

JORC Code, 2012 Edition – Table 1 Report of Exploration Results for Wharekirauponga (WKP)

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> • <i>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.</i> • <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> • <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • All exploration at WKP is by diamond core drilling from surface. Drilling conditions are well understood. Triple tube coring is routinely used to ensure that core recovery is acceptable. • Core samples are processed using industry standard practices of drying, crushing, splitting and pulverisation at the SGS Waihi or SGS Westport Laboratory. SGS are an internationally accredited global analytical services provider with strong internal governance standards and a reputation to uphold.
Drilling techniques	<ul style="list-style-type: none"> • <i>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.).</i> 	<ul style="list-style-type: none"> • All diamond drill holes were drilled by triple tube wireline methods. All holes are collared using large-diameter PQ core, both as a means of improving core recovery and to provide an opportunity to case off upper weathered and weaker units. Drill hole diameter is usually reduced to HQ when the hole enters competent harder ground below post-mineral stratigraphy and clay altered pyroclastic units. All drill core was routinely oriented by Ezimark, Reflex or TruCore core orientation tools.

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Drill sample recovery	<ul style="list-style-type: none"> • <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> • <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • Core recoveries were measured after each drill run, comparing length of core recovered vs. drill depth. Core recoveries were generally better than 95% however core recoveries as low as 75% have been recorded in some vein zones. There is no relationship between core recovery and grade.
Logging	<ul style="list-style-type: none"> • <i>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.</i> • <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i> • <i>The total length and percentage of the relevant intersections logged.</i> 	<ul style="list-style-type: none"> • The core samples are all geologically and geotechnically logged, using a logging scheme that has been in place for many years. The level of detail captured in logging is sufficient to support appropriate Mineral Resource estimation. • Logged intervals are based on geological boundaries or assigned a nominal length of one or two metres. The geological log incorporates geotechnical parameters, lithology, weathering, alteration and veining. • Geological logging is based on both qualitative identification of geological characteristics, and semi-quantitative estimates of mineral abundance. Geotechnical logging uses standard semi-quantitative definitions for estimating rock strength and fracture density. • A digital photographic record is maintained for all drill core. All core photographs are stored on the Waihi server. Electronic Geological logs are created using a Microsoft Excel logging template on laptop computers. Previous logging by Newmont used proprietary Visual Logger software. Logging is validated using inbuilt validation tables for all recent drilling and has been checked for consistency throughout the history of the project. • All geological logging data is stored in an acQuire database.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> • <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> • <i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i> • <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> • <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> 	<ul style="list-style-type: none"> • Diamond sawn half core splits. For exploration samples these range in weight between 3.5 and 4kg. Split line in consistent orientation with respect to orientation marks. • Sample preparation (drying, crushing, splitting and pulverising) is carried out by SGS using industry standard protocols: <ul style="list-style-type: none"> ○ Kiln dried at 60 deg C ○ Crushed to sub 2mm ○ Riffle split 800g sub-sample ○ 800 g pulverised to 90% passing 75um, monitored by sieving.

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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Aliquot selection from pulp packet
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All exploration samples are assayed for gold by 30g Fire Assay with AAS finish. WKP core samples were shipped for preparation at SGS Westport for hole WKP40-45. Prepared pulps are then shipped to ALS laboratories in Brisbane, Australia for gold fire assay and 42 element ICP geochemical analysis. Preparation rejects and pulps from Westport are returned to Waihi for storage. Since hole WKP46 the samples have been prepped at SGS Waihi and assayed for Au, by 30 g FA and Ag by 0.3gm AAS. Pulps are then sent to ALS Brisbane for the 42 element ICP geochemical analysis. At ALS laboratories in Brisbane, all WKP exploration samples are assayed for gold by 30g Fire Assay with AAS finish. Au is also analysed using an aqua-regia extraction up to 25g with an ICP-MS finish and 42 element ICP-MS geochemical analysis. Quality of exploration assay results has been monitored in the following areas: <ul style="list-style-type: none"> Sample preparation at the SGS Waihi and Westport labs through sieving of jaw crush and pulp products, Monitoring of assay precision through routine generation of duplicate samples from a second split of the jaw crush and calculation of the fundamental error. Monitoring of accuracy of the primary SGS assay and ALS results through insertion Certified Reference Materials (CRM's) and blanks into sample batches. Blank and CRM results are reviewed on a weekly basis. The Waihi protocol requires Certified Reference Material (CRMs) to be reported to within 2 Standard Deviations of the Certified Value. The criterion for preparation duplicates is that they have a relative difference (R-R1/mean RR1) of no greater than 10%. The criterion for blanks is that they do not exceed more than 4 times the lower detection method of the assay method. Failure of any of these thresholds triggers investigation.
Verification of	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company 	<ul style="list-style-type: none"> There are strong visual indicators at WKP for high grade mineralisation observed in drill core and significant intersections are visually validated against drill core, check calculated by

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sampling and assaying	<p><i>personnel.</i></p> <ul style="list-style-type: none"> • <i>The use of twinned holes.</i> • <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> • <i>Discuss any adjustment to assay data.</i> 	<p>alternative company personnel and a limited number of holes have also been subject to umpire analysis by an alternate laboratory.</p> <ul style="list-style-type: none"> • To date no holes have been twinned • All assay data is stored in the database in an as received basis with no adjustment made to the returned data
Location of data points	<ul style="list-style-type: none"> • <i>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.</i> • <i>Specification of the grid system used.</i> • <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> • New Zealand Map Grid is utilised. • Drill collars since WKP40 have been surveyed in by differential GPS by a registered surveyor except for WKP83, 85-87 that are recent or in progress holes that are estimates by tape and compass only. These surveys have been undertaken this year, so the collar locations are reported in the tables • Topographic control is from high resolution aerial photography and LiDAR providing 0.5m contour data • Down hole surveys are recorded at 30m intervals by using a Reflex digital downhole survey camera tool
Data spacing and distribution	<ul style="list-style-type: none"> • <i>Data spacing for reporting of Exploration Results.</i> • <i>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.</i> • <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> • The drill spacing required to support different levels of classification is different for each project area. Geological knowledge of the WKP system is developing over time that will allow more confident interpretation of vein continuity. • The decision about appropriate drill spacing differs for each deposit/vein and considers geological complexity, vein geometry and thickness as well as grade continuity. Reconciliation from correlative veins with a reconciliation history is used to guide the decision balancing drill spacing with classification for new vein deposits. • No compositing of samples is applied prior to assay.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • Drill holes are designed to intersect known mineralised features in a nominally perpendicular orientation as much as is practicable given the availability of drilling platforms. All drill core is oriented to assist with interpretation of mineralisation and structure. • Samples intervals are selected based upon observed geological features.

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Sample security	<ul style="list-style-type: none"> <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> Access to site is controlled; Drill core is stored with secure facilities on site. Site employees transport samples to the analytical lab. The laboratory compound is secured.
Audits or reviews	<ul style="list-style-type: none"> <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> No audits or reviews of sampling techniques and data have been performed.

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	<ul style="list-style-type: none"> • <i>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.</i> • <i>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.</i> 	<p>The Wharekirauponga prospect is in the Hauraki District of the Waikato region of New Zealand, approximately 10km north of Waihi. Rights to prospect explore or mine for minerals owned by the Crown are granted by permits issued under the Crown Minerals Act 1991 (CMA). Crown-owned minerals include all naturally occurring gold and silver. The project is located within exploration permit EP 40598, covering an area of 3762.94 hectares. The current term of the EP expires in May 2021 and confers rights to exchange the EP within that time for a mining permit upon meeting certain criteria specified in the CMA, as follows.</p> <p>Provided the permit remains in good standing (principally requiring the payment of annual fees and completion of work programme commitments), and assuming OceanaGold's exploration activities delineate the resource to the satisfaction of the Minister for Energy and Resources (ordinarily, for this purpose, an Indicated Mineral Resource will be required), OceanaGold has a statutory right (section 32(3) of the Crown Minerals Act 1991), in priority and to the exclusion of all other parties, prior to the expiry of the EP, to surrender the permit in exchange for a mining permit.</p> <p>The 2013 Minerals Programme (available at http://www.nzpam.govt.nz/cms/pdf-library/minerals-legislation/) governs the circumstances under which a mining permit is issued. The main set of criteria is as follows:</p> <p>10.1</p> <p>(3) The Minister will ordinarily grant a mining permit if satisfied that:</p> <p>(a) the permit applicant has identified and delineated at least an indicated mineable mineral resource or exploitable mineral deposit, and</p> <p>(b) the area of the permit is appropriate, and</p> <p>(c) the objective of the mining permit is to economically deplete the mineable mineral resource or deposit to the maximum extent practicable in accordance with good industry practice.</p> <p>The word “ordinarily” is intended to leave a discretion that allows the Minister of Energy and Resources to consider a range of factors, as well as general discretion, as follows:</p> <p>10.2 Matters that may be considered by Minister</p> <p>(1) In considering whether a mineral deposit has been sufficiently delineated to support the granting of a mining permit, or in assessing any proposed work programme (or modified work programme),</p>

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		<p>the Minister will ordinarily consider (but is not limited to) any or all of the following matters:</p> <ul style="list-style-type: none"> (a) the geology and occurrences of minerals within the land to which the mining permit application (or application for extension of duration) relates (b) the applicant’s knowledge of the geology and extent of the mineral resource that the applicant proposes to extract (c) estimates of mineable mineral resources, which may include indicated and measured resources, probable and proved reserves, and the accompanying documentation on input data, methodology, quality control and validation of the mineral resource estimates (d) inferred mineral resources (e) the applicant’s mining feasibility studies, which include mine design, scheduling and production, resource recovery, and economic viability (f) project economics – in particular the financial viability and technical constraints, and the proposed level of expenditure in relation to the scale and extent of the proposed operations (g) whether the proposed mining operations are in accordance with good industry practice. <p>Once a mining permit is obtained, OceanaGold will be authorised to commercially extract the gold resource, subject to the conditions attending to the mining permit, gaining any surface rights required by agreement with the landowners and gaining the requisite resource consents under the RMA.</p> <p>A mining permit (MP) was applied for on the 6th May 2019 and may be issued for a maximum period of 40 years. New Zealand Petroleum and Minerals is currently processing the application.</p> <p>The EP is currently in good standing.</p> <p>OceanaGold holds 100% of the permit interest. Third party rights to receive an interest in the project are confined to a Crown royalty of 1% of the turn over or 5% of the accounting profits whichever is higher and a 2% royalty payable to BCKP Ltd (acquired from Geoinformatics) with respect to certain “target” areas. In both cases the royalties are fixed and quantifiable for the purposes of inclusion in the business plan.</p> <p>The prospect is situated on state-owned land administered by the NZ government through the Department of Conservation and generally open to public use for amenity purposes. OceanaGold has received an Access Arrangement granted under the CMA, for the term of the EP, giving surface rights to conduct exploration drilling within a defined footprint of 428.44 hectares and under conditions that protect the conservation (biodiversity and amenity) values of the land. The company has also received resource consents granted by local authorities under the Resource Management</p>

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		<p>Act 1991 (RMA), under which environmental effects of exploration drilling are authorised and managed within the framework of that Act in keeping with the high environmental values of the permit location. Any development of the prospect for the purposes of advancing beyond exploration would require applications at that time under the RMA and (for surface impacts only) the CMA. The RMA applies land use designations (zoning) that allow underground mining on a discretionary basis and surface impacts in limited circumstances dependant on meeting a range of objectives and policies including protecting and enhancing the biological diversity and outstanding landscape character values of the permit area and minimising ground surface disturbance. Changes to NZ government policy restricting access to mine on conservation land have been proposed, subject to a statutory consultation process that has not yet commenced. The precise nature of any proposal is not currently known.</p>

Criteria

JORC Code explanation

Commentary

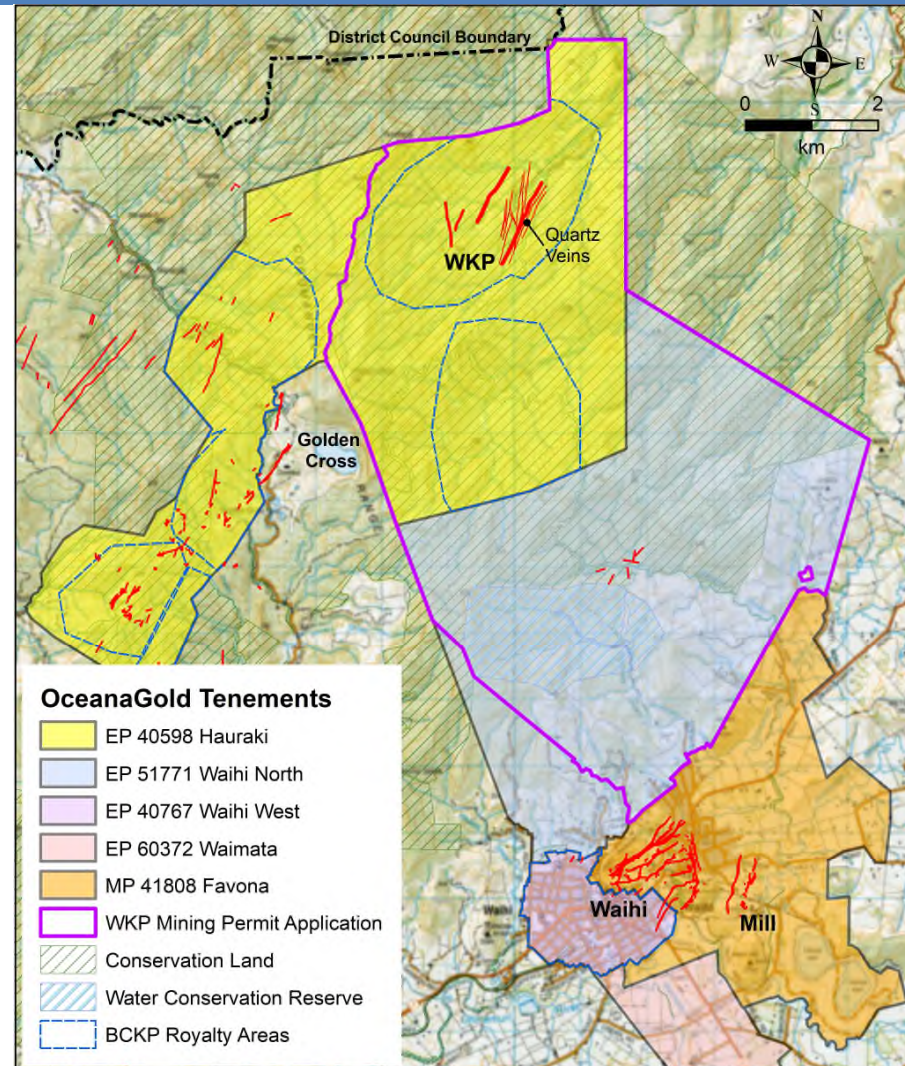


Figure 1: OceanaGold Tenement Map

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	<ul style="list-style-type: none"> <i>Acknowledgment and appraisal of exploration by other parties.</i> 	<ul style="list-style-type: none"> Previous exploration by Amoco and BP Minerals at WKP in the 1980s and 1990s was focused on sheeted stockwork veins exposed in stream channels through the prospect. Newmont as the operator of a WKP joint venture with Glass Earth in 2009-2013 identified and drilled several larger structures, encountering significant results in some holes. The Newmont/Glass Earth interest was subsequently purchased by OceanaGold.
Geology	<ul style="list-style-type: none"> <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> Multiphase low sulphidation epithermal quartz veins at WKP are hosted in a rhyolitic flow dome complex with overlying and interfingering lithic lapilli tuffs. This flow dome complex occupies a northeast trending district-scale graben. These volcanics have undergone pervasive hydrothermal alteration, often with complete replacement of primary mineralogy by quartz and adularia with minor illite or smectite. The veins are structurally-controlled with two types of vein systems recognised. The first set of veins strike almost due north and consist of typically 1 – 100 centimetre wide banded quartz veins which occur in sheeted vein sets up to 150 metres wide in envelopes of quartz-adularia alteration. These veins do not appear to have significant lateral or vertical continuity. The second, more important vein set strike more north-easterly and occupy district-scale graben step faults. These quartz veins are up to 12 metres wide, more continuous and can contain significant gold grades over significant widths. In general, there are very few sulphides other than pyrite in the WKP veins.
Drill hole Information	<ul style="list-style-type: none"> <i>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:</i> <ul style="list-style-type: none"> <i>easting and northing of the drill hole collar</i> <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> <i>dip and azimuth of the hole</i> <i>down hole length and interception depth</i> <i>hole length.</i> <i>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.</i> 	<ul style="list-style-type: none"> See Table 1 in the announcement, which lists for each hole with a significant intersection, the hole ID, intersection depth, downhole length and estimated true width of the intersect.

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Data aggregation methods	<ul style="list-style-type: none"> <i>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.</i> <i>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.</i> <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i> 	<ul style="list-style-type: none"> Exploration results are reported within distinct geological boundaries, typically within veins. The grades are compiled using length weighting with no top cutting.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <i>These relationships are particularly important in the reporting of Exploration Results.</i> <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> <i>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').</i> 	<ul style="list-style-type: none"> Drill intercepts are reported as down hole length along with an estimated true width based on intercept angle to the mineralised veins. As much as practicable holes are designed to intersect veins at more than 60 degrees to the vein.
Diagrams	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> Refer to figures and tables in the body of the release and using the link in this press release to OGC's website.
Balanced reporting	<ul style="list-style-type: none"> <i>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</i> 	<ul style="list-style-type: none"> The Waihi drill hole information is available from www.oceanagold.com.

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Other substantive exploration data	<p><i>Results.</i></p> <ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> Exploration drilling is continuing to test the resource potential at WKP. Two drill rigs have completed 24,535 metres in 54 drill holes to date. Metallurgical test work has been conducted by ALS Metallurgy in Perth on 16 samples generated from coarse crush reject from selected drill intersections composited to form a homogenised sample from each zone. The samples were ground to different grind sizes (P80 at 106, 90, 75, 53, and 38um) then subjected to 1) assay determination, 2) flotation process to selectively separate gold-bearing minerals, 3) gold separation with the use of a gravity concentrator, 4) dissolution of gold by cyanidation and 5) gold deportment leach tail test. The following table summarises the range of test results across the different grind sizes and data analysis indicates that a finer grind size and sulphur content had an influence on flotation and leach recovery improvement. <table border="1" data-bbox="1115 660 1980 1007"> <thead> <tr> <th></th> <th>EG Vein (#12)</th> <th>HW Vein (#1)</th> <th>FW Vein (#3)</th> </tr> </thead> <tbody> <tr> <td>Head Assay, g/t Au</td> <td>4 - 51</td> <td>5</td> <td>5 - 63</td> </tr> <tr> <td>Flotation Recovery, % Au</td> <td>63 - 92</td> <td>53</td> <td>66 - 87</td> </tr> <tr> <td>Gravity Recovery, % Au</td> <td>11 - 41</td> <td>13</td> <td>8</td> </tr> <tr> <td>Direct Leach Recovery, % Au</td> <td>69 - 97</td> <td>81</td> <td>66 - 96</td> </tr> </tbody> </table> <p># number of composite samples per vein</p>		EG Vein (#12)	HW Vein (#1)	FW Vein (#3)	Head Assay, g/t Au	4 - 51	5	5 - 63	Flotation Recovery, % Au	63 - 92	53	66 - 87	Gravity Recovery, % Au	11 - 41	13	8	Direct Leach Recovery, % Au	69 - 97	81	66 - 96
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Direct Leach Recovery, % Au	69 - 97	81	66 - 96																			
Further work	<ul style="list-style-type: none"> <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	<ul style="list-style-type: none"> Drilling at WKP consists of step-out drilling along know large scale vein structures to test the resource potential of these areas. Drilling to define inferred and indicated resources is in progress on the EG Vein. 																				