

# MORE THICK, SHALLOW GOLD HITS STRENGTHEN OPEN PIT OPPORTUNITY AT ORIENT WELL NW

Potential for shallow high-grade mineralisation continues to be demonstrated 10km east of Ulysses with a large aircore program imminent to test Orient Well NW mineralised corridor

#### **Key Points**

#### Orient Well NW Drilling Update

- Further drilling at Orient Well NW, 10km east of the 760,000oz Ulysses deposit, confirms strong zone of shallow gold mineralisation with new assays including:
  - o 37m @ 2.27g/t Au from 83m 19USRC369
    - > including 11m @ 6.16g/t Au from 91m
  - 32m @ 1.80g/t Au from 50m 19USRC368
    - > including 5m @ 8.04g/t Au from 50m
  - o 20m @ 1.18g/t Au from 53m 19USRC364
    - > including 7m @ 2.66g/t Au from 59m
  - o 6m @ 1.85g/t Au from 72m 19USRC362
- Results continue to support the potential to define shallow open pittable Resources outside of the main Ulysses Deposit.
- Over 5km of strike to be systematically explored in the Orient Well NW corridor.
- New host rock identified.

Genesis Minerals Limited (ASX: GMD) is pleased to report new drilling results from its 100%-owned **Ulysses Gold Project**, located 30km south of Leonora in WA (Figure 5), where it is progressing its exploration program targeting extensions of the main 760,000oz Mineral Resource in parallel with an expanding regional exploration campaign.

Recent Reverse Circulation (RC) drilling has intersected further significant mineralisation at Orient Well NW (see Figure 1), located 10km east of the 760,000oz Ulysses Mineral Resource, highlighting the potential to delineate shallow Resources in this area which are potentially amenable to extraction via open pit methods.

Genesis Managing Director Michael Fowler said the Orient Well NW prospect was continuing to deliver highly encouraging results, confirming the potential to define shallow Resources outside of the main Ulysses Deposit.

"Our recent drilling success at Orient Well shows just how prospective our broader tenement package is. We have only completed relatively limited regional drill programs outside of the Ulysses Deposit and we have already generated sufficient data to underpin a potential open pit Resource at this emerging prospect.

"The upcoming aircore program will target further open pittable resources along a 5km long prospective target zone which has had very limited exploration and is under transported cover."

ABN: 72 124 772 041 Unit 6, 1 Clive St West Perth, WA, Australia, 6005 ASX Code: GMD www.genesisminerals.com.au T: +61 8 9322 6178

"We are particularly encouraged by the fact that the high-grade mineralisation discovered in the Orient Well NW corridor to date is associated with felsic rocks which differ to the mafic-dominated host rocks of the Ulysses Resource. This reinforces the potential to define significant mineralisation throughout the Ulysses Project."

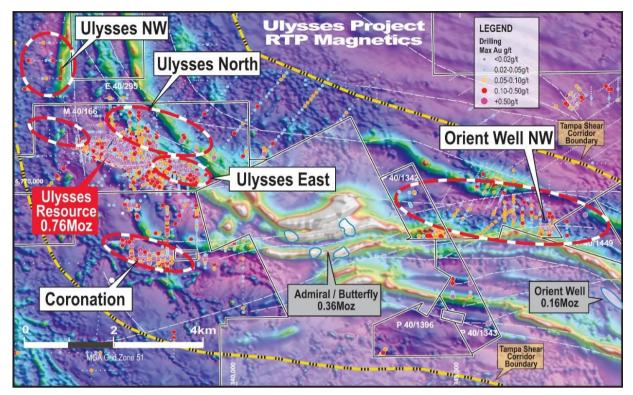


Figure 1. Location plan showing Orient Well NW prospect located 10km east of the Ulysses Resource.

#### **Orient Well NW Drilling Results**

Results have been received from a further eight RC holes (19USRC362 to 369), drilled in the Orient Well NW area to test the potential for open pittable Resources. Intersections from 1m split sampling of the recent drilling includes:

- 37m @ 2.27g/t Au from 83m 19USRC369
  - > including 11m @ 6.16g/t Au from 91m
- 32m @ 1.80g/t Au from 50m 19USRC368
  - > including 5m @ 8.04g/t Au from 50m
- 20m @ 1.18g/t Au from 53m 19USRC364
  - including 7m @ 2.66g/t Au from 59m
- o 6m @ 1.85g/t Au from 72m 19USRC362
- o 2m @ 3.23g/t Au from 89m 19USRC363
- o 28m @ 0.43g/t Au from 92m 19USRC365
  - > including 7m @ 0.92g/t Au from 101m

Shallow drilling has now been completed at 40 to 20m section spacing with holes spaced at ~40m on section. Results from the drilling indicate the potential for NNW plunging high-grade gold shoots as highlighted in Figure 2. The mineralisation is open at depth and along strike.

The next round of exploration in the Orient Well NW area will include systematic aircore drilling over the 5km of strike of the mineralised corridor. The drilling completed to date has so far tested just a 300m strike length of a 5km long target zone – highlighting the exciting opportunity that continues to emerge in this area.

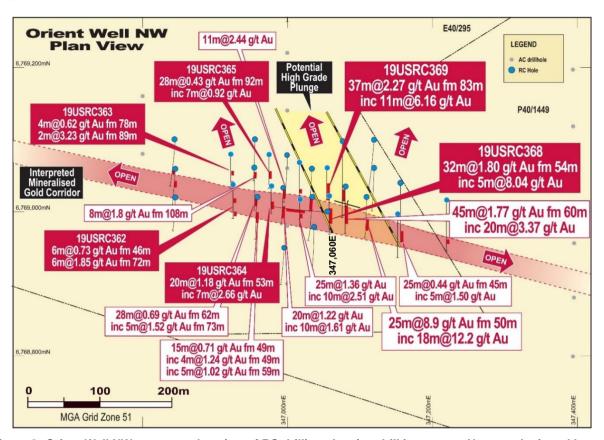


Figure 2. Orient Well NW prospect plan view of RC drilling showing drill intercepts. New results in red boxes.

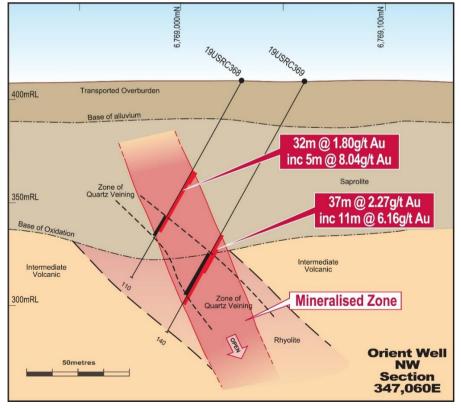


Figure 3. Section 347,060E looking west – see Figure 2 for location.

The stratigraphy at Orient Well NW comprises a package of felsic and intermediate volcanic rocks above a quartz-magnetite dolerite (prominent in the regional magnetic data) located in the footwall to the volcanic stratigraphy.

The main prospect area is covered by 10 to 15m of transported overburden over a deep saprolite profile up to 50-70m below surface. The primary mineralisation is hosted within a moderately north-dipping, 40-50m thick siliceous felsic volcanic unit (probably a rhyolite) that is quartz-veined and silica-sericite-pyrite altered. The structures controlling the mineralised zone are not yet understood and will be the focus of ongoing work.

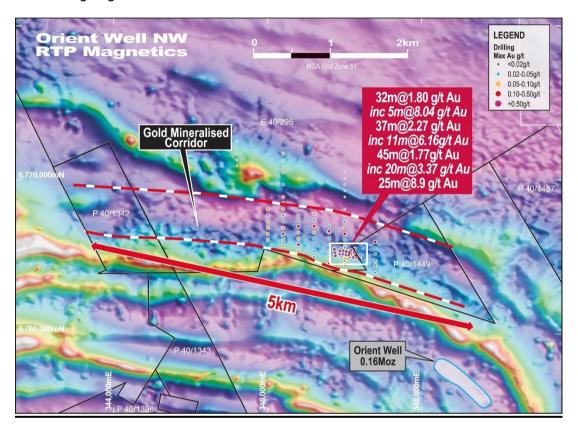


Figure 4. Plan view of east west trending Orient Well NW gold mineralised corridor. Only Genesis drilling shown on figure. Area of RC drilling in Figure 2 is highlighted by white rectangle.

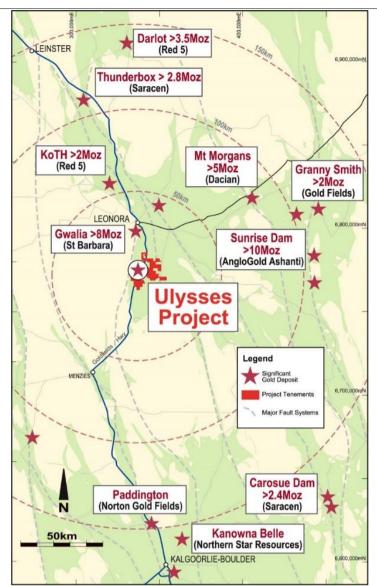


Figure 5. Project Location

#### **ENDS**

For further information, visit: <a href="www.genesisminerals.com.au">www.genesisminerals.com.au</a> or please contact

Investors: Michael Fowler Managing Director Genesis Minerals Limited

T: +61 8 9322 6178

E: mfowler@genesisminerals.com.au

Media: Nicholas Read Read Corporate

T: +61 8 9388 1474

E: nicholas@readcorporate.com.au

#### **COMPETENT PERSONS' STATEMENTS**

The information in this report that relates to Exploration Results is based on information compiled by Mr. Michael Fowler who is a full-time employee of the Company, a shareholder of Genesis Minerals Limited and is a member of the Australasian Institute of Mining and Metallurgy. Mr. Fowler has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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. Fowler consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The Information in this report that relates to Mineral Resources is based on information compiled by Mr Paul Payne, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Payne is a full-time employee of Payne Geological Services and is a shareholder of Genesis Minerals Limited. Mr Payne has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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 Payne consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### **DRILLING RESULTS TABLE**

Table 1. May 2019 Ulysses Project Drilling

Hole_ID	Local East	Local North	NAT East	NAT_North	NAT_ RL	Max Depth (m)	MGA Azi	Dip	Fro m (m)	To (m)	Int (m)	Gold (g/t)
19USRC362	20,602	25,033	346,940	6,769,040	410.0	80	180	-60	46	52	6	0.73
									72	78	6	1.85
19USRC363	20,576	25,063	346,940	6,769,080	410.0	110	180	-60	49	56	7	0.24
									78	82	4	0.62
									89	91	2	3.23
19USRC364	20,632	25,059	346,980	6,769,040	410.0	100	180	-60	53	73	20	1.18
							including	J	59	66	7	2.66
									80	81	1	2.02
19USRC365	20,606	25,089	346,980	6,769,080	410.0	120	180	-60	92	120	28	0.43
							including	1	101	108	7	0.92
19USRC366	20,669	25,077	347,020	6,769,030	410.0	90	180	-60	73	89	16	0.50
19USRC367	20,643	25,108	347,020	6,769,070	410.0	116	180	-60	72	73	1	3.27
19USRC368	20,697	25,099	347,055	6,769,029	410.0	110	180	-60	50	82	32	1.80
							including	J	50	55	5	8.04
19USRC369	20,680	25,126	347,060	6,769,060	410.0	140	180	-60	83	120	37	2.27
		·					includin	g	91	102	11	6.16

#### MINERAL RESOURCE TABLE

A summary of the October 2018 Ulysses Mineral Resource is provided in Table 2 below:

Table 2. October 2018 Mineral Resource Estimate 0.75g/t Cut-off above 200mRL, 2.0g/t Below 200mRL

	Measur	ed	Indicate	d	Inferred	l		Total	
Туре	Tonnes	Au	Tonnes	Au	Tonnes	Au	Tonnes	Au	Au
	t	g/t	t	g/t	t	g/t	t	g/t	Ounces
Oxide	6,000	2.1	143,000	1.6	146,000	1.6	295,000	1.6	15,200
Transition	6,000	3.1	364,000	1.9	234,000	1.6	604,000	1.8	34,700
Fresh	21,000	5.0	3,647,000	3.7	2,551,000	3.3	6,220,000	3.6	710,500
Total	33,000	4.1	4,154,000	3.5	2,932,000	3.0	7,119,000	3.3	760,400

October 2018 Mineral Resource Estimate 2.0g/t Global Cut-off

	1								
	Measur	red	Indicate	ed	Inferred	t		Total	
Туре	Tonnes	Au	Tonnes	Au	Tonnes	Au	Tonnes	Au	Au
	t	g/t	t	g/t	t	g/t	t	g/t	Ounces
Oxide	4,000	2.5	26,000	2.8	22,000	2.2	51,000	2.5	4,200
Transition	5,000	3.3	114,000	3.1	20,000	2.2	138,000	3.0	13,400

Fresh	21,000	5.0	2,323,000	5.2	1,605,000	4.3	3,949,000	4.8	610,800
Total	29,000	4.4	2,463,000	5.0	1,647,000	4.3	4,139,000	4.7	628,400

### October 2018 Mineral Resource Estimate High Grade Shoots

	Measur	ed	Indicate	d	Inferred	d		Total	
Туре	Tonnes	Au	Tonnes	Au	Tonnes	Au	Tonnes	Au	Au
	t	g/t	t	g/t	t	g/t	t	g/t	Ounces
HG Shoots	21,000	5.2	1,398,000	6.4	187,000	10.8	1,606,000	6.9	356,100

#### NB. Rounding errors may occur

Full details of the Mineral Resource estimate are provided in the Company's ASX announcement dated 9 October 2018.

JORC Table 1 Section 1 Sampling Techniques and Data - Ulysses

Criteria	JORC Code explanation	Certified Person Commentary					
	Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	Sampling was undertaken using standard industry practices with reverse circulation (RC) drilling).					
Complian	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Holes were generally angled to optimally intersect the mineralised zones.					
Sampling techniques	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	All RC samples were fully pulverized at the lab to -75 microns, to produce a 50g charge for Fire Assay with ICP-MS finish for Au.					
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	RC face sampling drilling was completed using a 5.75" drill bit.  Drilling was undertaken by Challenge Drilling using a custom-built truck mounted rig.					
	Method of recording and assessing core and chip sample recoveries and results assessed.	RC sample recoveries were visually estimated to be of an industry acceptable standard. Moisture content and sample recovery is recorded for each RC sample.					
Drill sample recovery	Measures taken to maximise sample recovery and ensure representative nature of the samples.	The RC samples were dry and very limited ground water was encountered.					
	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.	No bias was noted between sample recovery and grade.					
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.	The detail of logging is considered suitable to support a Mineral Resource estimation.					
Logging	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging of lithology, structure, alteration, mineralisation, regolith and veining was undertaken for RC drilling and diamond drilling  Photography of RC chip trays is undertaken during the logging process.					
	The total length and percentage of the relevant intersections logged.	All drill holes were logged in full.					
Sub-sampling techniques and	If core, whether cut or sawn and whether quarter, half or all core taken.	No core samples.					
sample preparation	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Reverse circulation holes were sampled at 1m intervals collected via a cyclone, dust collection system and cone splitter.					

	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	RC and diamond samples were analysed at Intertek Genalysis in Perth following preparation in Kalgoorlie. Samples were dried at approximately 120°C with the sample then being presented to a robotic circuit. In the robotic circuit, a modified and automated Boyd crusher crushes the samples to –2mm. The resulting material is then passed to a series of modified LM5 pulverisers and ground to a nominal 85% passing of 75µm. The milled pulps were weighed out (50g) and underwent analysis by fire assay (method FA50/OE04).					
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Genesis submitted standards and blanks into both the RC and diamond sample sequence as part of the QAQC process. CRM's were inserted at a ratio of approximately 1-in- 20 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.	Sampling was carried out using Genesis' protocols and QAQC procedures as per industry best practice. Duplicate samples were routinely submitted and checked against originals for both drilling methods.					
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered to be appropriate to correctly represent the style of mineralisation, the thickness and consistency of the intersections.					
	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Analytical samples were analysed through Intertek Genalysis in Perth. All RC samples were analysed by 50g Fire Assay.					
Quality of assay data and	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 were used to estimate mineral or element percentages.					
laboratory tests	Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	In addition to Genesis' standards, duplicates and blanks, Intertek Genalysis incorporated laboratory QAQC including standards, blanks and repeats as a standard procedure. Certified reference materials that are relevant to the type and style of mineralisation targeted were inserted at regular intervals.					
		Results from certified reference material highlight that sample assay values are accurate.  Duplicate analysis of samples showed the precision of samples is within acceptable limits.					
	The verification of significant intersections by either independent or alternative company personnel.	The Managing Director of Genesis and an independent consultant verified significant intercepts.					
Verification of	The use of twinned holes.	No twinned holes were completed.					
sampling and assaying	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Logging of data was completed in the field with logging data entered using a Toughbook with a standardised excel template with drop down fields. Data is stored in a custom designed database maintained by an external DB consultant.					
	Discuss any adjustment to assay data.	No adjustments have been made to assay data.					
	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and	All maps and sample locations are in MGA Zone51 GDA grid. The Ulysses local grid is used for drill hole planning.					
Location of data points	other locations used in Mineral Resource estimation.	Collar locations were pegged using a handheld Garmin GPS with reference to known collar positions in the field. At the completion of an RC program the collar locations are surveyed with Rover pole shots using a Leica Captivate RTK GPS (+/-0.1m).					
	Specification of the grid system used.	MGA Zone51 GDA grid used and Ulysses local grid (GN 40.5 magnetic					
	Quality and adequacy of topographic control.	Drill hole collar RL's are +/- 0.1m accuracy. Topographic control is considered adequate for the stage of development.					
	Data spacing for reporting of Exploration Results.	For RC drilling the hole spacing is mostly 40 to 20m (E-W) by ~40m (N-S).					
Data spacing and distribution	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.	The RC drilling has demonstrated sufficient continuity in both geological and grade continuity to support the definition of Mineral Resource, and the classifications applied under the 2012 JORC Code.					

	Whether sample compositing has been applied.	No compositing has been applied.
Orientation of	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Holes were generally angled to Ulysses local grid south (220.5 magnetic) or MGA grid south.
data in relation to geological structure	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.	No orientation based sampling bias is known at this time.
Sample security	The measures taken to ensure sample security.	Chain of custody was managed by Genesis. No issues were reported.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or reviews of sampling techniques and data were completed.

## JORC Table 1 Section 2 Reporting of Exploration Results - Ulysses

Criteria	JORC Code explanation	Certified Person Commentary
C	· ·	The Ulysses deposit is located within Mining Lease M40/166 which is
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	owned by Ulysses Mining Pty Ltd a 100% owned subsidiary of Genesis Minerals Limited.  Orient Well NW is located within E40/295 and P40/1449 which is owned by Ulysses Mining Pty Ltd a 100% owned subsidiary of Genesis Minerals Limited.  The Mining Lease was granted for a term of 21 years and expires 28 January 2022.  The tenements are in good standing.
	of reporting along with any known impediments to obtaining a licence to operate in the area.	
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The tenement was previously held in a joint venture between Sons of Gwalia Limited ("SWG") and Dalrymple Resources NL. The majority of drilling was completed by SWG between 1999 and 2001.
parties		The project was acquired by St Barbara Limited ("SMB") in 2004. SBM work was limited to resource modelling and geological review.
Geology	Deposit type, geological setting and style of mineralisation.	Ulysses Deposit  The Ulysses gold deposit is developed within a WNW-striking, 35° NNE-dipping shear zone (Ulysses Shear), which has sinistral strike-slip kinematics. The Ulysses Shear cuts at low angle through the entirely mafic stratigraphy, which is slightly more NW-striking, and dips 30° to the NE. The most distinctive features of the stratigraphy are a pair of titanomagnetite-rich quartz dolerite sills (Western Quartz Dolerite and Eastern Quartz Dolerite).  The Ulysses Shear has a highly predictable geometry and is mineralised throughout the deposit area. Typical mineralised intervals consist of biotite-albite-carbonate-pyrite-pyrrhotite lode-style alteration, with 1-20% quartz-sulphide veining. Highest-grade intervals are associated with intense albite-sulphide replacement of the shear fabric.  Though mineralised throughout, the Ulysses Shear hosts five currently known high-grade shoots, the controls on which have been established through mapping, structural analysis, and 3D geological modelling. The Ulysses West shoot, mined in the Ulysses West open pit, is controlled by the intersection of the Ulysses Shear with the Western Quartz Dolerite. This intersectional shoot has a strike length of ~150 m, plunges 35° to the NE.  The Ulysses East shoot, mined in the eastern end of the main Ulysses open pit, is controlled by the intersection of the Ulysses Shear with the Eastern Quartz Dolerite. The intersectional geometries here are complicated by the Ulysses Shear splitting into a series of sub-parallel structures. This has the effect of creating a series of stacked intersectional ore-shoots, each of which plunge 30° to the NE. The main part of the Ulysses East shoot has a strike length of ~200m.
		The Ulysses Central shoot, mined in the western end of the main Ulysses

22 May 2010		Corresio Willeraio Ell'Illica
		open pit, is hosted in ordinary dolerite and pillow basalt (not quartz dolerite). Its location is controlled by the intersection of the Ulysses Shear with a hangingwall splay shear, which creates a grade-tonnage blowout plunging 30° to the north, parallel to the merge-point of the two structures. This shoot has a strike length of ~100 m.
		Orient Well NW
		The stratigraphy at Orient Well NW comprises a package of felsic and intermediate volcanic rocks above a quartz-magnetite dolerite (prominent in the regional magnetic data) located in the footwall to the volcanic stratigraphy.
		The main prospect area is covered by 10 to 15m of transported overburden over a deep saprolite profile up to 50-70m below surface. The primary mineralisation is hosted within a moderately north- dipping, 40-50m thick siliceous felsic volcanic unit (probably a rhyolite) that is quartz-veined and silica-sericite-pyrite altered. The structures controlling the mineralised zone are not yet understood and will be the focus of ongoing work.
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:  o easting and northing of the drill hole collar o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar o dip and azimuth of the hole o down hole length and interception depth o hole length.	Appropriate tabulations for drill results have been included in this release as Table 1.
	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.	Appropriate tabulations for drill results have been included in this release.
	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated	No top cuts were applied. Intercepts results were formed from weighted averages.
Data aggregation methods	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.	Maximum of 2m internal dilution was included.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values are currently used for reporting of exploration results
	These relationships are particularly important in the reporting of Exploration Results.	Only down hole lengths are reported. True widths are 70 to 80% of downhole lengths for Ulysses.
Relationship between mineralisation widths and	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	All drill holes are angled to be approximately perpendicular to the orientation of the mineralised trend.
intercept lengths	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant	Appropriate plans are included in this release.

	discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	
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.	All exploration results are reported.
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.	A mining operation has recently been completed at Ulysses West
	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	Further work will include systematic infill and extensional drilling.
Further work	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Appropriate plans are included in this release.