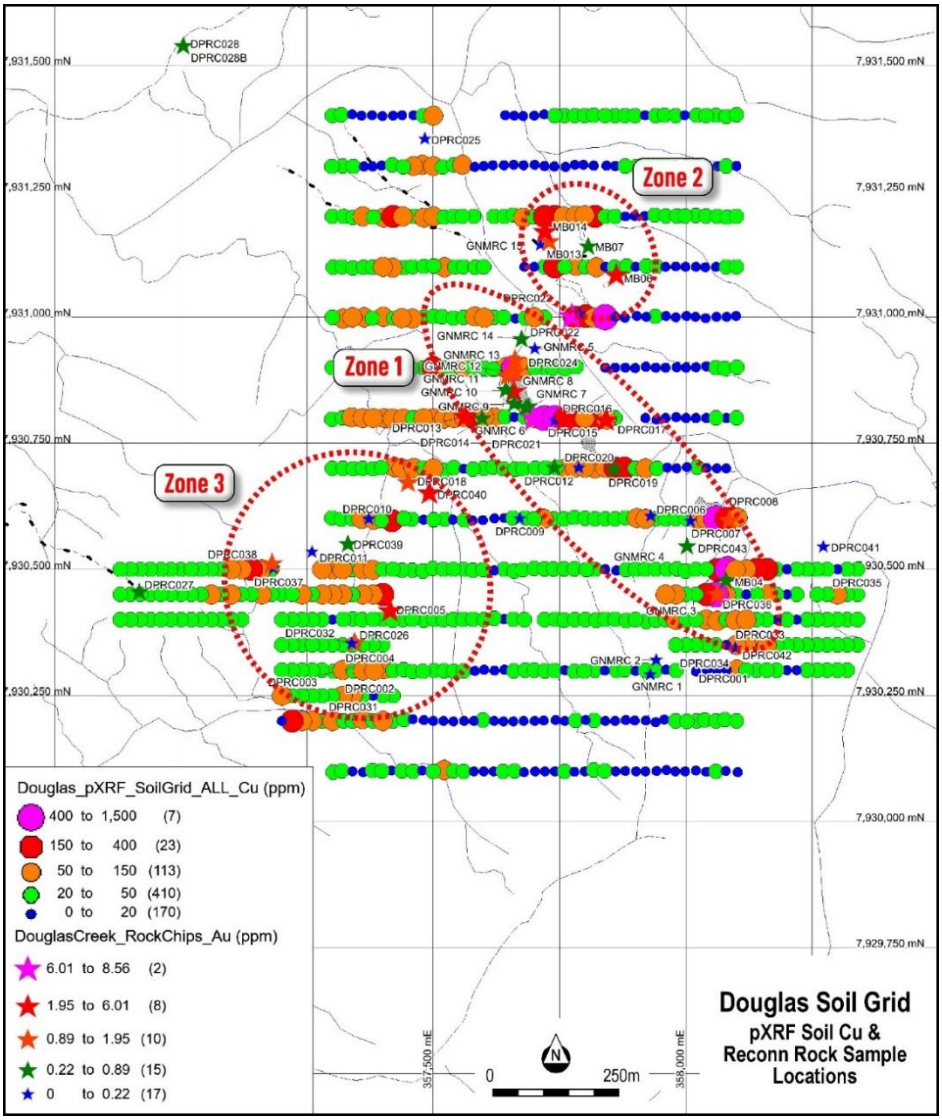
Douglas Creek IRGS Discovery

GNM's Douglas Creek discovery is located on EPM 27522, part of GNM's Golden Ant Project in North Queensland. GNM recently discovered high grade outcropping gold-silver-copper mineralisation (refer to GNM ASX release dated 31 May 2022) whilst targeting a historical gold geochemical anomaly.

Follow up mapping and sampling has defined three extensive zones of IRGS type mineralisation at Douglas Creek. An area of approx. 125ha has been mapped and sampled. Soil sampling was carried out on an initial soil grid of 100m N-S x 20m E-W spacing which was subsequently infilled to a 50m N-S x 20m E-W grid spacing. A total of 723 samples taken and scanned by the GNM team using a portable XRF scanner. A total of 554 soil samples were submitted for assay to determine gold concentrations.

The soil sampling results indicate the presence of extensive soil anomalies, with strong copper anomalism (refer to Figure 2) highlighting the areas of known mineralisation.

Figure 2 Douglas Creek Mineralisation



Zone 1 Mineralisation

Follow up mapping and sampling has defined a main gossanous breccia zone which is semi continuous for >350m averaging 20 to 30m wide. The zone has intermittent extensions to the south and southeast, indicating a potential strike length more than 500m. A strong soil copper geochemical anomaly coincides with this mapped zone. New extensions to the south of the known mineralisation have been defined from the recent soil infill sampling.

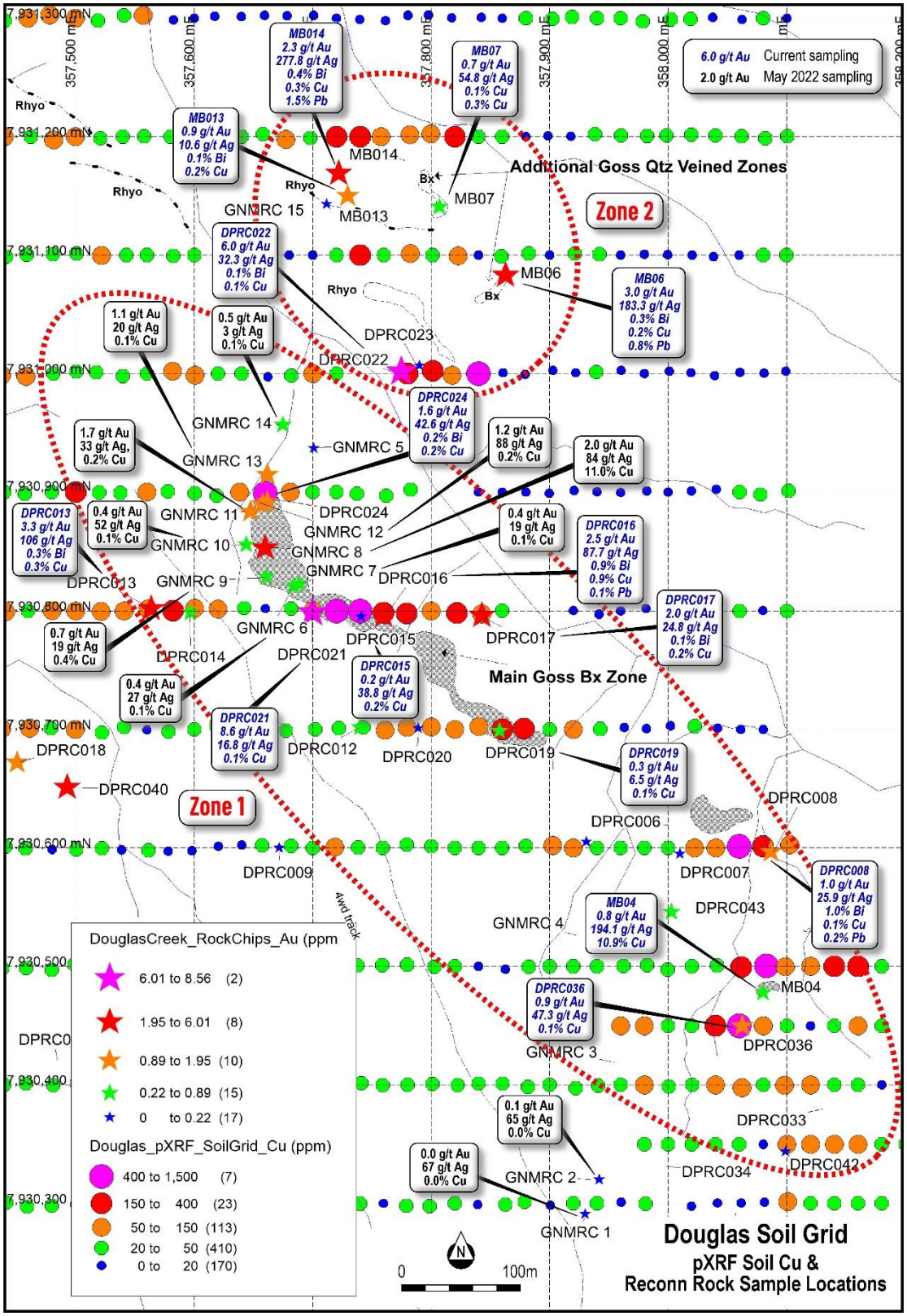
High-grade auriferous rock chip samples have been collected from within this zone with peak assays of 8.56 g/t Au, 194.1 g/t Ag, 0.98% bismuth, 10.93% copper and 0.18% lead.

Figure 3 Zone 1 mineralisation – layered vuggy quartz, iron oxide and malachite gossan

Table 1 Douglas Creek Stage Two Sampling Assay Results (Zone 1)

Zone	Sample	Au g/t	Ag g/t	Bi ppm	Bi %	Cu ppm	Cu %	Pb ppm	Pb %
Zone 1	DPRC008	1.02	25.9	9,760	0.98%	551	0.06%	1,772	0.18%
Zone 1	DPRC013	3.34	106	2,508	0.25%	2,846	0.28%	508	0.05%
Zone 1	DPRC015	0.15	38.8	138	0.01%	1,590	0.16%	298	0.03%
Zone 1	DPRC016	2.48	87.7	8,573	0.86%	8,997	0.90%	1,275	0.13%
Zone 1	DPRC017	1.95	24.8	1,067	0.11%	1,524	0.15%	208	0.02%
Zone 1	DPRC019	0.25	6.5	288	0.03%	1,119	0.11%	48	0.00%
Zone 1	DPRC021	8.56	16.8	1,122	0.11%	388	0.04%	83	0.01%
Zone 1	DPRC024	1.60	42.6	1,639	0.16%	1,819	0.18%	395	0.04%
Zone 1	DPRC036	0.94	47.3	100	0.01%	1,491	0.15%	17	0.00%
Zone 1	MB04	0.78	194.1	453	0.05%	109,262	10.93%	16	0.00%

Figure 4 Douglas Creek – Zone 1 & Zone 2 soil anomalies and sample assays



Zone 2 Mineralisation

Exploration activities have also discovered a new zone of mineralisation of approximately 275m NW-SE x 100m NE-SW across the Douglas Creek tributary to the north (refer to Figure 4). GNM geologists mapped multiple zones of gossanous, quartz veined ± brecciation altered sandstone and rhyolitic rocks (limonitic-jarositic ± scorodite) that have a spatial relationship with rhyolite dykes.

Initial rock chip samples were taken (MB06-07 & MB013-014 are representative of this alteration and mineralisation style) returning impressive results (refer to Table 2). All samples were mineralised with peak assays of 6.0 g/t Au, 277.8 g/t Ag 0.4% bismuth, 0.3% copper and 1.5% lead.

Figure 5 Zone 2 mineralisation - outcropping silica + sericite altered spheroidal rhyolite with minor quartz veining

Table 2 Douglas Creek Stage Two Sampling Assay Results (Zone 2)

Zone	Sample	Au g/t	Ag g/t	Bi ppm	Bi %	Cu ppm	Cu %	Pb ppm	Pb %
Zone 2	MB06	3.03	183.3	3,153	0.32%	1,673	0.17%	7,853	0.79%
Zone 2	MB07	0.68	54.8	302	0.03%	988	0.10%	2,849	0.28%
Zone 2	MB013	0.90	10.6	617	0.06%	2,353	0.24%	355	0.04%
Zone 2	MB014	2.27	277.8	4,332	0.43%	3,104	0.31%	14,785	1.48%
Zone 2	DPRC022	6.02	32.3	732	0.07%	808	0.08%	186	0.02%

Zone 3 Mineralisation

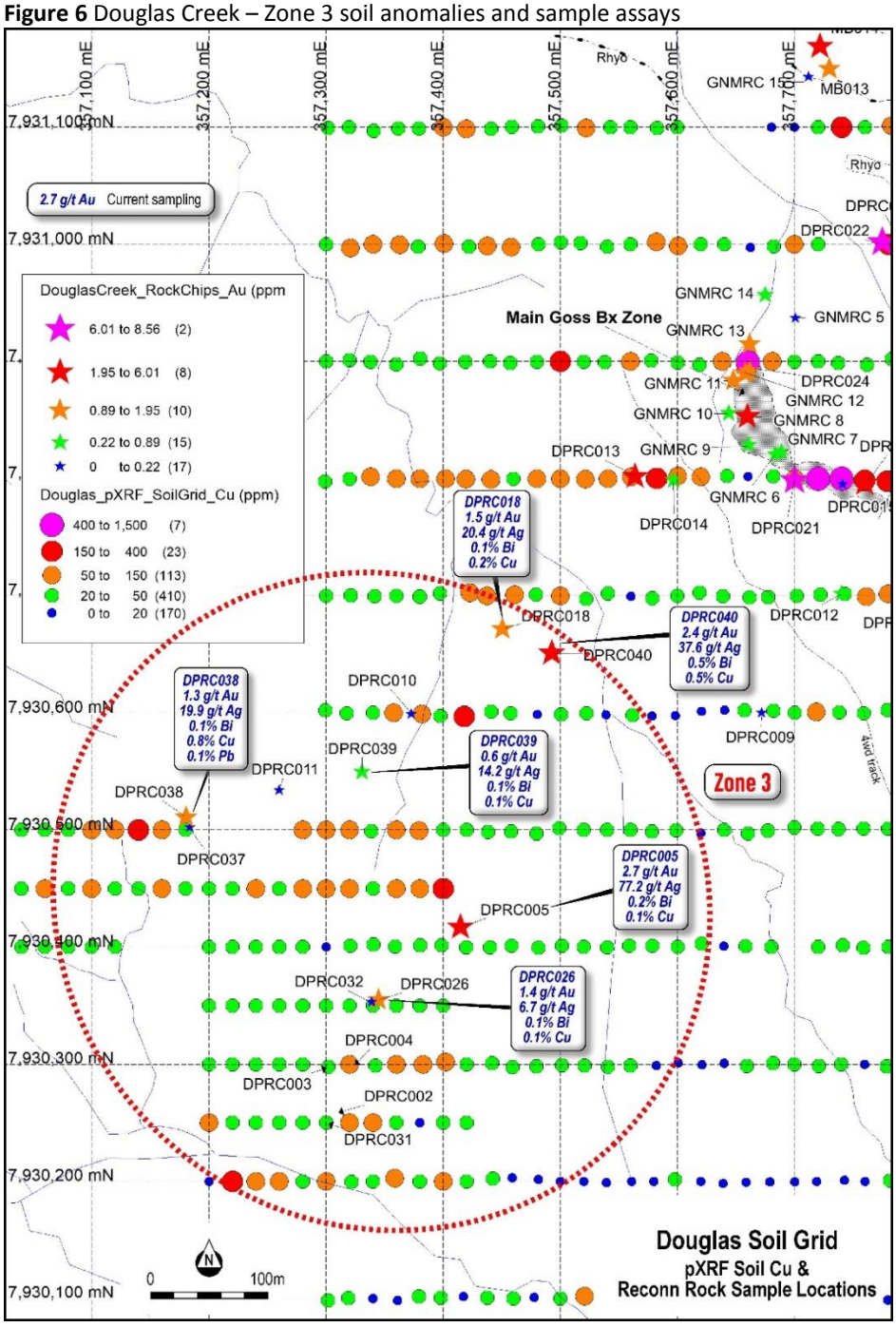
Exploration activities have an additional mineralised zone (Zone 3) to the southwest of Zones 1 and 2 (refer to Figure 7). GNM geologists mapped and sampled a zone gossanous float and subcrop approximately 20m wide extending over approximately 450m on a NE-SW trend. This zone is associated with highly anomalous soil geochemistry, which likely reflects subsurface mineralization.

Initial rock chip samples were taken and have returned impressive results (refer to Table 3), with peak assays of 2.7 g/t Au, 77.2 g/t Ag, 0.5% bismuth, 0.8% copper and 0.1% lead.

Table 3 Douglas Creek Stage Two Sampling Assay Results (Zone 3)

Zone	Sample	Au g/t	Ag g/t	Bi ppm	Bi %	Cu ppm	Cu %	Pb ppm	Pb %
Zone 3	DPRC005	2.65	77.2	2,156	0.22%	1,434	0.14%	30	0.00%
Zone 3	DPRC018	1.47	20.4	773	0.08%	1,989	0.20%	29	0.00%
Zone 3	DPRC026	1.38	6.7	469	0.05%	662	0.07%	185	0.02%
Zone 3	DPRC038	1.26	19.9	1,262	0.13%	7,505	0.75%	756	0.08%
Zone 3	DPRC039	0.64	14.2	859	0.09%	1,080	0.11%	169	0.02%
Zone 3	DPRC040	2.41	37.6	4,752	0.48%	5,307	0.53%	142	0.01%

Figure 6 Douglas Creek – Zone 3 soil anomalies and sample assays



Douglas Creek Planned Exploration

The GNM exploration team has returned to Douglas Creek to continue the systematic exploration program. The objective of the exploration activities scheduled to take place over July and August are as follows:

- Map and sample the areas of potential extensions to the known mineralisation (focusing on the extensions to the southeast and southwest);
- Mapping and sampling to better understand the geometry of the known mineralisation and seek to merge the current 3 zones of mineralisation into one larger zone; and
- Commence drill planning activities (scoping out likely access routes and drill pads in advance of Native Title clearance).

*****ENDS*****

This announcement has been authorised by the Board of Great Northern Minerals Limited.

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About Great Northern Minerals Limited

Great Northern Minerals Limited is an ASX-listed gold focused explorer and developer. The Company's Golden Ant Project is located in Far North Queensland and includes the Amanda Bell and Big Rush Goldfields.
Total gold production from the Amanda Bell Goldfield was approximately 95,000 oz Au (57,000 oz from Camel Creek and 14,000 oz from Camel Creek satellite deposits plus 18,000 oz from Golden Cup and 6,000 oz from Golden Cup satellite deposits). Total gold production from the Big Rush Goldfield was 60,000 oz Au. Three heap leach gold mines were operated (Camel Creek, Golden Cup and Big Rush). Mining activities commenced in 1989 and ceased in 1998 with the depletion of oxide gold mineralisation. Great Northern Minerals aims to develop a new gold camp in North Queensland based on the Golden Ant Project.

Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled under the supervision of Simon Coxhell, the Technical Director of Great Northern Minerals Limited. Mr. Coxhell is a member of the Australasian Institute of Mining and Metallurgy and has sufficient experience of relevance to the styles of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves." Mr. Coxhell consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.

Table 4 Douglas Creek Stage Two Sampling Assay Results

Zone	Sample	Au g/t	Ag g/t	Bi ppm	Bi %	Cu ppm	Cu %	Pb ppm	Pb %
	DPRC001	X	5.1	54	0.01%	8	0.00%	1,369	0.14%
	DPRC002	X	X	X	X	70	0.01%	13	0.00%
	DPRC003	X	X	X	X	6	0.00%	6	0.00%
	DPRC004	X	X	X	X	129	0.01%	9	0.00%
Zone 3	DPRC005	2.65	77.2	2,156	0.22%	1,434	0.14%	30	0.00%
	DPRC006	0.01	0.6	10	0.00%	51	0.01%	9	0.00%
	DPRC007	0.01	2.3	40	0.00%	394	0.04%	98	0.01%
Zone 1	DPRC008	1.02	25.9	9,760	0.98%	551	0.06%	1,772	0.18%
	DPRC009	0.02	0.9	84	0.01%	390	0.04%	37	0.00%
	DPRC010	0.08	2.9	298	0.03%	669	0.07%	160	0.02%
Zone 3	DPRC011	0.01	0.7	169	0.02%	25	0.00%	59	0.01%
	DPRC012	0.37	119.5	3,128	0.31%	16,948	1.69%	791	0.08%
Zone 1	DPRC013	3.34	106	2,508	0.25%	2,846	0.28%	508	0.05%
	DPRC014	0.23	21.3	1,485	0.15%	1,161	0.12%	1,581	0.16%
Zone 1	DPRC015	0.15	38.8	138	0.01%	1,590	0.16%	298	0.03%
Zone 1	DPRC016	2.48	87.7	8,573	0.86%	8,997	0.90%	1,275	0.13%
Zone 1	DPRC017	1.95	24.8	1,067	0.11%	1,524	0.15%	208	0.02%
Zone 3	DPRC018	1.47	20.4	773	0.08%	1,989	0.20%	29	0.00%
Zone 1	DPRC019	0.25	6.5	288	0.03%	1,119	0.11%	48	0.00%
	DPRC020	0.06	2.1	40	0.00%	188	0.02%	110	0.01%
Zone 1	DPRC021	8.56	16.8	1,122	0.11%	388	0.04%	83	0.01%
Zone 2	DPRC022	6.02	32.3	732	0.07%	808	0.08%	186	0.02%
	DPRC023	0.08	0.5	16	0.00%	41	0.00%	20	0.00%
Zone 1	DPRC024	1.60	42.6	1,639	0.16%	1,819	0.18%	395	0.04%
	DPRC025	0.16	64.2	6,623	0.66%	2,830	0.28%	4,787	0.48%
Zone 3	DPRC026	1.38	6.7	469	0.05%	662	0.07%	185	0.02%
	DPRC027	0.31	10.9	14	0.00%	32,455	3.25%	324	0.03%
	DPRC028	0.25	23.2	7,136	0.71%	1,159	0.12%	176	0.02%
	DPRC028B	0.31	31.5	5,111	0.51%	1,841	0.18%	1,955	0.20%
	DPRC029	X	2.2	647	0.06%	472	0.05%	112	0.01%
	DPRC030	X	6.2	980	0.10%	257	0.03%	566	0.06%
	DPRC031	X	0.5	18	0.00%	81	0.01%	9	0.00%
	DPRC032	0.03	0.9	75	0.01%	248	0.02%	14	0.00%
	DPRC033	X	2.4	12	0.00%	7	0.00%	11	0.00%
	DPRC034	X	9.2	55	0.01%	9	0.00%	809	0.08%
	DPRC035	X	0.6	8	0.00%	109	0.01%	24	0.00%
Zone 1	DPRC036	0.94	47.3	100	0.01%	1,491	0.15%	17	0.00%
Zone 3	DPRC037	0.01	0.6	X	X	24	0.00%	20	0.00%
Zone 3	DPRC038	1.26	19.9	1,262	0.13%	7,505	0.75%	756	0.08%
Zone 3	DPRC039	0.64	14.2	859	0.09%	1,080	0.11%	169	0.02%
Zone 3	DPRC040	2.41	37.6	4,752	0.48%	5,307	0.53%	142	0.01%
	DPRC041	0.04	1.8	97	0.01%	374	0.04%	42	0.00%
	DPRC042	0.01	0.8	9	0.00%	20	0.00%	12	0.00%
	DPRC043	0.36	6.3	256	0.03%	2,732	0.27%	32	0.00%
Zone 1	MB04	0.78	194.1	453	0.05%	109,262	10.93%	16	0.00%
Zone 2	MB06	3.03	183.3	3,153	0.32%	1,673	0.17%	7,853	0.79%
Zone 2	MB07	0.68	54.8	302	0.03%	988	0.10%	2,849	0.28%
Zone 2	MB013	0.90	10.6	617	0.06%	2,353	0.24%	355	0.04%
Zone 2	MB014	2.27	277.8	4,332	0.43%	3,104	0.31%	14,785	1.48%

Table 5 Douglas Creek Stage Two Sampling – Sample Location and Geological Description

Zone	Sample	AMG E	AMG N	Geological Description
	DPRC001	358020	7930298	Strongly argillic altered qtz intrusive & goethitic/limonitic gossan
	DPRC002	357311	7930259	Dark grey to black quartz breccia & minor sulphides
	DPRC003	357302	7930298	Altered intrusive mafic rock & minor stockwork qtz veins
	DPRC004	357324	7930299	Silica/sulphide altered medium to coarse grained diorite
Zone 3	DPRC005	357415	7930417	Sericitic altered quartz gossan - minor boxwork
	DPRC006	357931	7930605	Strongly sericitic ± ferruginous fine grained intrusive (rhyolite?)
	DPRC007	358010	7930595	Laminated gossanous qtz vein float ± gossans-sericitic
Zone 1	DPRC008	358087	7930597	Gossan (hem + limonite + qtz + magnetite) breccia
	DPRC009	357672	7930600	Gossan (hem + limonite brecciated magnetite)
	DPRC010	357373	7930599	Qtz tourmaline breccia & gossanous quartz vein
Zone 3	DPRC011	357260	7930534	Porphyritic diorite/granodiorite
	DPRC012	357740	7930702	Gossan with malachite coating on surfaces (diorite/granodiorite)
Zone 1	DPRC013	357564	7930802	Qtz gossan, limonite, goethite ex sulphides
	DPRC014	357597	7930799	Laminated qtz gossan (goethite + limonite) minor ex sulphides & sericitic alteration
Zone 1	DPRC015	357741	7930795	Qtz gossan outcrop, layered/laminated boxwork and ex sulphide crystals, goethite and limonite
Zone 1	DPRC016	357760	7930796	Qtz gossan, extensive boxwork, goethite and limonite
Zone 1	DPRC017	357843	7930796	Strongly sericitic gossanous qtz intrusive (ex-granodiorite)
Zone 3	DPRC018	357451	7930672	Honeycomb qtz gossan, brecciated and laminated, goethite and limonite minor boxwork
Zone 1	DPRC019	357858	7930699	Argillised ferruginous altered qtz diorite
	DPRC020	357789	7930701	Strongly sericitic-argillic brecciated qtz intrusive
Zone 1	DPRC021	357700	7930799	Fine grained silica + sulphide alteration-flood
Zone 2	DPRC022	357775	7931002	Qtz gossan, honeycombed with chloritic to fe rich chalcedony veining network (secondary), minor amorphous chloritic opal & laminated qtz vein with sulphides and ex sulphide crystals with green chloritic chalcedonic veining
	DPRC023	357790	7931007	Altered porphyritic rhyolite. Fine grained grey silica + clay groundmass flooded
Zone 1	DPRC024	357662	7930892	Breccia, gneissic clasts in weathered intermediate altered rock & laminated qtz gossan, minor fresh sulphides on fresh surfaces, minor malachite, pyrite, galena and chalcopyrite with secondary green chloritic chalcedonic veining
	DPRC025	357484	7931353	Laminated qtz gossan
Zone 3	DPRC026	357345	7930355	Gossan outcrop. Laminated qtz, primary sulphides in grey qtz, minor broken chalcedony veins, goethite & limonite
	DPRC027	356918	7930455	Scattered gossan float. Malachite, cuprite, limonite & goethite
	DPRC028	357005	7931538	Qtz gossan
	DPRC028B	357005	7931538	Qtz gossan
	DPRC029	357522	7932028	Laminated qtz vein gossan in diorite with altn on margins of vein.
	DPRC030	357476	7932060	Laminated qtz vein gossan, ex-sulphides, minor euhedral qtz, sericite altn in rhyolite
	DPRC031	357302	7930249	Drk gry qtz & laminated breccia with sericitic laminae infill.
	DPRC032	357339	7930353	Qtz gossan in altered, sheared intermediate diorite
	DPRC033	358080	7930348	Vuggy qtz vein float. Euhedral qtz in vughs. Minor specular hem and opaque mineral
	DPRC034	357995	7930334	Gossan outcrop, laminated, euhedral qtz in K altered granite
	DPRC035	358301	7930453	Sheared hornfels outcrop, FeOx on fracture planes.

Table 6 Douglas Creek Stage Two Sampling – Sample Location and Geological Description (cont.)

Zone	Sample	AMG E	AMG N	Geological Description
Zone 1	DPRC036	358063	7930450	Qtz gossan float in diorite
Zone 3	DPRC037	357184	7930502	Diorite porphyry
Zone 3	DPRC038	357181	7930511	Qtz gossan, limon-goethite, vuggy with minor boxwork. Minor malachite. Adjacent to porphyry.
Zone 3	DPRC039	357331	7930550	Gossan & qtz vein float
Zone 3	DPRC040	357493	7930651	Gossan float
	DPRC041	358273	7930544	Qtz gossan outcrop. Brecciated sediments / meta-sediments
	DPRC042	358099	7930344	Qtz vein. Euhedral, qtz crystals in vughs. K-spar alteration in host rock
	DPRC043	358003	7930546	Qtz gossan float
Zone 1	MB04	358080	7930478	Small outcrop malachite layered hematite rich gossan. Massive malachite ± cuprite? + FeOx gossan.
Zone 2	MB06	357863	7931083	Strongly sericitic, limonitic, qtz veined ± brecciated sandstone/rhyolite. Some silica + scorodite alteration-mineralisation. Minor vuggy, gossan's qtz veining with med-coarse grained prismatic qtz.
Zone 2	MB07	357807	7931141	Prominent outcrop sericitic, limonitic, brecciated coarse grained sandstone/rhyolite. (as per MB06.)
Zone 2	MB013	357730	7931150	Strongly sericitic + haematitic coarse grained quartzose sandstone. Scattered with dogtooth vuggy qtz veining. Gossan's vuggy infill & vein margins.
Zone 2	MB014	357722	7931169	As for MB13. Side slope subcrop/float

JORC Code, 2012 Edition

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. 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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.*	• Rock chip samples were collected over 900 metres of approximate north-south strike and 100 metres east-west in areas of nominal outcrop. • Selective sampling of geologically interesting rocks was conducted and the representative nature of the sampling is unknown. • Approximately 2 kilograms of rock chips, from pseudo outcropping areas was collected for each sample collected. • Sample locations were recorded by handheld GPS survey with estimated accuracy of +/-2-5 metres. • Analysis of the rock chips was conducted by Intertek Laboratory in Townsville for gold by 50 gram fire assay at a 0.001 ppm threshold with multielement analysis via multi acid digest followed by ICP MS.
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).*	• Rock chip samples were taken of sub outcropping zones of interest.
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.*	• One sample per hole/sample site collected. • There is insufficient data available at the present stage to evaluate potential sampling bias.
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.*	• Samples were logged for colour and sample type. • All samples were logged, in a qualitative manner. • Rock chip samples were selective on the basis of outcrop and interesting looking material

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• No core • Sample preparation for all recent samples follows industry best practice and was undertaken by Intertek Laboratories in Townsville where they were crushed, dried and pulverised to produce a sub sample for analysis. • Sample preparation involving oven drying, f followed by rotary splitting and pulverisation to 85% passing 75 microns. • QC for sub sampling follows Intertek procedures. • No field duplicates were taken. • No Blanks were inserted. • No Standards were inserted. • Sample sizes are considered appropriate to the grain size of the material being sampled.
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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	• The methods are considered appropriate to the style of mineralisation. Extractions are considered near total. • Laboratory QA/QC involves the use of internal lab standards using certified reference material, blanks, splits and duplicates as part of the in house procedures. Repeat and duplicate analysis for samples shows that the precision of analytical methods is within acceptable limits.
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.*	• The Company's Geologists have collected and visually reviewed the samples collected. • No twin holes drilled • Data and related information are stored in a validated MapInfo or Micromine database. Data has been visually checked for import errors. • No adjustments to assay data have been made.
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.*	• All sample locations have been located by GPS with precision of sample locations considered +/-2m. • Location grid of plans and coordinates in this release samples use MGA94, Zone 55 datum. • No Topographic data was used.
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.*	• Data spacing and distribution is considered sufficient to establish the likely trends of anomalous mineralisation • No Sample compositing has occurred.
Orientation of data in relation to	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the*	• Mineralised outcrop strikes north-north-east with the sampling more or less orthogonal to this apparent strike'.

Criteria	JORC Code explanation	Commentary
geological structure	*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.*	• Mineralised outcrop strikes north-north-east with sampling was more or less orthogonal to this apparent strike.
Sample security	• *The measures taken to ensure sample security.*	• Chain of custody is managed by the Company and samples are transported to the laboratory via Company staff with samples safely consigned to Intertek Genalysis Laboratory in Townsville for preparation and analysis. Whilst in storage, they are kept in a locked yard. Tracking sheets are used track the progress of batches of samples.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No review or audit of sampling techniques or data compilation has been undertaken at this stage.

Section 2 JORC Code, 2012 Edition - 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.*	• EPM 27522 is owned by Northern Exploration Pty Ltd, a 100% owned subsidiary of Great Northern Minerals Limited and was granted on the 1-12-2020. • The tenement is located 14 kilometres to the north of GNMs Camel Creek and Golden Cup mining leases.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Gold mineralization in the Camel Creek area and was first recognized in 1987. • Previous exploration and mining activities have been undertaken by Lynch Mining is the district, with anomalous bulk cyanide leach work completed in 1989 which outlined a gold anomaly with a maximum value of 4000 ppt. The majority of previous exploration was completed between 1986 –1990.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• EPM 27522 is located in the Broken River Mineral Field. Orogenic quartz vein hosted gold mineralization within sedimentary rock units occurs within the project area.
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.*	• Refer to Table 1 of this ASX Announcement which provides easting and northing of the rock chip samples with Figure 2 and 3, illustrating the distribution and values of the rock chip results.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts*	• No high-grade cuts have been applied to the tabled intersections. • No metal equivalents are used or presented.

Criteria	JORC Code explanation	Commentary
	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.*	
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 (e.g. 'down hole length, true width not known').*	• Rock chip samples are selective and targeted on outcropping and sub outcropping rocks.
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.*	• Maps are presented in the announcement.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• The accompanying document is considered to represent a balanced report.
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.*	• The mineralization in the region was originally outlined by BCL and followed up by limited rock chip sampling returning anomalous and significant gold results. Follow up sampling by GNM has now highlighted this area as a new mineralised area, with very high silver values, and gold values. It lies at the intersection of a prominent NE trending deep seated structure which contains significant gold mineralisation at Camel Creek and a NW trending sequence of cross cutting felsic dykes. Minor copper mineralisation on a dominant NW trend was also observed
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Further work will include; • Systematic soil sampling over the area of anomalous rock chip results is planned. • Site Clearance surveys with Native title groups prior to any drilling will be required. • Earthworks to establish access and drill pads