Zenith Minerals Limited
ABN 96 119 397 938

3rd December 2014

High-Grade Gold at Mt Minnie

- Zenith rock chip sampling confirms high-grade gold at the Mt Minnie Project in Western Australia. New surface rock sample results include: 17.65 g/t gold, 13.15 g/t gold and 11.45g/t gold;
- Previous high-grade rock samples returned up to 64.2 g/t gold & 21.5 g/t gold;
- Only cursory historic reconnaissance activity in Zenith tenure by previous explorer, however focus was on nearby Minnie Springs molybdenum deposit;
- Zenith is applying a new geological model to assess seven under-explored gold prospects over 50km of strike, prospective for reduced intrusion related gold deposits, and
- Zenith's detailed orientation sampling program confirmed that surface soil samples can detect gold mineralisation at the Woods Prospect, whereas historic sampling failed to detect the gold rich veins.

Zenith Minerals Limited ("Zenith" or the "Company") is pleased to announce new high-grade gold results from samples taken during an initial reconnaissance site visit to its 100% owned Mt Minnie Gold Project, located in Western Australia (Figure 1).

The Mt Minnie project consists of two exploration licences, situated approximately 240 km northeast of Carnarvon in Western Australia. The project covers a portion of terrain composed predominantly of mid-Proterozoic granite assigned to the Minnie Creek batholith, considered prospective for reduced intrusion related gold deposits. The project has seven existing gold prospects requiring follow-up that to date have only been the subject of cursory reconnaissance exploration activity. Mineralisation at all prospects is associated with quartz veining and sheared-altered granite.

Previous rock chip sampling at the Woods Prospect has identified a zone of very positive gold results up to 21.5 g/t gold (Au). Sampling by Zenith confirmed the high-grade tenor of gold mineralisation at the Woods Prospect with new samples returning: 11.45 and 1.24 g/t Au from the core of a 2-3m wide ferruginous quartz vein over an outcrop strike length of 30 metres with a further sample taken 200 metres north returning 17.65 g/t Au. A continuous rock chip sample across the strike of the vein returned 2 metres @ 1.24 g/t Au. The prospect is on the edge of a soil covered plain and outcrop is sparse (Figure 2).

Zenith's field crew also conducted a detailed orientation soil sampling program over the Woods Prospect and confirmed that analysis of certain size fractions of surface soil samples can detect the gold mineralisation, whereas a previous explorer's attempt at soil geochemistry failed to detect the gold rich veins. This technical breakthrough provides Zenith with a cost effective, rapid screening tool to assess the size potential of the Woods Prospect and other gold mineralised veins systems in the project area.

Corporate Details

Issued Shares	126.1 m
Unlisted options	1.1 m
Mkt. Cap. ($0.05)	A$ 6.3m
Cash Sep 14	A$1.2m
Debt	Nil

Directors

Michael Clifford:
Managing Director

Mike Joyce:
Non Exec Chairman

Stan Macdonald:
Non Exec Director

Julian Goldsworthy:
Non Exec Director

Major Shareholders

HSBC Custod. Nom	8.3%
Nada Granich	6.3%
GDR PL	4.9%
Miquilini	4.7%
Citicorp Nominees	4.0%
Breamlea PL	3.6%

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As previously reported (ZNC – Sep 2014 Qtly report), historic prospecting has defined a further six gold prospects over 50km of strike that have not been followed up after initial discovery including:

- Ram West – gold to 0.85 g/t Au with associated bismuth (0.14%), tungsten and molybdenum;
- Fenceline – gold up to 64.2 g/t Au;
- Roadside - gold up to 0.3 g/t Au with associated tungsten and molybdenum;
- Michelle's Copper – gold up to 0.6 g/t Au with associated bismuth (0.2%), molybdenum (278 ppm), tungsten (0.12%) and copper (3.6%);
- Clay pan – gold up to 0.28 g/t Au; and
- Neptune – gold samples to 6.64g/t Au.

Follow-up sampling by Zenith of some of these prospects confirmed the anomalous gold and trace element association. In total 52 rock chip samples were taken and analysed by Zenith during this initial reconnaissance program. Significant results are shown in Table 1, whilst details of sampling are included in Sections 1 and 2 at the end of this release.

The next steps in evaluation of the project will include interpretation of geophysical and remote sensing data to establish structural setting and controls on mineralisation followed by systematic soil geochemical sampling programs to assess the extents of gold mineralisation at the Woods Prospect.

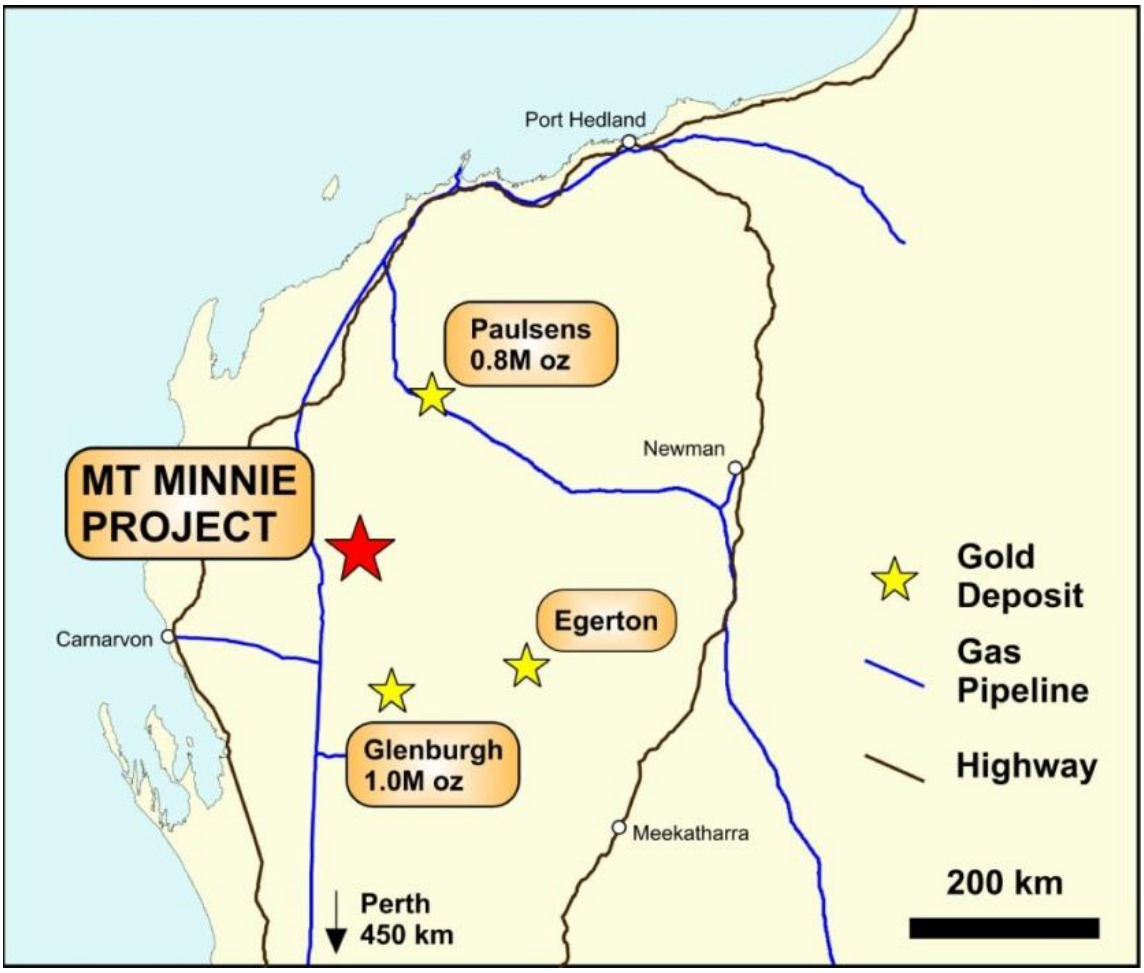

Figure 1: Mt Minnie Location Plan

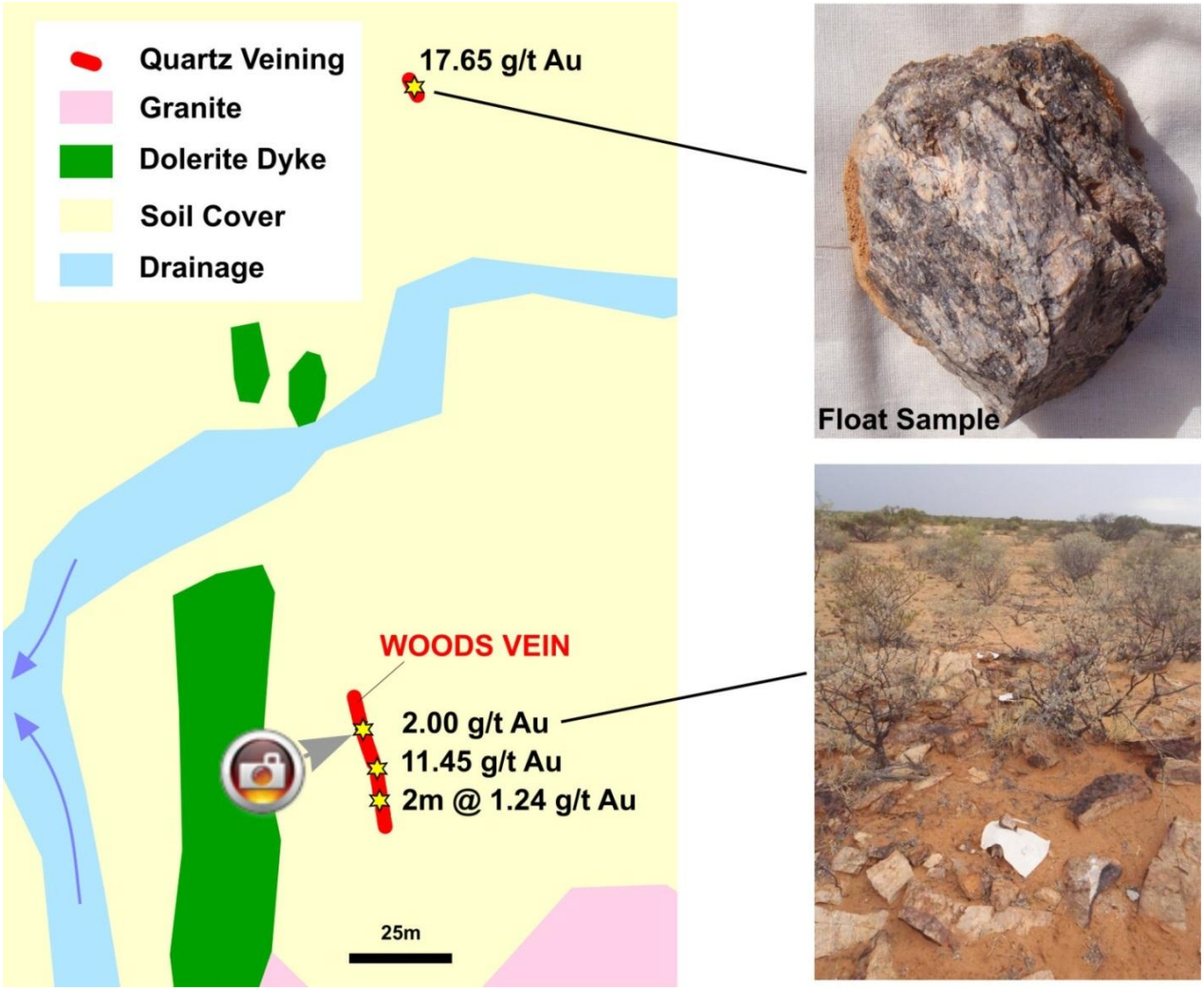

Figure 2: Woods Prospect – Significant Rock Sampling Results (only results greater than 1g/t Au shown). Note lack of outcrop and extensive soil cover surrounding the vein as shown in photo).

Table 1: Summary of Significant Rock Chip Results

Sample Number	Easting	Northing	Gold g/t	Silver g/t	Prospect
680	56,587	52,658	0.24	4.8	Ram West
684	56,640	52,642	0.37	36.5	Ram West
687	61,926	50,615	13.15	0.6	Fenceline
693	77,570	34,504	2.00	<0.5	Woods
694	77,571	34,506	0.23	<0.5	Woods
695	77,574	34,493	11.45	4.7	Woods
697	77,575	34,484	1.24	<0.5	Woods
698	77,576	34,484	0.34	0.9	Woods
699	77,583	34,684	17.65	7.2	Woods

(Note samples less than 0.2g/t Au – not shown)

Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled by Mr Michael Clifford, who is a Member of the Australian Institute of Geoscientists and an employee of Zenith Minerals Limited. Mr Clifford has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Clifford consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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About Zenith

Zenith is advancing its project portfolio of high-quality, gold, base metal and manganese projects whilst building a superior project base of high-quality advanced exploration assets:

Kavaklitepe Gold Project, Turkey (ZNC earning 70%)

- Recent (2013) grass roots gold discovery in Tethyan Belt – ("elephant" terrain)
- Large, virtually drill-ready, high order gold soil / IP anomaly >1km strike
- Rock chip traverses to 54m @ 3.33g/t gold, including 21.5m @ 7.2 g/t gold
- Trenching and drilling (permitting in progress)

Develin Creek Copper-Zinc-Silver-Gold, QLD (ZNC initial 51%, option for 100%)

- 3 known VHMS massive sulphide deposits with JORC resources, 50km of strike of host volcanics
- 2011 drilling outside resource; 13.2 metres @ 3.3% copper, 4.0% zinc, 30g/t silver and 0.4g/t gold
- Drilling extended known deposits – resource update in progress.
- Geophysics and geochemistry to detect new targets

Mt Minnie Gold Project, WA (ZNC 100%)

- 75km strike of major regional fault. Alteration, geochemistry, rock samples 64.2 and 21.5 g/t Au
- Initial field assessment completed, detailed sampling of Woods Prospect to commence in 2015

Earaheedy Manganese (and Pb,Zn) Project, WA (ZNC 100%)

- New manganese province discovered by ZNC, potential DSO drill intersections (+40%Mn)
- Target area doubled with new acquisitions (RIO tenements, Blue Cliffs).
- Mapping, sampling, drilling new ground, beneficiation tests, assess geophysical techniques

Mt Alexander Iron Ore, WA (ZNC 100%)

- JORC magnetite Resource 535 Mt @ 30.0% Fe close to West Pilbara coast, 50% of target untested.
- Seeking development partner/ buyer for project

Other

- Divesting Indonesian coal project – Conditional offer received, US$500K +royalty US$1/t
- Evaluating new project opportunities (acquire at bottom of the cycle)

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.*	Rock samples were collected by hand, at the surface, from in-situ outcrop, sub-crop or float areas. These samples are believed to be representative of the mineralized veins although outcrop is often poor and vein width and orientation was not always observed. 3 samples from the Woods Prospect were collected systematically perpendicular across the Woods vein.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Grab samples are believed to be representative of the veins they come from.
	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 samples were grabbed by hand and generally broken using a hammer. All soil samples were sieved passing 80 mesh.
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.).*	No drilling

Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	No drilling
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	No drilling
	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 drilling
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.*	Rock samples were geologically described Soil sample locations were geologically described
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Each rock sample was described in details and photographed
	The total length and percentage of the relevant intersections logged.	No drilling
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	No drilling
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	No drilling
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Samples were sent to ALS Perth. Rock samples were crushed and assayed by ICP-AES after 4 acid digestion for a suite of 33 elements and by fire assay with an AAS finish for gold. Soil Samples were pulverised and extracted by aqua regia with an ICPMS finish. Pulverisers were flushed between each sample.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Laboratory performed internal QA-QC verification

Sub-sampling techniques and sample preparation - continued	*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.*	No subsampling taken, program was an initial reconnaissance program to confirm previous gold results.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Each rock sample was 500g to 2kg in weight which is appropriate. Each soil sample was 100 to 200g in weight which is industry standard to assay for gold
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.*	Rock samples were crushed and assayed by ICP-AES after 4 acid digestion for a suite of 33 elements and by fire assay with an AAS finish for gold. Soil Samples were pulverised and extracted by aqua regia with an ICPMS finish. Pulverisers were flushed between each sample.
	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 used
	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.	Pulverisers used in soil sample preparation were flushed between each sample. Laboratory performed its own internal QAQC.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Two company personnel have observed the assayed samples
	The use of twinned holes.	No drilling
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Field data were all recorded on hardcopies and then entered into a database
	Discuss any adjustment to assay data.	No adjustments were made, other than for values below the assay detection limit which have been entered as the negative of the detection limit
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.*	Sample coordinates were recorded using a handheld GPS
	Specification of the grid system used.	The grid system used was a local grid in metres.

Location of data points - continued	*Quality and adequacy of topographic control.*	Topography control is limited for these samples, as elevation data from GPS are unreliable
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	Samples were taken on different prospects which can be up to 40km apart. Several samples were taken in each prospect
	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.	These data alone will not be used to estimate mineral resource or ore reserve
	Whether sample compositing has been applied.	One sample from the Woods Prospect was the result of sampling over a 2m length across the Woods vein.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	Samples were taken randomly
	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 drilling
Sample security	*The measures taken to ensure sample security.*	Samples were kept in numbered bags until delivered to the laboratory
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	Sampling techniques are consistent with industry standards

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 Mt Minnie Project is located within the 100% Zenith owned exploration licences E09/2063 and E09/2064. E09/2063 and the southern portion of E09/2064 is not covered by any Native Title Claim. The project is located within the Mangaroon, Minnie Creek, Eudamullah, and Gifford Creek pastoral leases.
	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.	All tenements are 100% held by Zenith and are in good standing with no known impediment to future granting of a mining lease.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	The project has 7 existing gold prospects that to date have only been the subject of cursory reconnaissance exploration activity.
Geology	*Deposit type, geological setting and style of mineralisation.*	The Mt Minnie Project covers a portion of terrain composed predominantly of mid-Proterozoic granite assigned to the Minnie Creek batholith prospective for reduced intrusion-related gold deposits. Mineralisation at all prospects is associated with quartz veining and sheared-altered granite.
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:*	No drilling this release
	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.	
	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.	
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.*	No assay data aggregated

	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.	No assay data aggregated
Data aggregation methods - continued	*The assumptions used for any reporting of metal equivalent values should be clearly stated.*	No assay data aggregated
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.*	Only one sample with significant results reported of 2m sample length
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	Sample taken perpendicular to vein and represents true width
	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').	Refer to above
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.*	Refer to diagrams in body of text
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.*	Total of 52 samples taken, 9 samples greater than 0.2g/t Au –shown in table of significant results, samples not shown contain less than 0.2g/t Au.
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.*	Surface sampling was completed over several campaigns by previous explorers including rock sampling, soil sampling, stream sediment sampling, the combination of which leaded to this sampling campaign
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).*	A broad, systematic soil sampling program is warranted
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Refer to diagrams in body of text