

30 April 2019

# quarterly

## MARCH 2019 QUARTERLY ACTIVITIES REPORT

### HIGHLIGHTS

- 3D inversion modelling of the aeromagnetic survey at the Saturn prospect has highlighted a steeply plunging intrusive cluster measuring 2km x 1km with a 3km vertical extent.
- This magnetic anomaly is adjacent to the high-grade Cu-Au mineralisation at Zackly.
- The Saturn magnetic anomaly is surrounded by a zone where the magnetic response has been obliterated. This is indicative of propylitic alteration, as seen around known copper-gold porphyry systems.
- PolarX has staked 30 additional State Mining Claims (approx. 19.4km<sup>2</sup>) covering the southern extent of the down-plunge target at Saturn.
- An Induced Polarisation (IP) survey to define drill targets at the Saturn target will commence later this quarter, with drilling planned for Q3 2019.
- PolarX also expects to shortly commence further drilling at Zackly to increase the size of the current resource, particularly around the thick, high-grade near-surface intersections in holes ZX-18020 and ZX-18024 (55m @2.8g/t Au, 0.6% Cu and 47m @ 31.g/t Au and 0.6% Cu respectively) at the eastern end of the prospect.
- Zackly and Saturn occur in a 12km long WNW trending mineralised corridor. This corridor also contains the Mars Cu-Au target at the western end where geochemical and ground geophysical prospecting techniques have provided targets for drilling in 2019.

### FORWARD PROGRAM

- Drill targeting for further resource extension drilling at the Zackly Skarn.
- Drill targeting for initial scout drilling at the Mars porphyry Cu-Au target.
- IP program and data interpretation at the Saturn porphyry Cu-Au target.
- Finalise program and commence metallurgical test-work for Zackly Cu-Au-Ag mineralisation.
- Commence drilling at the eastern end of the Zackly Skarn.

### CORPORATE

As of 31 March 2019, the Company had on issue 319,270,638 ordinary shares and 23,450,000 unlisted options.

## EXPLORATION PROGRAMS

### OVERVIEW

PolarX is focused on the exploration and development of its Alaska Range Project which contains the Caribou Dome Property and the Stellar Property. Collectively these form a contiguous package covering 262km<sup>2</sup> with ~35km strike length containing extensive copper- and gold-in-soil anomalism along the entire length (Figure 1).

With JORC resources at Caribou Dome and Zackly, they form a high-grade copper and copper-gold portfolio with demonstrated endowment and clear upside potential for resource extensions and larger porphyry copper-gold discoveries.

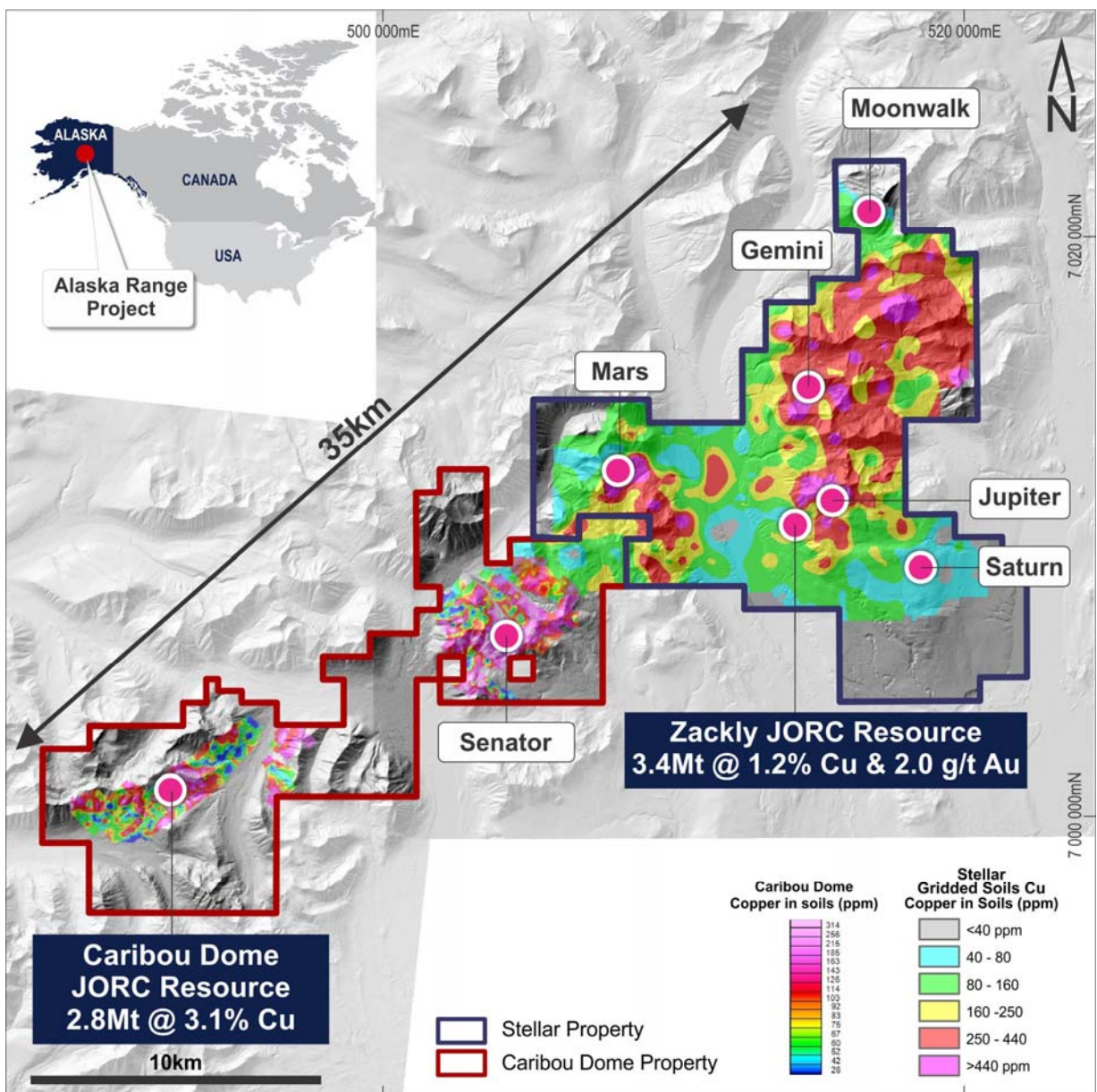
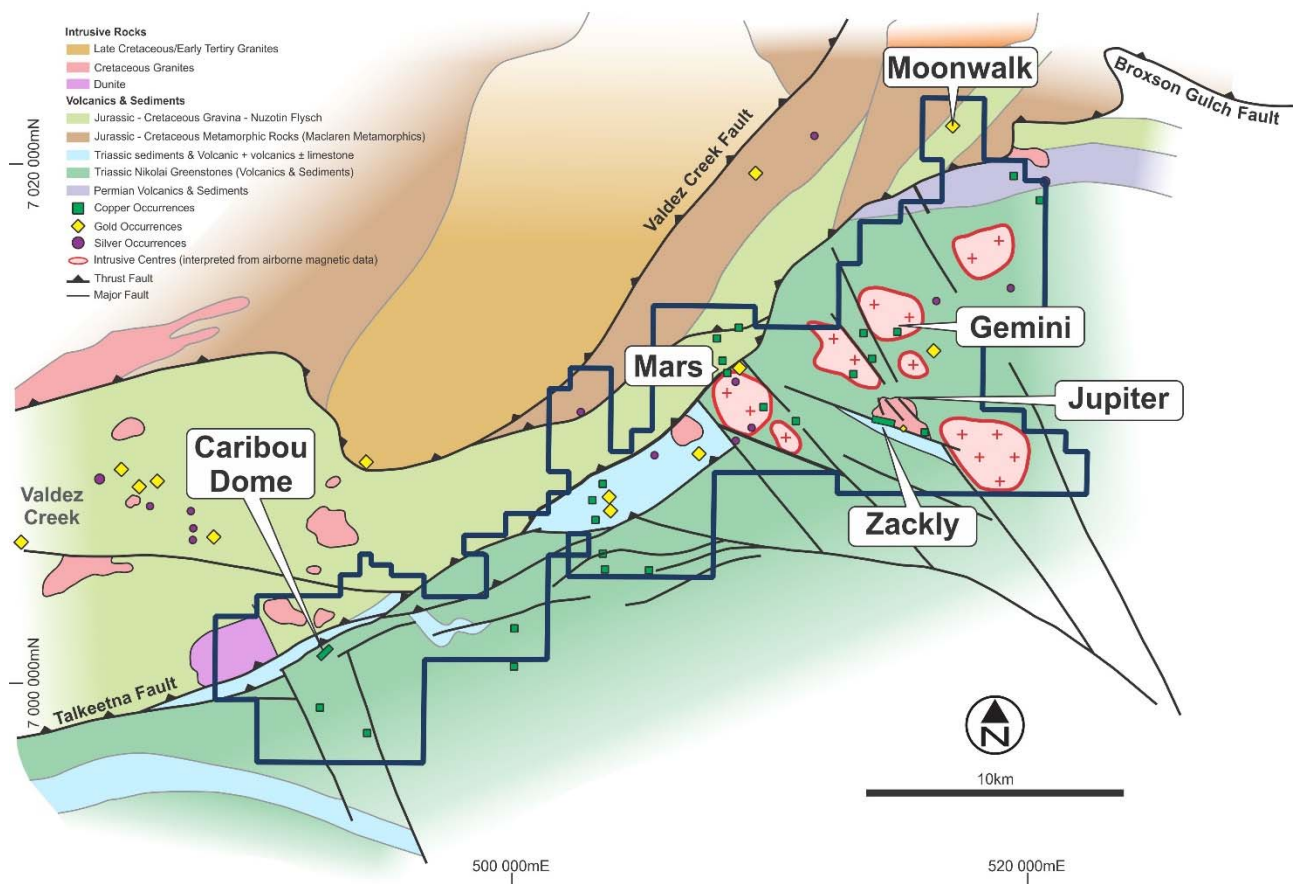


Figure 1. Location map showing main deposits and prospects at the Stellar and Caribou Dome projects in central Alaska and showing regional copper geochemistry in soil sampling draped on digital elevation.

## GEOLOGICAL SETTING AND PORPHYRY CU-AU POTENTIAL

The Alaska Range Project occurs immediately south of a series of thrust faults which mark the local boundary between the Tintina Gold Belt to the north and the well-endowed Cretaceous porphyry copper belt to the south (this belt hosts the supergiant Pebble Deposit which contains 37Mt of copper and 107Moz gold).

A corridor of NW to WNW trending faults intersects the thrusts in the NE part of the Alaska Range Project (refer to Figure 2). A series of magnetic anomalies consistent with porphyry-style intrusions occur within this fault corridor. Interpreted porphyry-style intrusions occur below Mars, Gemini and Saturn.



**Figure 2.** Geological interpretation for the Alaska Range Project, showing the Zackly prospect occurring in limestones next to a cluster of intrusive centres, bounded by a major fault corridor which is perpendicular to terrane bounding thrust faults.

## HIGH-RESOLUTION AEROMAGNETIC SURVEY AND THE SATURN PORPHYRY TARGET

A high-resolution aeromagnetic survey (N-S lines, 50m line spacing, 33m sensor height) was undertaken over the Mars-Saturn structural corridor and the area to the north which include the Gemini Cu-Au target. 3D inversion modelling of the data was completed during the quarter, with a focus on the Saturn anomaly (previously named Zackly SE) and the Zackly skarn mineralisation.

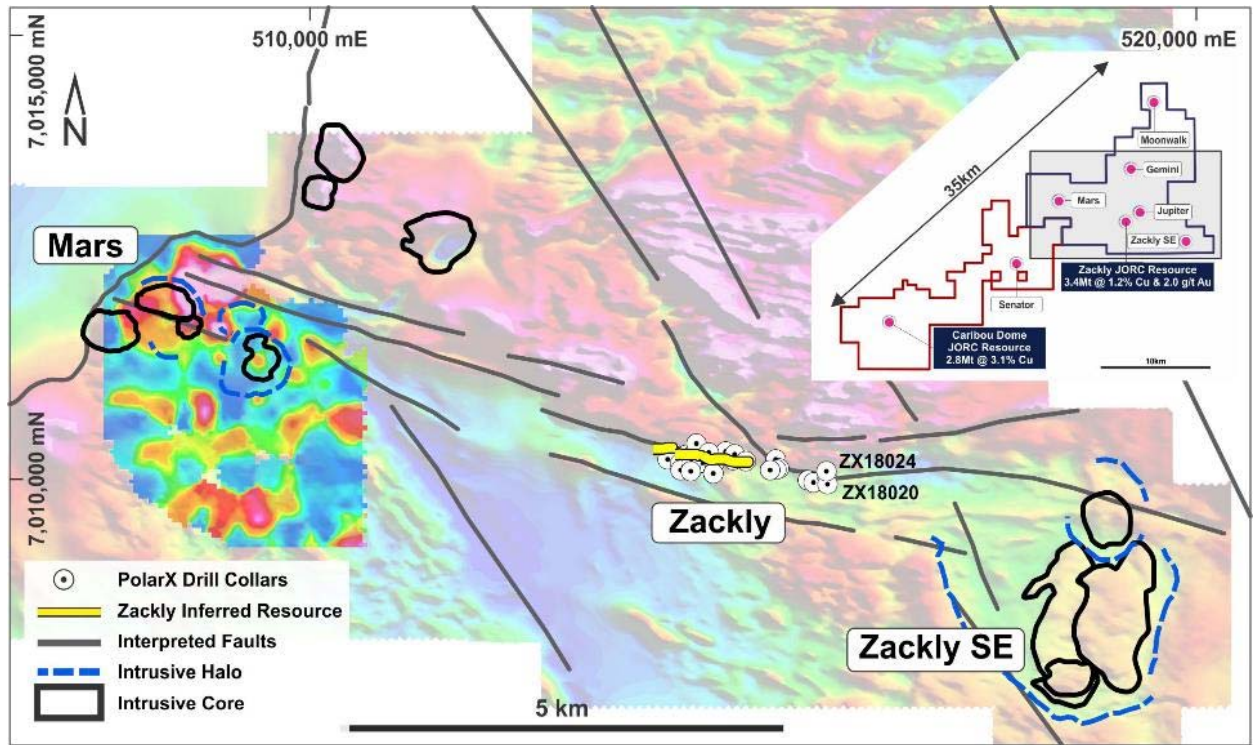
Images of the processed data have provided several key insights into the mineralisation in the Alaska Range Project:

- A very pronounced, 12km long structural corridor extends from Mars in the WNW to Saturn in the ESE. This structural corridor is up to 1km wide and hosts the Zackly Skarn along its northern edge (Figure 3).
- The Saturn complex can be resolved as multiple intrusive bodies surrounded by a significant halo of magnetite destruction.
- Inversion modelling of the magnetic data has highlighted that the anomaly at Saturn represents a steeply south plunging, upward flaring cylinder. The magnetic body is approximately 2km x 1km in areal extent and extends to depths in excess of 3km which is the lower extent of the inversion model (Figure 4). It is covered by 10-15m of glacial till and is blind to surface geochemistry.
- The geometry of the Saturn magnetic body, its geological setting and the halo of magnetite destruction surrounding the body all support the presence of an oxidised (i.e. magnetite bearing) intrusive cluster surrounded by a zone of propylitic alteration. These factors plus the proximity of high-grade Cu-Au mineralisation at the Zackly Skarn deposit provides very strong evidence that Saturn may be a large-scale porphyry Cu-Au system.
- An induced polarisation (IP) survey will be undertaken over the Saturn target next quarter, covering approximately 20 line-km of surveying (Figure 5). This survey is designed to locate the presence of disseminated sulphides associated with the intrusive core and in the surrounding alteration halo and will be used in conjunction with the magnetic data to plan a drilling program for execution in Q3 2019.
- The IP contract has been signed and the IP contractor and supporting logistics team will commence the survey once the seasonal snows have melted.

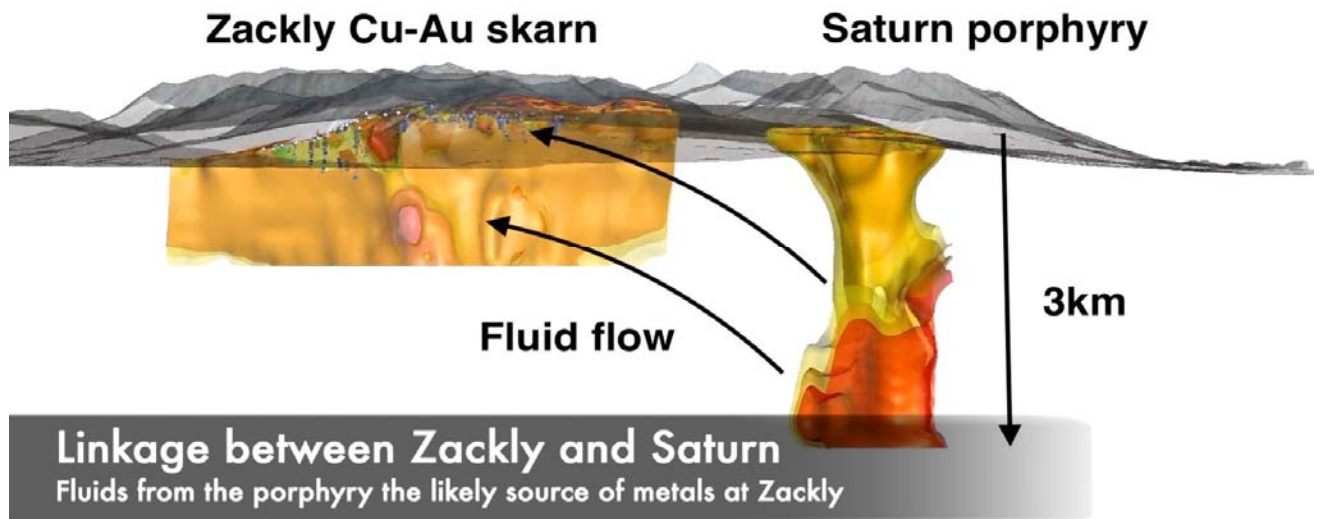
## ADDITIONAL CLAIM STAKING TO THE SOUTH OF THE SATURN PORPHYRY TARGET

- PolarX has staked an additional 30 State Mining Claims covering an area of 4,800 acres (19.4km<sup>2</sup>) to cover the south plunging depth extent of Saturn plus a significant buffer (Figure 5).

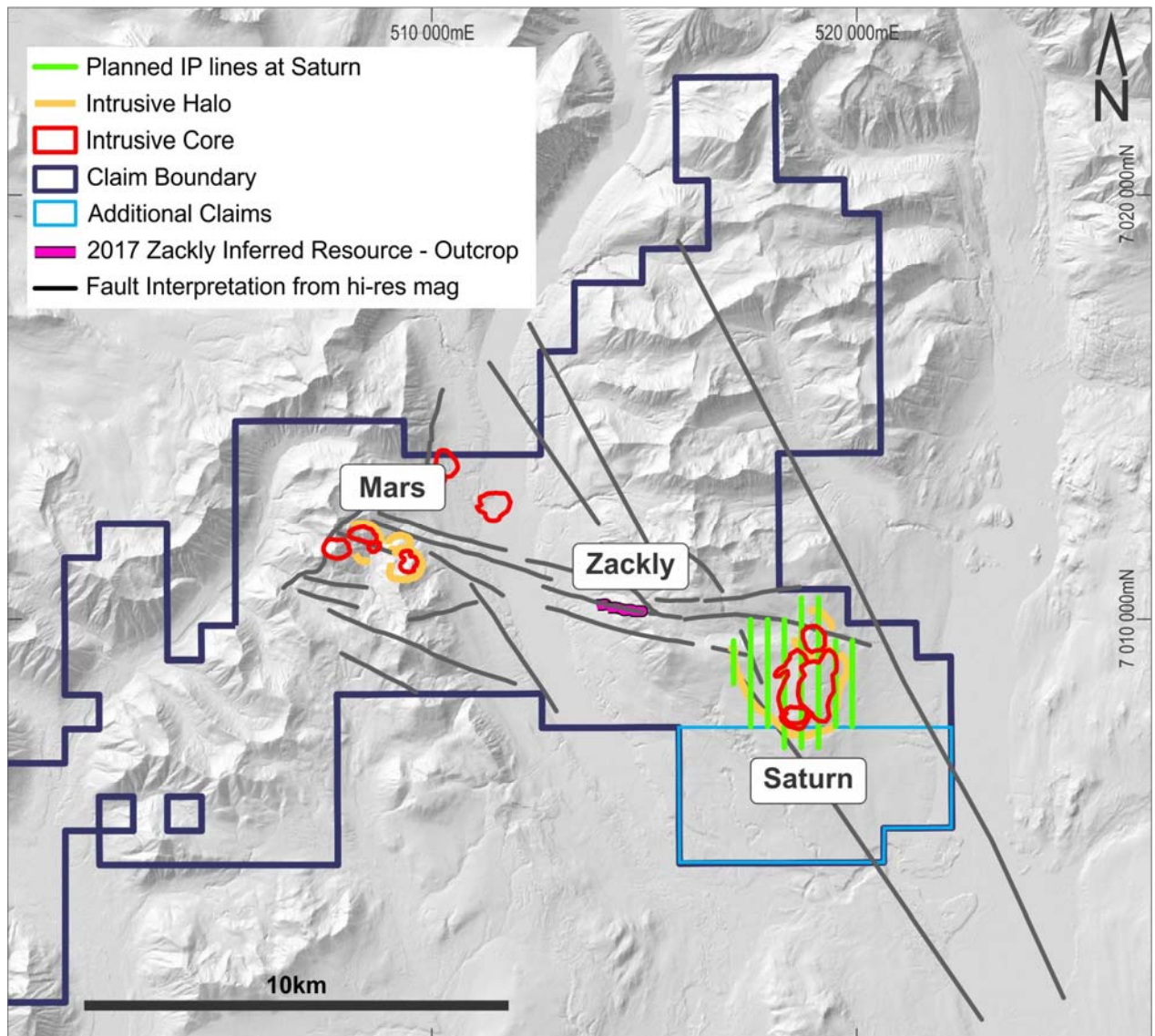




*Figure 3 District scale overview showing the 12km long WNW trending corridor which hosts Mars porphyry Cu-Au target, the high-grade Zackly Cu-Au skarn and the Zackly SE porphyry target.*



*Figure 4 Oblique view of 3D inversion modelling showing the strongly magnetic, upward flaring cylinder of the Saturn anomaly and its spatial relationship to the mineralisation at Zackly. The image shows three cylindrical iso-surfaces of magnetic susceptibility, with red representing the most magnetic and yellow the least. Non-magnetic areas are blank.*



*Figure 1 Location of the 30 new State Mining Claims staked by Polarx to cover southern extensions of the Saturn target. Also shown are the planned IP survey lines at Saturn*

**ZACKLY SKARN DEPOSIT**

The skarn alteration and associated Cu-Au-Ag mineralisation at Zackly occurs in silty limestones (exoskarn) and also locally in andesitic-basalt volcanic rocks and dioritic intrusive rocks (endoskarn). A drill program comprising 18 core holes for approximately 3,560m was completed in 2018, and determined that the mineralisation extends below the current resource and for at least 850m outside the resource along-strike to the east (Figure 6).

Further drilling is being planned for the upcoming quarter, mainly to extend the thick, high-grade, near-surface intersections in holes ZX-18020 and ZX-18024.

A program of metallurgical test work to evaluate processing options for the Zackly mineralisation is being developed and will commence later this quarter.

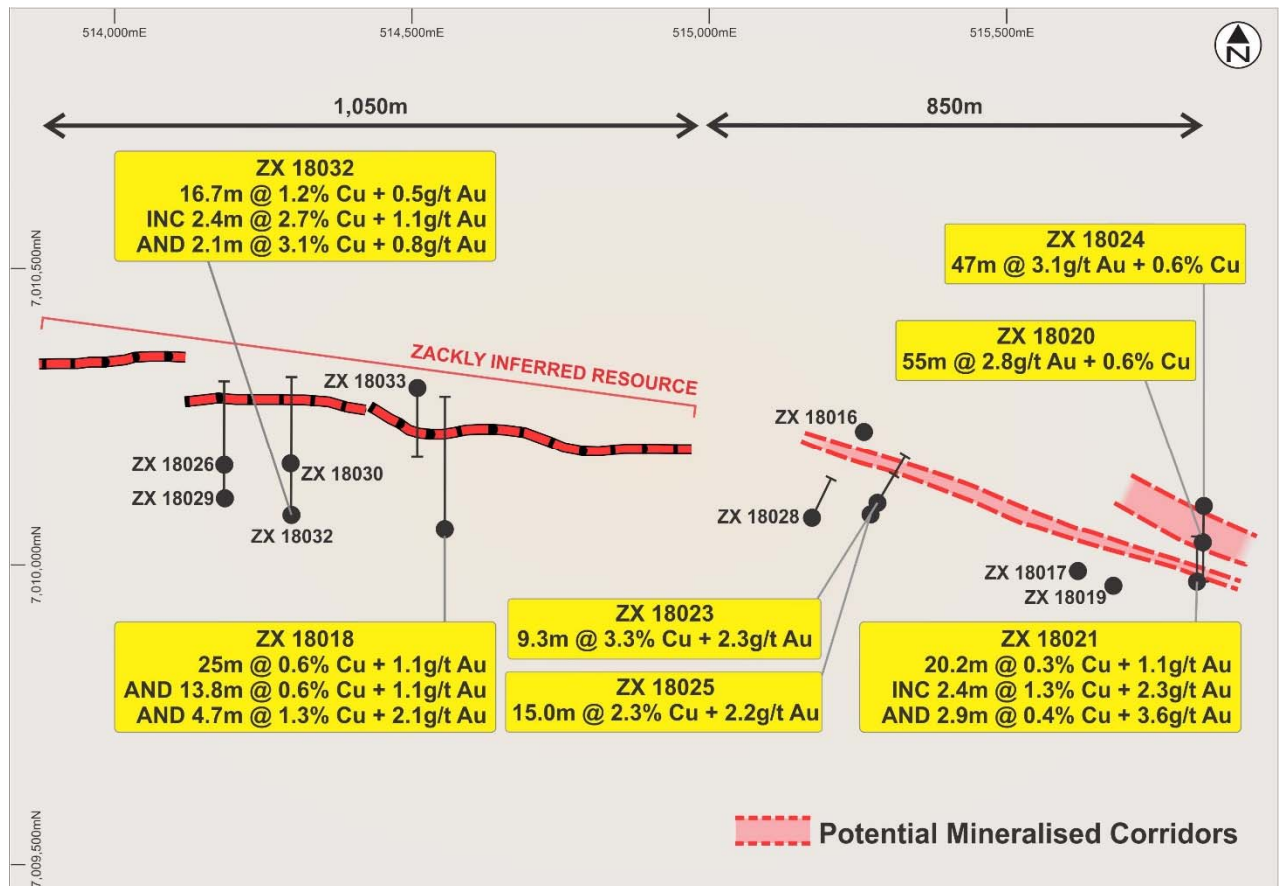


Figure 6. Drill hole plan for Zackly showing the 2018 surface trace of PolarX's inferred resource outline (red) and the 2018 drill hole collars and key assay results.

### MARS PORPHYRY CU-AU TARGET

The Mars prospect lies 6km to the WNW of the Zackly Skarn (see Figure 3). Mars is characterised by co-incident copper, gold, molybdenum and arsenic anomalism in detailed soil sampling over a large area of approximately 2,000m x 1,500m, spatially co-incident with a strong magnetic anomaly and an IP anomaly.

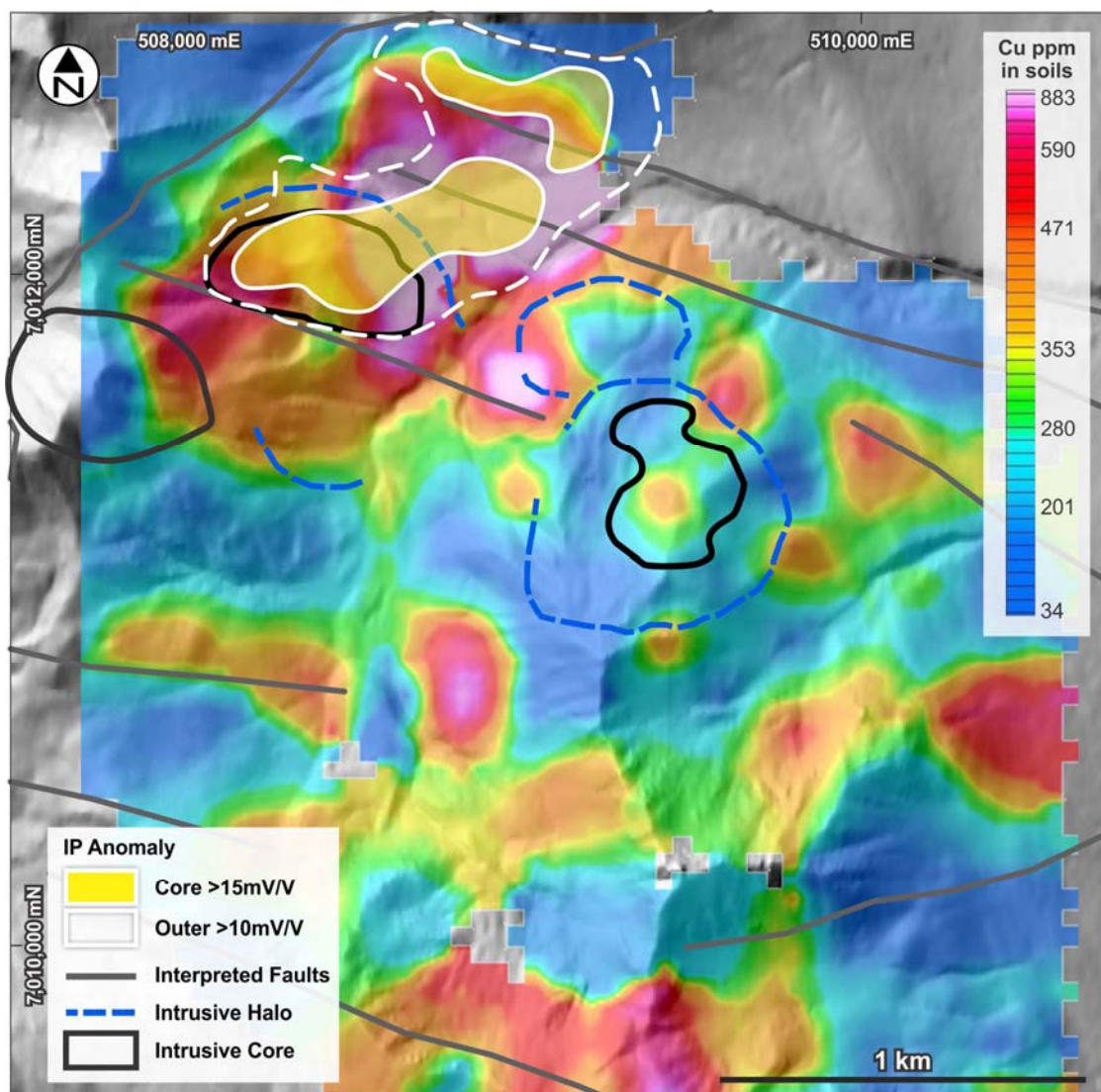
Key results to date include:

1. Copper (>250ppm) and molybdenum (>5ppm) anomalism in soils occurs in the central 1400m x 800m part of the multi-element anomaly, within larger haloes of gold and arsenic anomalism. Peak values for copper were 1,775ppm and for molybdenum were 24.2ppm.
2. Gold (>50ppb) and arsenic (>50ppm) anomalism in soils covers a larger 2000m x 1500m area, with peak values of 556ppb gold and 1,230ppm arsenic.
3. The copper and molybdenum anomalies coincide with a previously identified IP anomaly (Figure 7), which has been modelled at depths of 100-150m below surface.



4. The soil and IP anomalism are spatially related to a number of intrusive centres which have been interpreted from the recently collected high-resolution aeromagnetic survey.
5. Rock-chip sampling shows numerous anomalous samples for copper and gold, with 18 of the 87 samples assaying over 1% copper and 10 assaying over 0.5g/t gold.
6. Peak values of copper in rock-chips included one sample which assayed over 50% copper (above the limit of the assay technique) and one sample assaying 24.3% copper, both of which are spatially associated with structures (Figure 8).
7. Peak assays in rock-chips of 7.44%, 4.49%, 4.45% and 1.65% copper and 6.93g/t, 2.94g/t, 2.41g/t and 1.78g/t gold all occur on the northern edge of the soil anomaly closets to the intersection of the terrane bounding fault, WNW structure and intrusive cluster.

**This target is a high priority for scout drilling in 2019.**



*Figure 7 IP anomaly outlines plotted on gridded soil sampling copper assays for Mars. Also shown in black outlines are the magnetic anomalies.*





*Figure 8 Copper oxides on steep outcrop at Mars, looking back towards Zackly*

**MOONWALK AU TARGET**

No work during the Quarter.

**SENATOR CU TARGET**

No work during the quarter.

**CARIBOU DOME DEPOSIT**

No work during the Quarter

**Frazer Tabcart**  
Managing Director

## ADDITIONAL DISCLOSURE

The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the 'JORC Code') sets out minimum standards, recommendations and guidelines for Public Reporting in Australasia of Exploration Results, Mineral Resources and Ore Reserves. The information contained in this report has been presented in accordance with the JORC Code.

Information in this report relating to Exploration results is based on information compiled by Dr Frazer Tabearth (an employee and shareholder of PolarX Limited), who is a member of The Australian Institute of Geoscientists. Dr Tabearth 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 under the 2012 Edition of the Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Tabearth consents to the inclusion of the data in the form and context in which it appears.

There is information in this report relating to:

- (i) the mineral resource estimate for the Caribou Dome deposit (Alaska Range Project), which was previously announced on 5 April 2017;
- (ii) the mineral resource estimate for the Zackly deposit (Alaska Range Project), which was previously announced on 20 March 2018; and
- (iii) exploration results exploration results which were previously announced on 13 July 2018, 17 July 2018, 24 July 2018, 7 August 2018, 15 August 2018, 21 August 2018, 27 August 2018, 20 September 2018 and 25 September 2018, 31 October 2018, 5 November 2018, 29 January 2019 and 25 March 2019.

Other than as disclosed in those announcements, the Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements, and that all material assumptions and technical parameters have not materially changed. The Company also confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

### **Forward Looking Statements:**

Any forward-looking information contained in this report is made as of the date of this report. Except as required under applicable securities legislation, PolarX does not intend, and does not assume any obligation, to update this forward-looking information. Any forward-looking information contained in this report is based on numerous assumptions and is subject to all of the risks and uncertainties inherent in the Company's business, including risks inherent in resource exploration and development. As a result, actual results may vary materially from those described in the forward-looking information. Readers are cautioned not to place undue reliance on forward-looking information due to the inherent uncertainty thereof.





PROJECT	LOCATION	LICENCE(s)	OWNERHSIP INTEREST
Stellar Claims (cont.)		SBX 001 – 070 ADL# 724789 – 724858 LYKN 1 – 2 ADL# 725111 – 725112 CDE-21 – 25 ADL# 722236 – 722240 CDE 27 ADL# 722242 SBX 72 – SBX 73 ADL# 726911 – 726912 SBX 76 ADL# 726915 SBX 83 – SBX 91 ADL# 726922 – 726930 SBX 92 – 121 <sup>(i)</sup> ADL# 728878 – 728907	100%

(i) Acquired a 100% interest during the period

(ii) No Alaska Range Project claims were relinquished or disposed of during the period.

PROJECT	LOCATION	LICENCE(S)	OWNERSHIP INTEREST
UNCLE SAM GOLD PROJECT <sup>(iii)</sup>	Alaska, USA	Claim& ADL # <sup>(iii)</sup>	Nil <sup>(iii)</sup>

(iii) Subject to a mineral lease and purchase agreement with Great American Minerals Exploration Inc. (GAME), pursuant to which game will lease the Uncle Sam gold project for up to 10 years with an option to purchase outright at any time during the lease period on the terms and conditions detailed in the ASX announcement of 30 July 2015 (Option Agreement).

During the December 2017 quarter the Company received noticed from the Department of Natural Resources (State of Alaska) that the mineral claims which comprise the Uncle Sam gold project had been declared abandoned (DNR Notice). The basis for the decision was an error on the affidavit of labor filed by the previous tenement owner in 2011. Further, as a result GAME has sought to terminate the Option Agreement.

The Company is currently reviewing its options in relation to this matter, including whether GAME has complied with its obligations under the Option Agreement, but notes that the Uncle Sam gold project:

- is considered a non-core asset and has a \$nil carrying value in the Company's financial statements; and
- is independent of the Company's Alaska Range Project.

For a detailed listing of the Uncle Sam Gold project mineral claims, held prior to receipt of the DNR Notice. Refer Appendix 1 to the Quarterly Activities Report dated 31 October 2017.