

30 January 2018

## Ferrum Crescent Limited

("FCR", the "Company" or the "Group")(ASX, AIM, JSE: FCR)

### Maiden Lead-Zinc-Silver JORC Mineral Resource Estimate for the Toral Project, Spain

FCR, the European lead-zinc explorer, is pleased to announce a maiden independent Mineral Resource Estimate completed in accordance with JORC (2012) in respect of the Company's 100% owned Toral lead-zinc project, located in the Province of León, Spain.

- **16Mt @ 6.9% Zn Equivalent (including Pb credits) and 25g/t Ag**
- **670,000 tonnes of Zinc, 540,000 tonnes of Lead and 13 million ounces of Silver**
- **Deposit open along strike to the east and down dip**
- **This initial resource positions Toral as a potential "world class" lead/zinc project**

**Commenting today, Laurence Read, Executive Director of FCR, said:**

*"Following our strategic review and subsequent restructuring during 2017, the Company has now delivered a maiden JORC 2012 resource estimate for its promising Toral lead, zinc and silver project. By pursuing a systematic data review process and engaging an experienced independent consultant, this important maiden resource has been established which includes new silver credits not previously factored into the historic block models.*

*"Our immediate objective now is to build on this maiden JORC resource estimate and increase its size and thereafter carry out a preliminary economic assessment. Having said that, I have no doubt that our project is well positioned against its peer group with the clear potential to become a future mining operation.*

*"During the coming months we intend to carry out review work and present this project to our shareholders, major mining companies and the general zinc-trade sector in order to maximise exposure to what is a potential new major zinc-lead opportunity."*

**Commenting today, Myles Champion, Executive Director of FCR, said:**

*"This maiden resource estimate is an outstanding result for the Company and provides us with a strong platform to rapidly progress the project. The addition of silver represents a significant potential contribution to the overall project economics and as we progress our work I am sure its presence will impact favourably on financial models.*

*"The work carried out independently by Addison Mining Services has resulted in an improvement in our overall geological understanding as well as directing our ongoing activities to further define and expand the project's resources.*

*"The amount of historic data available for this exercise was immense and I am pleased that collectively with AMS we were able to interrogate the raw data package and extract maximum benefit from it.*

*"I look forward to the next phase of resource definition and project expansion."*

## JORC 2012 Maiden Inferred Resource Estimate

FCR commissioned a maiden mineral resource estimate in late 2017 from Addison Mining Services Limited (“AMS”) based on all the available historical data from three drill campaigns conducted on the 15.199 licence area (the 1972 - 1984 Peñarroya-Adaro campaign, the 2006 - 2008 Lundin Mining campaign and the 2016 - 2017 FCR campaign), along with underground channel sampling results from the numerous adits.

The maiden mineral resource estimate has been reported in accordance with the guidelines of the Joint Ore Reserve Committee (JORC) 2012 code.

A new block model combined with an initial digital geological model has increased the level of understanding of the mineralogical and geological controls at Toral and the Company is therefore confident of being able to enhance and potentially expand the resource going forwards, subject to undertaking additional drilling and exploration activities.

### Block Model

The Inferred resource for the Toral Pb-Zn-Ag mineralisation located on the Toral property has been estimated at various cut-offs (see Table 1 below). The Company reviewed the new model along with its appointed geological consultants, AMS, and concluded that a 4% cut-off was appropriate utilising estimated mining parameters typical for similar types of projects and mineralogy, and an historical three-year trailing average for metal prices, which, although conservative, was deemed appropriate at this stage in the project’s development.

Zn Price Used:           US\$2,400/t    US\$/lb1.09  
 Pb Price Used:           US\$2,000/t    US\$/lb0.91  
 Ag Price Used:           US\$17/oz

The maiden resource has identified potentially economic mineralisation ranging from surface to approximately 1,100m below surface. The block model currently extends for a strike length of 3,300m and is still open to the east along strike and also at depth where it has not yet been closed off.

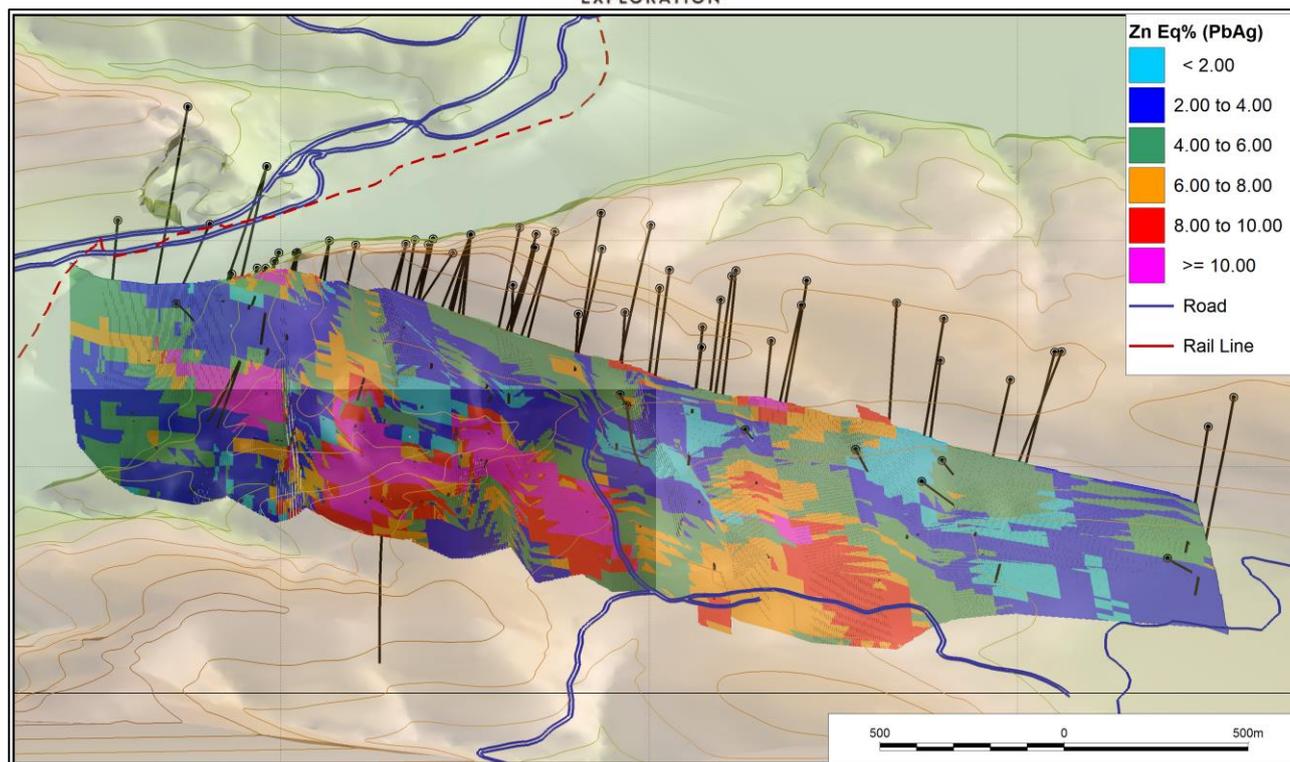
Cut Off Zn Eq (PbAg)%	Tonnes (Millions)	Density	Zn_Eq (Pb)%	Zn Eq (PbAg)%	Zn %	Pb %	Ag g/t	Contained Zn Tonnes (000s)	Contained Pb Tonnes (000s)	Ag Troy Oz (Millions)
6.0	9	2.65	8.8	9.5	5.0	4.3	31	470	400	9
5.0	12	2.57	7.8	8.4	4.6	3.7	28	580	470	11
<b>4.0</b>	<b>16</b>	<b>2.52</b>	<b>6.9</b>	<b>7.5</b>	<b>4.0</b>	<b>3.3</b>	<b>25</b>	<b>670</b>	<b>540</b>	<b>13</b>
3.0	20	2.50	6.2	6.7	3.7	2.9	23	750	600	15

Table 1: Summary of Inferred mineral resources for the Toral property reported at a 4.0% Zn equivalent cut-off grade and estimated grade and tonnages at the various cut off grades.

Figure 1 shows AMS’ resource block model for Toral as a 3D view looking north



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### Competent Persons Statement

The Toral maiden resource estimate was prepared by Mr J.N. Hogg, MSc. MAIG Principal Geologist for AMS, who is an independent Competent Person within the meaning of the JORC (2012) code and meets the criteria of a qualified person under the AIM guidance note for mining and oil & gas companies. The maiden resource estimate was aided by Mr R. J. Siddle, MSc, MAIG Senior Resource Geologist for AMS, under the guidance of the competent person. Mr Hogg has reviewed and verified the technical information that forms the basis of, and has been used in the preparation of, the current mineral resource estimate and this announcement, including all analytical data, diamond drill hole logs, QA/QC data, density measurements, and sampling, diamond drilling and analytical techniques. Mr Hogg consents to the inclusion in this announcement of the matters based on the information, in the form and context in which it appears. Mr Hogg has also reviewed and approved the technical information in his capacity as a qualified person under the AIM Rules.

For further information on the Company, please visit [www.fcexploration.com](http://www.fcexploration.com) or [www.ferrumcrescent.com](http://www.ferrumcrescent.com) or contact:

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*The information contained within this announcement is deemed by the Company to constitute inside information as stipulated under the Market Abuse Regulation (EU) No. 596/2014.*

**Glossary of technical terms:**

“Ag”	silver;
“g”	grammes;
“g/t”	grammes per tonne;
“Inferred Resource”	that part of a Mineral Resource for which quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade (or quality) continuity. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes;
“JORC”	the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, as published by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia;
“JORC (2012)”	the 2012 edition of the JORC code;
“m”	metre;
“Mineral Resource”	a concentration or occurrence of material of economic interest in or on the earth's crust in such form and quantity that there are reasonable and realistic prospects for eventual economic extraction. The location, quantity, grade, continuity, and other geological characteristics of a Mineral Resource are known, estimated from specific geological evidence and knowledge, or interpreted from a well-constrained and portrayed geological model;
“Mt”	million tonnes;
“oz”	troy ounce;
“Pb”	lead;
“QA/QC”	quality assurance/quality control;
“Zn”	zinc.



## APPENDIX: Table 1 Appendix 5A ASX Listing Rules (JORC 2012)

### 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"> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<p>Historic and recent diamond drill core and underground cut channel sampling. Three main phases of exploration drilling and sampling:</p> <p>1972 - 1984 Peñarroya – Adaro. Diamond drill core method was used to obtain samples for geological logging and sampling. Geological and analytical data is recorded on hardcopy. Selective sampling method was employed around areas of interest. Sampling intervals measure approx. 1m, half core sent for analysis, with half core retained for reference. Exact details on core processing, sampling techniques and analytical methods are unclear, however subsequent explorers Lundin Mining sent the majority of Peñarroya core pulp reject samples to ALS Chemex for multi element re-analysis by ICP.</p> <p>2006 - 2008 Lundin Mining. Diamond drill core method was used. Core logging completed on paper. Selective sampling method was employed around areas of interest. Sampling intervals measure approx. 1m, half core sent for analysis, with half core retained for reference. Samples typically 1m half core, with samples prepared at the then Lundin Laboratory in Suecia, then shipped to ALS Chemex Vancouver for multi-element analysis by ICP. Half core samples reduced to -400 microns and 100g sub-sample taken for analysis. Multi-element re-analysis of available Peñarroya ddd pulp reject samples completed at ALS Chemex Vancouver using ICP.</p> <p>2016 - 2017 Ferrum Crescent. Diamond drill core and underground cut channel sampling methods used to obtain samples for geological logging and sampling. Geological and analytical data is recorded on hardcopy. Selective sampling method was employed around areas of interest. Sampling intervals measure approx. 1m, half core sent for analysis, with half core retained for reference. Samples sent to ALS Seville for preparation and multi-element analysis by ICP. Half core samples reduced to -400 microns and 100 g sub-sample taken for analysis.</p>
Drilling techniques	<ul style="list-style-type: none"> <li>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).</li> </ul>	<p>A total of 92 diamond drill holes (inc. wedges) for 45,000 metres, and 19 underground channels for 18.75 metres were used as the input database for geological modelling and resource estimation.</p> <p>Drill core diameter was PQ, HQ and NQ depending upon depth. Tube type is unknown for Peñarroya drilling, triple tube method was used for Lundin and FCR campaigns. No orientation has been done on drill core.</p>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<p>Recovery data was recorded for selected intervals in 23 drillholes (11 Peñarroya, 6 Lundin and 6 FCR).</p> <p>A total of 332 core recovery measurements exist in the database with average recovery of 83%. 109 core recovery measurements occur within the interpreted mineralised zone. Core recovery was measured over lengths often corresponding to sample length.</p> <p>Recoveries average 80% within the mineralised zone, ranging from 100% down to 19% within areas of broken ground conditions, intense fracturing and alteration. Statistical assessment suggests a possible slight bias exists between recovery and grades, with higher recovery returning slightly higher average grades. However, due to limited samples findings are currently inconclusive and additional recovery data and investigation is required to draw conclusions.</p>
Logging	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> </ul>	<p>Selected intervals representing areas of interest were logged in the Penarroya drill holes. All Lundin and FCR holes were logged in their entirety.</p> <p>Core logging was recorded on paper logs, using a combination of printed graphic log templates (Peñarroya, Lundin), and plain paper (FCR).</p> <p>DH lithology, alteration, mineralisation and structural observations were recorded by variable interval based on</p>



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	<ul style="list-style-type: none"> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<p>characteristical similarities and change boundaries. Summary interval information was input to Excel, comprising single code field and codes to describe logged lithology, alteration, mineralisation and major structure for the interval. Graphic and schematic logs were produced for all drilling. Lundin and FCR core was routinely photographed. Drill core logging is considered satisfactory for the level of study and resource class.</p>
<p>Sub-sampling techniques and sample preparation</p>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<p>The sub-sampling techniques and sample preparation details are not known for the Peñarroya drill core. Lundin and FCR core was cut by core saw and half core submitted for analysis. Underground channels were cut by angle grinder/circular saw. A channel approximately 7 cm wide and 5 cm deep to obtain 2-3 kg sample. Sample collection, sample size, preparation and analysis are considered appropriate for the mineralogy and deposit type. Samples are considered representative of the in-situ material collected. QAQC sample insertion procedures were not employed during the historical Peñarroya drill campaigns. Lundin Mining completed limited quarter core field duplicate insertion and selected pulp re-assay by external lab. FCR conducted a QC program of inserting quarter core field duplicates, course blank and pulp blank material, external standards, selected pulp repeats and submission of pulp rejects for umpire lab analysis. ALS internal QC exists for Peñarroya re-analysis, Lundin and FCR sample batches.</p>
<p>Quality of assay data and laboratory tests</p>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<p>Historical Peñarroya assaying and laboratory procedures are unknown. Commercial laboratories ALS Chemex Vancouver and ALS Seville (ISO9001:2008) were used for Lundin and FCR drill core respectively and FCR underground channel sample analysis. Multi-element analysis, including Pb, Zn, Cu, Ag by ICP-MS were completed on all samples. Over limits samples were re-analysed using ore grade methods of determination. Sample analytical techniques are considered in line with industry standard for this style of mineralisation. QAQC sample insertion procedures were not employed during the historical Peñarroya drill campaigns. However, Lundin re-analysis of Peñarroya drill core pulp rejects does allow for comparison of original and pulp duplicate analysis results for verification purposes. Lundin Mining completed limited quarter core field duplicate insertion and pulp reject re-analysis. No external standards. FCR conducted a QC programme of inserting quarter core field duplicates, course blank and pulp blank material, standards, selection of pulp repeats and submission of pulp rejects for umpire lab re-analysis. ALS Chemex and ALS Seville internal QC exists for the Peñarroya Lundin re-analysis, Lundin core and FCR core and channel sample batches. No significant issues or fatal flaws were identified from the assessment of QA data. The nature and quantity of QAQC data, procedures employed, level of accuracy and precision are considered acceptable for the assigned resource classification. The quality of assay data and laboratory tests is acceptable for the resource classification for this deposit. No geophysical tools, spectrometers or handheld XRF instruments were used in the exploration and resource work.</p>
<p>Verification of sampling and assaying</p>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<p>Paper recorded drill hole logging data is transferred to Excel, imported in to Mapinfo for viewing and imported to Micromine 3D geological modelling software for validation. DGPS collar and survey excel data, and lab analytical data transferred from lab.csv, to Excel and imported to Micromine 3D geological modelling software. Geological data from gallery is observed and reported by geologists and mining engineers. All analytical data generated from Lundin re-analysis and Lundin core samples, FCR core and channel samples for use</p>



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		as input to estimation have been verified by cross reference against lab assay certificates, re-import and re-building of the project analytical database. No adjustment to the analytical data was considered necessary, other than conversion to zinc equivalents for reporting purposes, following industry best practice. Raw analytical data remained unchanged.
Location of data points	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<p>Lundin and FCR drill collars were surveyed using a Geomax 35 high-precision DGPS device Accuracy +/-3cm. Downhole survey measurements taken using Reflex Maxibore downhole survey tool.</p> <p>Peñarroya drill hole collar locations were measured off plans and sections, located on the ground and picked up using Geomax 35 high-precision DGPS device. Accuracy +/-5 m. Peñarroya drill hole dip and azimuth measured from historical plans, cross sections and longitudinal section. Accuracy +/- 5 m.</p> <p>Old workings were surveyed using Lieca Disto tmx310 survey device.</p> <p>Co-ordinate grid system used is European Terrestrial Reference System 1989 UTM Zone 29.</p> <p>Topographic DTM taken from 5 m resolution Lidar data MDT05-Lidar, from government mapping and survey association Plan Nacional de Ortofotografía Aérea (PNOA).</p>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<p>The distribution of drillholes is sufficient to establish the degree of geological and grade continuity appropriate for JORC (2012) Inferred classification of resources.</p> <p>Intervals were not composited at the sampling stage. Grade compositing was done for domain interpretation and modelling, and 2 m length compositing done for grade interpolation.</p>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<p>Drilling is angled to intercept mineralised structures at high angle, as close to perpendicular to dip and strike as practicable.</p> <p>No sample bias is introduced by drilling orientation.</p>
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<p>Historical Peñarroya sample security protocols are not available.</p> <p>Lundin/FCR drill core is transported from site to logging facility in securely covered core boxes by the Lundin/FCR geologists. Core logged and sampled in secure facility.</p> <p>Samples are bagged in plastic bags and labelled with individual sample numbers, sample name and sample location. Each bag is sealed to avoid loss and contamination. Plastic bags are placed in dry weave bags.</p> <p>Samples are delivered to laboratory by courier in secured boxes.</p>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<p>Competent Person's review and discussion of sampling techniques and data took place prior to and during consultant site visit between Nov 20<sup>th</sup> and 22<sup>nd</sup>, 2017. Findings were satisfactory and considered appropriate for the JORC (2012) resource classification.</p>

## 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"> <li>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</li> </ul>	<p>Toral exploration permit number 15.199 (also referred to as Permiso de Investigación), is located approximately 400 km north-west of Madrid, within the Province of León, Autonomous Community of Castile and León.</p> <p>Licence 15.199 covers an area of 24 km<sup>2</sup>.</p> <p>Exploration licence 15.199 is owned by Goldquest Iberica,</p>



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	<p><i>environmental settings.</i></p> <ul style="list-style-type: none"> <li><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></li> </ul>	<p>S.L., a wholly owned subsidiary of Ferrum Crescent Limited. The licence was renewed on November 14<sup>th</sup> 2017 for a period of 3 years.</p>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<p>1972-1984 – Peñarroya-Adaro. 55 drill holes, 36 wedge drill holes. 1992-1995 – Geominera. Data re-evaluation. 2005-2008 – Lundin Mining. 7 drill holes. 2009-2011 – Goldquest Mining. Soil and rock geochemistry. Historic gallery mapping. Data evaluation. NI43-101 Mineral Resource Estimate 2012-2015 – Portex Mining Corporation. Geological mapping. Data re-evaluation. 2015-2016 – Goldquest Iberica S.L. Soil and rock geochemistry. Geological mapping. 2016-2017 – Goldquest Iberica S.L. (Ferrum Crescent Limited). 6 drill holes. Historic gallery mapping and sampling. Data re-evaluation and interpretation.</p>
<i>Geology</i>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<p>The Toral project is located in the Southwestern part of the regional West Asturian Leonese Zone (WALZ), a major tectono-stratigraphic unit of the Hercynian Orogeny. The mineralisation at Toral is considered as structurally controlled carbonate hosted Pb-Zn type. Shear and thrust fault controlled mineralisation within favourable carbonate lithology and favourable contrasting contacts between carbonates and shales. Styles of mineralisation are boudinage drusy quartz vein, replacement breccia, disseminated clots associated with silica, carbonate and chlorite alteration. Main metallic minerals are Sphalerite, Galena, Pyrite, Chalcopyrite and silver.</p>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li><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"> <li><i>easting and northing of the drill hole collar</i></li> <li><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li><i>dip and azimuth of the hole</i></li> <li><i>down hole length and interception depth</i></li> <li><i>hole length.</i></li> </ul> </li> <li><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></li> </ul>	<p>Drilling: Number of drillholes used: 92 Collar East: 679962mE - 684702mE Collar North: 4708653mN - 4710598mN Collar RL: 410mRL - 753mRL Azimuth: 007° - 345° Dip: -87° - -40° Length: 82.3m – 1,285.3m Interception depth: 578mRL – -405mRL UG Channels: Number of channels: 19 Collar East: 680917mE – 682607mE Collar North: 4709161mN – 4709996mN Collar RL: 447mRL – 693mRL Azimuth: 010° - 313° Dip: -24° - 19° Length: 0.25m – 4.25m</p>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li><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></li> <li><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></li> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<p>No top cuts were applied to the Zn and Pb data. However, Lundin and FCR samples were limited to analytical method upper detection limits of 30% for Zn, Pb A top cut of 200 ppm was applied to Ag assay data. Data aggregation or Grade Compositing rules for the reporting of exploration drill and channel significant results were minimum width 1m, minimum average grade 0.5% ZnEq, maximum allowable internal waste of 2m. Zn equivalent calculations were based on 3 year trailing average price statistics obtained from the London Metal Exchange and London Bullion Market Association giving an average Zn price of US\$2,400/t, Pb price of US\$2,000/t and Ag price of US\$17/tOz. Recovery and selling factors were incorporated into the calculation of Zn Eq values. It is the Company's opinion that all the elements included in the metal equivalents calculation (Zinc, Lead and Silver) have a reasonable potential to be recovered and sold.</p>



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<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <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></li> </ul>	<p>Mineralisation is interpreted as sub-vertical to steeply dipping to the NE.</p> <p>Angled drilling is sub-perpendicular to +/- 20° oblique to mineralisation.</p> <p>True thickness of mineralisation ranges from approximately 90%-60% downhole interval length.</p>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• <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></li> </ul>	<p>Appropriate scaled diagrams are included within the AMS Toral JORC (2012) Resource Statement and Technical Report.</p>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>• <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 Results.</i></li> </ul>	<p>All available exploration data for the Toral deposit area has been collected and reported. Representative data from all drillings have been reported.</p>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>• <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></li> </ul>	<p>No geophysical works have been completed.</p> <p>Geological mapping and solid geology map generation completed.</p> <p>Structural interpretation and 3D modelling completed.</p> <p>Soil geochemical surveys demonstrate strong coherent Zn in soil anomalism coincident with interpreted controlling structures.</p> <p>No geotechnical, metallurgical or bulk sample test work completed to date.</p>
<i>Further work</i>	<ul style="list-style-type: none"> <li>• <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></li> <li>• <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></li> </ul>	<p>Surface drilling and trenching works testing open strike extent to the SE and infill drilling within current resource limits to increase confidence and resource class.</p> <p>Underground cut-channel sampling and mapping.</p> <p>Systematic bulk density measurement work.</p> <p>Preliminary metallurgical testwork.</p>

### Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Database integrity</i>	<ul style="list-style-type: none"> <li>• <i>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</i></li> <li>• <i>Data validation procedures used.</i></li> </ul>	<p>The databases (geological and analytical) are maintained by the geologist.</p> <p>The database for use as input to mineral resource modelling and estimation has been validated and verified by AMS and the Competent Person.</p> <p>Micromine 3D geological modelling and estimation software used for import, validation and QAQC verification assessment.</p> <p>Data checks include checks for overlapping and missing intervals, dh trace errors, missing survey data, litho and collars.</p>
<i>Site visits</i>	<ul style="list-style-type: none"> <li>• <i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i></li> <li>• <i>If no site visits have been undertaken indicate why this is the case.</i></li> </ul>	<p>Competent Person for structurally controlled carbonate hosted Pb-Zn resource estimation is Mr. James Hogg who has a Master Degree of Science in Mineral Exploration and is a member of the Australian Institute of Geoscientists.</p> <p>Site visits were completed between 20<sup>th</sup> and 22<sup>nd</sup> November 2017.</p>
<i>Geological interpretation</i>	<ul style="list-style-type: none"> <li>• <i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i></li> </ul>	<p>Based upon the level of available information, geological and deposit complexity, interpretation of the main lithological boundaries and controls to mineralisation are considered</p>



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Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<p>satisfactory and appropriate for the assigned resource class. Drillhole lithological and analytical information, prospect scale surface geological mapping, underground mapping and sampling, location of underground workings were used in geological interpretation.</p> <p>Alternative interpretations infer potential thrust repeats and potential for additional parallel mineralised zones. However, at the level of information this interpretation remains unsupported by drill data and conceptual in nature.</p> <p>Geological model was used to guide the interpretation and continuity of Zn-Pb mineralised domains.</p> <p>Post mineralisation transfer faults are interpreted to affect continuity by minor offset.</p>
Dimensions	<ul style="list-style-type: none"> <li>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</li> </ul>	<p>Mineralisation is encountered at surface and based on current testing, extends to approximately 1,100 m below the surface. Mineralisation is currently tested across a 3,300 m strike length, the orientation of mineralisation zone is approximately 110 degrees, averaging approximately 3 m in thickness.</p>
Estimation and modelling techniques	<ul style="list-style-type: none"> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions behind modelling of selective mining units.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	<p>Wireframe solid models were created for each domain based on a mineralisation threshold of approximately 0.2% for Zn and Pb (approximately 0.4% Zn+Pb). Analysis of Zn and Pb grades in cross section and in scatter plots showed a strong relationship and no requirement to model Zn and Pb separately was identified. Ag showed a strong correlation with Pb and was estimated within the Zn/Pb mineralised domain. Interpretation of the mineralised domains were guided by geological interpretation of the deposit incorporating structural and lithological boundaries.</p> <p>All samples contained within the mineralised wireframe were composited to a standard length for geostatistical analysis and interpolation. Variography was performed on the assay data within the primary mineralised wireframe to generate a series of directional semi-variograms for Zn, Pb and Ag. These variograms were used in the Ordinary Kriging process where Zn, Pb and Ag were interpolated and extrapolated using the corresponding variograms on a domain by domain basis. A single pass search was applied to minimise conditional bias, the number of input data in each block estimate were restricted to prevent over smoothing of the estimates.</p> <p>The block model used uniform cell size of 50x2x50 m to best suit the orientation of the mineralisation and sample spacing. The block model was rotated by 20° in plan view to best match the trend of mineralisation. Sub cells were applied to better fit the wireframe solid models and preserve accurate volume as much as possible. Cells were interpolated at the parent block scale using an Ordinary Kriged interpolation technique with a single search ellipsoid orientated to the interpreted strike, dip and pitch of mineralisation.</p> <p>No top cutting was applied to Zn or Pb grades due to the upper detection limit of the data being 30%. High-grade outlier values for Ag were capped ('top-cut') at 200 ppm (g/t) based on the data distribution and statistics.</p> <p>The current maiden resource completed by AMS on the Toral project compares well with the historic 2011 NI43-101 reported resource which stated resources at 4% cut off of 18Mt @ 8.4% (Pb+Zn), 27g/t Ag. An AMS audit of the historic resource has identified a number of errors and issues in regard to input data, estimation methodology, assumptions and reporting of metal equivalents, and considers the historic resource inaccurate and unreliable.</p> <p>The data was continually validated throughout drilling and at the resource stage. Data was validated both visually and in Micromine. No significant errors were detected and the data set is considered robust and compliant with JORC 2012 reporting standards.</p> <p>A comparison between the volume and tonnage of the block model and the volume and tonnage of the wireframe which represents all mineral domains. The volumes of the wireframe and block model agree within acceptable limits.</p>



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Moisture	<ul style="list-style-type: none"> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	Tonnages are estimated on a dry basis.																																			
Cut-off parameters	<ul style="list-style-type: none"> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<p>Zn equivalent calculations were based on 3 year trailing average price statistics obtained from the London Metal Exchange and London Bullion Market Association giving an average Zn price of US\$2,400/t, Pb price of US\$2,000/t and Ag price of US\$17/tOz. Recovery and selling factors were incorporated into the calculation of Zn Eq values. It is the Company's opinion that all the elements included in the metal equivalents calculation (Zinc, Lead and Silver) have a reasonable potential to be recovered and sold.</p> <p>Zn Eq (PbAg)% is the calculated Zn equivalent incorporating silver credits as well as lead and is the parameter used to define the cut-off grade used for reporting resources (Zn Eq (PbAg)% = Zn + Pb*0.863 + Ag*0.022).</p> <p>Zn Eq (Pb)% is the calculated Zn equivalent using lead credits and does not include silver credits. It is displayed here for comparison purposes (Zn Eq (Pb)% = Zn + Pb*0.863).</p>																																			
Mining factors or assumptions	<ul style="list-style-type: none"> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</li> </ul>	<p>Assumed mining methods are based upon a review of methods of extraction, cost and performance on similar type deposits.</p> <p>Summary of mining and processing costs used in determination of economic cut off. Assumed 90% sub level open stoping and 10% shrinkage mining techniques.</p> <table border="1"> <thead> <tr> <th>Description</th> <th>\$/t</th> <th>Weighting</th> <th>Weighted Cost / t</th> </tr> </thead> <tbody> <tr> <td>Mining - Sub-level OS</td> <td>25</td> <td>0.9</td> <td>22.5</td> </tr> <tr> <td>Mining post fill</td> <td>8</td> <td>1</td> <td>8</td> </tr> <tr> <td>Mining - shrinkage</td> <td>80</td> <td>0.1</td> <td>8</td> </tr> <tr> <td>Weighted average mining cost</td> <td></td> <td></td> <td>38.5</td> </tr> <tr> <td>Flotation 2 products</td> <td>17</td> <td>1</td> <td>17</td> </tr> <tr> <td>G&amp;A</td> <td>10</td> <td>1</td> <td>10</td> </tr> <tr> <td>Total per tonne milled</td> <td></td> <td></td> <td>65.5</td> </tr> </tbody> </table>	Description	\$/t	Weighting	Weighted Cost / t	Mining - Sub-level OS	25	0.9	22.5	Mining post fill	8	1	8	Mining - shrinkage	80	0.1	8	Weighted average mining cost			38.5	Flotation 2 products	17	1	17	G&A	10	1	10	Total per tonne milled			65.5			
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Metallurgical factors or assumptions	<ul style="list-style-type: none"> <li>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</li> </ul>	<p>Assumed processing methods are based upon a review of methods of extraction, cost and performance of similar type deposits.</p> <p>Summary of recovery and selling factors used in the determination of economic cut off and equivalents. Assumed 90% sub level open stoping and 10% shrinkage mining techniques with 90% and 95% mining recoveries respectively. Discounted factor for selling concentrate product applied to metal prices. Metal Recoveries and Concentrate Selling Factors are taken into account in Zn Eq calculation.</p> <table border="1"> <thead> <tr> <th>Metal</th> <th>Metal price US\$</th> <th>Zn % Equivalent Conversion Factor</th> <th>Mining Recovery Factor (MRECF)</th> <th>Process Recovery Factor (PRECF)</th> <th>Conc Selling Factor (CONCF)</th> <th>Metal Contribution Factor</th> </tr> </thead> <tbody> <tr> <td>Zn</td> <td>2400 /t</td> <td>1</td> <td>0.905</td> <td>0.93</td> <td>0.85</td> <td>0.55</td> </tr> <tr> <td>Pb</td> <td>2000 /t</td> <td>0.863 (x % Pb)</td> <td>0.905</td> <td>0.89</td> <td>0.92</td> <td>0.38</td> </tr> <tr> <td>Ag</td> <td>17 /Oz</td> <td>0.022 (x g/t Ag)</td> <td>0.905</td> <td>0.80</td> <td>0.95</td> <td>0.07</td> </tr> <tr> <td>Zn Eq Weighted</td> <td></td> <td></td> <td>0.905</td> <td>0.905</td> <td>0.884</td> <td></td> </tr> </tbody> </table>	Metal	Metal price US\$	Zn % Equivalent Conversion Factor	Mining Recovery Factor (MRECF)	Process Recovery Factor (PRECF)	Conc Selling Factor (CONCF)	Metal Contribution Factor	Zn	2400 /t	1	0.905	0.93	0.85	0.55	Pb	2000 /t	0.863 (x % Pb)	0.905	0.89	0.92	0.38	Ag	17 /Oz	0.022 (x g/t Ag)	0.905	0.80	0.95	0.07	Zn Eq Weighted			0.905	0.905	0.884	
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Environmental factors or assumptions	<ul style="list-style-type: none"> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage</li> </ul>	No assumptions are made on environmental factors other than the cost to back fill waste tailings.																																			



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<i>Bulk density</i>	<p><i>the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i></p> <ul style="list-style-type: none"> <li>• <i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i></li> <li>• <i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</i></li> <li>• <i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></li> </ul>	<p>Bulk density was determined using waxed core samples and weight in air vs weight in water measurement method. BD samples were taken from FCR and Lundin drill core, and flagged within the mineralised wireframe. A total of 36 measurements were used.</p>
<i>Classification</i>	<ul style="list-style-type: none"> <li>• <i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></li> <li>• <i>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i></li> <li>• <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> </ul>	<p>The Inferred mineral resource category for the Toral zinc-lead-silver project (at cut-off grades &gt;4% Zn Equivalent) comply with the resource definitions as described in Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The JORC Code, 2012 Edition. Prepared by: The Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC).</p> <p>The result reflects the quality and quantity of data, geostatistical analysis of correlation and relationship between mineralised samples (semi-variography) and the Competent Person's view of the deposit. The semi-variography reflects the sample density.</p>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of Mineral Resource estimates.</i></li> </ul>	<p>There has been one historical resource estimate performed on the deposit, completed in 2013 and reported in compliance with NI43-101. A review of the NI43-101 report and available models has raised some concerns on the validity of input data used, modelling and estimation methodologies and resulting reliability of reported resources.</p> <p>The AMS 2018 resource report has not been audited.</p>
<i>Discussion of relative accuracy/ confidence</i>	<ul style="list-style-type: none"> <li>• <i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i></li> <li>• <i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></li> <li>• <i>These statements of relative accuracy and confidence of the estimate should be</i></li> </ul>	<p>It is the CP's opinion that the resource model and estimations are accurate given the quantity and quality of data, and reported in accordance with JORC 2012 guidelines.</p> <p>The level of confidence is consistent with the level of Inferred categorised mineral resource.</p> <p>There were sufficient statistical and geostatistical procedures to quantify the accuracy of the mineral resource.</p> <p>There are no historical production records from the deposit.</p>



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Criteria	JORC Code explanation	Commentary
	<i>compared with production data, where available.</i>	