17 October 2017

Borroloola West Joint Venture, NT, update

ASX Code: PMY
ABN 43 107 159 713

CORPORATE DIRECTORY

Managing Director
Simon Noon

Directors
Richard Monti (Chairman)
Peter Harold (Non-exec.)
Andrew Parker (Non-exec.)

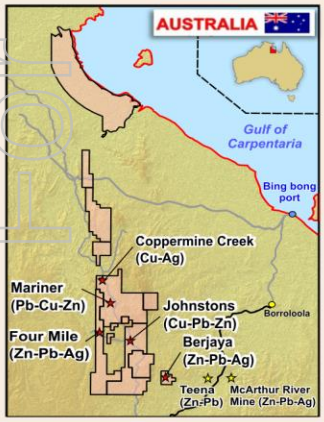
Company Secretary
Patrick Holywell

Registered office
Level 10, 553 Hay St
Perth WA 6000

Telephone:
+61 8 6266 8642

Facsimile:
+61 8 9421 1008

Email:
info@pacificominerals.com.au



Highlights

Borroloola West Joint Venture Project - Copper/Zinc/Lead/Cobalt/Silver

- Diamond drilling at Coppermine Creek, Mariner and Berjaya Prospects, designed to test for major primary copper and zinc-lead mineralisation completed and analyses received.
- Model of a potentially extensive stratiform, shallow, flat to gently dipping, zone of copper mineralisation confirmed at Coppermine Creek.
- A previously unknown package containing pyritic black carbonaceous shales intersected at Mariner interpreted as Barney Creek Formation and favourable host for zinc-lead mineralisation.
- Leach testwork underway on oxide copper mineralisation from the Lorella prospect with results expected within two weeks.
- Aircore program (2000m) at Lorella is planned for late October to test strike extensions of previously intersected oxide copper mineralisation and for indications of significant down-dip primary sulphide mineralisation.

The Borroloola West Joint Venture consists of 12 exploration licences and 1 mining licence (1,817 km^2). The parties to the BWJV are 51% Pacifico Minerals Limited ("Pacifico" or "Company") (ASX code: PMY) and 49% Sandfire Resources NL ("Sandfire Resources") (ASX code: SFR).

A diamond drilling program of 5 holes for a total of 1403m was completed. Analyses results have now been received.

Coppermine Creek

Two holes were drilled at Coppermine Creek, and both intersected visible copper mineralisation over significant widths.

The analyses summarised in Table 1, confirm Pacifico's mineralisation model, developed from previous exploration drilling and ground EM survey conductivity profiles, that the copper mineralisation is extensive, stratabound, gently dipping and that there are large areas where the depths of this layer are at only 50m to 250m depth.

	Zone of visual chalcopyrite				0.1% Cu cut-off			
Hole No	**From (m)**	**To (m)**	**Length (m)**	**% Cu**	**From (m)**	**To (m)**	**Length (m)**	**% Cu**
CCD09	53 130	63 138	10 8	0.1 0.1	55 132	58 135	3 3	0.4 0.2
CCD10	174	242	68	0.1	174 237	192 240	18 3	0.2 0.2

Table 1: Summary of copper analyses from diamond drill holes CCD09 and CCD10 at Coppermine Creek

All the copper mineralisation is hosted by the Amelia Dolomite which consists typically of finely bedded dolomite with carbonaceous laminae. It is concentrated within the evaporite rich (now dolomitised) part of the sequence, and often with zones of abundant carbonaceous laminae or crenulated carbonaceous algal mats. The copper mineralisation is present as chalcopyrite and minor bornite which forms disseminations, blebs and lenses throughout the mineralised zones.

Table 2 summarizes previous drilling results and demonstrates that both thick and significant copper intersections have been obtained in oxidised and primary copper mineralisation at Coppermine Creek. There remains major potential in the undrilled extension towards the south and east (30km2) of the copper mineralisation (Figures 1 & 2). The next stage of exploration planned at Coppermine Creek will include detailed mapping and rock chip geochemistry over the prospective area to define targets for large economic concentrations of copper mineralisation which could be defined adjacent to major north-south or north-westerly trending faults running through the area (Figure 1).

	0.1% Cu cut off				0.5% Cu cut off			
Hole No	**From (m)**	**To (m)**	**Length (m)**	**% Cu**	**From (m)**	**To (m)**	**Length (m)**	**% Cu**
CCD02[1]	136	159	23	0.3	149	151	2	1.3
CCD03[1]	68	78	10	1.3	69	73	4	3.0
CCR08[1]	31	73	42	0.5	48	58	10	1.3
GPRC01[2]	17	30	13	0.4	24	28	4	0.7
GPRC04[2]	0	5	5	2.3	0	4	4	2.8
GPRC05[2]	44	54	10	0.5	11	15	4	0.7
GPRC07[2]	0	30	30	1.2	13	28	15	2.0
GPRC09[2]	18	52	34	0.6	22	30	8	1.9
GPRC10[2]	0	19	19	0.4	7	9	2	1.8
BRCD001[3]	251	257.7	6.7	2.5	251	255	4	3.9

Table 2: Coppermine Creek – summary of significant previous drill intersections of Pacifico and by other companies

[1]Pacifico Minerals Ltd – drill hole intersections previously reported with different copper grade cut-offs – ASX announcements of 6 Aug 2015 and 23 Nov 2016
[2]Mount Carrington Mines Ltd - Northern Territory Geological Survey open file report, January 1994. Eupene Exploration Enterprises for Mount Carrington Mines Ltd.
[3]Sandfire Resources NL - Northern Territory Geological Survey, September 2005 Annual Report, EL10121 including MLN624

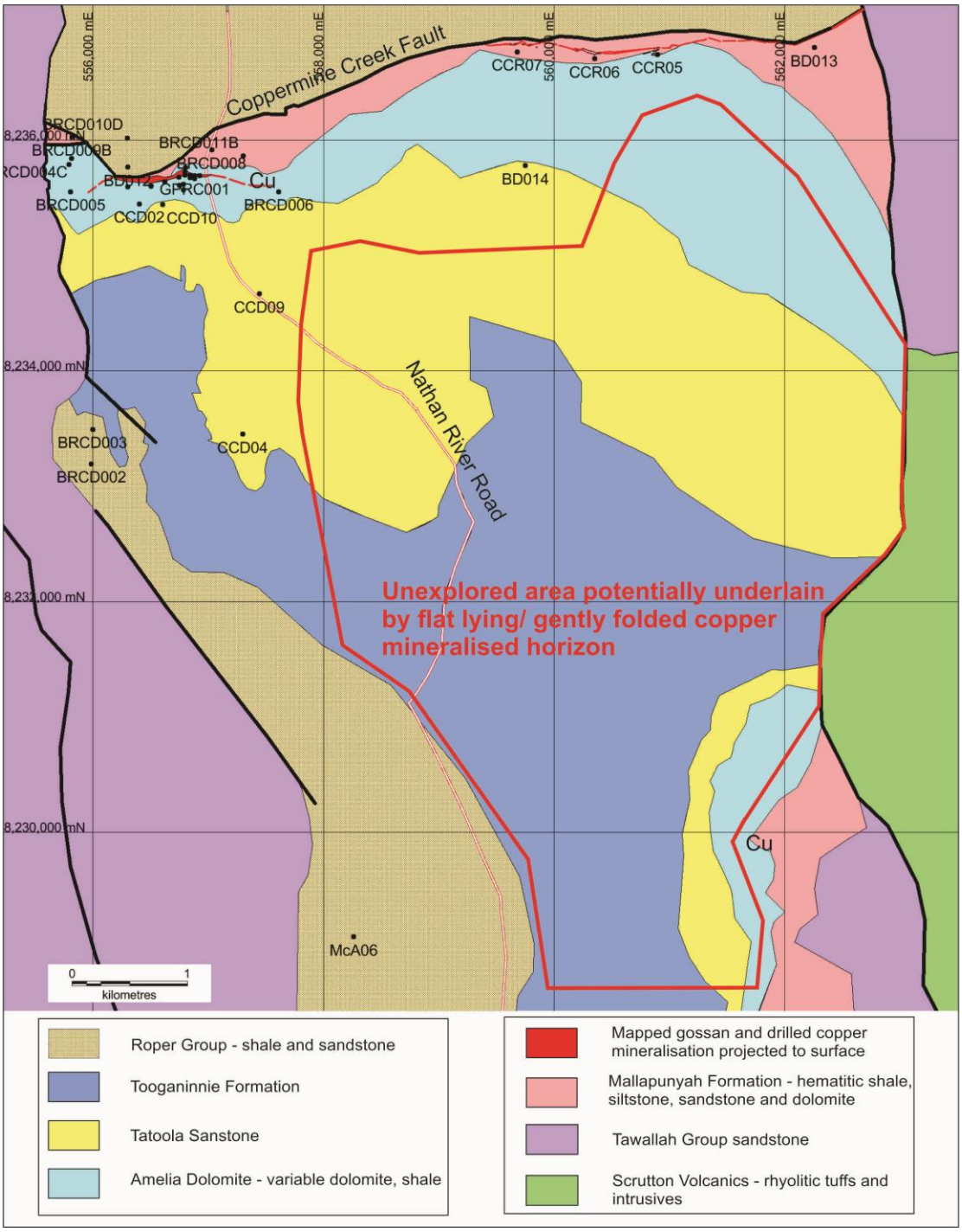


Figure 1: Geology and drilling, including location of recently drilled diamond holes CCD09 and CCD10 at Coppermine Creek, also showing a significant area potentially underlain by a gently dipping mineralised horizon

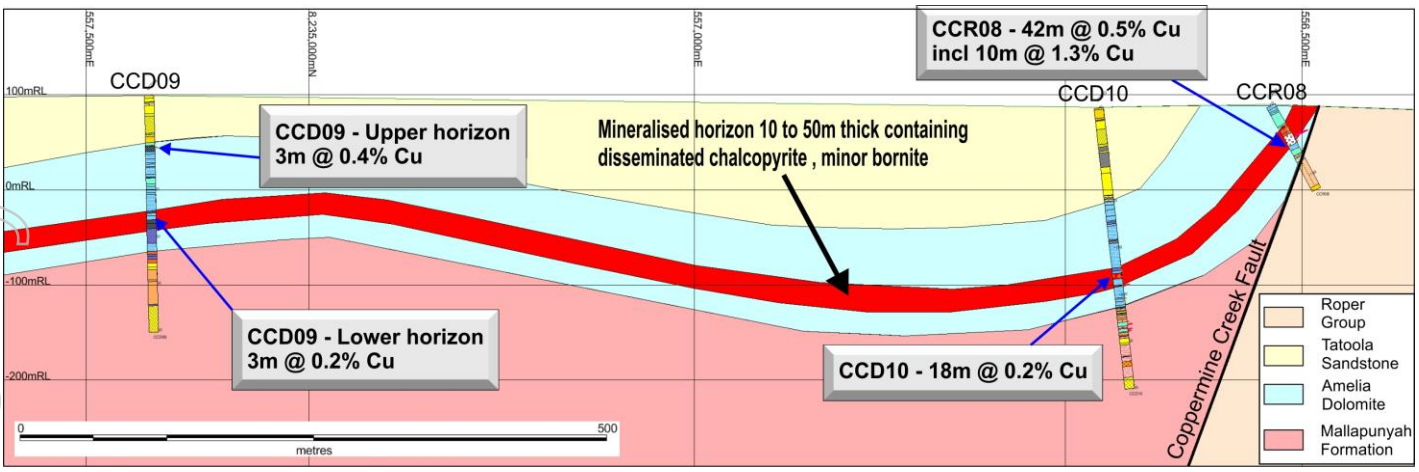


Figure 2: Section through diamond holes CCD09 and CCD10 at Coppermine Creek

Mariner

Two diamond drill holes, MND05 and MND06, were completed at the Mariner prospect.

MND05 passed from Roper Group sediments, through a fault breccia zone, and into moderately fractured dolomite interpreted as being part of the Mara Formation. The fractures were often oxidised and contained limonite and cerussite (lead carbonate).

MND06 drilled through a sequence of black carbonaceous, very pyritic shale and dolomite to 204m depth where the hole passed into coarse sandstone and grits. The carbonaceous black shales in MND06 fit stratigraphically to be part of the Barney Creek Formation, lying beneath the Roper Group sediments, and above a dolomite that could be regarded as the Mara or Teena Dolomite.

Hole No	From (m)	To (m)	Length (m)	Anomalous geochemistry	
MND05	106	112	6	502ppm Pb	Thin fractures in dolomite mineralised with cerussite
MND06	190	196	6	312ppm Cu	Pyritic black shale with minor chalcopyrite veinlets

Table 3: Summary of analyses of anomalous geochemistry from diamond drill holes MND05 and MND06 at Coppermine Creek

The Barney Creek Formation is host to the world class McArthur River zinc-lead deposit and therefore of potential for the discovery of further zinc-lead deposits. It has never been previously recognised or mapped in the Mariner prospect area. A growth fault is indicated by the coarse sandstone unit which is only developed on the western side of the fault intersected in MND05 (figures 3 and 4). Also, the observed lead mineralisation in MND05, supported by the geochemistry in Table 3, supports the prospectivity of this Barney Creek Formation sub-basin, that could extend to the north of the Mariner Prospect beneath the younger Roper Formation.

Geological mapping and systematic rock chip sampling geochemistry is planned in order to define the possible boundaries and extent of the Barney Creek Formation sub-basin.

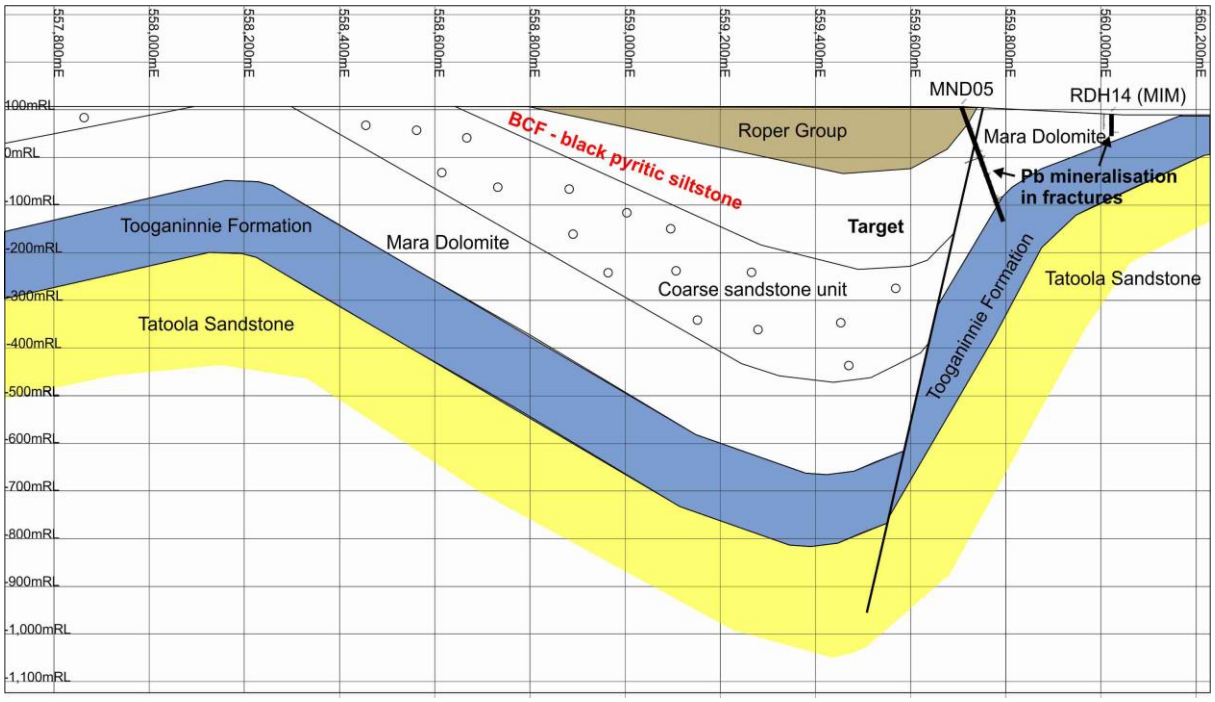


Figure 3: Section through diamond hole MND05 at the Mariner Prospect, BCF = Barney Creek Formation

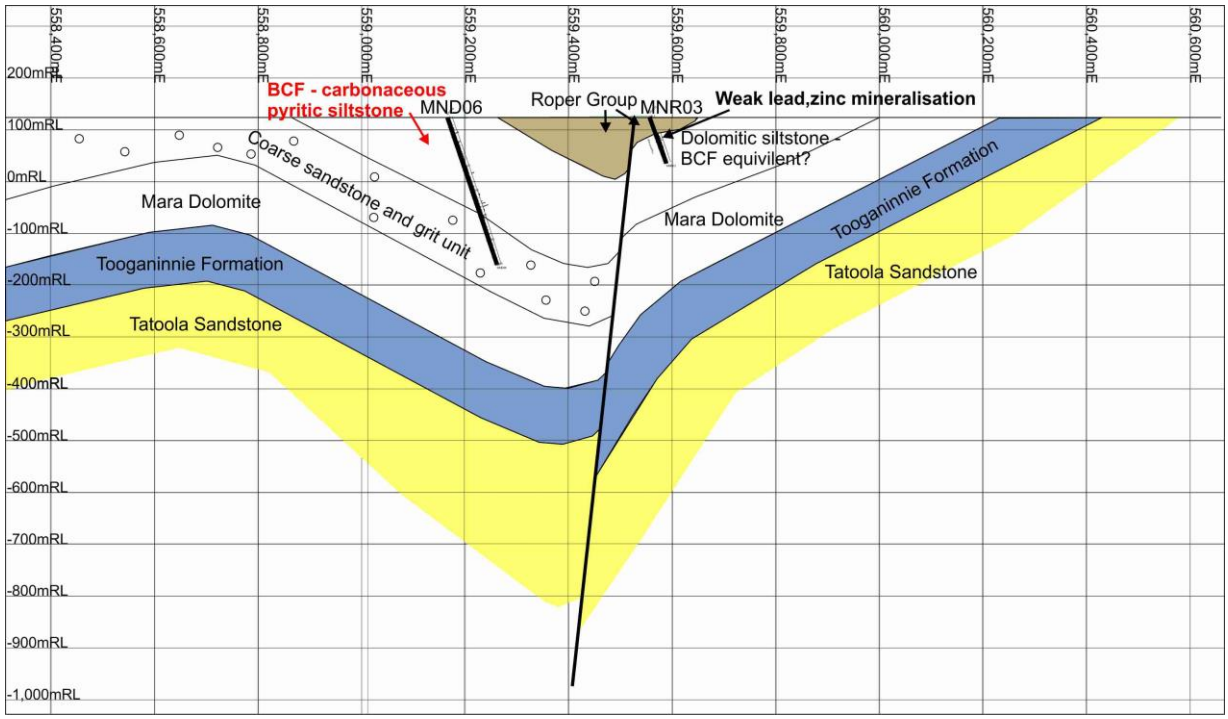


Figure 4: Section through diamond hole MND06 at the Mariner Prospect, BCF = Barney Creek Formation

Berjaya

Diamond hole BJD04 was designed to test for McArthur River style stratiform zinc mineralisation.
The Berjaya Prospect lies west and northwest of the world class McArthur River zinc-lead mine and Teck's zinc-lead resource at the world class Teena deposit (Figure 5). The diamond drill hole was designed to test a Versatile Time Domain Electromagnetic ("VTEM") conductive horizon, that appeared to correspond to the position of the overall gently dipping Barney Creek Formation beneath the Hot Springs Formation below a depth of 150m.

The hole intersected down-faulted Cretaceous sediments with coal fragments and then passed into the Hot Springs Formation at a depth of 143m. The projected VTEM conductive horizon at the base of this horizon may be reflecting the weathered clayey sediments of the top of the Hot Springs Formation. Pacifico intended to continue the hole, at least into the underlying Barney Creek Formation to provide stratigraphic control for future drilling programs. However, at 300.2m, BJD04 was terminated without Pacifico's agreement by the drilling contractor Mitchell Services for commercial reasons.

Lorella – Oxide and primary copper

An aircore program (2000m) is now planned for late October to test strike extensions of previously intersected oxide copper mineralisation, both for indications of significant down-dip primary sulphide mineralisation and to extend the known oxide copper mineralisation.

Preliminary acid leach test work is currently being carried out at SGS Minerals Metallurgy in Perth to ascertain if leaching the oxide copper material could be economically viable. Results of this testwork should be available within two weeks and will enable the aircore program to be finalised.

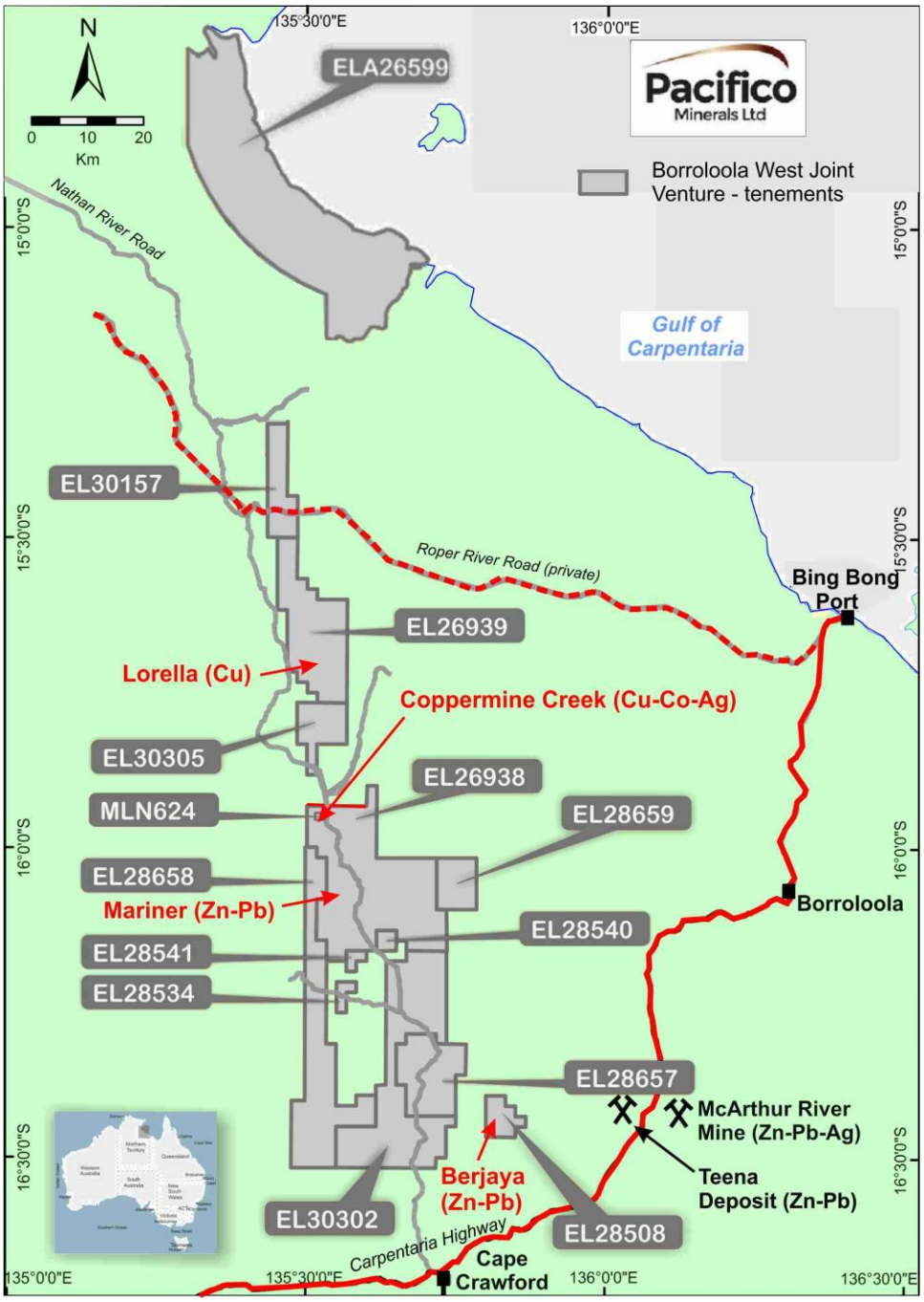


Figure 5: Borroloola West Joint Venture Tenements (Pacifico 51%, and Sandfire 49%), and prospects

Pacifico successfully secured co-funding from the Northern Territory Government for the recently conducted drill program. The funding, which has been granted through the Northern Territory's Geophysics and Drilling Collaborations program will cover 50% (and up to $165,000) of all the direct drilling costs at the Coppermine Creek, Mariner and Berjaya prospects. The Geophysics and Drilling Collaborations Program forms part of the Creating Opportunities for Resource Exploration (CORE) initiative and aims to increase the intensity of exploration drilling and geophysics in areas of the Northern Territory.

Sandfire Resources continues to fund its share (49%) of exploration costs towards the Borroloola West Joint Venture.

For further information or to be added to our electronic mailing list please contact:
Simon Noon (Managing Director)
Phone: +61 (0)8 6266 8642
Email: info@pacificominerals.com.au

About Pacifico Minerals Ltd

Pacifico Minerals Ltd ("Pacifico") (ASX: PMY) is a Western Australian based exploration company with interests Australia and Colombia. In Australia the company is focussed on advancing the Borroloola West project in the Northern Territory. The Borroloola West Project covers an outstanding package of ground north-west of the McArthur River Mine (the world's largest producing zinc – lead mine) with high potential for the discovery of world class base metal deposits. In Colombia the company is focussed on advancing its Berrio Gold Project. Berrio is situated in the southern part of the prolific Segovia Gold Belt and is characterised by a number of operational, artisanal-scale adits. The project is 35km from the Magdalena River which is navigable to the Caribbean Sea and has excellent infrastructure in place including hydro power, sealed roads, a water supply and telecommunications coverage.

Competent Person Statement

The information in this announcement that relates to the Borroloola West Project is based on information compiled by Mr David Pascoe, who is a Member of the Australian Institute of Geoscientists. Mr Pascoe is contracted exclusively to Pacifico Minerals Limited. Mr Pascoe has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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". Mr Pascoe consents to the inclusion in this announcement of the matters based on information in the form and context in which it appears.

APPENDIX 1 - Drill hole coordinates

Drill Hole ID	Prospect	Type	Easting	Northing	Elevation	Total depth	Dip	Azimuth
CCD09	Coppermine	DD	557443	8234668	99	252.5	-80	225
CCD10	Coppermine	DD	556602	8235441	87	300.6	-80	000
MND05	Mariner	DD	559709	8227434	106	249.6	-70	090
MND06	Mariner	DD	559167	8225460	123	300.3	-70	090
BJD04	Berjaya	DD	588722	8185966	108	300.7	-80	225

JORC Code, 2012 Edition – Table 1 report

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• RC samples (previous exploration) were taken at 1m intervals from which about 1.5kg was crushed and pulverised for analysis. • Diamond drill core was halved with a core saw diamond core samples were taken over 1m intervals. About 3.5kg was crushed and pulverised for analysis. • Samples were submitted to ALS Laboratories in Townsville. • Sample were analysed using an aqua regia digestion and ICP-MS multi-element analysis. • Samples containing +1% Cu were automatically re-analysed with an aqua regia digestion and an ore grade analysis using an ICP-AES finish to more accurately determine the high grade Cu assays.
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).*	• Reverse circulation, face sampling bit. (previous exploration) • Diamond drilling, HQ and NQ2 core • Core orientated using ACT Mk 2 HQ and NQ core orientation instruments.
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.*	• Diamond drill recoveries recorded every run (usually 3m). Drillers maximise recoveries with due care. No significant core losses in mineralised ground. • Sufficient analyses not received to assess recovery related sample result bias.
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*	• All RC chips and core are geologically logged. All logging is descriptive and qualitative

Criteria	JORC Code explanation	Commentary
	nature. Core (or costean, channel, etc) photography. • *The total length and percentage of the relevant intersections logged.*	
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.*	• Mineralised diamond drill core was halved with a core saw. One half of every meter was sent for analysis. • RC chips are rotary split and taken every meter. Both dry and wet samples were taken. • Samples are crushed, pulverised and a 250g split taken for analysis. • Standards, duplicates and blanks were inserted for quality control • Sample sizes are correct for the style of copper mineralisation sampled, however studies and checks are ongoing.
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.*	• Standards, duplicates and blanks were inserted into the sample sequence before sending to the laboratory for analyses and checked when results were received. No bias was detected with these small batches of samples, but studies are ongoing. • The acid digestions are sufficient to provide a total copper analysis. ICP-AES is used on higher grade copper samples to give a more accurate analysis.
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.*	• Still at exploration and discovery stage, however visual estimates of the copper grade, assisted with a pXRF, correspond to the laboratory results.
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.*	• Holes located by handheld GPS and accurate to 4 or 5m. When significant mineralisation continues to be intersected the collars will be picked up using differential GPS. • WGS 84 grid coordinates.
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.*	• Only exploration drilling. • No sample compositing

Criteria	JORC Code explanation	Commentary
	• *Whether sample compositing has been applied.*	
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• Drillholes designed to be at approximately right angles to the dominant bedding plane orientation. Once a complete understanding is achieved, corrections will be made to estimate true widths. Any intersections described refer to down hole lengths.
Sample security	• *The measures taken to ensure sample security.*	• Core removed from drill site daily to a secure drill core layout yard. • Split core samples delivered directly by Pacifico personnel to ALS preparation facility in Mt Isa
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• None required at this preliminary exploration stage.

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 Borroloola West JV Project consists of EL's 26939, 30305, 26938, 28659, 28540, 28541, 28534, 28658, 30302, 28657, 28508, MLN 624 and ELA 26599. The Borroloola West Project is a joint venture with Sandfire. Pacifico is the operator. Some of the licence areas are covered by the Limmen National Park and permissions for exploration have been obtained from both the traditional owners and the Parks and Wildlife Commission. • Berjaya (EL28508) lies on McArthur River Station and permissions for exploration have been obtained from the traditional owners and Glencore. • Granted licences - No known security of tenure issues or anticipated impediments to operate in the area.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Various companies have explored the area now covered by the Borroloola West Project including Sandfire Resources NL, Mount Isa Mines Ltd and BHP Exploration Pty Ltd.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Borroloola West Project is considered prospective for sediment hosted massive sulphide zinc lead silver deposits and structurally controlled copper deposits in the Proterozoic sedimentary sequence. Manganese deposits may be present in Cretaceous sediments. Diamonds may occur in concealed kimberlitic pipes.
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*	• Drill hole coordinates and details are provided in Appendix 1 of this announcement to the ASX

Criteria	JORC Code explanation	Commentary
	Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for reporting of metal equivalent values should be clearly stated.*	• All analyses were taken over 1m and no weighting techniques have been used. No grades have been cut. Cut-off grades are clearly stated when used. • Aggregations of grades are listed in the intercepts, if they include short high grade zones they are listed in the comments column of Table 1. • No metal equivalent values have been used.
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').*	• Down-hole lengths only have been reported. The geometry of the mineralisation is known with insufficient certainty to estimate true widths.
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.*	• Map and section are provided (figures 1 to 4). A tabulation of intercepts is included (Table 1).
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.*	• A summary of all results is reported.

Criteria	JORC Code explanation	Commentary
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.*	• Some additional geological observations and geochemical data are included
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.*	• Further step-out drilling • Map shows interpreted extension of mineralisation.