

Humboldt Range Gold-Silver Project, Nevada

RC drilling defines structures for high-grade gold targets within an extensive mineralised system.

Humboldt's regional exploration strategy updated.

Highlights:

- Extensive low-grade gold mineralisation identified in association with sulphides throughout the Star Canyon drill program.
- Drilling encountered a concealed 'normal' fault which offsets the targeted bonanza gold vein whilst the surrounding Rochester Rhyolite continues to host wide, low-grade mineralised intercepts.
- Targeted bonanza-grade veins lie above the fault hanging wall. All holes in this program were drilled below the fault footwall.
- Follow up RC drill program planned to test high grade gold vein sets in hanging wall and footwall.
- Bonanza gold and silver veins remain a high priority target within the extensive lower grade regional host.
- Induced Polarisation and Airborne Magnetic surveys to be undertaken across Black Canyon and Fourth of July projects to deliver additional bulk tonnage drill targets within the regionally important Rochester Rhyolite Formation.

Details

PolarX Limited (ASX: PXX, "PolarX" or 'the Company") reports that thick, low-grade gold mineralisation has been encountered in rhyolite and andesite volcanic units of the Rochester Rhyolite Formation throughout most of the holes drilled at Star Canyon, Nevada, USA in the December 2022 reverse circulation (RC) drill program (refer Table 1 and Table 2 and Figures 1-3).

The low-grade gold mineralisation is hosted in similar geology to the nearby Rochester Mine (400Moz Ag, 3Moz Au) and neighbouring Spring Valley project (4.1Moz Au) which already demonstrate commercial potential for large scale bulk tonnage mining (Figure 4).

Detailed geological logging has identified a concealed fault structure (Figure 1) that has offset the depth continuity of the bonanza gold and silver vein (Figure 2) previously identified at Star Canyon, Nevada (see ASX announcement 5 July 2022), which intersected 9.1m@124.4g/t gold and 48.6g/t silver.

The bonanza vein and other mapped vein sets remain high priority active drill targets with continuity potential along strike in the near-surface hanging wall and at depth in the footwall. A normal fault structure has caused an abrupt discontinuity in the geological units (Figures 2 & 3). The fault strikes approximately north-south and dips approximately 60-70° to the east.



Drill pads for the 11-hole program were all collared into the footwall, with 10 holes drilled entirely into the footwall. Detailed relogging of the May 2022 RC program's chip trays that were drilled into the hanging wall, have now assisted the Company's geologists to establish the displacement between footwall and hanging wall units and the confirmation of mineralised Rochester Rhyolite Formation rock units.

Drilling during the December 2022 campaign tested only the southern portion of Star Canyon. Testing the northern portion remains to be undertaken and will also now be amended to drill into the hanging wall targets.



Figure 1.Plan view of drill hole collars, Au soil anomaly, May 2022 drill results for Star Canyon. Note the Normal Fault identified from the December 2022 RC drill campaign, strikes N-S and dips about 60°E. The hanging wall (HW) side has moved vertically downwards, and the footwall side (FW) has moved vertically upwards, thus displacing the earlier mineralised veins and rock units. The concealed fault has hampered the drill programs' ability to test previously intersected high-grade veins. The follow-up program will take that offset into account.





Figure 2 RC holes drilled in December 2022 (BC22-011, BC22-011A & BC22-011B) drilled into the footwall of a concealed normal fault that has displaced the bonanza vein. High priority drill holes have been planned to intersect the bonanza vein in both the hanging wall and footwall of the fault.



Figure 3 Section 4488515N Drill holes to test the northern extensions of mineralised veins also exhibit the continuity of the normal fault along strike and failed to intersect the veins because they were drilled into the footwall of the normal fault.



Hole ID	From	То	Interval (m)	Grade g/t Au	Rock
BC22-011	57.91	82.30	24.38	0.19	Rhyolite
BC22-011A	28.96	32.00	3.05	0.14	Rhyolite
	39.62	47.24	7.62	0.12	Rhyolite
	67.06	120.40	53.34	0.21	Rhyolite
BC22-011B	0.00	4.57	4.57	0.15	Andesite
	39.62	47.24	7.62	0.23	Rhyolite
	53.34	96.01	42.67	0.17	Rhyolite & Andesite
BC22-012	19.81	28.96	9.14	0.13	Rhyolite
	36.58	50.29	13.72	0.20	Rhyolite
	56.39	59.44	3.05	0.14	Rhyolite
	85.34	108.20	22.86	0.13	Rhyolite
BC22-012A	12.19	25.91	13.72	0.14	Rhyolite
	32.00	35.05	3.05	0.17	Rhyolite
	41.15	44.20	3.05	0.14	Rhyolite
	73.15	76.20	3.05	0.15	Rhyolite
	80.77	82.30	1.52	0.25	Rhyolite
BC22-013	6.10	22.86	16.76	0.21	Rhyolite
	33.53	39.62	6.10	0.35	Rhyolite
	48.77	74.68	25.91	0.21	Rhyolite
BC22-014	3.05	16.76	13.72	0.20	Rhyolite
	21.34	36.58	15.24	0.14	Rhyolite
	48.77	71.63	22.86	0.17	Rhyolite
BC22-015	3.05	42.67	39.62	0.16	Rhyolite
BC22-015A	3.05	19.81	16.76	0.17	Rhyolite
	24.38	28.96	4.57	0.16	Rhyolite
	38.10	41.15	3.05	0.13	Rhyolite
	60.96	70.10	9.14	0.15	Rhyolite
BC22-016B	41.15	48.77	7.62	0.18	Andesite & Rhyolite
	54.86	68.58	13.72	0.18	Rhyolite
	79.25	80.77	1.52	0.38	Rhyolite
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Table 1. Assay results summary for Star Canyon December 2022 RC program.

Au lower cut-off 0.1 g/t Au, no significant Ag.



Humboldt Range Exploration – In Context

PolarX's tenure is a key unexplored holding within a significantly mineralised regional feature.

The Black Canyon claims at the northern end of Humboldt Range are less than 3km from the currently operating Florida Canyon Mine, which hosts 5Moz gold (see Figure 4). The 400Moz silver / 3Moz gold Rochester Mine is about 15km south and the 4Moz Spring Valley gold project is just 9km south-southeast of PolarX's Fourth of July claims.

PolarX will focus on identifying mineralised targets within the regional Rochester Rhyolite Formation which has already demonstrated the commercial potential of very large yet modest grade resources.



Figure 4. PolarX's Nevada claims are ideally located, adjacent to large scale operating mines and important road, energy and workforce infrastructure. The Rochester Mine, Spring Valley project and Black Canyon all host gold & silver mineralisation within north-south striking Rochester Rhyolite rock units.

Mineralised Rochester Rhyolite outcrops at surface throughout PolarX's Humboldt Range projects. Regionally this formation hosts multi-million-ounce gold and silver deposits at the nearby Rochester Mine and the Spring Valley project.



PolarX considers Induced Polarisation (IP) and airborne magnetic surveys across both Black Canyon and Fourth of July projects to be the best geophysical techniques to assist in generating drill targets for bulk-tonnage mineralisation.

Figure 5 shows the extensive gold anomaly in soil geochemistry is at Black Canyon (about 3km by 2km). The May and December 2022 RC drill programs at Star Canyon identified wide mineralised intercepts that frequently range in Au grade from 0.1 to 0.4 g/t Au which is associated with relatively weak sulphide metal concentration.

IP surveys are intended to identify higher sulphide metal concentrations than drilling has encountered to date at Star Canyon and Fourth of July. This geophysical work will assist prioriting future drill targeting.



Figure 5. Oblique 3D-view of the Black Canyon project overlaid with the gold geochemical soil anomaly and high-grade vein samples. IP surveying is expected to assist drill target prioritization.

Humboldt Range Background

The Humboldt Range Project comprises 364 lode mining claims in Nevada in two claim groups: Black Canyon and Fourth of July and is **situated between two large-scale active mines: the Florida Canyon gold mine and the Rochester silver-gold mine** (see Figure 4). Access to the project is straightforward via roads off the I-80 Interstate Highway, which lies less than 15km to the west of the claims.

Humboldt Range contains geology consistent with bonanza-style epithermal gold-silver mineralisation and bulk mineable epithermal gold-silver mineralisation, <u>both</u> of which are well known in Nevada.

Widespread narrow vein mineralisation with visible gold occurs within the claims and was historically mined via numerous adits and underground workings between 1865 and the 1927. Mineralisation



occurs in swarms of high-grade epithermal quartz veins of varying thickness (reported from 1cm to 3m), either as isolated veins or as broad zones of sheeted/anastomosing veins within zones of intensely altered and mineralised host rocks.

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HoleID	Easting	Northing	RL metres	Grid Azimuth	Mag Azimuth	Inclination	TD metres
BC22-011B	400757	4488411	2387	90	78	-75	152.4
BC22-011A	400757	4488411	2387	135	123	-55	152.4
BC22-011	400757	4488411	2387	55	43	-75	152.4
BC22-012	400757	4488519	2368	135	123	-60	152.4
BC22-012A	400757	4488519	2368	90	78	-75	152.4
BC22-013	400757	4488519	2368	270	258	-50	68.6
BC22-014	400768	4488557	2358	270	258	-50	68.6
BC22-015	400768	4488557	2358	70	58	-65	152.4
BC22-015A	400768	4488557	2358	90	78	-75	152.4
BC22-016A	400756	4488602	2342	90	78	-80	152.4
BC22-016B	400756	4488602	2342	100	88	-50	152.4

 Table 2. 2022 Star Canyon Drill Collar Locations (reported in WGS84_UTM11N coordinates)

For further information contact: Peter Nesveda, International Investor Relations and Corporate Affairs on +61 412 357 375

Or contact the Company directly on +61 8 6465 5500

Media For further information, please contact: Paul Armstrong Read Corporate +61 8 9388 1474

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 announcement has been presented in accordance with the JORC Code.

Information in this announcement relating to Exploration results is based on information compiled by Dr Jason Berton (an employee and shareholder of PolarX Limited), who is a member of the AusIMM. Dr Berton 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 Berton consents to the inclusion of the data in the form and context in which it appears.



There is information in this announcement relating to exploration results which were previously announced on 11 January, 2 February, 3 March 2021, 27 May 2021, 19 August 2021, 16 February 2022, 21 April 2022 and 5 July 2022.

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. 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 news release is made as of the date of this news release. 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 news release 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.



APPENDIX 1: JORC CODE 2012 – TABLE 1 REPORT FOR HUMBOLDT RANGE RC DRILLING

Section 1: Sampling Techniques and Data – RC Drilling

(Criteria in this section applies 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 downhole 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 1m samples from which 3kg was pulverised to produce a 30g 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 	 Reverse circulation percussion drilling was used to collect 5-foot (1.5m) samples from which approximately 3kg was pulverized to produce a 30g charge for fire assay (for gold) and a 0.5g sample for four-acid digest multi-element analysis. These RC chip samples were sent to the laboratory where they were crushed to -2mm and a 250g split was pulverized to 85% passing 75 microns. A 0.5g charge was prepared for four acid digest followed by multi-element ICP-MS analysis. A 30g charge was prepared for fire assay with an AAS finish.
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 percussion drilling with a face-sampling hammer, the tricone bit and traditional hammer were also used at times when the face-sampling hammer was ineffective. Drill rig and compressor as follows: Grasshopper RC drill (track mounted) 1,150 cfm/ 500psi air compressor Drilled using a 3-1/2-inch diameter down-hole face sampling hammer. Drill holes were oriented (check collar table for azimuth and inclinations).
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 	 Drill penetration rates were kept steady to maximise sample recovery and maintain sample quality. Sample volumes were visually monitored during drilling to assess variability in sample recovery. Anomalously low recoveries were noted.
Logging	• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource	 Chip samples have been qualitatively geologically logged over 5-foot (1.5m) intervals long the entire length of each drill hole. This is considered standard practice for this stage of exploration drilling.



	 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 	
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. 	 Samples were split in a 3-tier riffle splitter with an 30% reduction. Most samples were ran through the splitter twice to give larger sample (approx. 25% of total) for assay RC chip samples were crushed in their entirety, and up to 250g pulverized to -75 micron size to produce a 30g charge for fire assay for gold, and a 0.5g charge for four-acid digest and multi-element ICP-MS analysis.
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. calibrations factors applied and their derivation, etc. 	• RC chip samples were analysed for gold using a 30g charge by fire assay with an AAS finish at Paragon Mineral Laboratories in Reno (method Au-AA30). A 0.5g charge was dissolved in a four-acid digest and analysed for 33-elements by ICP-OES at Paragon Mineral Laboratories (method 33MA-OES).These are both considered total dissolution techniques.
	For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibration factors applied and their derivation etc.	 N/A - none of those were used in the current program
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established	 Certified Reference Materials (standards), field duplicates and blanks were inserted into field sampling procedures and represent approximately 10 in every 100 samples. Additional standards and duplicates were inserted by the assay laboratory as an internal QA/QC check. Evaluation of the blanks, standards and duplicates will be undertaken. Standard Reference Materials used were MEG Au 11.15, MEG Au 12.27, and MEG Au 19.11 Blank material used was crushed and washed landscaping marble. Blanks show no sign of contamination
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 	 Representative samples of washed RC chips are laid out on a table at the rig for visual inspection and geological logging. Drill logs are entered into spreadsheets on laptop computers with cloud-based storage.
	entry procedures, data verification, data storage (physical and electronic) protocols.Discuss any adjustment to assay data	 Copy of the spreadsheet used to populate master database run by the Company's consultants, Mitchell River Group Limited, stored online in Datashed [™].



		 Representative washed drill chips are stored in plastic trays as a permanent record of the lithologies encountered.
Location of data points	 Accuracy and quality of surveys used to locate drillholes (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. 	 All location measurements for PolarX drill collars were recorded by reference to the WGS84 Datum, UTM Zone 11N using hand-held GPS and the Waypoint Averaging function over 5 minutes. Locational accuracy is considered adequate for this stage of exploration.
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. 	 Refer to Figures in this report. RC chip logging was able to establish geological unit continuity which was able to infer unit offsets most likely caused by normal faulting. No sample compositing was 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. 	 Average strike/dip of the vein swarms is 010, 70-80° to the west. 9 holes were drilled in an easterly direction to orthogonally test known vein structures idenitief in surface mapping. Two holes were drilled to the west to test if strike changes or fault offsets displaced the targets thus minimizing the need to construct additional access roads and drill pads. No sampling bias is believed to have been introduced by the orientation and nature of the drilling as drill holes were orthogonally oriented known vein strikes.throughout the program.
Sample Security	The measures taken to ensure sample security	 Samples were collected by PolarX consultants and driven under supervision to the Paragon Geochemical laboratory in Reno, Nevada.
Audits or reviews	The results of any audits or reviews of sampling techniques and data	The Company is unaware of any sampling audits adopted previously.



Section 2: Reporting of Exploration Results – RC Drilling

(Criteria listed in section 1 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 license to operate in the area 	 The Black Canyon Claims comprise 182 contiguous Lode Claims in Pershing County, Nevada. 136 claims covering a total area of 2795.5 acres (1,131.30 hectares) are registered to Sleeping Midas LLC, and a further 46 claims covering an area of 920 acres (372.31 hectares) are registered to Humboldt Range Inc (wholly owned by PolarX Limited). The Fourth of July Claims comprises 182 Lode Claims in Pershing County Nevada. 41 Lode Claims covering 860.8 acres (348.35 hectares) are registered to Sleeping Midas LLC. A further 141 Claims covering 2,806 acres (1,136.00 hectares) are registered to Humboldt Range Inc (wholly owned by PolarX Limited). While the Claims appear to be in good standing, additional permits/licenses may be required to undertake specific (generally ground disturbing) activities such as drilling
Exploration done by other parties	 Acknowledgment and appraisal of exploration by other parties. 	 and underground development. Refer to ASX release on 11 January 2021 for work undertaken by Victoria Gold Corp.
Geology	Deposit type, geological setting and style of mineralisation	 Low-sulphidation epithermal gold-silver mineralization and associated deposit types including orogenic-gold, Carlin-style, rhyolite hosted and bonanza grade veins in Nevada's Basin and Range Province. Nearby deposits (Florida Canyon Au, Standard Au and Rochester Ag-Au) verify the geological setting is prospective for these types of deposit. The presence of numerous epithermal quartz-sulphide veins in the claims further confirm the geological setting.
Drillhole Information	 A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes: easting and northing of the drillhole collar elevation or RL (Reduced Level elevation above sea level in metres) of the drillhole collar dip and azimuth of the hole downhole 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. 	This information has been provided in this announcement.
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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 	 All assay intervals were 1.5m wide so weighted averages were not used. Low grade cuts of 0.1 g/t Au and 3 g/t Ag were used for reporting Carlin style intercepts. No cut-offs were used for high grade vein results. No metal equivalent values have been used.



Average strike/dip of the vein swarms is

Relevant maps and sections have been included in this announcement

High and low grade intervals have been separated into mineralization type domains within this announcement and clearly

The Company has previously released to ASX summaries of all material information in its possession relating to the Humboldt

Diagrams highlighting geochemical soil sample anomalies that represent future drill targets are presented in this release. Future work has been mentioned however planning is incomplete at this point.

010, 70-80° west.

stated.

Range Project.

	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 13ineralization	• These relationships are particularly important in the reporting of Exploration Results.	•
widths and intercept lengths	 If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported. 	
	 If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (eg, 'down hole length, true width not known'). 	
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 drillhole collar locations and appropriate sectional views 	•
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 	•
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. 	•
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. 	•