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The Company Announcements Office  
ASX Limited Via E Lodgement

30 April 2020

## **QUARTERLY ACTIVITIES REPORT TO**

### **31 March 2020**

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#### ***Croydon Top Camp Project (Top Camp) – North Pilbara***

- **13 hole maiden RC drilling programme delivers significant high-grade gold downhole intercept from CRC007 of 8 metres at 10.2 g/t Au, including 1 metres at 66.1 g/t Au.**
- **Downhole intercepts greater than 0.3 g/t Au were reported in 11 of the 13 RC drill-holes completed.**
- **Southern holes CRC008 to CRC013 intersected multiple zones of mineralisation across a strike width of 400 metres including intercept in CRC012 of 19 metres at 0.6 g/t Au, as well as 1 metre at 7.7 g/t Au within 7 metres at 1.4 g/t Au in CRC009.**
- **Regional geological review and follow-up trace-element geochemistry suggests an intrusion-related source for Top Camp and indicates the Tabba Tabba shear zone provides a structural link with the new high-grade Hemi gold discovery.**
- **Large arsenic anomalies with gold, antimony and tungsten similar to those associated with the Top Camp gold discovery have been identified along regional shears at Bottom Camp and Murph and represent priority targets for follow-up exploration.**
- **Field work underway in preparation for an initial 600 metres of diamond-drilling to be completed in and around previous RC intercepts. Results will assist follow-up RC drill-planning for the southern section of the 1,500 metre long by 400 metre wide Top Camp prospect.**

*"This has been a very strong first pass drilling programme. We have hit high grade in fresh rock associated with alteration, structure and large-scale surface geochemical anomalies in a region which is delivering gold discoveries right now. We are very excited about getting on the ground and sustaining a significant campaign of drilling." Comment David Flanagan Chairman CZR*

## Project Summaries

Coziron Resources Limited (“CZR”) [ASX:CZR] is advancing exploration on five projects but activities for the quarter were primarily focussed on the Croydon Top Camp Project. Activities conducted on the Yarraloola, Shepherds Well and Yarrie Projects in the Pilbara and the Buddadoo Project in the mid-west region of Western Australia were reduced, while the impacts and restrictions imposed by the spread of the Covid-19 virus and the compliance requirement for activities were determined.

A summary of each project and any activities completed are presented in the sections below.

### Croydon Top-Camp Project – Pilbara

The Croydon Top-Camp project (E47/2150, 317 km<sup>2</sup>) is located 100km south-east of Karratha in the Pilbara. The tenement is subdivided into three blocks that cover a crustal-scale north-east trending Tappa Tappa fault-system which separates granitic rocks of the Pilbara Craton from folded, metasedimentary rocks of the Mallina Basin (Fig 1, ASX release 20 February 2020). The company is focussed on the discovery of lode-style and related gold deposits that are the major source of production in Western Australia. Recent discoveries of a significant system of gold mineralisation at Hemi (Fig 1; DeGrey Mining ASX release 6 February 2020) point to an emerging regional inventory of gold resources along the major faults and shears cutting the Mallina Basin.

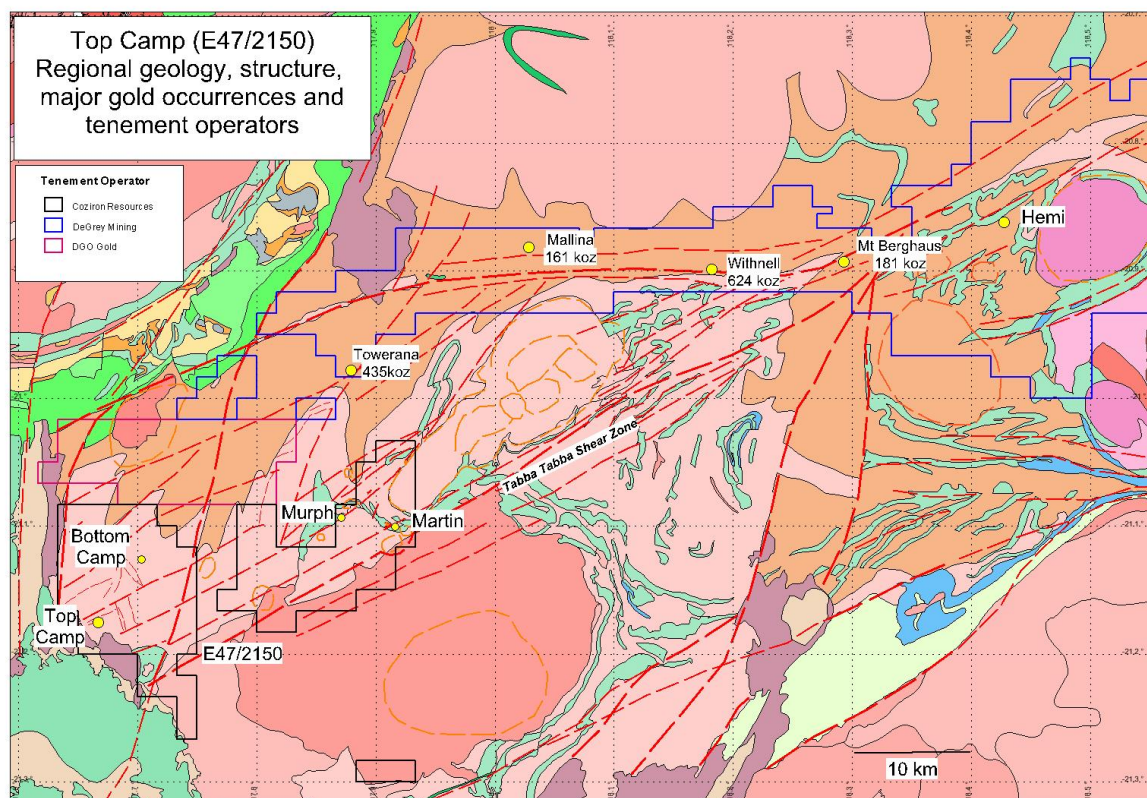


Fig 1 Regional view of the Croydon Project overlain onto the Geological Survey of Western Australia, 1:500,000 scale geological map of the Mallina region and structural interpretation with the location of gold deposits and selected gold occurrences and tenement operators.

The overall prospectivity of Croydon Top Camp is enhanced by a large database of historical exploration results and more recently acquired high-resolution magnetic and radiometric data, re-assayed auger pulps that verified and increased geochemical coverage, and the ongoing extension of

soil sampling of more prospective areas (ASX Release: 10 October 2018 and 6 December 2018; 1 April 2019; 11 November 2019; 18 December 2019). In addition, the Top Camp prospect has a long history of small-scale eluvial and alluvial gold production from a suite of carbonate-bearing turbidites (poorly sorted sandstones and siltstones) in the Mallina Basin that show quartz and sulphide veining in parts. As such, the Top Camp Prospect is and remains a key focus of exploration activity (Fig 1).

In the previous Quarter, CZR completed the drilling of 13 reverse circulation (RC) holes to 200 metres deep at Top Camp that were inclined at  $-60^{\circ}$  and sampled entirely on 1 metre intervals (Fig 2; ASX release: 18 December 2019). The drill-holes sampled a range of structural and geological targets within a 400 metre wide by 1500 metre long area of gold anomalism reported from soil and auger samples within an area that has been extensively disturbed by prospector activity (ASX releases; 20 September 2018, 25 July 2019, 11 October 2019, 11 November 2019).



Fig 2 RC drill-rig on-site at Top Camp in late 2019.

### ***Top Camp Prospect – Reverse Circulation drilling***

During the Quarter, CZR received all the gold by fire-assay results from the thirteen RC drill-holes that intersected calcareous silts, sands and shales with variable amounts of quartz-carbonate veining and sulphide (Fig 3; ASX release; 6 February 2020). Downhole intercepts with a 0.3 g/t Au cut-off, a sample with greater than 0.5 grams by meters and a maximum of 2 metres of internal waste are reported in 11 of the 13 drill-holes (Figs 4, 5 and 6; ASX release; 6 February 2020). These will be converted to interpreted true-widths when the proposed diamond-core drilling provides an indication of the thickness and orientation of the mineralized structures.

The highest grade downhole intercept from the drilling programme is from CRC007 with 8 metres at 10.2 g/t which includes 1 metre at 66.1 g/t (Fig 5). Drill-holes in the southern portion of the area tested report multiple downhole intercepts across a strike width of about 400 metres that include a higher grade 7 metres at 1.4 g/t including 1 metre at 7.7 g/t in CRC009 and a broad 19 metres at 0.6 g/t from CRC012 (Fig 6).



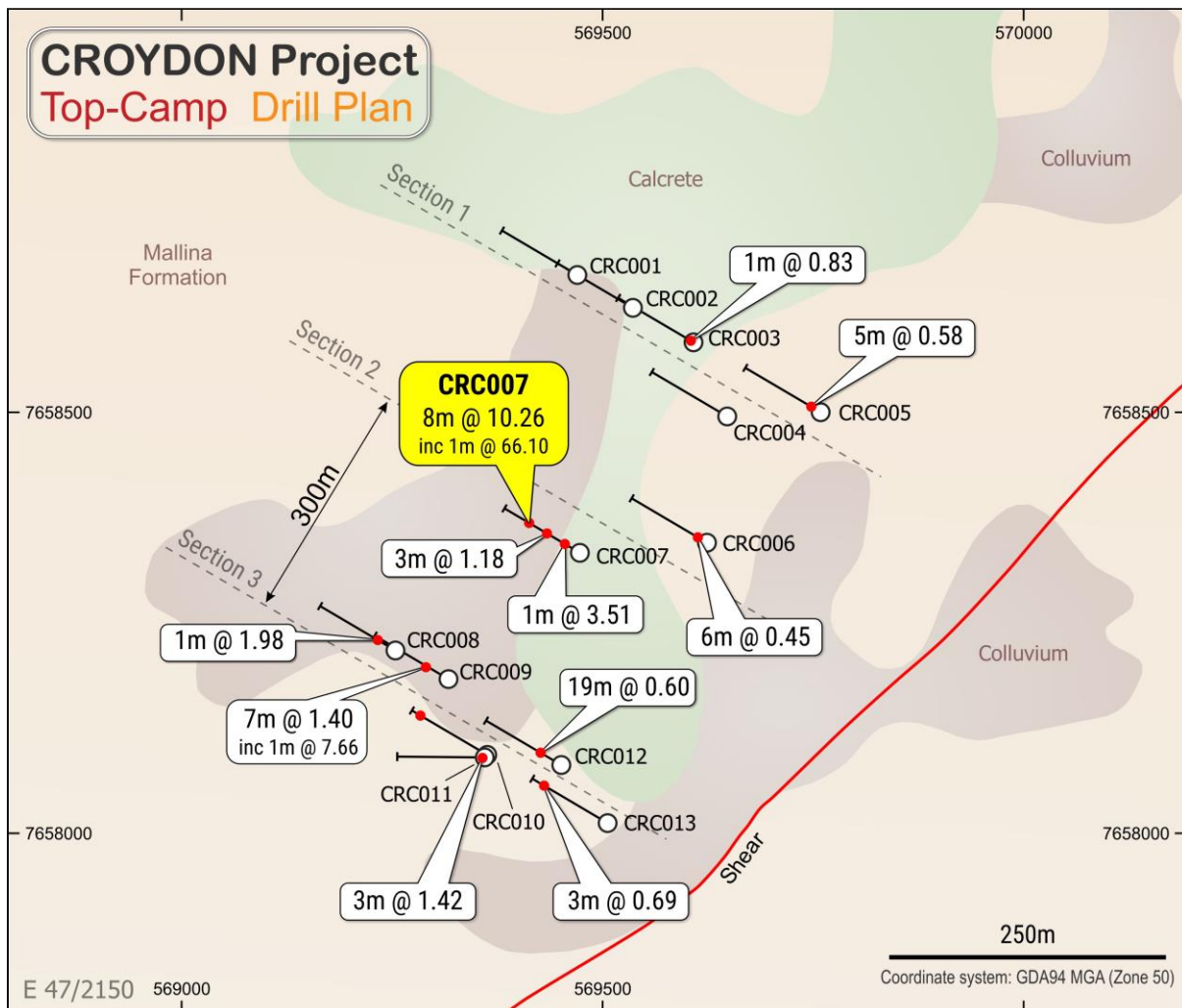


Fig 3 Location and down-hole traces of RC drill-holes CRC001 to CRC013 with significant intercepts in each drill-hole reported as metres at grams/tonne and the traces of the section lines in figures 4 to 6 below overlain on the Mt Woehler 1:100,000 geology.

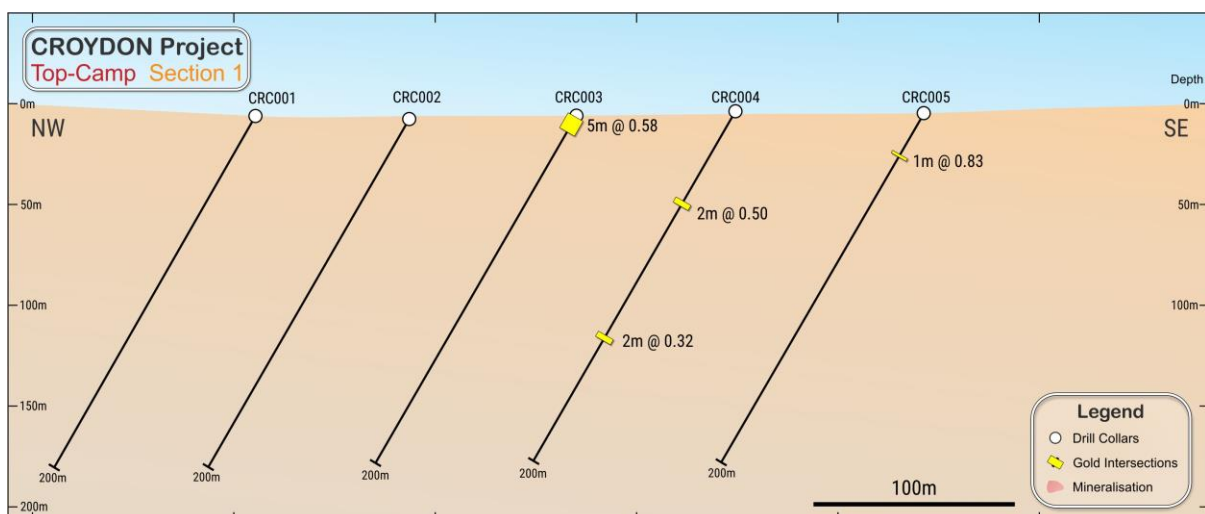


Fig 4 Cross-section 1 from Fig 3 showing the down-hole traces that are marked with significant downhole intercepts (metres at grams/tonne).

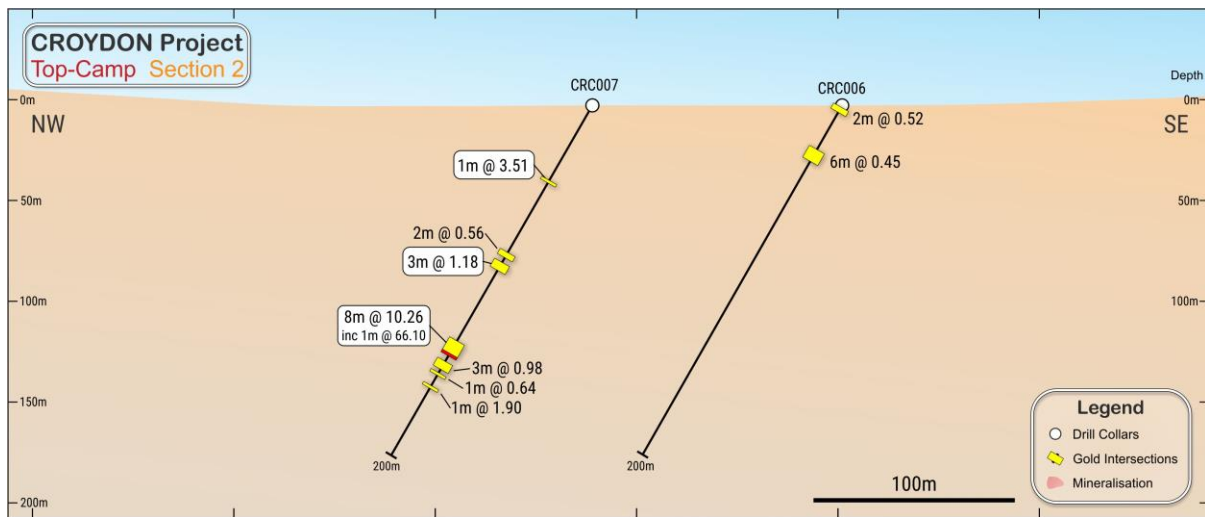


Fig 5 Cross-section 2 from Fig 3 showing the down-hole traces that are marked with significant downhole intercepts (metres at grams/tonne).

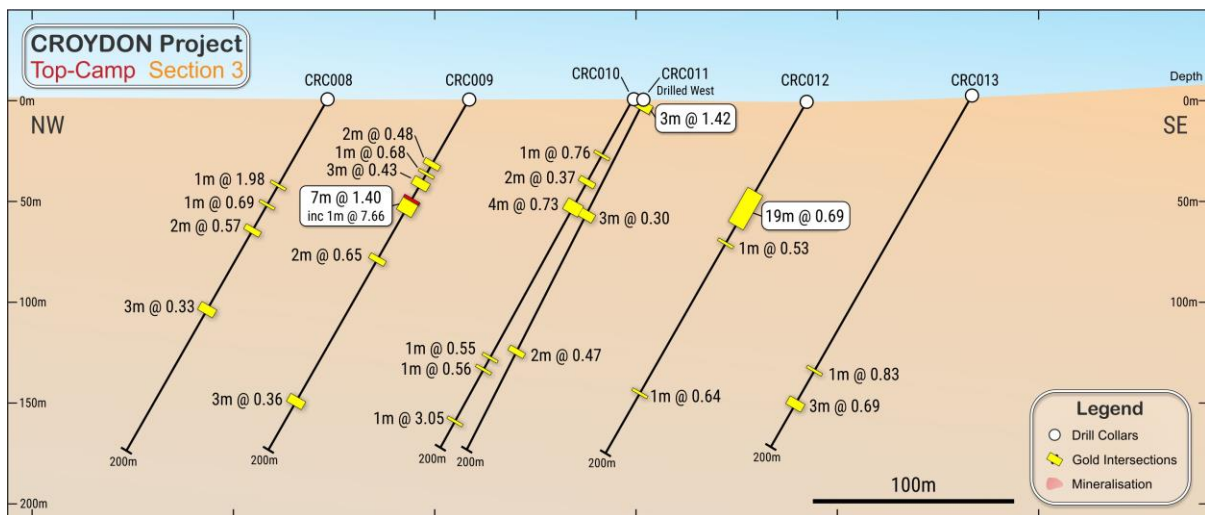


Fig 6 Cross-section 3 from Fig 3 showing the down-hole traces that are marked with significant downhole intercepts (metres at grams/tonne).

During the Quarter, CZR also received down-hole full-suite geochemistry from 4 of the 13 holes. The results show that the reported down-hole intercepts with gold mineralisation have significantly higher tungsten, sulphur and antimony and traces of thallium, molybdenum and bismuth (eg Fig 7). The gold and gold-associated pathfinder elements are enclosed within a broader halo of arsenic-rich rocks. The trace-element association from Top Camp suggests that the gold-bearing fluids were derived from an intrusion-related source and indicates a potential genetic link to the granitic intrusion that hosts the gold-mineralisation being drilled by De Grey mining at the Towerana deposit (Fig 1). The 30 km distance between Top Camp and the Towerana deposit also increases the prospectivity over a broader area of E47/2150. This is being reflected by pathfinder-suite anomalism identified in previous CZR surface samples. Further evidence for prospectivity across the Top Camp Project is reflected by the De Grey Mining discovery of the Hemi system in structures from the Tabbata Tabbata shear zone that link other known gold deposits in the region with Top Camp discovery and other gold anomalies on E47/2150.

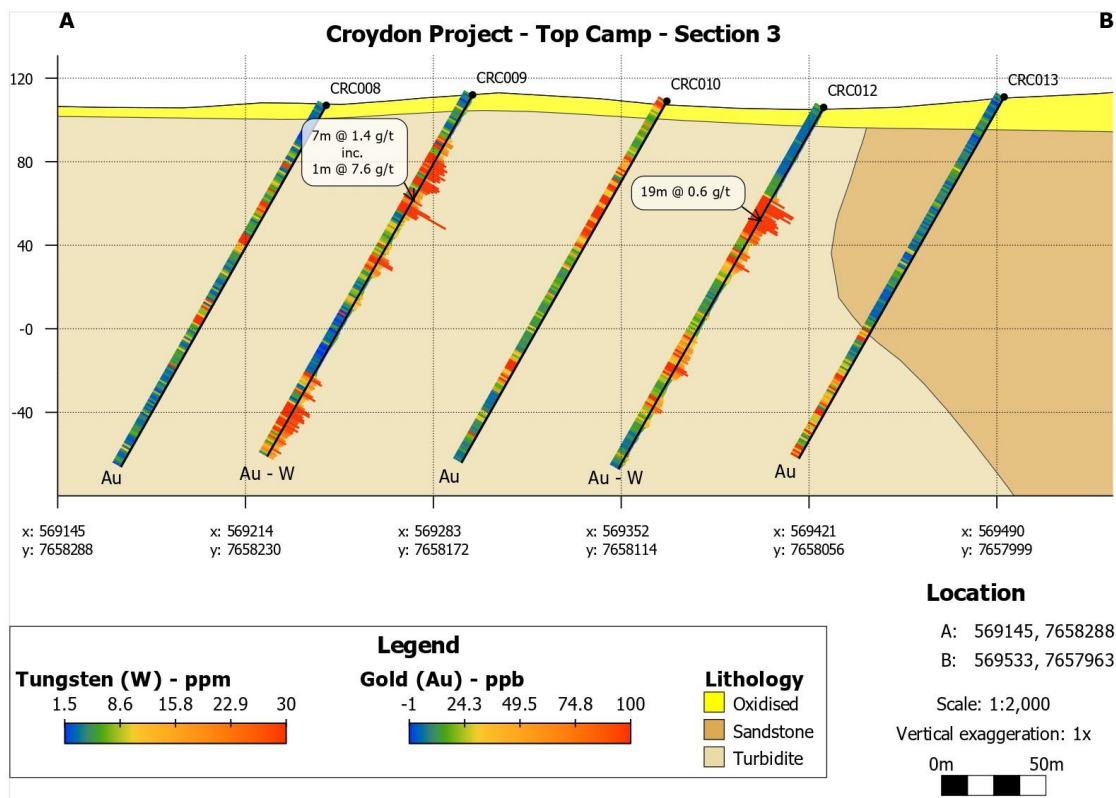


Fig 7 Cross-section 3 from Fig 3 showing the down-hole traces that are marked with significant downhole intercepts (metres at grams/tonne as reported 6 February 2020) also colour coded with down-hole gold on the left and a histogram of tungsten content on the right of the hole trace.

The geochemical and geological evidence for an intrusion-related origin of the gold mineralisation in the Top Camp region now provides a model for exploration and provides comparisons with other well described areas and deposits in the Cordilleran Belts of Alaska and Canada, along the northern margin of the North China Craton and the Tian Shan Belt of Western China and Central Asia.

### Croydon Top camp Soil Sampling Results

During the quarter, CZR received a full-suite of gold and major and trace-element results from an additional 1311 soil samples collected in late 2019 from E47/2150. Bottom Camp and Murph have emerged for priority follow-up exploration (ASX release 27 February 2020).

#### Bottom Camp Prospect

At Bottom Camp, located 5 kilometres north-north east of Top Camp, a ridge of fractured and faulted, mostly sandy sediments in the Mallina Basin have extensive areas of pits and costeans excavated by historical prospector activity (Fig 1). In the 1980's Golden Valley Mines identified a silicified breccia within the prospect as being prospective for gold. Although they completed 16 vertical RC drill-holes to a maximum depth of 40 metres, these were some distance from the breccia due to difficulties in establishing drill-access (Fig 8). Despite being distal to the main zone of interest, five of the holes reported 1 metre interval samples with >0.3 g/t Au and included a best result from CPH16 of 2 metres at 2.5 g/t Au, but there was no follow-up work to determine the significance of the results.

CZR has received assays from 206 soil samples over Bottom Camp on lines 120 metres apart and spaced at intervals of 40 metres, then infilled in parts to 20 metres. The samples cover an area of about 1000 metres by 500 metres and approximately 20% of the samples report gold in the range 20 to 800 ppb (0.02 to 0.8 g/t) and almost the entire grid reports highly anomalous arsenic (25 to 430 ppm). The first round of a proposed RC drilling program will target the 500 metre long zone of silicification along the crest of the ridge where gold anomalism overlaps areas with anomalous antimony (5 to 127 ppm) and tungsten (5 to 40 ppm; Fig 2). In addition, there is a drill-hole planned to re-examine the CPH16 locality because historical RC-chips sampled by CZR from near the collar during CZR fieldwork reported gold at 0.35 g/t, tungsten at 40 ppm and antimony 8 ppm.

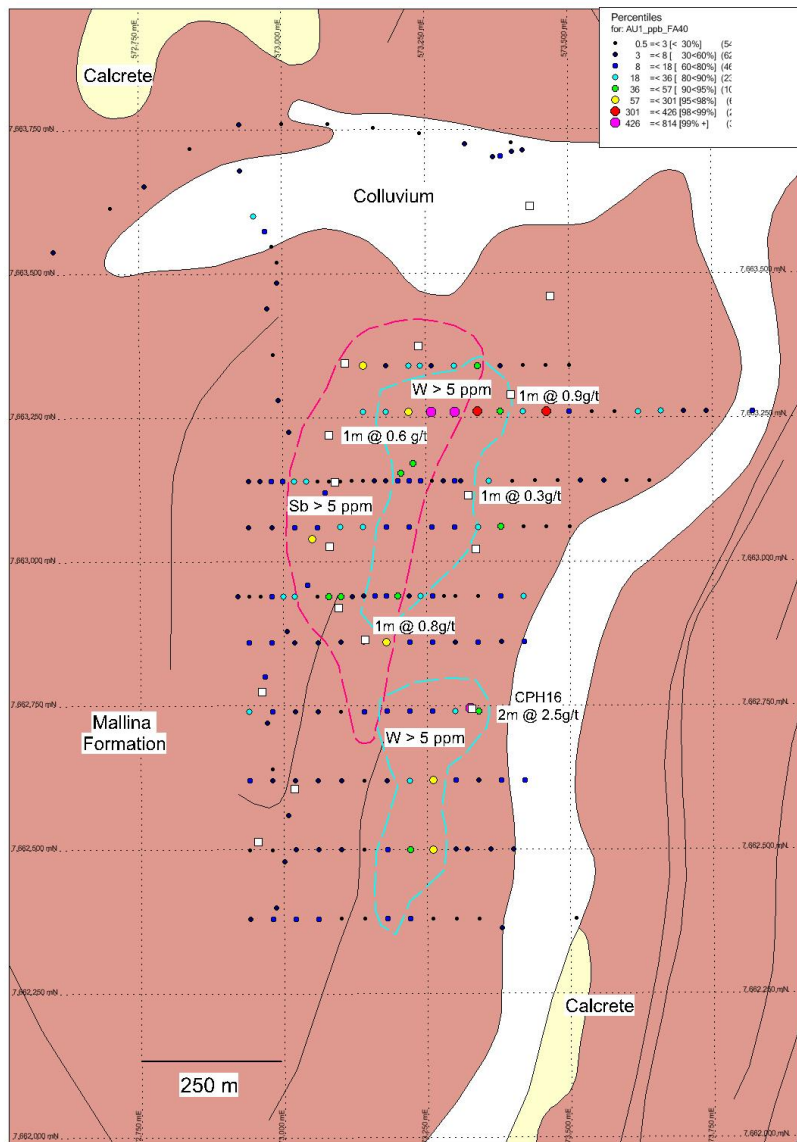


Fig 8 Bottom Camp prospect showing gold in soil samples with the contour outline of the antimony (Sb) and tungsten (W) anomalies in soil overlain on the Mt Wohler 1:100,000 geology.

### Murph Prospect

At the Murph prospect, which is located about 20 kilometres north east of Top Camp (Fig 1), a poorly outcropping, 100 metre wide, north-easterly trending zone of sheared felsic porphyry along the contact between a granodiorite and sediments of the Mallina Basin has abundant evidence of



historical prospector activity. In the first-pass grid of 75 soil samples, gold peaked at 130 ppm (Fig 9), while arsenic is typically in the range of 100 to 460 ppm. Further, there are more localised zones of antimony to 10 ppm and tungsten to 62 ppm. This intrusion-related geochemical signature represents a priority target for follow-up work and an initial round of RC drilling will provide a more representative suite of samples across the 100 metre wide zone of interest in an area where there are extensive areas of sand and alluvial detritus covering the bedrock.

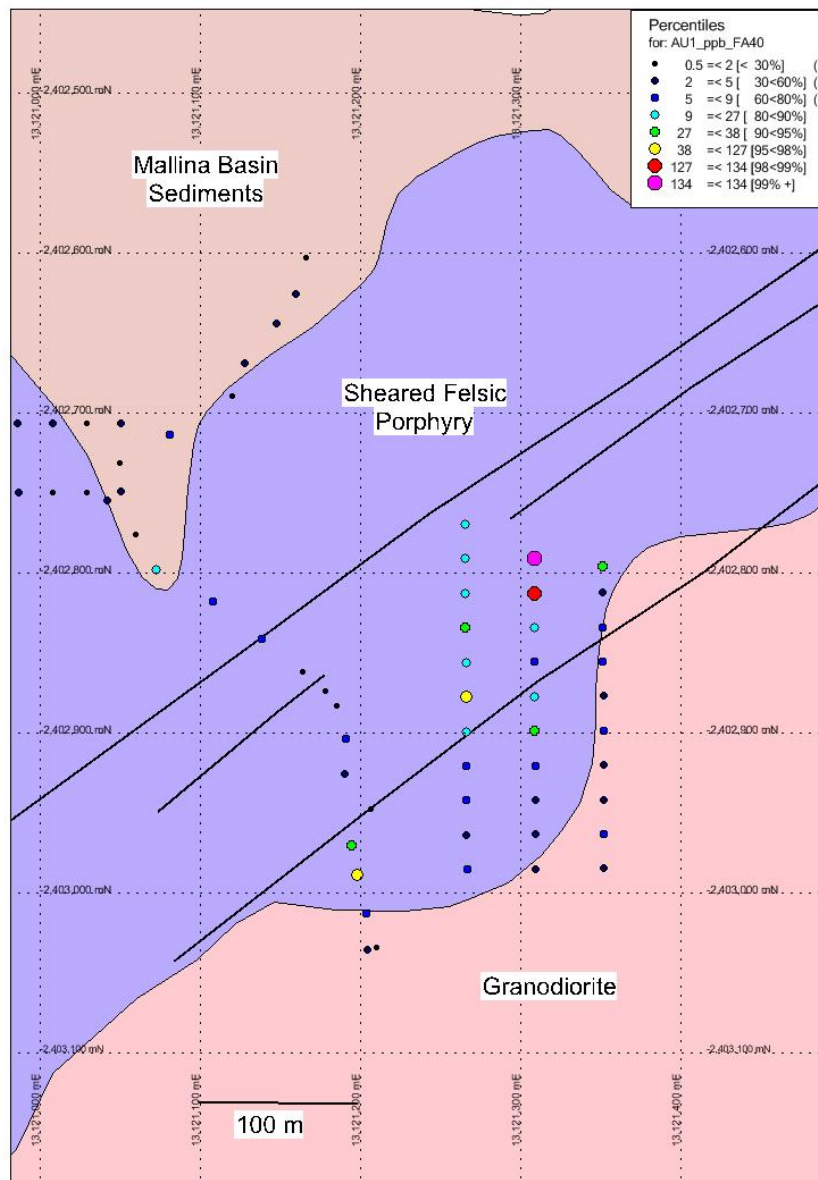


Fig 9 Murph prospect showing gold in soil samples with the trace of the shear-zone orientation overlain on the Mt Wohler 1:100,000 geology.

### 2020 Croydon Top Camp Field Programme

CZR is now well advanced in establishing a Covid-compliant field-programme with the priority of commencing follow-up drilling of CRC007 which reported 8 metres at 10.2 g/t and included 1 metre at 66.1 g/t (Fig 3; ASX releases 18 December 2019; 6 February 2020). The initial phase of work will consist of 3 by 200 metre diamond drill-holes for 600 metres with oriented core that will provide additional intercepts for assay and provide data on the geological setting, orientation and true



thickness of the mineralisation (Fig 10). The diamond drill-rig is available for an immediate start once the access track repairs are complete, a camp is established and the pads and sumps are installed. Results from logging the diamond drill-core in the field will be used to check and finalise the location and orientation for 2,500 metres of follow-up RC drilling that is being also scheduled for the southern part of the Top Camp Project.

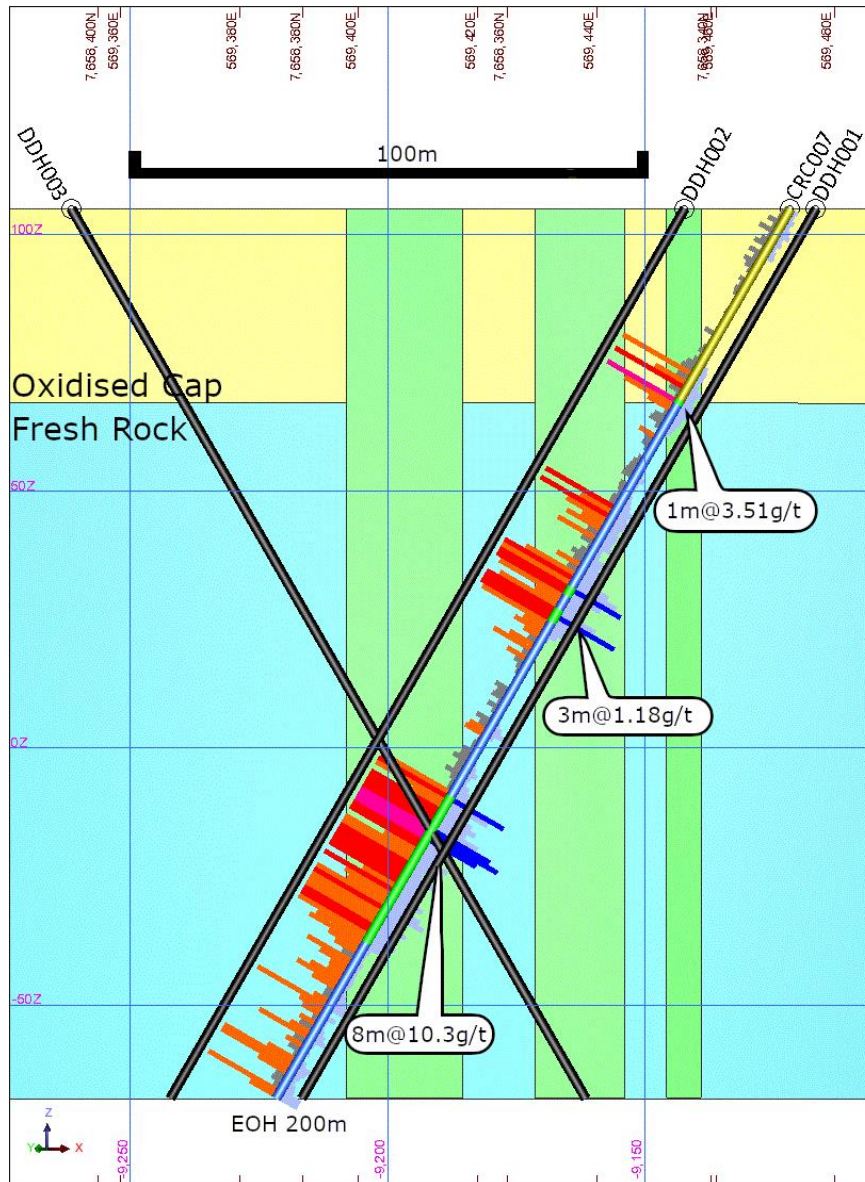


Fig 10. Traces and proposed targets for the three 200m deep diamond drill-holes along Section 2 of Fig 3 with the oxide-fresh rock transition, three zone of anomalous (>100ppb) gold (from histogram of gold values on upper side of SRC007) and significant intercepts from SRC007.

In addition to the planning and preparations for the drilling programmes, CZR has recently purchased data and processed results from a multispectral survey that covers the Top Camp tenement. The images identify mineralogical variations across the tenement and when integrated with results from surface geochemistry will be used to map alteration systems that have the potential to be associated with gold mineralisation. At this stage, the images are being used to prioritise mineralogical changes along the main structural corridors that cross the tenement and that are part of the Tabba Tabba shear zone (Fig 1). This shear zone appears to be the feature that controls the location of the large Hemi gold system to the north-east. The immediate exploration priority for CZR is to commence surface sampling and mapping and prioritise areas for follow-up drilling.

The commencement of exploration and drilling by CZR represents only part of a much larger suite of programmes in the region currently being undertaken by companies such as De Grey Mining, DGO Gold and Golden State Mining that are focussing on structures associated with the Tabba Tabba shear zone.

### **Coziron – Other Projects**

As the impacts of the Covid-19 began to affect daily life in Perth and created difficulties with travelling to projects in the more remote part of Western Australia, CZR has focussed its efforts on maintaining momentum and activities on the new gold discovery at Top Camp. Although CZR office-based activities are decentralised to private homes, laboratory-based studies have continued, but often with a more extended time-frame to final reporting.

A summary of the projects and associated activities is presented in the sections below.

#### ***Yarraloola Project – West Pilbara***

The Yarraloola project is located 100km southwest of Karratha and contains **+90Mt @ 53% Fe (calcining to 60% Fe) of indicated and inferred JORC compliant CID** (Pisolitic ironstone) in the Robe Mesa, Robe East Extension and P529 deposits. The resource includes a higher grade surface interval on the Robe Mesa of 24.9Mt @ 56% Fe (calcining to 62.7% Fe; ASX Release: 7 December 2015, 8 February 2016, 26 April 2017, 9 May 2017). CZR continues to evaluate opportunities for the development of the Robe Mesa, including discussions with potential partners, against the backdrop of the improved demand and pricing for iron ore. Over the past few months CZR has been undertaking a first-stage metallurgical study of sonic core from the Rob Mesa and the geochemical and mineralogical characterisation of the iron-ore will assist the marketing strategy.

CZR is also exploring a new style of volcanic-hosted magnetite mineralisation in the West Pilbara that has a similar geological setting to the Fortescue Metals Group's (FMG) Iron Bridge Project. The Ashburton magnetite project has Davis tube results from RC and diamond-core with mass recoveries up to 42% and concentrates at a P80 of 22 microns with Fe greater than 67% and SiO<sub>2</sub> less than 5% (ASX Release: 28 April 2016, 3 August 2016, 1 June 2017). In the last quarter of 2019, intercepts with magnetic susceptibility greater than 10,000 SI units were sampled from 10 stored RC holes and 252 predominantly 5 m interval samples were processed by Davis Tube (ASX Release 10 October 2019) and results for magnetite mass-yield and quality are being compiled and interpreted. A gridded gravity and seismic survey to cover the Ashburton Project was also completed (ASX Release 10<sup>th</sup> October 2019) and the results are currently being processed and interpreted. All the results will be used to provide additional information for the selection of the RC and diamond drill targets within the Ashburton magnetite project and contribute to the generation of a maiden JORC-compliant resource.

#### **Shepherds Well Project – West Pilbara**

Shepherd's Well (E08/2361), with an area of 77km<sup>2</sup>, is located 60km south-west of Karratha and covers 15 km of a regional shear-zone that separates the Regal Terrane from the Jean Well Granodiorite and 22 km of the unconformity at the base of the Fortescue Basalt. The shear-zone is prospective for a range of mineralisation types, while the unconformity is being explored over a wide area of the Pilbara as a source of detrital gold.

CZR has completed programmes of soil and rock-chip sampling and mapping has identified nickel (Ni), copper (Cu) and gold (Au) anomalism associated with an outcrop of talc-carbonate rock at Dorper Rise

and lead (Pb), zinc (Zn) and silver (Ag) associated with a linear magnetic anomaly at Suffolk Ridge (ASX Release: 21 March 2017, 13 September 2016, 11 October 2017, 25 November 2019) and a radiometric anomaly with highly anomalous rare-earth concentrations in soils at Awassi (ASX release 25 November 2019). In addition, where soil and drainage samples typically report anomalous gold when they have been collected from near the base of the Fortescue Basalt.

A follow-up work programme has been planned and costed for each of the three prospects at Shepherds Well and may include maiden RC drilling programmes to determine the extent and tenor of any mineralisation below the base of oxidation.

### **Buddadoo Project – Murchison Province**

The Buddadoo Project (E59/1350 and E59/2349) covers part of the Gullewa Greenstone Belt about 200 kilometres east of Geraldton Port and 60 kilometres from a rail siding at Morawa that connects to Geraldton and in proximity to the bitumen-road between the towns of Morawa and Yalgoo. The tenements cover gabbroic rocks with bands of massive and disseminated vanadiferous titanomagnetite and have prospectivity for gold and copper mineralisation (ASX Release: 29 July 2013, 17 October 2017 and 21 November 2018).

CZR has DMIRS approval for follow-up drilling of the vanadiferous magnetite mineralisation in the Buddadoo Gabbro that extends over a strike length of about 6 kilometres (ASX Release: 28 February 2018, 21 March 2018, 5 April 2018 and 7 February 2019). RC samples upgrade at -150 microns by low-intensity magnetic separation to Fe greater than 62% and combined SiO<sub>2</sub> and Al<sub>2</sub>O<sub>3</sub> of less than 5% and would provide a low-contaminant feedstock for vanadium recovery by roast-leach. However, as the grind-size reduces to a P80 of -45 microns, concentrates report Fe from 66-68%, V<sub>2</sub>O<sub>5</sub> from 0.8 to 1.86%, TiO<sub>2</sub> from 1.4 to 5.7%, while the contaminants SiO<sub>2</sub> and Al<sub>2</sub>O<sub>3</sub> are less than 1%. This finer grained material is a potential feedstock for iron-ore pellets used in the direct smelting of vanadiferous steel.

In the previous Quarter, CZR collected 1545 soil-samples and the assay data has been used to generate costed follow-up programmes for follow-up work on five areas that appear to be prospective for gold and gold-copper mineralisation. The company has DMIRS permission for RC drilling of the more advanced gold targets.

### **Yarrie Project – North Pilbara**

The Yarrie Project consists of six granted exploration licences (E45/3725, E45/3728, E45/4065, E45/4433, E45/4604, and E45/4605) that cover a total of 419 km<sup>2</sup>, about 160 kilometres east of Port Hedland. Yarrie is serviced by bitumen and gravel roads and a natural gas pipeline between Pt Hedland and the Telfer copper-gold mine. The BHP-owned rail connection between the Yarrie mining area and Port Hedland also services this area.

The Yarrie tenements have the potential to host high-grade (+62% Fe) iron-ore deposits within the magnetically active Archaean-age Nimingarra Iron Formation. Historical RC drill intercepts with Fe greater than 62% from the Cabbage Tree and Kennedy Gap prospects require follow-up. There is also the potential for gold and base-metals associated with the strongly deformed, mixed mafic to ultramafic volcanic rocks that have interbedded metasediments in the Pilbara basement. In addition, E45/3278 covers a portion of the basal interval of the Fortescue Group that is prospective for gold in conglomerate.

No fieldwork was undertaken at Yarrie during the Quarter.

**Information required by Listing Rule 5.3.5:**

During the quarter the Company made the following payments to related parties and their associates: Directors' Fees, Legal fees, corporate advisory fees and company secretarial fees. Includes amounts paid to Trident Capital, Trident Management Services and Price Sierakowski, entities associated with Mr Sierakowski.

**ABOUT COZIRON RESOURCES LIMITED**

Coziron Resources Limited has exploration focussed on the Yarraloola (328 km<sup>2</sup>), Shepherd Well (77 km<sup>2</sup>), Croydon Top-Camp (317 km<sup>2</sup>) and Yarrie (419 km<sup>2</sup>) Projects in the Pilbara region and Buddadoo (303km<sup>2</sup>) Project in the Yilgarn region of Western Australia.

This announcement is authorised for release to the market by the Board of Directors of Coziron Resources Limited.

For further information please contact Adam Sierakowski or Rob Ramsay on 08 6211 5099.

**COMPETENT PERSONS STATEMENT**

*The information in this report that relates to mineral resources and exploration results is based on information compiled by Rob Ramsay (BSc Hons, MSc, PhD) who is a Member of the Australian Institute of Geoscientists. Rob Ramsay is a full-time Consultant Geologist for Coziron and 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". Rob Ramsay has given his consent to the inclusion in this report of the matters based on the information in the form and context in which it appears.*



*Coziron Resources Ltd – Changes to the Tenement Schedule in the past Quarter*

Project	Location	Tenement Number	Economic Entity's Interest at Quarter End	Change in Economic Entity's Interest During Quarter
Yarraloola	West Pilbara, WA	E08/1060	85%	No Change
Yarraloola	West Pilbara, WA	E08/1686	85%	No Change
Yarraloola	West Pilbara, WA	E08/1826	85%	No Change
Yarraloola	West Pilbara, WA	E08/2408	0%	Relinquished
Yarraloola	West Pilbara, WA	M08/519	85%	No Change
Yarraloola	West Pilbara, WA	P08/666	0%	Relinquished
Shepherds Well	West Pilbara, WA	E08/2361	70%	No Change
Yarrie	East Pilbara, WA	E45/3725	70%	No Change
Yarrie	East Pilbara, WA	E45/3728	70%	No Change
Yarrie	East Pilbara, WA	E45/4065	70%	No Change
Yarrie	East Pilbara, WA	E45/4604	70%	No Change
Yarrie	East Pilbara, WA	E45/4605	70%	No Change
Yarrie	East Pilbara, WA	E45/4433	100%	No change
Buddadoo	Mid-west, WA	E59/1350	85%	No Change
Buddadoo	Mid-west, WA	E59/2349	85%	No Change