



Address
Level 11, BGC Centre
28 The Esplanade, Perth WA 6000
Phone
+61 8 9486 4036

ABN
96 095 684 389
WEBSITE
www.frontierresources.com.au

ASX Limited
Market Announcements Platform

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Duma-Dilava Prospect Area an Extension of Tolukuma Gold Mine

- An independent review of the historical Newmont sampling at the Duma-Dilava prospect area shows rock float samples of **54.4 g/t Au** and **13.3 g/t Au** occurring 3km along strike from the Tolukuma gold mine on the same NNW-trending structure.
 - The prospect area is located at a triple structural intersection and highly prospective for vein style gold mineralisation, similar to the Tolukuma mine.
 - No drilling has been undertaken and further work is clearly justified as a **high priority** target for follow up.
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Frontier Resources Limited (**Frontier** or the **Company**) is pleased to announce that an independent analysis has been completed of historical surface sampling at the Duma-Dilava prospect area.

Duma-Dilava is located in the headwaters of the Dilava River about 3km SSE of the Tolukuma mine site on the boundary of ML104 (Figure 1). The prospect was discovered by Newmont in 1987 while following up gold drainage anomalies and vein quartz float found during reconnaissance sampling in 1986. The nearby **Seri-Seri** prospect and **Taula** gold vein system, located 1.2km upstream, were discovered during the same survey. Trench results at Taula include **1.2m @ 1,041.2 g/t Au** with 1,315.75m of drilling completed with results including **3.0m @ 16.19 g/t Au** from 23m depth (refer to ASX Announcement dated 5 September 2019).

Newmont completed creek and mapping, drainage sampling, float and outcrop rock chip sampling (Figure 2) however no soil sampling, trenching or drilling has been undertaken and further work is clearly justified as a high priority area for follow up.

Strongly anomalous gold in drainage anomalies of up to 41.7 ppb Au and rock float anomalies of up to **54.4 g/t Au** indicate the area is **highly prospective for vein style gold mineralisation** similar to Tolukuma. Gold-bearing vein quartz float has been found in four tributary drainages and the prospect is located on the same NNW-trending structure as the Tolukuma mine mineralisation and may be located at a triple structural intersection (Figure 1).

Follow-up rock sampling by Tolukuma Gold Mines (TGM) returned values along Sisila Creek and the Sisimonda vein (Figure 2) of **27.9, 8.98, 4.84, 3.09** and **2.19 g/t Au** (Table 1).

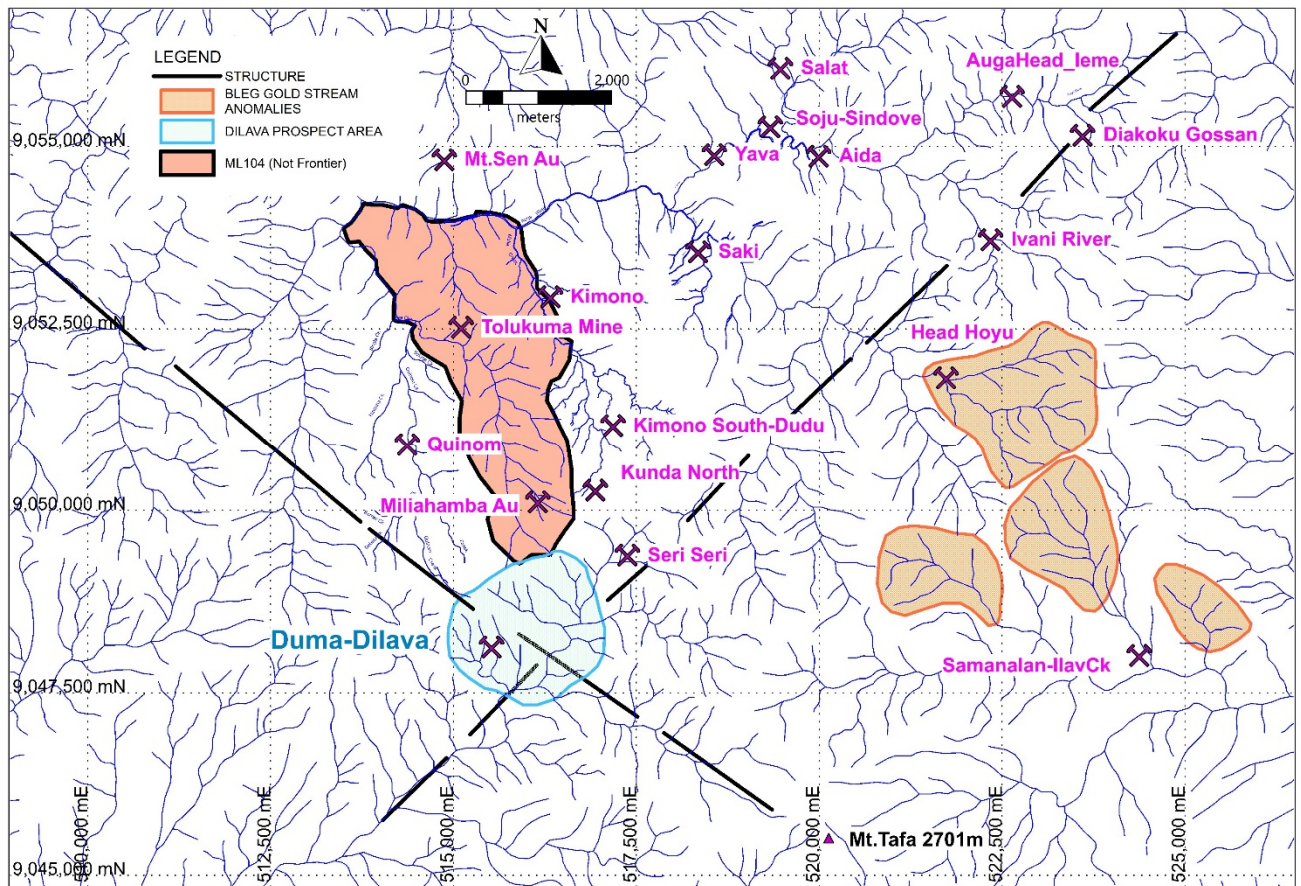


Figure 1: Location of the Duma-Dilava Gold Project Plus Head Hoyu and Samanalam Stream Anomalies

Historical Newmont Exploration Results:

- Of 12 BCL drainage samples collected from the Duma-Dilava area (excluding Taula and Seri Seri veins), ten contained >2.0 ppb Au and 4 contained greater than **10.0 ppb Au**; the best result was **41.7 ppb Au** (Figure 2);
- Of 15 rock float samples collected, eight contained >1.0 g/t gold; the highest value was **54.4 g/t Au** in white saccharoidal quartz;
- A 1m chip sample from an eastern tributary of *Bulum Creek* assayed **1.0m at 4.77 g/t Au**.
- In *Sisila Creek* blocks of fragmented massive quartz were found with dimensions of 1.0 to 2.0m containing “thin crustiform veining”; float samples from this location contained up to **13.3 g/t Au**;
- Blocks of quartz up to 1.0m in diameter choke the upper parts of *Evida Creek* and must be close to their bedrock source; and
- Two small drainages to the south and east of Evida Creek contain abundant quartz float which may indicate “extensions of a vein zone striking NW-SE”.

Three types of gold-bearing vein quartz float were recognised in the area:

- Crustiform and colloform banded to massive sulphide-poor vein quartz; gold values generally <2.0 g/t;
- Brecciated crustiform to massive quartz +/- volcanic fragments with up to 10% pyrite+MnO; gold values up to **6.35 g/t**;
- Chalcedonic to chalky saccharoidal quartz, commonly brecciated with silica or Mn-rich matrix; only two samples were assayed with results of **13.3 g/t and 54.4 g/t Au**;

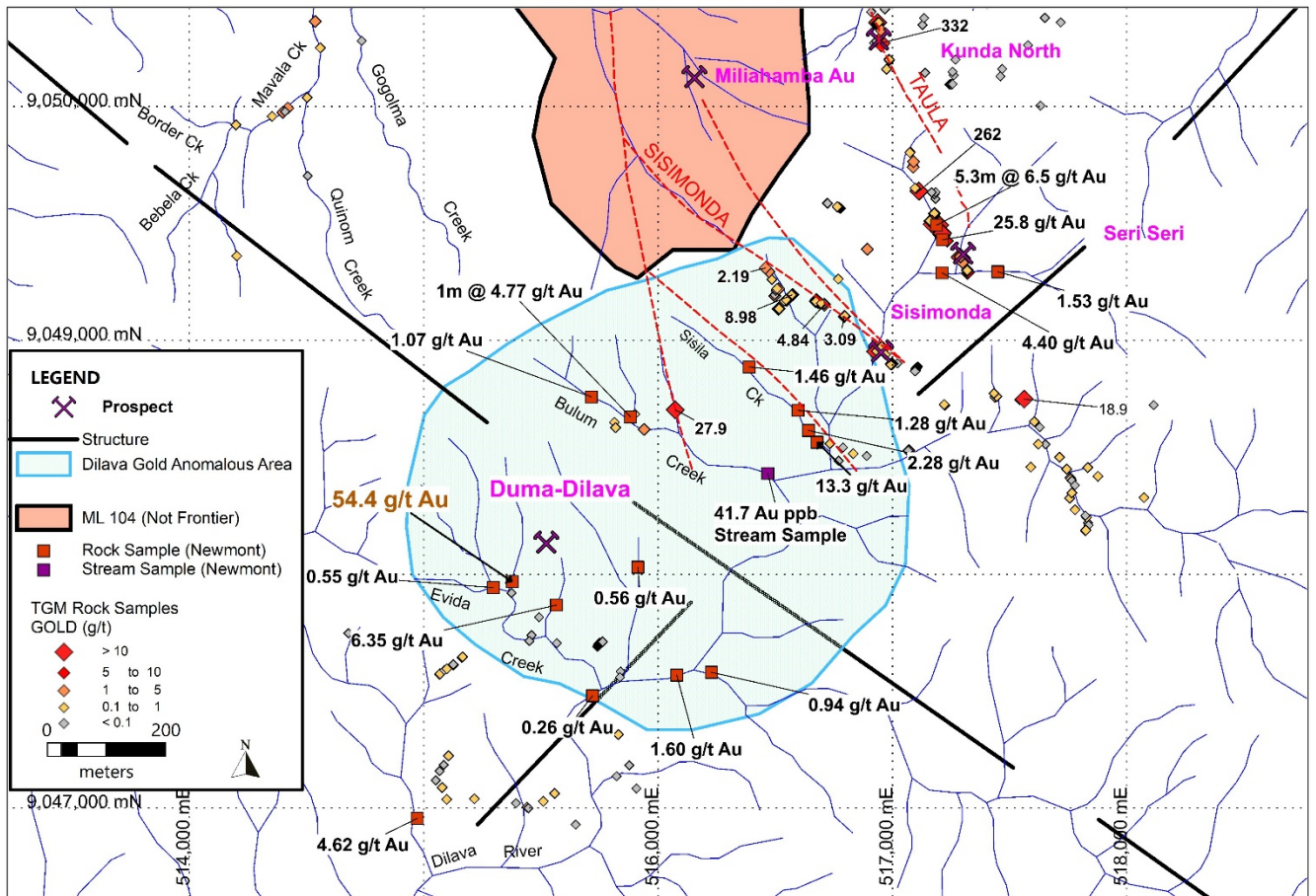


Figure 2: Dilava Prospect – Summary Map

Table 1: Duma Prospect Sampling Highlights (rock sample cut-off 0.5 g/t Au)

Sample Type	Easting	Northing	Width (m)	Au (g/t)
Rock Float	515380	9047970		54.40
Rock Outcrop	515290	9047940		0.55
Rock Float	515560	9047860		6.35
Rock Float	515970	9046960		4.62
Rock Float	515720	9047470		0.26
Rock Float	515710	9048750		1.07
Trench Outcrop	515890	9048670	1	4.77
Rock Float	515920	9048020		0.56
Rock Float	516080	9047560		1.60
Rock Float	516080	9048710		27.0
Rock Float	516230	9047570		0.94
Rock Float	516390	9048880		1.46
Stream Sediment	516470	9048430		0.0417
Rock Float	516610	9048690		1.28
Rock Float	516650	9048600		2.28
Rock Float	516680	9048560		13.30
Rock Outcrop	517570	9048740		18.90
Rock Float	517220	9049290		4.40
Trench Outcrop	517190	9049490	5.3	6.50
Rock Float	517220	9049430		25.80
Rock Float	517450	9049290		1.53
Rock Outcrop	517120	9049650		262
Rock Outcrop	516930	9050270		332
Rock Outcrop	516460	9049300		2.19
Rock Outcrop	516700	9040160		4.84
Rock Outcrop	516790	9049090		3.09
Rock Outcrop	516570	9049190		8.98

Further Information

Frontier currently has a team of highly experienced geologists undertaking a sampling and mapping program over the highly prospective Kimono Central and Kimono South gold vein systems 1km east of the Tolukuma gold mine. Relevant details of exploration progress will be announced once information from technical weekly reports have been processed.

This announcement has been authorised for release by the Directors of the Company. For additional information please visit our website at www.frontierresources.com.au

FRONTIER RESOURCES LTD

Competent Person Statement:

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by or compiled under the supervision of Peter Swiridiuk - Member of the Aust. Inst. of Geoscientists. Peter Swiridiuk is a Technical Consultant and Non-Executive Director for Frontier Resources. Peter Swiridiuk has sufficient experience which is relevant to the type of mineralisation and type of deposit under consideration to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code of Reporting Exploration Results, Mineral Resources and Ore Resources. Peter Swiridiuk consents to the inclusion in the report of the matters based on the information in the form and context in which it appears. Additionally, Mr Swiridiuk confirms that the entity is not aware of any new information or data that materially affects the information contained in the ASX releases referred to in this report.

Frontier Resources Ltd Exploration Licence Information

Exploration Licence Number and Name	Ownership	sub-blocks	AREA (sq.km)*	Grant Date	Expiry Date
EL2531 - Tolukuma	100% Frontier Copper PNG Ltd	130	441.72	25-Feb-19	24-Feb-21
ELA2529 - Gazelle	100% Frontier Copper PNG Ltd	211	719.51	N/A	N/A
	Total of Granted EL's	130	441.72		

*1 sub-block approx. 3.41 sq.km

NB: The PNG Mining Act-1992 stipulates that EL's are granted for a renewable 2 year term (subject to satisfying work and expenditure commitments) and the PNG Government maintains the right to purchase up to 30% project equity at "Sunk Cost" if/when a Mining Lease is granted.

JORC Code, 2012 Edition – Table 1 Report of Exploration Results

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 (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. - Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. - Aspects of the determination of mineralisation that are Material to the Public Report. - In cases where 'industry standard' work has been done this would be relatively simple (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.	- Trench samples were undertaken by conventional trenches dug to bedrock and outcrop samples along the veins. Float rock samples were recovered from creeks and not from in-situ bedrock. - All rock samples were logged in a rock-chip sample ledger and assayed using standard laboratory techniques. - All sampling was supervised and reported by on-site geologists to ensure sample representivity. - Material aspects of the mineralisation are noted in the text of the document.
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).	No drilling undertaken.
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.	No drilling undertaken.

Criteria	JORC Code explanation	Commentary
	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.	
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.	No drilling undertaken.
Sub-sampling techniques and sample preparation	- If core, whether cut or sawn and whether quarter, half or all core taken. - If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. - For all sample types, the nature, quality and appropriateness of the sample preparation technique. - Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. - Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. - Whether sample sizes are appropriate to the grain size of the material being sampled.	- No drilling undertaken. - Sampling was supervised by TGM's Senior Geologist by visual inspection. Samples were transported to the on-site laboratory by vehicle. - Procedures of drying, crushing, splitting and pulverizing is practiced by TGM local laboratories for analysis. Pulps are irregularly sent to an outside independent laboratory for quality checking. Standard laboratory procedures of drying, crushing, splitting and pulverizing is practiced by certified labs including those of Astrolabe Analytical and Pilbara Laboratories (Niugini) Pty Ltd. - Sampling sizes are appropriate for the quartz vein material being sampled.
Quality of assay data and laboratory tests	- The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. - For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. - Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	- Historical procedures undertaken by TGM were appropriate. Samples were crushed and prepared as 20g samples for assaying for a partial aqua regia digest and AAS for Au, Ag, Pb, Cu, Zn, Sb. The principle of Aqua Regia digest is that gold can be dissolved by a mixture of 3 part hydrochloric acid to one part nitric acid. - Trench/costeans samples were fire assayed for total gold and cyanide extractable Ag, Cu by Pilbara Laboratories (Niugini) Pty Ltd. Acceptable accuracy and precision levels were established and reported by the lab. - No geophysical data has been quoted. - Detection limits: Au 0.01 ppm, Cu 1 ppb, Ag 0.01 ppb. - No Geophysical tools were used - Duplicates were not reported in historical reports.
Verification of sampling and assaying	- The verification of significant intersections by either independent or alternative company personnel. - The use of twinned holes. - Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. - Discuss any adjustment to assay data.	- Verified by senior geologist and other geologists onsite at the time. - No drilling undertaken. - All assay data is available on spreadsheets and printed laboratory paper obtained from geologists working on the project. Trench assay data has been submitted to the MRA library as paper copies which were later scanned to digital format.
Location of data points	- Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. - Specification of the grid system used. - Quality and adequacy of topographic control.	- No drilling undertaken. - Trench/costeans were located initially by GPS and by published 1:100,000 topographic maps and tape and compass surveying of creeks. - Map Datum is AGD66. - Topographic control is low with 40m contours from 1:100,000 plans and 10m contours from airborne DTM contours.
Data spacing and distribution	- Data spacing for reporting of Exploration Results. - Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. - Whether sample compositing has been applied.	- Refer to any attached plans and tables for rock and trench/costean spacing. - No drilling undertaken. - Trench locations and hence data spacing and distribution is not yet sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedures. - Sample compositing was not applied.
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. - 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.	- Trench samples were taken to intersect known mineralisation from surface trench results in a nominally perpendicular orientation as much as practicable. Sample intervals are selected based upon observed geological features and the strike of the narrow quartz veins. - Sample intervals are selected based upon observed geological features and the strike of the quartz veins. - Trench/costean samples have been taken selectively within each trench. - No drilling undertaken.
Sample security	The measures taken to ensure sample security.	Access to site is controlled and rock trench samples are stored on-site in a remote location. Site employees transport samples to the analytical lab. The laboratory compound is secured.

Criteria	JORC Code explanation	Commentary
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	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	- 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.	- Frontier Resources Ltd have a 100% ownership of Frontier Copper (PNG) Limited, which hold 100% title to Exploration Licence EL 2531-Tolukuma. There are no joint ventures or partnerships in place. Frontier Copper PNG Ltd IPA Certification Number: 91414 was re-issued on 26th April 2019 and originally Certified 8th November 2005. - There are no known impediments to operate in the Tolukuma EL. Tenements are granted by the Minister of Mines for a period of two years and security is governed by the PNG Mining Act 1992 and Regulation.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	- EL2531 Tolukuma was initially stream sampled by Kenecott in the 1960's afterwards by CRAE who completed both stream sediment sampling and rock chip sampling. - Newmont 1985-1989 discovered the Tolukuma vein and completed costean and soil sampling and diamond drill holes testing the NW-SE Taula Vein. Newmont completed resource drilling and mine feasibility studies. - Dome Resources purchased the Exploration license from Newmont in 1992 and completed feasibility studies at ML104, granted in 1994, with production commencing in 1995. - In 2000, Durban Roodepoort Deep purchased Dome Resources and took over all its interests in PNG. TGM's work programs (now 100% DRD included trench sampling and mapping. Work commenced at Saki in 2002 with a programme of extensive trench sampling and mapping and drilling at the Kunda prospect both inside ML104 and within the current EL2531. - Petromin PNG Holdings acquired 100% of the Tolukuma projects from Emperor Mines in 2008. Singapore company Asidokona purchased Tolukuma Gold Mines Ltd from Petromin (PNG Government) in November 2015. - The Tolukuma gold mine is currently under control of a newly appointed investor in which approximately A\$21million will be spent on refurbishing the mine, environmental work and resource drilling. EL2531 was acquired by Frontier on a first application basis when it was offered by the MRA.
Geology	Deposit type, geological setting and style of mineralisation.	- The Duma-Dilava prospect is described as "contained wholly within volcanic and intrusive rocks of the Mt. Davidson Volcanics". - Three types of gold-bearing vein quartz float were recognised: - Crustiform and colloform banded to massive sulphide-poor vein quartz; - Brecciated crustiform to massive quartz +/- volcanic fragments with up to 10% pyrite+MnO; - Chalcedonic to chalky saccharoidal quartz, commonly brecciated with silica or Mn-rich matrix; - Hornblende andesite outcropping in the Dilava River downstream from the Evida Creek junction was K-Ar dated at 4.8+/-0.08Ma, confirming an early Pliocene date for the volcanics; - Dilava is located along strike from and probably sits on the same NNW-trending structure as Tolukuma; regional lineament analysis indicates Dilava may be located at a triple structural intersection.
Drill hole Information	- A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: - easting and northing of the drill hole collar - elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar - dip and azimuth of the hole - down hole length and interception depth - hole length.	- No drilling undertaken. - Frontier has acquired additional historical reports which have drillhole and trench information that are currently being reviewed. Digital databases have also been acquired over a number of prospects within EL2531 and form part of the on-going evaluation process of the tenement.

Criteria	JORC Code explanation	Commentary
	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 (eg cutting of high grades) and cut-off grades are usually Material and should be stated. - 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. - The assumptions used for any reporting of metal equivalent values should be clearly stated.	- Exploration results are reported typically within veins. - No metal equivalent values are stated.
Relationship between mineralisation widths and intercept lengths	- These relationships are particularly important in the reporting of Exploration Results. - If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. - If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	- The relationship between mineralisation widths & intercept lengths from trench/costeans is not well understood - No drilling undertaken.
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.	Appropriate maps and tabulations of trench/costean intercepts are included within this report.
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.	Comprehensive reporting of all rock chip and trench results has occurred in historical reports and reported by Frontier where appropriate.
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.	All meaningful exploration data to date has been included in this and previous ASX announcements.
Further work	- The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). - Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	- On-going analysis of historical trench and drilling results on prospects within EL2531 is continuing with the next phase of fieldwork currently underway at the Kimono Central and Kimono South gold prospect areas. - Appropriate plans are included where possible.