ASX Announcement



19th May 2017

Thick Zones of Massive Sulphides Intersected at Kildare Zinc Project as Work Continues on Maiden Resource Estimate

Latest hole in ongoing drill program hits significant mineralisation at McGregor Prospect

Key Points:

- Phase 2 diamond drill program progressing well at 100%-owned Kildare MVT District Zinc Project in Ireland with three holes now completed.
- Visual estimates[#] up to 25% zinc sulphide over 20.95m down hole thickness of massive sulphide in the Base of Reef target at the McGregor prospect in hole Z_4069_003.
- Additional zones of strong zinc sulphide mineralisation observed in drill-core above and below the Base of Reef in Z_4069_003.
- This latest massive sulphide intersection is ~45m from the nearest drill hole and significantly extends the Base of Reef mineralisation at McGregor.
- Work is continuing to calculate a maiden JORC 2012 compliant Mineral Resource estimate for the McGregor and Shamrock prospects, with over 4,500 assays now collated in the Company's database and merged with other geological and geophysical information.
- EGM being held 19th May to approve Performance Rights Plan to incentivise Directors and key management and implement facility for sale of unmarketable share parcels.

European base metals explorer Zinc of Ireland NL (ASX: ZMI – "ZMI" or "the Company") is pleased to advise that the Phase 2 diamond drilling program is progressing well at its 100%-owned **Kildare MVT Zinc Project** in Ireland (Figure 1) with three holes completed.

The 3,000m program has been designed to test multiple targets, including extensions of mineralisation at previously drilled prospects and a number of newly identified high-priority exploration targets within close proximity of the known mineralisation at the Shamrock and McGregor prospects.

1 **Visual estimates are based on initial summary logs, true vertical thickness of the intercept is estimated at 17.61m.*

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Figure 1: Regional setting of the Kildare Project

The Company is pleased to advise that the third hole in the program, Z_4069_003, at the McGregor prospect, has intersected thick zones of massive sulphides. Visual concentrations are estimated at up to 25% zinc sulphide (see Figure 2).



Figure 2: Kildare Project phase 2 drill holes



The Company has also commenced work to calculate a maiden JORC 2012 Mineral Resource estimate for the McGregor and Shamrock prospects at the Kildare Project, having now collated an extensive historical database including over 4,500 assays from nearly 700 historical drill-holes.

Drilling Update – Massive Sulphides Intersected at McGregor

Approximately 1,400m of the planned 3,000m program at the Kildare Project have been drilled, with three holes completed. Details of the holes drilled to date are as follows:

| Hole_ID | Easting_Irish Grid | Northing_Irish Grid | Elevation | Dip | Azimuth | Total_Depth |
|------------|-----------------------|------------------------|-----------|-----|---------|-------------|
| Z_4069_001 | 276,585 | 225,063 | 81.186 | 80° | 250° | 425.4m |
| Z_4069_002 | 276,808 | 225,069 | 84.324 | 80° | 165° | 437.4m |
| Z_4069_003 | 276,253 | 224,938 | 78.241 | 56° | 225.5° | 554.6m |

Table 1: Phase 2 hole locations at Kildare

The current hole, Z_4069_003, was designed to extend the existing mineralisation at the McGregor prospect. The McGregor Prospect was discovered in the early 1970s following successful soil and deep overburden sampling programs. Extensive drilling since then has defined a thick, high-grade sheet of mineralisation along the Base of Reef horizon, as well as in the overlying Allenwood Beds and the underlying Sub Reef.

This hole is angled at 56 degrees towards the McGregor Prospect from the east, where it is targeting the Base of Reef horizon approximately 45m from the nearest drill holes. In the past couple of days, Z_4069_003, intersected broad zones of breccia-hosted massive sulphides. Visual estimates of up to 25% zinc sulphide are recorded over 17.61m calculated true thickness from 394.5m true depth (see Figure 3, below).

In addition to extending the McGregor mineralisation, this angled hole is delivering valuable geological information on this area because it is providing orientated core. Such information has not been available historically given that all of the historical holes were drilled vertically and therefore revealed minimal lateral information about structure and alteration.

Prior to the current hole two holes were drilled into deep overburden anomalies similar to the deep overburden anomaly that resulted in the discovery of the McGregor Prospect (see Figure 2). The holes were drilled to test the base of reef and sub-reef targets. No significant mineralisation was intersected in either hole and these anomalies remain unexplained.





Figure 3: Z_4069_003 drill core showing massive sulphides at ~485m downhole

Maiden Mineral Resource Estimate

The Company has now compiled all of the necessary data to calculate a maiden JORC 2012 compliant Mineral Resource estimate for the McGregor and Shamrock Prospects at the Kildare Project. This maiden resource will be based on historical drilling, as well as the Company's own drilling programs in 2016.

Over the past six months, more than 4,500 assays and 2,300 lithological intervals have been taken from historical records and added to a database of nearly 700 drill holes. This information is being merged with generations of geological mapping and geophysical surveys to enable the Company to calculate a maiden resource and optimise its exploration budget.

ZMI has engaged AM&A to complete the Mineral Resource calculation.

Corporate Update

On the corporate front, ZMI is seeking to introduce a Performance Rights Plan designed to appropriately incentivise and reward Board and Management for their efforts towards growing the Company, as well as to offer similar incentives to employees and consultants.

The Company is also seeking to undertake a sale facility of unmarketable parcels to help reduce administrative overheads and attract shareholders aligned with the Company's growth strategy.

An Extraordinary General Meeting is being held in West Perth on Friday, 19 May to seek shareholder approval for a number of resolutions related to these two initiatives. Details of these resolutions were provided in a Notice of Meeting which was dispatched to shareholders last month.



Management Comment

ZMI's Managing Director, Mr Peter van der Borgh, said the Company was pleased with the progress of drilling at the Kildare Project which, together with the extensive work which has been put into reviewing and collating the vast database of historical information for the project, had laid the foundations for a significant uplift in the project's value.

"ZMI is a fledgling company with big aspirations to grow through hard work, good science and smart spending," he said. "Kildare is a standout project in a proven terrane, with multiple intersections of high grade base metal mineralisation over considerable depths.

"We have abundant historical data to help develop fact-based exploration targets, and a team of local experts who are passionate about exploration. The exciting results now being generated by our current drill program – including the significant extensions of the McGregor Prospect identified in the latest drill-hole – demonstrate the outstanding upside to the project.

"Importantly, we are also working on our maiden resource, which we hope to be a key milestone for the Company, putting in place a strong foundation from which we can continue to grow.

"Indications from the current drilling are that there will be further upside down the track and, given the geological breakthroughs we have achieved in recent months, we are increasingly optimistic about the prospects for success at Kildare – where we have consolidated ownership of this region for the first time in history."

Looking forward

Assays will be submitted for Z_4069_003 as soon as possible with results from the lab expected next month. Drilling is expected to continue through June with the recently acquired geological information from Z_4069_003 to be incorporated into a new round of targeting.

Yours faithfully,

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Peter van der Borgh Managing Director Zinc of Ireland NL



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Competent Person Statement

The information in this document that relates to exploration results is based on information compiled by Mr Benjamin Sharp BSc MAIG, a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr Sharp is a director and shareholder of Zinc of Ireland NL. Mr Sharp has sufficient experience, which is relevant to the style of mineralisation and types of deposits under consideration and to the activity which has been undertaken to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr Sharp consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Disclaimer

Certain statements contained in this announcement, including information as to the future financial or operating performance of ZMI and its projects, are forward-looking statements that:

may include, among other things, statements regarding targets, estimates and assumptions in respect of mineral reserves and mineral resources and anticipated grades and recovery rates, production and prices, recovery costs and results, capital expenditures, and are or may be based on assumptions and estimates related to future technical, economic, market, political, social and other conditions;

are necessarily based upon a number of estimates and assumptions that, while considered reasonable by ZMI, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies; and,

■ involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements.



ADDITIONAL INFORMTION JORC CODE, 2012 EDITION – TABLE 1

The following sections are provided for compliance with requirements for the reporting of exploration results under the JORC Code, 2012 Edition.

Section 1 Sampling Techniques and Data

(Criteria listed in the preceding section also apply to this section.)

| 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. | Intercepts refer to visual estimates and no assays have yet been submitted nor received. This is reported in the main body of the announcement. |
| 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). | Diamond drilling; HQ and NQ sized. |
| 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. | The results contained herein refer to initial logs and as such recoveries and RQD have not yet been estimated. |
| | • Whether a relationship exists between | |



| Criteria | JORC Code explanation | Commentary |
|---|--|--|
| | 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. | Drillholes have been initially logged and are awaiting final log by the in-country geologists. Photography of mineralised zones is partially complete. The total length of drill core available has been initially logged. All core will be logged in detail following completion of the drill hole. Current level of logging detail is unable to support mineral resource estimation. |
| 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. | Core is yet to be 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, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. | Core is yet to be sampled. |
| 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. | Core is yet to be sampled. Mineralisation has been verified by several company representatives. |
| 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. | Initial surveys are by hand-held GPS in Irish Grid 65. Collars have been surveyed by a differential GPS: Trimble GPS6000 (RTK GPS accurate to 5mm) Downhole surveys are by Relfex EZ-TRAC and |



| Criteria | JORC Code explanation | Commentary |
|---|--|---|
| | Quality and adequacy of topographic control. | are as follows: Hole_ID Depth_m Azimuth Dip Z-4069-003 24 223.9 -55.3 Z-4069-003 158 223.7 -56.1 Z-4069-003 263 224.5 -56.4 Z-4069-003 329 225.5 -56.6 Z-4069-003 359 224.9 -57.1 Z-4069-003 398 226.3 -57.4 |
| 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. | Sample compositing and data distribution is yet to occur. The results from hole Z_4069_003 are expected to be used in additional to historic data to support a mineral resource estimate but this is as yet to be confirmed. |
| 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. | Core is yet to be sampled. True vertical thicknesses have been quoted so as to alleviate any undue bias (thickening) of drilling results. Where true vertical thicknesses have not been quoted (such as in drill logs) this has been clearly noted. True vertical thickness has been calculated in mining software using the drillhole surveys aforementioned. |
| Sample security | The measures taken to ensure sample security. | Samples are under the custody of company representatives in-country. |
| Audits or reviews | The results of any audits or reviews of sampling techniques and data. | No audits or reviews have taken place. |



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. | The Kildare Project is comprised of 6 tenements namely PL3846, PL3866, PL4069, PL4070, PL4072 and PL4073. All tenements are 100% owned by Raptor Resources, a subsidiary of Zinc of Ireland NL. No historical, wilderness or national parks are known to infringe significantly on the tenure. A comprehensive list of all tenure owned by Zinc of Ireland NL is included in Annexure B. | | |
| Exploration done by other parties | Acknowledgment and appraisal of exploration by other parties. | Historical exploration is outlined in GXN Announcement dated 17th March 2016 and associated annexes. | | |
| Geology | Deposit type, geological setting and style of mineralisation. | The Kildare Project is situated approximately 2km NW of the Lower Paleozoic Kildare Inlier on a northeast-southwest trending reverse fault. Local geology consists of sediments conformably overlying Carboniferous Waulsortian Mudbank. This mudbank overlies a thick succession of carbonates and limestones atop basement volcanics, The area is considered prospective for breccia-hosted Fe-Zn-Pb deposits (a Mississippi Valley-type mineralisation style). | | |
| 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. | Z_4069_001: 276,585mE, 225,063mN, 81.186 mAOD, -80° dip, 250° azimuth, total depth 425.4m, no intercept depth reported, no significant mineralsation. Z_4069_002: 276,808mE, 225,069mN, 84.324 mAOD, -80° dip, 165° azimuth, total depth 437.4m, no intercept depth reported, no significant mineralsation. Z_4069_003: 276,253mE, 224,938mN, 78.241 mAOD, -56° dip, 225.5° azimuth, total depth 554.6m, reported intercept is 20.95m down hole, 17.61 true vertical thickness of massive sulphide (sphalerite, marcasite) from 471.9m downhole. This intercept is based on visual estimates only. | | |
| 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 | Core is yet to be sampled. Reported intervals are estimates of visual mineralisation only by company representative geologists in country. | | |



| Criteria | JORC Code explanation | Commentary |
|--|---|---|
| | 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. | |
| 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'). | Both the drillhole intercept and true mineralisation width (vertical thickness) have been quoted for completeness. Downhole intercept has been quoted as assays will be received for the entire length of down hole intercept. True vertical width has been calculated where possible for completeness. |
| 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. | This information does not refer to a significant discovery but an extension to historic mineralisation. |
| 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. | Core is yet to be sampled. Reported intervals are areas of visual mineralisation only. |
| 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. | • N/A |
| 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. | Drilling is continuing and assays are expected in the coming calendar month. |