

8 July 2024

High-Grade Gold Intercept 22.4m @ 2.4g/t Au returned from KSB Project

Highlights

- Significant results returned from extensional drilling at K-South:
 - 22.4m @ 2.4g/t Au, 0.07% Co and 0.16% Cu from 43.6m (L66K9DD010)
Including:
 - 9.5m @ 3.7 g/t Au, 0.09% Co and 0.24% Cu from 51m
 - 4.3m @ 3.2g/t Au and 0.09% Co from 44m
- Extension drilling results from the K9 Prospect confirm the potential for high-grade, shallow gold resource.
- The positive results confirm continuity of mineralisation over 100m and remains open in all directions.
- Follow up drilling to be undertaken in August 2024 targeting further extensions at K9 and high priority targets at K8 and K10.

Latitude 66 Limited (ASX: LAT) (“Lat66” or “the Company”) is pleased to announce excellent assay results returned from diamond drilling at the K9 and K13 prospects within the Kuusamo Schist Belt Project (“KSB Project” or “the Project”) in Finland. The KSB Project is the flagship project for Latitude 66 Cobalt, which was recently acquired by Discovex Resources Limited (and renamed to Latitude 66 Limited).

These results are reported from the K-South prospective region at the Project where the drilling program is focused on defining a maiden JORC Mineral Resource Estimate across numerous targets defined through previous drilling success, geophysics, structural modeling and base of till sampling.

The diamond drilling program at K9 comprised of two holes for 236 metres and followed up on drilling completed in 2022 and 2023. The K9 prospect includes the following significant intercepts (**Figure 1**):

- 22.4m @ 2.40g/t, 0.07% Co and 0.16% Cu from 44m (L66K9DD010)
- 13.45m @ 6.25g/t Au & 0.18% Co from 21.1m (L66K9DD008)
- 13.8m @ 3.56g/t Au & 0.04% Co from 62.7m (L66K9DD008)
- 50.15m @ 0.45% Co from 124.75m (L66K9DD001)

At K13, the drilling was targeted towards a historic VTEM anomaly that was further defined by a follow up ground FLEM survey. A conductive anomaly (550 S/m) response similar to that identified at K9 (586 S/m) was returned¹ and was the basis of further investigation.

¹ Previously released to ASX by DCX in the Prospectus dated and lodged on 16 April 2024.

Latitude 66’s Managing Director, Grant Coyle, commented:

“We are delighted to hit the ground running with new drilling results from our flagship KSB Project in Finland. These results start to build a picture of the potential for a high-grade gold and cobalt resource at K-South. We believe the resource drilling program at K-South holds outstanding potential to add substantial ounces to the already significant global resource base within the KSB Project.

“Additionally to the ongoing drilling, our systematic program of geophysics, structural geology and geochemistry is being rolled out across the whole project, with the aim to enhance our understanding of the Au-Co mineralisation and hydrothermal alteration footprint at the KSB and further unlock value for our shareholders.”

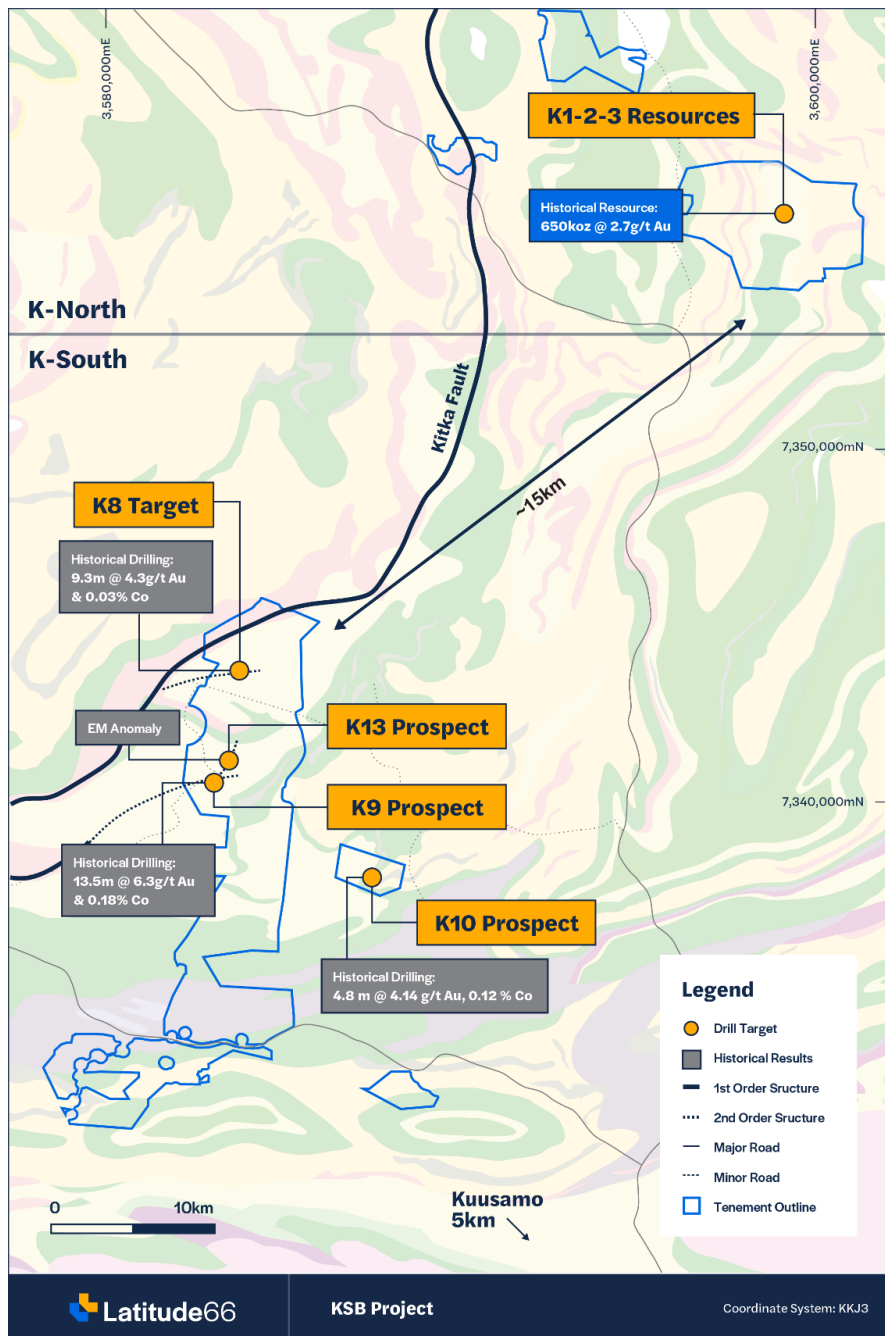


Figure 1: KSB Project tenement areas (incl. K-South and K-North)

Drilling Details

K9 Prospect

Two diamond holes were completed at K9 for 236m with the first hole (L66K9DD010) intersecting significant widths of mineralisation including **22.4m @ 2.4g/t Au, 0.07% Co and 0.16% Cu** from 44m. Within this broad intersection, multiple higher-grade intervals were returned including **9.5m @ 3.7g/t Au, 0.09 % Co & 0.24% Cu** from 51m and **4.3m @ 3.2g/t Au and 0.09% Co** from 44m (Figure 2). The second hole (L66K9DD011) was abandoned at 92m following detailed structural analysis of the first hole that indicated the mineralisation was trending sub-parallel to L66K9DD011.

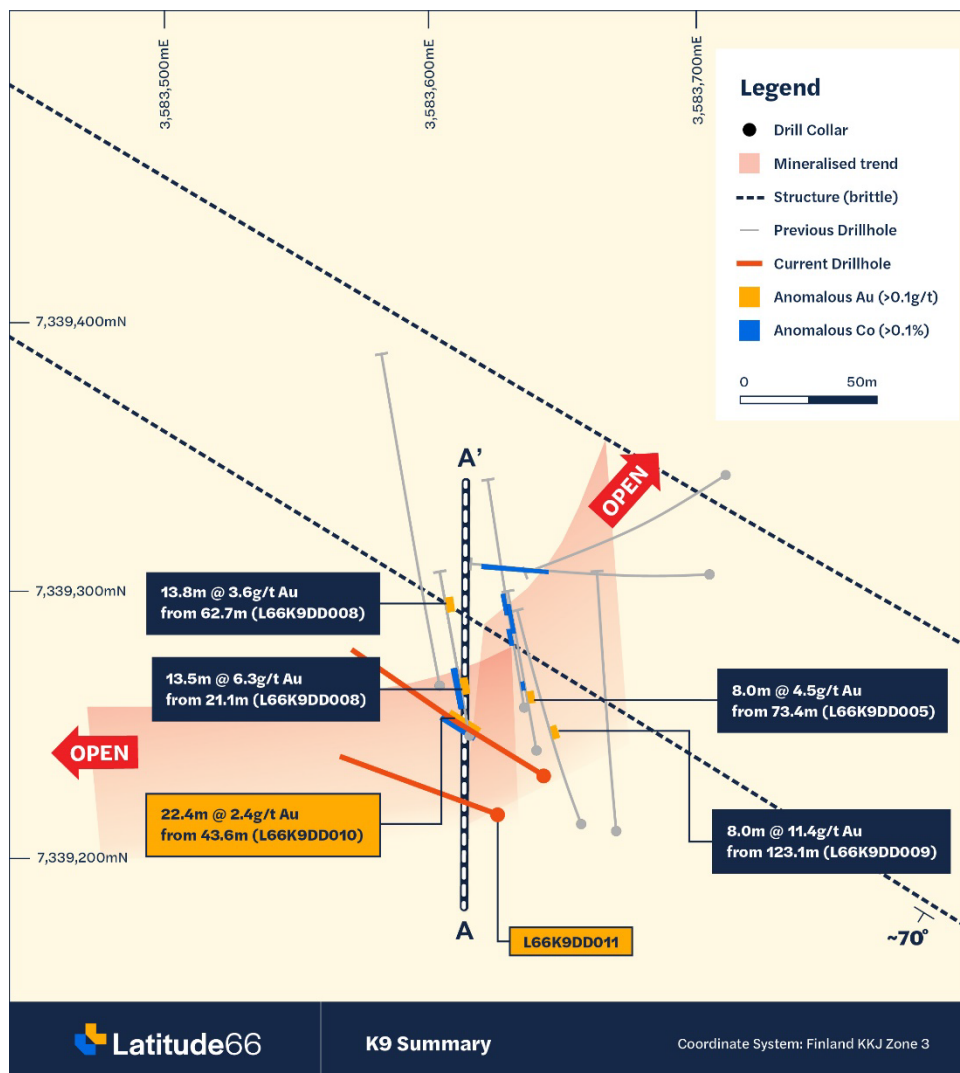


Figure 2: Plan view of the K9 Prospect showing latest drill intersection from L66K9DD010

The Au and Co intersection within L66K9DD010 has now confirmed continuity of mineralisation over a strike length of 100m and remains open in all directions. The K9 prospect represents a significant growth opportunity for the company to add substantial ounces to the already significant global resource base within the KSB Project of 7.2Mt @ 2.7g/t Au for 650,000oz Au². Additional drilling has been proposed along strike and down dip to expand on the extents of mineralisation with these activities planned to begin in August.

² Previously released to ASX by DCX in the Prospectus dated 16 April 2024 and Supplementary Prospectus dated 22 May 2024

K13 Prospect

Three holes for 479m were completed at the K13 Prospect, located approximately 350m north-east of the K9 Prospect. This target was generated from both VTEM and FLEM geophysical surveys, which defined a robust conductivity anomaly at a similar stratigraphic position to mineralisation returned from the K9 Prospect.

All three holes intersected semi-massive to massive pyrrhotite over widths of up to 0.5m and returned narrow cobalt mineralisation including 1m @ 0.22% Co from 49.85m (L66K13DD003) and 0.85m @ 0.17% Co from 45m (L66K13DD002). Both intersections correlate well spatially with the extension of the generated FLEM plate, however drillhole L66K13DD001, which targeted the centre of the plate (115m down hole), did not intersect sulphide mineralisation at the interpreted depth. Follow up work including downhole geophysics, together with analysis of multielement geochemistry will now be undertaken to confirm the EM anomaly.

Technical Discussion

The mineralisation intersected in hole L66K9DD010 is hosted within intermediate metavolcanic rocks with associated hydrothermal alteration minerals including biotite, sericite and chlorite. The higher tenor gold and cobalt intervals appear to be related to areas of intense sericite alteration, similar to that observed throughout the broader KSB Project (both K-North and K-South). In addition, elevated sulphides through the mineralised zone were also observed, including pyrite > pyrrhotite > chalcocopyrite > cobaltite.

The second hole (L66K9DD011) was abandoned at 92m following detailed structural analysis of the previous hole that indicated the mineralisation was trending sub-parallel to L66K9DD010. A decision on whether this hole will be re-entered and continued will be made once all results have been received from the DHEM program completed in June.

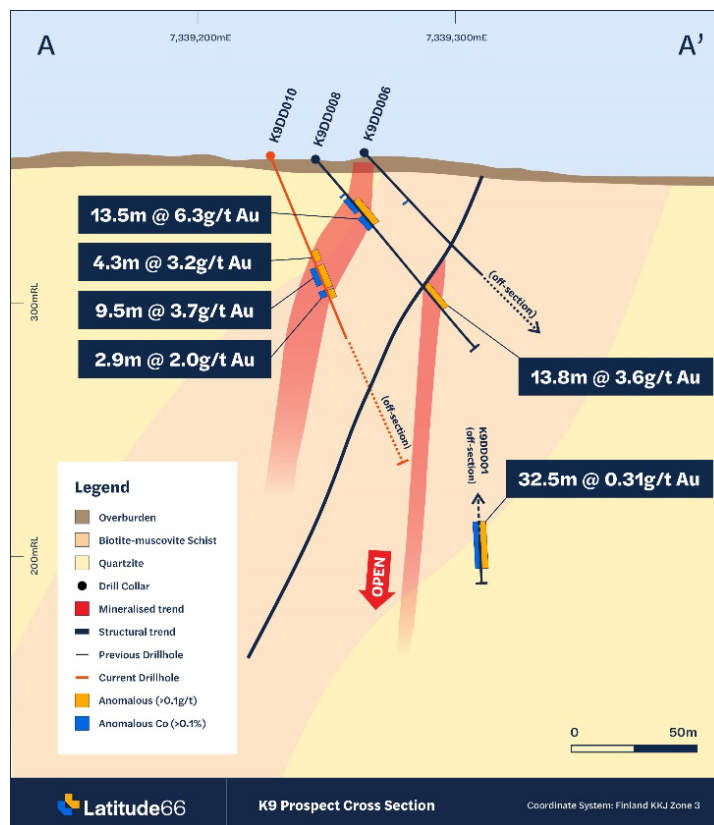


Figure 3: Cross-section from the K9 Prospect showing latest drill intersection from L66K9DD010

Detailed assay results from hole L66K9DD010 are shown below.

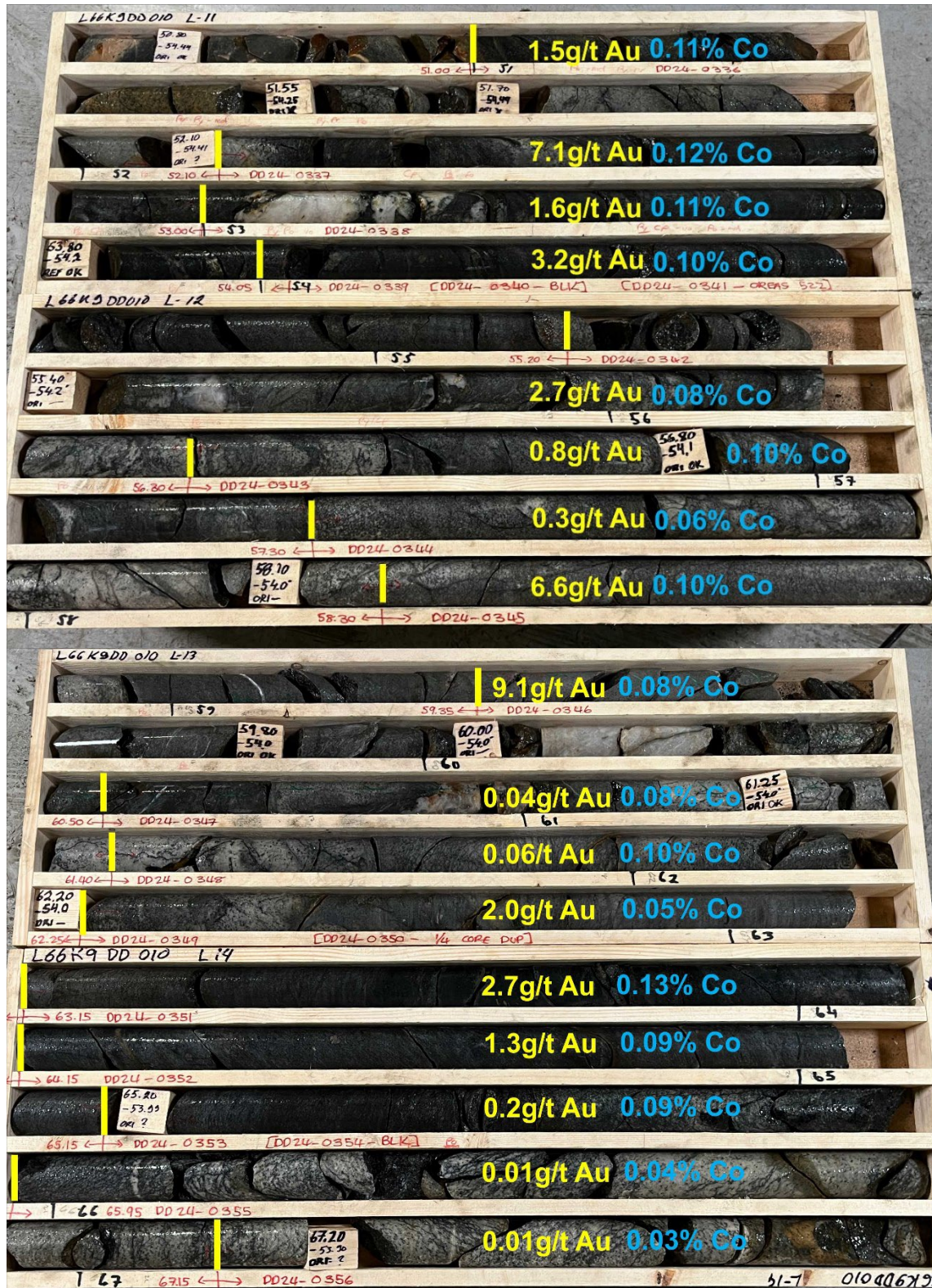


Figure 4: Trays 11 to 14 from drillhole L66K9DD010 with associated gold and cobalt grades

Next Steps

Evaluation of the DHEM results will be assessed in the coming weeks and used to optimise the planned August 2024 drilling campaign that will target extension of K9 mineralisation to the west and north-east.

In addition to this, a lithochemical evaluation of historic and recent data will be completed to enhance the understanding of the geological controls on mineralisation (besides the strong structural control). Much of the primary rock texture and mineralogy has been obliterated due to the alteration overprint, however the use of immobile element geochemistry to identify the geological protolith will assist to unlock the influence host rock lithology has on the orebody geometry. The detailed review will be rolled out at the K9 Prospect and across the entire Project area, including the resource areas of K1, K2 and K3 and exploration targets of K8 and K10.



Figure 5: KSB Project location map

- Ends -

This announcement has been authorised for release by the Board of Latitude 66 Limited.

For Investor Queries:

Grant Coyle - Managing Director
Latitude 66 Limited
E: grant@lat66.com
T: +61 8 9380 9440

For Broker and Media Queries:

Amalie Schreurs – Investor Relations
White Noise Communications
E: amalie@whitenoisecomms.com
T: +61 0431 636 033

About Latitude 66

Latitude 66 is a Finnish and Australian based company, focusing on the exploration and development of gold and critical minerals. The Company's primary focus lies in the Kuusamo Schist Belt Project (KSB Project) situated in Northern Finland. This flagship project boasts a substantial high-grade gold-cobalt mineral resource, with over 85% categorised as Indicated, totaling 650,000 ounces of gold at 2.7 grams per tonne (g/t) and 5,800 tonnes of cobalt at 0.08%.

In addition to the KSB Project, Latitude 66 holds a 17.5% free-carried interest in Carnaby Resources' Greater Duchess Project, strategically located in the Mt Isa Copper district.

Furthermore, Latitude 66 is actively engaged in the exploration of two promising gold projects in Western Australia: the Sylvania and Edjudina Projects.

Forward Looking Statement

The forward-looking statements in this announcement are based on the Company's current expectations about future events. They are, however, subject to known and unknown risks, uncertainties and assumptions, many of which are outside the control of the Company and its Directors, which could cause actual results, performance or achievements to differ materially from future results, performance or achievements expressed or implied by the forward looking.

Competent Persons Statement

The information in this announcement that relates to Exploration Results is based on and fairly represents information and supporting documentation compiled by Mr Toby Wellman, a competent person who is a Member of The Australasian Institute of Mining and Metallurgy (MAusIMM). Mr Wellman has sufficient experience that 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 as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the "JORC Code"). Mr Wellman is the Technical Director of Latitude 66 Limited and consents to the inclusion in this announcement of the Exploration Results in the form and context in which they appear.

Appendix A – Drill Collar Details and significant intersections

Hole ID	Northing	Easting	RL	Azimuth	Dip	Depth
L66K13DD001	7339581	3583956	308	290	-55.1	244.1
L66K13DD002	7339627	3583940	308	290	-57.0	49.6
L66K13DD003	7339617	3583941	302	290	-57.1	181
L66K9DD010	7339231	3583643	356	300	-55.3	144
L66K9DD011	7339216	3583626	358	290	-47.0	91.6

Appendix B – Assay Results

Hole ID	From (m)	To (m)	Width (m)	Au (g/t)	Co (%)	Cu (%)
L66K13DD002	45	45.85	0.85	NSA	0.17	0.13
L66K13DD003	49.85	50.85	1	0.03	0.22	0.09
L66K9DD010	43.6	44.8	1.2	10.1	0.09	0.07
L66K9DD010	44.8	45.8	1	0.93	0.02	0.03
L66K9DD010	45.8	46.85	1.05	0.06	0.03	0.04
L66K9DD010	46.85	47.85	1	0.46	0.11	0.03
L66K9DD010	47.85	48.8	0.95	NSA	NSA	NSA
L66K9DD010	48.8	50	1.2	NSA	NSA	NSA
L66K9DD010	50	51	1	0.01	NSA	NSA
L66K9DD010	51	52.1	1.1	1.49	0.11	0.14
L66K9DD010	52.1	53	0.9	7.09	0.12	0.35
L66K9DD010	53	54.05	1.05	1.55	0.11	0.21
L66K9DD010	54.05	55.2	1.15	3.23	0.10	0.18
L66K9DD010	55.2	56.3	1.1	2.67	0.08	0.32
L66K9DD010	56.3	57.3	1	0.84	0.10	0.41
L66K9DD010	57.3	58.3	1	0.33	0.06	0.24
L66K9DD010	58.3	59.3	1	6.57	0.10	0.23
L66K9DD010	59.3	60.5	1.2	9.1	0.08	0.13
L66K9DD010	60.5	61.4	0.9	0.04	0.08	0.09
L66K9DD010	61.4	62.25	0.85	0.06	0.10	0.13
L66K9DD010	62.25	63.15	0.9	2.03	0.05	0.17
L66K9DD010	63.15	64.15	1	2.66	0.13	0.20
L66K9DD010	64.15	65.15	1	1.27	0.09	0.20
L66K9DD010	65.15	65.95	0.8	0.15	0.09	0.30

Appendix C – JORC Table 1

Section 1. Sampling Techniques and Data

Criteria	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. Aspects of the determination of mineralisation that are Material to the Public Report.	Half drill core – The selection of mineralised intervals for sampling was based on visible sulphide mineralisation. Sampling was usually extended 4 to 6 m past visually logged mineralised intervals to the weakly or non-mineralised country rocks for better overall coverage. Sampling intervals ranged from 0.5m – 2.0m with an average sample length being 1.0m. Sampling was adjusted to geological boundaries. Sampling is consistent with industry standards.
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).	Latitude 66 engaged diamond drilling company Norse Drilling to complete the diamond drilling programs. 50.7 mm (NQ2) diamond core was utilized throughout the drilling programs. Drill core orientation is captured with Reflex ACT III and a DeviGyro tool. The used drilling technique is adequate for the explored mineralisation type and the stage of exploration.
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.	Core recoveries/loss and quality (RQD) are routinely collected for all drill holes and presented in a table format. The data collected is consistent and follows common practice of the exploration companies. Core-loss recoded within sample process. In general core recovery through the mineralised zone is close to 100%.
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.	All drill intervals were qualitatively logged for pertinent relevant features like lithology, mineralogy, mineralisation, structures, color and alteration and qualitatively by mineralization percentage, vein percentages and structural thicknesses. Data was collected into a table format using library defined codes. Geotechnical logging included alpha, beta and gamma (linear features) angle measurements of structures. All drilling logged in detail. Qualitative: Lithology, alteration, mineralisation etc. Core photography taken for all drill metres. Entire length of hole is logged.
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 representativity of samples.	Drill core was cut in half by a diamond core saw with half core submitted for assay. All drilling is core drilling. Sample preparation composed of PRP-920 (MSALABS). QAQC procedure consisted of insertion of suitable certified reference material, blank or assay duplicates. For each 100 samples: <ul style="list-style-type: none"> 5 OREAS certified reference material (CRM)

- 5 assay duplicates
 - 2 blanks
 - additionally, after each visually logged sulphidic mineralisation interval an additional blank sample was inserted.
- The sample sizes are believed to be appropriate to correctly represent the style and thickness of mineralization.

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.

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.	Sample analysis was performed by: MSALABS in Langley, Canada. Au was analysed with Fire Assay with AAS finish from 30g Fusion Size. Multi-element analysis was done from 0.25g sub-sample with IMS-230 method with near total four-acid digestion followed by ICP-MS. Overlimits of gold (>10 g/t) were reanalysed by 30 g Fire Assay with Gravimetric finish (FAS-415). Overlimits for Cu (>1 %) and Co are reanalysed from 0.2 g subsample with 4-acid digestion and ICP-ES finish by ICF-6Cu and ICF-6Co methods.
	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.	No geophysical tools or handheld instruments used.
	Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (e.g., lack of bias) and precision have been established.	QAQC procedure consisted of insertion of suitable certified reference material, blank or assay duplicates. For each 100 samples: <ul style="list-style-type: none"> • 5 OREAS certified reference material (CRM) • 5 assay duplicates • 2 blanks • additionally, after each visually logged sulphidic mineralisation interval an additional blank sample was inserted. The sample sizes are believed to be appropriate to correctly represent the style and thickness of mineralization.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Visible verification of drill core is made and compared to assay results.
	The use of twinned holes.	No holes have been twinned at the K9 Prospect
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All assay data is recorded in the company database from original assay results received from laboratory with assay certificates linked to all results. Sampling and laboratory quality are recorded with every received assay batch. QAQC samples are reviewed and if there are assays exceeding acceptable control values these are reported.
	Discuss any adjustment to assay data.	No adjustments to the 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.	Upon completion of drilling, accurate coordinate locations of the drilled hole collars are collected using Differential GPS services provided by contracted surveyor. Drill holes are aligned at the commencement of drilling using a handheld compass and confirmed with a downhole gyro. Drillholes were accurately

	Specification of the grid system used	<p>surveyed using non- magnetic deviation or MEMS-based down-hole survey equipment such as the DeviGyro, or Reflex Gyro.</p> <p>Planned collar locations were pegged using differential GPS provided by a contracted surveyor using the Finnish National Grid System (FIN KKJ3).</p>
Location of data points	Quality and adequacy of topographic control	dGPS coordinates of hole collars are used for topographic control.
Data spacing and distribution	<p>Data spacing for reporting of Exploration Results.</p> <p>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.</p> <p>Whether sample compositing has been applied.</p>	<p>Data spacing at K9 has been completed on a rough 20 x 20m pattern</p> <p>This is at a sufficient level to establish a maiden resource.</p> <p>Weighted averages have been used when calculated grade intervals.</p>
Orientation of data in relation to geological structure	<p>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</p> <p>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.</p>	<p>Due to the mineralisation being folded and faulted, the orientation of drillholes is often not at an optimal intersection angle. This will be optimised once the mineralisation trend is understood.</p> <p>LAT drill intersections have generally overestimated the width by approximately 25%.</p>
Sample Security	The measures taken to ensure sample security.	Personnel collected the core after every drill shift, or the core was stored in a locked container at the drill sites designated parking area. Core has been kept in Latitude 66 custody including being locked close to drill site storage to the company main core logging facility in Posio. Sample transportation to the laboratory was handled by official transportation companies. Employees do not handle the drill core samples after cutting as they are shipped directly to the designated laboratory of choice for analysis.
Audits or reviews	<p>The results of any audits or reviews of sampling techniques and data.</p> <p>Aspects of the determination of mineralisation that are Material to the Public Report.</p>	<p>The competent person has reviewed the sampling techniques for Latitude 66 and has concluded it has been completed to industry standard.</p> <p>Nothing additional to add</p>

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	K9 & K13 exploration target is located in the area of Exploration concession OLLINSUO (number ML2011:0022-01, 1427.7ha).
Mineral tenement and land tenure status	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.	This tenement is in good standing and there are no impediments to obtaining a licence to operate.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Dragon Mining historically conducted a geophysical VTEM survey. Both prospects have been generated by Latitude 66 Cobalt through FLEM surveys and base of till drilling.
Geology	Deposit type, geological setting and style of mineralisation.	Paleoproterozoic metasedimentary rock and shear zone-hosted Au-Co-(Cu) mineralisation, form a unique “KSB-style” deposit type (KSB, Kuusamo Schist Belt). The type example is the K1 Juomasuo deposit hosted primarily in intensely hydrothermally altered and sulphidised, tightly folded sequence of metasedimentary rocks of the Sericite Quartzite Formation The structural setting is within the eastern boundary of a major regional antiform, the Käylä-Konttiahö Antiform. The Ollinsuo project (K9) permit area covers the central and western parts of the interpreted Käylä-Konttiahö Antiform trending N-NE to S-SW in this area. Local rock types are early quartzites interbedded with biotite-white mica schists and later or coeval mafic volcanic rocks and dolerite dykes, which have intruded into these volcano-sedimentary rocks.
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: <ul style="list-style-type: none"> • 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. <p>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.</p>	Hole details can be found in Appendix A

Criteria	JORC Code explanation	Commentary
Data aggregation methods	<p>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.</p> <p>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.</p> <p>The assumptions used for any reporting of metal equivalent values should be clearly stated.</p>	<p>The metal concentration averages of mineralised intercepts presented in this report are sample length weighted averages of sample grades.</p> <p>No metal equivalents are used.</p>
Relationship between mineralisation widths and intercept lengths	<p>These relationships are particularly important in the reporting of Exploration Results.</p> <p>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</p> <p>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').</p>	<p>Due to the mineralisation being folded and faulted, the orientation of drillholes is often not at an optimal intersection angle. This will be optimised once the mineralisation trend is understood. LAT drill intersections have generally overestimated the width by approximately 25%.</p>
Diagrams	<p>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.</p>	<p>Maps, sections and intercepts are reported in this report.</p>
Balanced reporting	<p>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.</p>	<p>Significant intersections are reported for gold >0.4 g/t cut-off grade with no top cut. A maximum 2 samples of internal dilution was included where applicable.</p>
Other substantive exploration data	<p>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.</p>	<p>As the mineralisation is associated with sulphides, the use of geophysical tools such as EM and IP has been useful. No metallurgy, bulk density, groundwater, geotechnical and rock characteristics have been completed.</p>
Further work	<p>The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).</p> <p>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</p>	<p>Future work includes the assessment of DHEM results once they become available. Additional extension drilling will be started in mid_August.</p>