# ASX ANNOUNCEMENT / MEDIA RELEASE



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# HIGH-GRADE SILVER-LEAD-ZINC IDENTIFIED SOUTH OF THE CLEVELAND TIN PROJECT Highlights

- Two zones of base metal mineralisation identified south of the Cleveland tin deposit
- Selective sample results include peaks of 4,110 g/t silver, 7.4% lead and 26.5% zinc
- The two new zones of mineralisation each extend over a length of two kilometres

**Elementos Limited (ASX: ELT) ("Elementos" or the "Company")** is pleased to announce the results of its first sampling program at the Godkin and Cleveland South Zones, two kilometres south of the Cleveland tin mine.

An initial selective sampling program over the prospective zones produced results including:

- Godkin five selective samples were taken from mullock dumps including:
  - o 553 g/t silver, 7.4% lead and 26.5% zinc; and
  - o 518 g/t silver, 5.6% lead and 22.5% zinc.
- Cleveland South six selective samples were taken from mullock dumps at the South Confidence and Washington Hay historic workings including:
  - o 4,110 g/t silver, 4.7% lead, 5.28% zinc; and
  - o 2,570 g/t silver, 6.8% lead and 11.0% zinc.

A trial soil sampling program has commenced at Godkin and Cleveland South, to define the structures that host the mineralisation. The focus of on-going exploration is to delineate potential mineralised areas for drill targeting purposes.

North-west Tasmania is a world-class minerals district and host to significant historical lead-zinc-silver mines including Hellyer, Roseby and Que River (Figure 4). These deposits are situated within 40 kilometres of the Cleveland tenements, with Elementos controlling 96km<sup>2</sup> of prospective tenements in the district that have undergone limited modern day exploration.

The Company's priority focus is the development of the Cleveland tin project. However, the new zones add an extra dimension to the Company's tenement portfolio in the district. In the short-term, the Company will continue to undertake low-cost exploration activities to build a detailed understanding of the geological potential of the district.

#### Godkin Zone

The Godkin silver-lead-zinc zone, located two kilometres south-east of the Cleveland tin mine, includes a number of small underground mines scattered over two kilometres along a north-west striking structural trend. The zone includes Godkin South, Godkin Extended, Bells Reward and Whyte River historic workings, which are all subject to small-scale underground production from the late 1800's to the early 1900's. There is now little evidence of the old workings (mostly adits and small shafts) or outcropping rock, as vegetation and soils are the dominant features.



The highest silver-lead-zinc grades come from selective samples at Godkin South. The high-grades are related to a brecciated silicified limestone with massive galena and sphalerite matrix and veinlets (Figure 1).

The geological environment in the Godkin Zone is encouraging as there is a north-west trending belt of limestones in contact with sandstone, all intruded by small granite stocks, amenable for carbonate replacement style of mineralisation. Carbonate replacement mineralisation tends to generate larger mineralised bodies which could carry high-grade silver-lead-zinc deposits, as found in sampling in the mineralised limestones at the Godkin South workings, where karst topography could be recognised on the surface around the remnants of the old workings (Figure 2).

The other historic workings in the Godkin Zone are in the vicinity of a limestone belt and granite stocks. Three selective samples from gossan material within the Godkin Zone returned anomalous silver-lead-zinc assays including 27 g/t silver, 1.2% lead and 0.759% zinc.



Figure 1: Selective samples 1, 2 and 3 from mullock dumps at Godkin South historic workings.



### **Cleveland South Zone**

In the Cleveland South Zone two small underground mines, Washington Hay and Confidence, which are located 200 metres south-east and 600 metres south-east of the Cleveland tin mine respectively, were recognised and selectively sampled. High grade silver-lead-zinc mineralisation at the Confidence workings is related to strongly silicified sandstone with massive galena-sphalerite veinlets and matrix fill. Material that was not obviously mineralised was also sampled and returned anomalous values on the same metals (See Table 1).

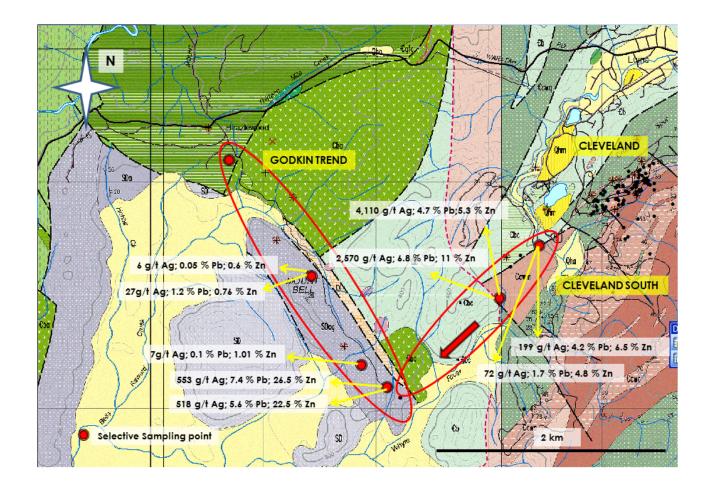


Figure 2: Visible limestone (karst topography) at Godkin South workings.

# Silver-Lead-Zinc Prospectivity of the District

Reconnaissance geology and sampling, in conjunction with the interpretation of the regional scale ground magnetic survey, highlights the potential for the north-west Godkin trend to merge with the north-east Cleveland South trend (Figure 3). This area will be a particular focus of future exploration.





**Figure 3:** Sample locations and the two main structural trends identified at Godkin and Cleveland South.

## **Future Exploration Activities**

Reconnaissance work conducted at Godkin and Cleveland South Zones suggests there is potential for lead-zinc-silver mineralisation. The area has only been subject to small-scale selective mining and limited modern exploration. Future exploration activities will include:

- Detailed soil sampling and mapping at the Godkin and Cleveland South Zones.
   A trial soil sampling survey is underway at Godkin South workings to assist in understanding the structural hosts of the mineralisation;
- Pole-Dipole Induced Polarisation and gravity surveys targeting deeper mineralised structures. Historically, zinc was not a commodity targeted when the mines were active and the Company believes there is potential for highgrade zinc lenses in the underground works; and
- Define drill targets through the sampling, mapping and geophysics.

Calvin Treacy, Managing Director said "We are very excited to have identified new mineralisation within the Cleveland exploration leases. The new zones of mineralisation are situated in areas prospective for carbonate style mineralisation and within 40 kilometres of major lead-zinc-silver deposits including Hellyer, Que River and Roseby".



For more information, please contact:

# **Calvin Treacy**

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Elementos is an Australian, ASX-listed, diversified metals company, including Cleveland, an advanced stage tin-copper and tungsten project in Tasmania, together with a number of prospective copper and gold assets in South America and Australia.

Please visit us at www.elementos.com.au

#### SAMPLE QUALITY CONTROL AND ASSURANCE

Samples were prepared at the Australian Laboratory Services Pty("ALS") preparation facility in Burnie, Tasmania and assayed by Ore Grade Elements Four Acid Digestion with ICP-AES instrument at the ALS laboratory in Brisbane, all ISO-9001:2000 certified laboratories.

### **COMPETENT PERSON STATEMENT**

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Gustavo Delendatti a member of Australian Institute of Geoscientist. Mr Delendatti is a full-time employee of Elementos Ltd and its subsidiaries, and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.' Mr Delendatti consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



Table 1: Assay results from selective sampling at Godkin and Cleveland South Zones

ID	Description	Ag g/t	Pb%	Zn%	Cu%	Zone	Historic Working
1	Carb breccia w/ massive qz-gal-sph mass	553	7.4	26.5	0.05	Godkin	GS
2	Carb breccia w/ massive qz-gal-sph mass	518	5.6	22.5	0.04	Godkin	GS
3	Goss Sst w/ sph - gal veinlets	7	0.11	1.01	NSR	Godkin	GE
4	Goss Sst w/ sph - gal veinlets	6	0.05	0.599	NSR	Godkin	BR
5	Goss Sst w/ gal-sph veinlets	27	1.2	0.759	NSR	Godkin	BR
6	Sst breccia w/ qz-gal-sph mass	199	4.2	6.52	0.05	Clev S	WH
7	Sst breccia w/ qz-gal-sph mass	72	1.7	4.81	0.03	Clev S	WH
19	Silicified breccia w/ massive qz-gal-sph mass	4110	4.7	5.28	0.31	Clev S	CF
20	Quartz vein w/ massive qz-gal-sph mass	2570	6.8	11.0	0.12	Clev S	CF
21	Goss Sst w/ sph - gal veinlets	45	0.063	3.59	0.02	Clev S	CF
22	Goss Sst w/ sph - gal veinlets	53	0.097	0.343	0.02	Clev S	CF
23	Argilized sst	19	0.049	0.085	0.00	Godkin	WR
24	Argilized sst	3	0.004	0.103	0.01	Godkin	WR

# Key to Table 1

Clev S: Cleveland South
GS: Godkin South
GE: Godkin Extended
BR: Bells Reward
WR: White River
WH: Washington Hay
CF: Confidence





Figure 4: Major Deposits in North-West Tasmania



Section 1: Sampling Techniques and Data

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	Eleven rock chips were collected. Rock chip samples are collected from mullock dumps, old workings and selected outcropping/subcropping rocks and veins. No effort has been made to ensure representative sampling of the collected rock. The samples varied in size ranging from approximately 0.5-1kg.  No duplicate samples were collected and no standards were incorporated in the sample batch. A hand held GPS was used to record sample locations (+/- 5m accuracy).
	commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	
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).	Not applicable, no drilling was conducted.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples.  Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	Not applicable, no drilling was conducted.
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.	Field notes regarding rock type and location were recorded in a sample book. This information is of insufficient detail to support any Mineral Resource Estimation.
Sub- sampling techniques	If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled,	The entire collected sample is submitted for analysis. No duplicate samples are submitted. No measures are taken to ensure sampling is



Criteria	JORC Code Explanation	Commentary
and sample preparation	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	statistically representative of the in situ sampled material. The collection methodology is considered appropriate for rock chip sampling and is in line with standard industry practice.
Quality of assay data and laboratory tests	grain size of the material being sampled.  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,	The laboratory analysis technique utilises the entire sample. The laboratory assay procedure is considered appropriate for samples of this type. No additional quality control measured beyond the standard
	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.	laboratory "checks and balances" implemented by the lab as part of their normal assaying procedure were conducted. Samples were assayed by Ore Grade Elements Four Acid Digestion with ICP-AES instrument at the ALS laboratory in Brisbane, all ISO-9001:2000 certified laboratories. Four acid digestion is considered to be a total technique. No on site analysis was conducted.
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.	Any sample returning a four acid digest result of >1,500 ppm Ag was re-assayed using a four acid technique. The results are considered to be acceptable. The Company conducts internal data verification, data entry and storage protocols which are followed and adhered to. None of the received assays have been adjusted in any way.
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.	Rock chip samples are located using a hand held GPS (+/- 5m accuracy). The grid system is GDA 94 (zone 51). No topographic data (ie RL) was recorded.
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.	The sampling methodology is considered unbiased. The relationship to geological structures and orientation is unknown apart from local geological information that was recorded at the sample point. The nature of the results do not support Mineral Resource and Ore Reserve estimate procedures. No sample compositing applies.
Orientation of data in relation to geological	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 collected over a small area (ie 1m x 1m each), the orientation in relation to geological structures is unknown. No orientation based sampling bias has been



Criteria	JORC Code Explanation	Commentary
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.	identified in the data to date.
Sample security	The measures taken to ensure sample security.	Samples were collected in the field and stored in a secure lockable location until dispatched to the laboratory via company personnel and vehicle where the laboratory controls custody of the samples.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or reviews have been conducted at this stage.



Section 2: Reporting of Exploration Results

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.	The Godkin trend is within Exploration License 9/2006, "Whyte River" covering an area of 42km2 Exploration License 9/2006 was granted to Rockwell Tasmania Pty Ltd in early 2013, after the title was transferred from Manasia Mining Pty Ltd. The Cleveland South prospect is within Exploration Licence 7/2005 50% owned by Rockwell Tasmania Pty Ltd with the right to purchase the remaining 50%. Both properties lie in Western Tasmania and are situated to the west of Waratah and in the immediate vicinity of and to the south and west of Luina.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	A series of small underground mines produced high grade narrow vein galena-carbonate-quartz ore along a northwest and northeast trending linear structural belt during the late 1800s-early 1900s. Limited modern exploration done up to date.
Geology	Deposit type, geological setting and style of mineralisation.	Northwest and northeast trending succession of sandstones and carbonate sediments correlated with the Cambrian Crimson Creek Formation of the Zeehan-Rosebery area intruded by granite stocks related with the Meredith Granite, a high level, late tectonic Late Devonian to Early Carboniferous granitic pluton believed to be genetically associated with the mineralisation.
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.  • 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.	Individual GPS controlled data points, no drilling was conducted.
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.	Not applicable, single point rock chip sampling.



Criteria	JORC Code Explanation	Commentary
	The assumptions used for any reporting of metal	
	equivalent values should be clearly stated.	
Relationship	These relationships are particularly important in	Not applicable, single point rock chip sampling.
between	the reporting of Exploration Results.	
mineralisati	If the geometry of the mineralisation with respect	
on widths	to the drill hole angle is known, its nature should	
and	be reported.	
intercept	If it is not known and only the down hole lengths	
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	See maps and figures within the body of the
	tabulations of intercepts should be included for	report.
	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.	
Balanced	Where comprehensive reporting of all Exploration	All assay results regarding silver, lead, zinc,
reporting	Results is not practicable, representative	copper analysis are reported in Table 1.
	reporting of both low and high grades and/or	
	widths should be practiced to avoid misleading	
	reporting of Exploration Results.	
Other	Other exploration data, if meaningful and material,	Not applicable, single point rock chip sampling.
substantive	should be reported including (but not limited to):	
exploration	geological observations; geophysical survey	
data	results; geochemical survey results; bulk samples	
	<ul> <li>size and method of treatment; metallurgical test</li> </ul>	
	results; bulk density, groundwater, geotechnical	
	and rock characteristics; potential deleterious or	
	contaminating substances.	
Further	The nature and scale of planned further work (eg	The data gathered and reported represents the
work	tests for lateral extensions or depth extensions or	results from a first pass selective rock chip
	large-scale step-out drilling).	sampling program, follow up exploration
	Diagrams clearly highlighting the areas of	techniques may include geological mapping,
	possible extensions, including the main geological	additional rock chip sampling and/or
	interpretations and future drilling areas, provided	geochemical soil sampling and geophysics.
	this information is not commercially sensitive.	Exploration is regarded as very early stage.