a-cap ENERGY LTD

ASX Release

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HIGH METALLURGICAL RECOVERIES FOR COBALT AND NICKEL AT WILCONI

A-Cap Energy Limited ("A-Cap", "the Company") wishes to announce the results of recent metallurgical work at the Company's flagship Wilconi Nickel - Cobalt Project ("Wilconi") in Western Australia. The Company completed metallurgical drilling in four areas along the twenty-six kilometres of strike of the mineralised system (refer A-Cap's ASX announcement dated 30 April 2019) and submitted representative samples to a number of laboratories to test different processing routes. The results clearly demonstrate that the Wilconi ore reacts favourably to a variety of different leaching solutions used in the industry.

Highlights of the metallurgical work are:

- **Hydrochloric Acid Leach: 99% of the Nickel and 99.7% of the Cobalt was leached**
- **Sulphuric Acid Leach: 90% of the Nickel and 76% of the Cobalt was leached**
- **Nitric Acid Leach: 89% of the Nickel and 88% of the Cobalt was leached**

This initial metallurgical work is extremely encouraging, as the work clearly shows that the Company has several treatment options that can be further tested and refined.

In addition, A-Cap is currently conducting further metallurgical work in Australia, Canada and China, investigating other metallurgical methods. The early emphasis on metallurgical studies at Wilconi is aimed at producing a metallurgical flowsheet that shows reduced capital costs when compared with traditional high-pressure acid leach processes.

The Chairman of A-Cap, Mr Shen AnGang, stated: "The metallurgical recoveries obtained in this round of metallurgical sampling are extremely encouraging. The simple fact that we know that the nickel and cobalt leach out under atmospheric conditions and, using a number of leaching acids, gives us a choice of flowsheets dependent on project economics. Our Company consultants are currently upgrading the JORC resource at Wilconi and our next phase of work will be more bulk metallurgical sampling and infill drilling".

A-CAP ENERGY METALLURGICAL TESTWORK SUMMARY TABLE										
					METAL EXTRACTION %					
SAMPLE	**ACID**	**DOSAGE (kg/t)**	**TIME (hrs)**	**TEMP ˚C**	**Ni**	**Co**	**Fe**	**Mg**	**Mn**	**Al**
MET1E	HNO_4	1800	6	110	**88.9**	**88.2**	81.4	85.0	59.0	76.2
MET2B	HNO_4	1800	6	110	84.4	84.9	63.3	86.6	64.0	63.4
MET1E	HCl	538	24	80	85.5	91.8	76.9	81.5	80.6	66.9
MET1E	HCl	608	24	80	91.5	96.6	83.7	84.4	93.0	72.6
MET1E	HCl	662	24	80	95.6	97.7	91.7	86.8	92.9	76.6
MET1E	HCl	797	24	80	**99.2**	**99.7**	97.4	89.7	99.2	83.2
MET1E	H2SO4	755	24	80	82.3	66.3	77.0	86.6	50.8	76.6
MET1E	H2SO4	902	24	80	81.9	59.8	75.2	85.2	43.5	72.0
MET1E	H2SO4	1077	24	80	84.7	63.1	76.8	85.0	43.4	76.0
MET1E	H2SO4	894	48	80	**89.8**	**75.5**	84.3	88.2	51.4	81.1
MET2B	HCl	549	24	80	91.8	97.5	77.7	91.3	96.2	66.0
MET2B	HCl	608	24	80	94.5	98.3	84.2	89.6	97.2	68.8
MET2B	HCl	714	24	80	95.9	98.3	93.1	90.4	98.1	70.4
MET2B	HCl	854	24	80	**97.4**	**98.6**	96.6	90.8	98.6	75.0
MET2B	H2SO4	755	24	80	82.3	49.0	56.7	86.2	40.7	63.8
MET2B	H2SO4	970	24	80	81.9	49.9	55.1	86.5	41.9	64.2
MET2B	H2SO4	1148	24	80	84.7	59.6	62.7	89.4	49.1	69.8
MET2B	H2SO4	960	48	80	89.8	74.6	71.4	89.7	55.5	76.8

Note: HNO_4 testwork conducted by Direct Nickel Pty Ltd. HCl & H_2SO_4 testwork completed by Simulus Laboratories.

For and on behalf of the Board
A-CAP ENERGY LIMITED

Paul Ingram
Deputy Chairman

<u>*Competent person's statement*</u>

Information in this report relating to cobalt, nickel and associated metals of the Wiluna Cobalt Nickel Project (Wilconi Project), is based on information compiled by Mr Paul Ingram, a director of A-Cap Energy Limited and a Member of AusIMM. Mr Ingram has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and the activity he is undertaking to qualify as a Competent Person under the 2012 Edition of the Australasian Code for reporting Exploration Results Mineral Resources and Ore Reserves. Mr Ingram consents to the inclusion of the data in the form and context in which it appears.

JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (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.*	• All RC drill holes were sampled at 1 metre intervals reducing to ½ metre sample intervals in mineralisation. All sampling intervals were recorded in Acap's standard RC sample record spreadsheets. Sample condition and weight were recorded for all samples. • Industry standard practice was used in the collection of samples for assay. Samples were collected in green bags under a rig mounted Metzke cyclone system. Sub-samples for analysis were collected in numbered calico bags from a cone splitter attached to the base of the cyclone. Between 1.5 and 3 kilogrammes of sample was collected for analysis. • All drill holes were geologically logged on 1m or ½ m intervals. • All of the drill samples were sent to ALS Geochemistry Perth for analysis. ALS Perth conforms to Australian Standards ISO9001 and ISO17025. • The samples collected for analysis were crushed, pulverised and analysed for 48 elements via a 4 acid digest with ICP-MS finish (ME-MS61). Quality assurance of the sampling was carried out with a duplicate, blank or standard inserted every 20th sample. Duplicate samples were prepared at the cone splitter. Details on QA/QC protocols are provided in the Quality of assay data and laboratory tests section below. • Twinned CRA holes drilled in 1995 were logged and sampled at 1m – 2m intervals. All of the drill samples were sent to a commercial laboratory for crushing, pulverising and chemical analysis by industry standard practises.
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).*	• The recent drill programme was completed using a T450 Schramm drilling rig and the holes were drilled using a down hole reverse circulation hammer with a 5 ¾" face sampling bit. • The holes were designed to twin historical angle holes for which the cobalt and nickel grade was known and obtain sufficient sample of the typical ore types spread over the extent of the deposit. • Holes drilled were shallow, ranging between 30m to 60m depth and all samples were dry, sometimes becoming moist at the base of the deeper holes. • Upon completion all drill holes were surveyed at the bottom and collar using a Reflex, north seeking Gyro. • CRA holes (1995) were drilled using reverse circulation hammer. Recoveries recorded were generally better than 95%. Sampling procedures have not been sited.
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.*	• RC samples were weighed and recoveries recorded for each sample interval. Recoveries were typically better than 95%. • Drill holes were shallow (<60m) and sufficient air was available so the rig could maintain dry samples. • Moist and wet samples were noted in the drill logs and <5% of samples were recorded as moist. All samples in mineralisation were dry. • All 1m and 1/2m samples were weighed to help assess recoveries. Some intervals returned lower than expected volumes but the lost material was often captured in the following sample. This occasional variability in sample weights may have been caused by clays temporarily restricting the return of sample to surface. • There is no known or reported relationship or bias between sample recovery and grade with the RC drilling. • For CRA holes (1995) recoveries recorded were generally better than 95%. Sampling procedures have not been sited.
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.*	• All drill holes were logged in detail by geologists on site during drilling of the holes. Data was recorded for each 1m and 1/2m sample interval and included colour, hardness, lithology, texture, weathering and alteration minerals and intensity, fracture and vein mineral types and %, level of dryness i.e. dry, moist, wet. • Logging is both qualitative and quantitative depending on the criteria being logged. All holes were logged in their entirety. • Representative chips from each 1m and 1/2m drill hole interval were selected and placed in chip storage trays for future reference. All chip trays were photographed. • CRA drillhole data included lithology, weathering, mineralogy and colour.

Criteria	JORC Code explanation	Commentary
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.*	• 1m and ½ metre samples were recovered using a rig mounted cone splitter attached below a cyclone into a numbered calico bag. Sample target weight was between 2 and 3 kg. All samples were dry. • 1m and ½ metre samples were recovered using a rig mounted cone splitter attached below a cyclone into a numbered calico bag. Sample target weight was between 2 and 3 kg. All samples were dry. • RC samples outside the mineralised intervals were combined into 4 x 1m composites the field. Hand held XRF readings were made to support the visual identification of the non-mineralised intervals. Composite samples were prepared by combining samples from the 1m calico bags using a tube-spear. • The sample sizes collected and use of a rig mounted cyclone and cone splitter is considered appropriate for the style of the mineralisation. • In this recent drill programme a duplicate, blank or standard was inserted in the sample stream at every 20th sample. Every 60th sample was a duplicate collected using the same sampling technique as the original sample. Standards and blanks used were OREAS certified reference material. • Duplicate sample analyses were within 10% for the main elements targeted. • Analysis of standards and blanks inserted were all within +/-10% of the recommended value for the main elements targeted. • Sample sizes are considered appropriate for the grain size of the material being sampled and the nature of mineralisation. • To prepare a sample size sufficient for metallurgical testwork (~50kg) 0.5m intervals of selected grade were combined. Samples selected from the drill holes were placed together on a plastic sheet and homogenised by mixing. Splits (10kg) of this bulk sample were prepared by cone and quartering to be sent off to selected labs for metallurgical testwork. • CRA sampling procedures have not been sighted. However, it is expected that industry-standard practices were employed. CRA incorporated several certified reference material (CRM) standards in their sample streams.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• All samples were analysed by ALS laboratories in Perth. All samples were crushed to 70% passing 2mm, a 250g split was taken and pulverised to 85% passing 75 microns. Analysis involved 4 acid (total) digestion with ICP-MS finish (lab method ME-MS61). • ALS is a reputable commercial laboratory with extensive experience in analysing nickel – cobalt samples from numerous West Australian nickel laterite deposits. • ALS Geochemistry (Perth) has been audited and conforms to Australian Standards ISO9001 & ISO17025. • No data from geophysical tools or hand-held assay devices have been reported. • In this most recent metallurgical drill programme a duplicate, blank or standard was inserted in the sample stream at every 20th sample. Every 60th sample was a duplicate collected using the same sampling technique as the original sample. Standards and blanks used were OREAS certified reference material. • Duplicate sample analyses were within 10% for the main elements targeted. • Analysis of standards and blanks inserted were all within +/-10% of the recommended value for the main elements targeted. • Internal laboratory standards and repeats demonstrated a high level of accuracy and precision in the analysis. • For CRA drilling, the laboratory used was Analabs, the assay method is not recorded.
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.*	• Acap Energy geological personnel independently reviewed the RC drill intersections and verified their suitability to be included in the drilling results. • The April drill programme was designed to provide sufficient sample for metallurgical testwork. The RC holes twinned selected historical RC holes drilled by CRA in 1995, providing a spread across the deposit. See Annexure A. • The latest drilling results showed a close match with the geology, thickness and grade intercepts of the original holes. • Primary data was recorded on hard copy logs in the field. Field log data was entered into an excel template on a laptop computer using lookup codes. The information was sent for validation and compilation into a database server. • No adjustment to assay data has been required. • Digital copies of historical Annual Reports submitted to the DMIRS were obtained. These contain photocopies of 'hard

Criteria	JORC Code explanation	Commentary
		copy' logs of CRA RC drill holes.
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.*	• In the recent programme the holes to be twinned had previously been surveyed to sub metre accuracy. The historical hole collars were located using hand held GPS. • All recently completed holes will be surveyed using a real time DGPS system to cm accuracy. • At completion of each of the drill holes the EOH and collars were surveyed using a Reflex, north seeking gyro. • The grid system for the Wiluna Nickel Project is Map Grid of Australia GDA 94, Zone 51.A DGPS survey of drill hole collars locations is considered sufficiently accurate for reporting of resources, but is not suitable for mine planning and reserves. •
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.*	• This recent drill programme was designed to collect metallurgical samples from representative mineralisation across the Wilconi deposit. Hence the holes are located between 2km and 7km apart. • For preliminary metallurgical testwork the drill spacing is considered sufficient. • To prepare a sample size sufficient for metallurgical testwork (~50kg) 0.5m intervals of selected grade were combined. Samples selected from the drill holes were placed together on a plastic sheet and homogenised by mixing.
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.*	• Recent drill holes were angled to twin selected historical (CRA) drill holes for metallurgical sampling. • Historical drilling has been done along lines perpendicular to the strike of the mineralisation. • Angled holes have been drilled at a high angle to the mineralisation which is known to be broadly horizontal. The down hole intercept widths maybe 15% longer than true widths, however there is not considered to be any bias in grade.
Sample security	• *The measures taken to ensure sample security.*	• All 1m and 1/2m calico samples were always under the care and supervision of Acap geologists. All samples were transported from site and delivered to ALS Perth laboratory by Acap personnel.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• None known

ANNEXURE A: Intercept comparison of twinned RC holes drilled by A-Cap (2019) and CRA (1995).

A-CAP ENERGY HOLE ID	Interval (m)	Co %	Ni %	TWINNED CRA HOLE ID	Interval (m)	Co %	Ni %
AERCM001	9	0.17	0.67	95WJVP247	10	0.264	0.604
AERCM002	9.5	0.146	0.82	95WJVP227	12	0.12	0.73
AERCM003	4	0.093	0.78	95WJVP128	8	0.093	0.685
AERCM004	8	0.158	1.01	95WJVP140	8	0.171	0.985