

## External memo

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From: Kennecott Exploration

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RTX AMR Copper

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To: Alderan Resources

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CC: Martin Sauvé, Clinton Roberts, Erik Best, Sara Jergenson

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Reference: Sawmill Canyon Q4 2021 Report

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Date: 17 January 2022

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Number of pages: 11

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# Sawmill Canyon (Frisco) Quarterly Report for Q4 2021

## Q4 2021 Summary of Activities

No exploration activities were conducted in the fourth quarter of 2021. A site tour and discussion of targets was provided to Kennecott Exploration's senior leadership team. Two historic AMAX drill holes, proximal to the Copper Gulch porphyry target, were reviewed at the UGS core library. The project proposed 3-5 drill holes and surface mapping for 2022, however, as of the end of 2021, only one drill target has been approved.

## Drilling

The 2022 project proposal for Sawmill Canyon included a 3-5 drill hole program with additional field mapping and sampling. As of mid-December, the project is approved to drill one target at Copper Gulch and conduct field mapping and sampling if/when internal staff resources are available. Additional drilling at Copper Gulch or at other proposed targets will be results dependent. Completion and/or final abandonment of SAWM0009 will also likely take place while a rig is on site. Timing of field activities is anticipated for Q2 2022, however conditions regarding COVID-19, KEX staff resources, and other projects in the region will influence the project's timeline.

## Geology

Currently, the project is anticipating one new drill hole at the Copper Gulch porphyry target to the southwest of the historic Cactus Breccia Mine. A summary description and supporting images are in Appendix A.

Two historic drill holes were reviewed at the Utah Geologic Survey's core repository. There include 520-1 and 520-3 which are proximal to the Copper Gulch target. A summary of observations in in Appendix B.

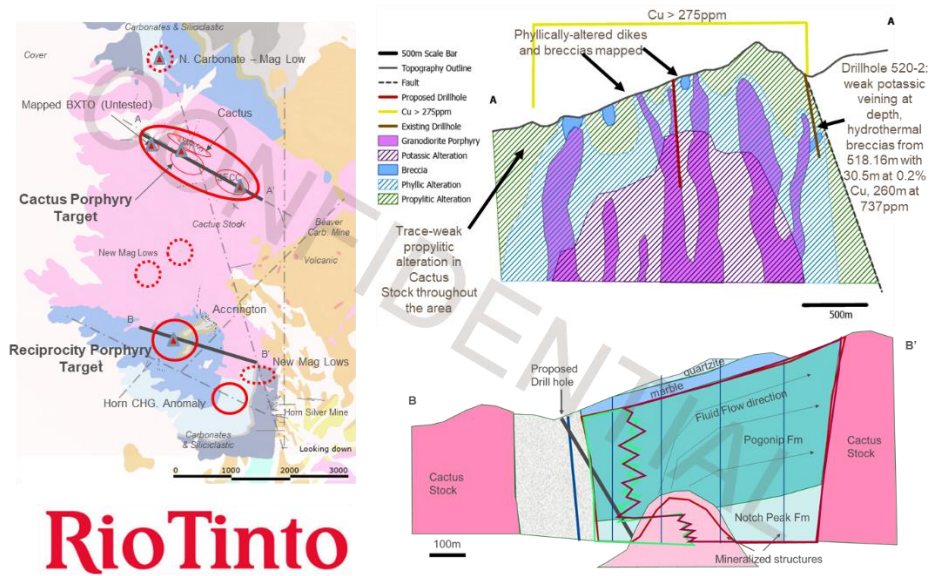


Figure 1. Plan map and conceptual cross sections presented in Q4 to KEX Senior Leadership Team as part of the 2022 budget request. Red circles indicate target areas proposed (dashed are lower priority targets).

Permitting

An amendment to include 7 additional drill sites and associated trails was approved by UDOGM in December 2021.

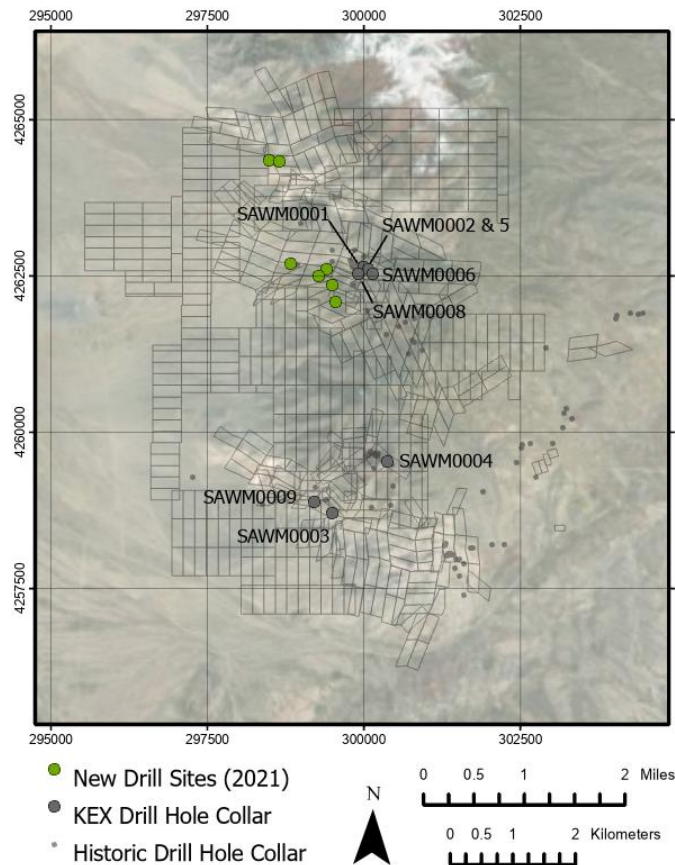


Figure 2. Plan map showing the sites that will be added to the permit and approved by UDOGM in Dec. 2021.

**Health, Safety, Environment, and Communities**

Nothing to report.

**Geophysics**

Nothing to report.

**Other Activities**

The project team toured site with KEX senior leaders who had not previously been able to see the area. Targets reviewed included drill sites to test the Reciprocity-Accrington porphyry target (buried resistivity conductive anomaly at depth, the Horn Silver mine area, Cactus Breccia, and the Copper Gulch porphyry target).

**Expenditure**

Tables 1 and 2 include a summary of expenditures for Q4 2021. The majority of costs during Q4 were associated with land payments and in-house staffing costs. Field support and Misc. costs included food, fuel, and accommodations for individuals supporting on site activities. The additional spend in Q4 2021, bring the total all-in expenditure to **\$4,800,020**.

2021							
	Drilling & Geophysics	Drilling Support	Professional & Consultants	Field Support	Staff	Land	Misc
January			\$8,689	\$4,266	\$29,694	\$379	
February			\$7,071	\$11,051	\$58,697	\$73	
March			\$7,376	\$5,533	\$57,772	\$40,155	\$72
April			\$5,061	\$3,071	\$38,311		
May	\$56,000	-\$538	\$4,364	\$3,604	\$37,794		\$323
June	\$86,324		\$510	-\$3,655	-\$29,210	\$125,005	
July	-\$1,654		\$1,514	\$419	\$7,556	\$57,134	\$265
August			\$9,000	\$666	\$1,602		\$252
September			-\$1,139	\$1,361	\$7,453		\$141
October			\$2,083	\$2,303	\$20,930		\$705
November			\$545	\$2,820	\$24,824	\$100,000	\$393
December			\$450	\$1,536	\$27,268	\$147	\$316
<b>Y-T-D</b>	<b>\$140,670</b>	<b>-\$538</b>	<b>\$45,524</b>	<b>\$32,976</b>	<b>\$282,691</b>	<b>\$322,893</b>	<b>\$2,467</b>

Table 1. Summary of expenditures for Sawmill Canyon for the year and Q4 2021 by month.

	2021					2020	Project
	Q1	Q2	Q3	Q4	YTD Spending	Total	Total
Drilling & Geophysics	\$0	\$141,786	-\$1,654	\$0	\$140,132	\$1,606,696	\$1,746,828
Professional & Consultants	\$23,137	\$9,935	\$9,375	\$3,077	\$45,524	\$677,061	\$722,585
Field and Transportation	\$20,851	\$3,021	\$2,446	\$6,659	\$32,976	\$301,971	\$334,948
Payroll & Benefits	\$146,163	\$46,895	\$16,611	\$67,838	\$277,507	\$684,122	\$961,629
Titles & Tenements	\$40,606	\$125,005	\$57,134	\$100,147	\$322,893	\$269,310	\$592,202
Travel & Accommodations	\$72	\$323	\$658	\$1,414	\$2,467	\$2,525	\$4,992
Administrative Charge 10%	\$23,083	\$32,696	\$8,457	\$18,432	\$82,668	\$354,168	\$436,837
<b>Quarterly Totals</b>	<b>\$253,912</b>	<b>\$359,660</b>	<b>\$93,027</b>	<b>\$197,568</b>	<b>\$904,167</b>	<b>\$3,895,853</b>	<b>\$4,800,020</b>

Table 2. Subtotal of expenditure by quarter with administrative charge and total earn-in expenditure for Q4 2021 and annual summaries.

### Data Package and Handover

No additional data was generated in Q4 2021. There is currently no outstanding data for transfer to Alderan Resources.

Report prepared by:



Robert Rush  
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Sawmill Canyon/Frisco Project Manager

Report reviewed by:

Martin Sauv , Exploration Manager US

Clinton Roberts, Principal Geologist- Copper Projects

## APPENDIX A

Permit ID	Hole ID	Datum	Easting	Nothing	RL	Dip	Azimuth	Planned Depth (m)
KEX_2021_5		NAD83 12N	299284	4262494	1934	-65	120	500
KEX_2021_4		NAD83 12N	299400	4262602	1935	-60	140	500

**Hole:** KEX\_2021\_5

*KEX\_2021\_4 is a potential follow up site.*

**Target Area:** Copper Gulch (mag high southwest of the Cactus Breccia zone).

**Drill Hole Target:** the area is a coincident mag high (circled by mag lows), Cu in rocks surface anomaly (modest but above background; from a survey done in the 1960s) with surface mapping showing the presence of mineralized and phylically altered porphyry dikes. The target is approximately 1500x500m, has a similar trend to other structures observed or interpreted, and where there are historic holes nearby, they do not properly test the target. The surrounding mag lows are interpreted to represent potential BXTO type targets.

**Specifications:** The hole will collar in HQ and continue to target depth with the potential to reduce to NQ if drilling conditions require.

**Field Work Plans:** Only a few days of field work have been completed to date. Additional mapping and sampling are required to better understand the geology of the target area (mag high and surrounding mag lows). Additional surface sampling through the area of the historic survey grid is warranted to further validate the historic assays. More detailed mapping of porphyry dikes and their distribution and orientations would greatly benefit the target and future modelling. Results of additional field mapping are not anticipated to have any significant impact on current drill plans.

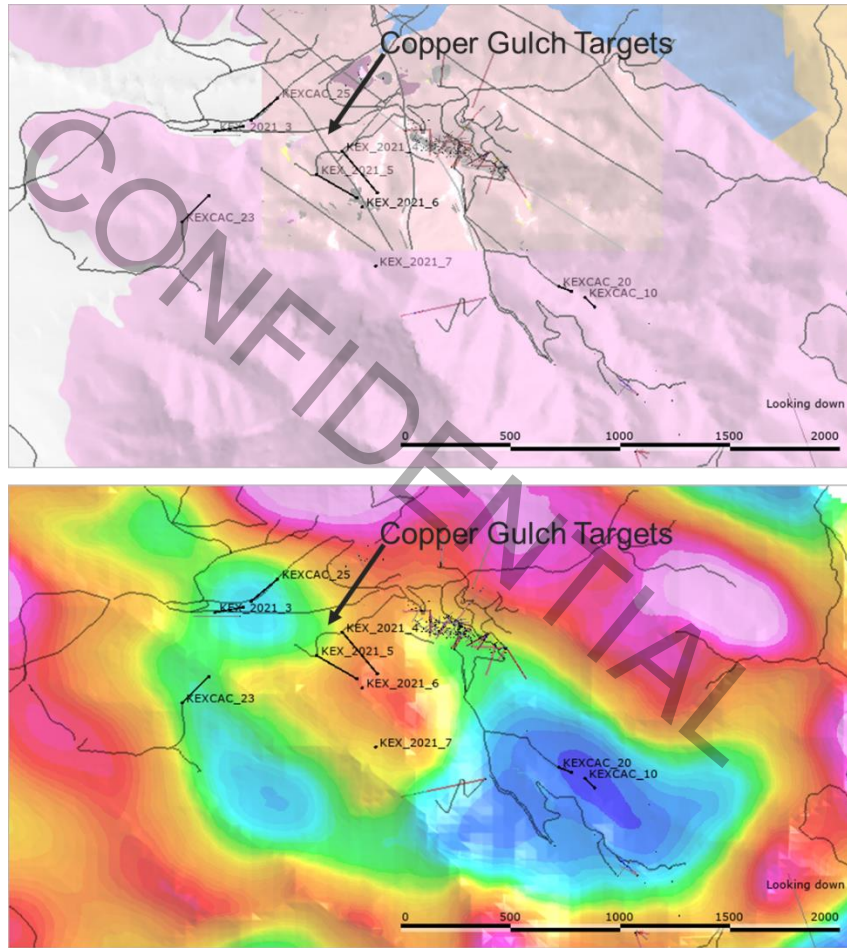


Figure 1: Copper Gulch proposed holes on geology (top) and 500m magnetic inversion depth slice (bottom).



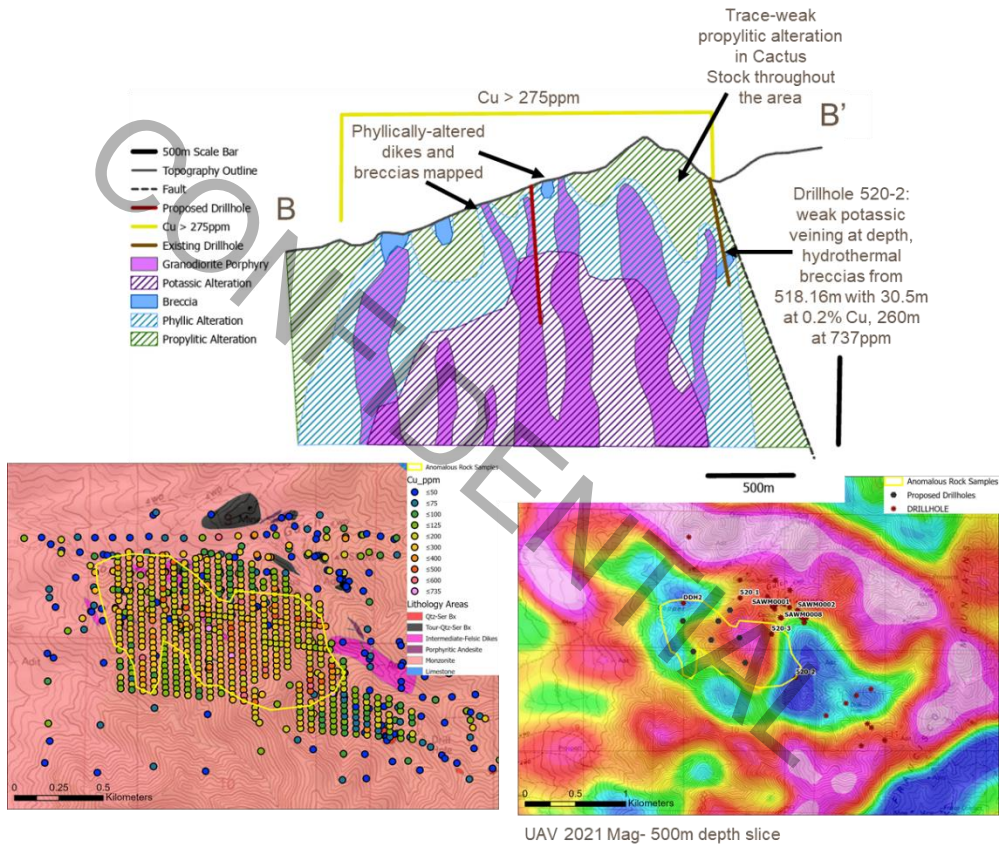


Figure 2. Conceptual cross section (top), historic surface rock assay results (bottom left), and 500m magnetics inversion depth slice (bottom right).

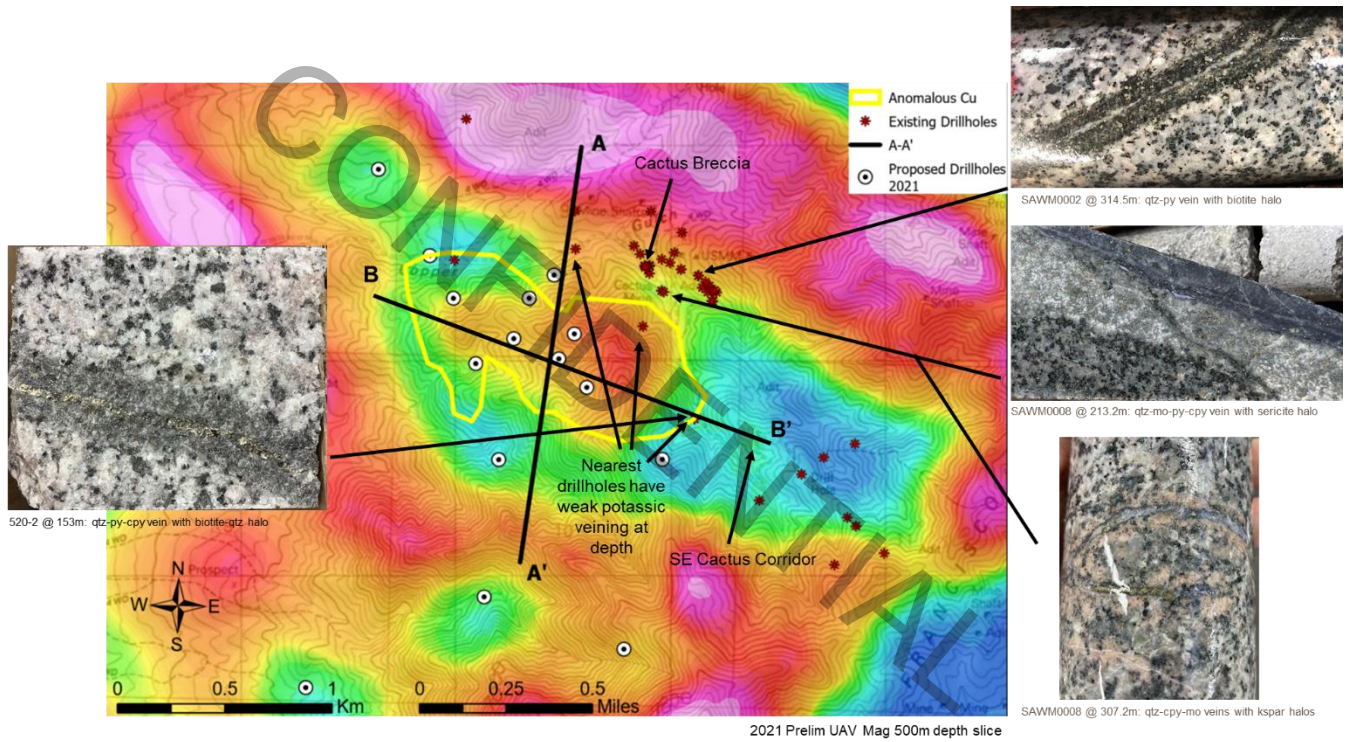
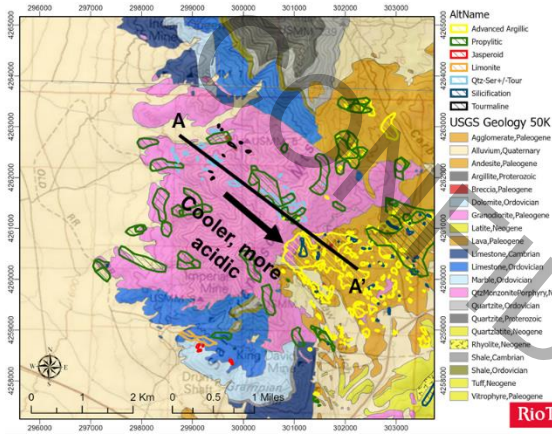
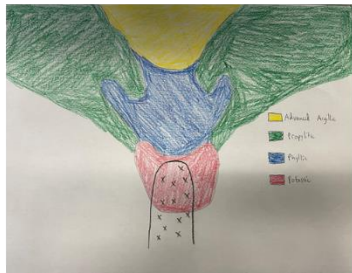


Figure 3. Representative rock/core photos from the area around Copper Gulch.



- Alteration moves from phyllic > potassic by Cactus to advanced argillic in the volcanics to the southeast, possibly one system that has been tilted and faulted?
- Alteration mapping over the Cactus Stock has been limited and needs more field work



Tilted and Faulted

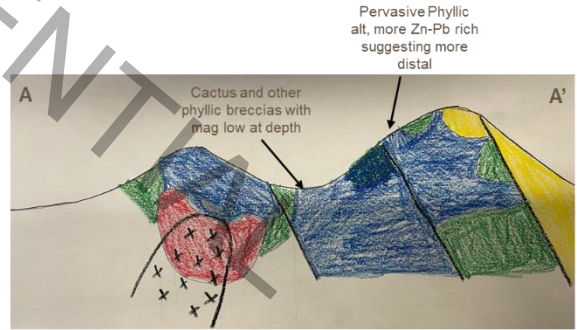


Figure 4: Conceptual structural setting for Copper Gulch.



APPENDIX B

Review of two historic AMAX drill holes was completed at the Utah Geological Survey including 520-1 and 520-3, which are the closest existing holes to the Copper Gulch porphyry target ( See Figure 1). Both holes were dominantly within the Cactus Stock monzonite with only minor zones of hydrothermal breccia. Trace-weak potassic and phyllic veining is found throughout both with local intervals of up to 5% vein volume. Veins are mainly biotite-magnetite+/-pyrite-chalcopyrite with lesser quartz-pyrite-sericite, quartz-chalcopyrite-molybdenite-ksp, and chalcopyrite+/-pyrite-molybdenite ( See Figures 2-3). The historic holes lie between the Copper Gulch target and the nearest RTX hole (SAWM0008) which saw similar veins, but at a lower density. Vein diversity and density supports the idea of being on the periphery of a porphyry system.

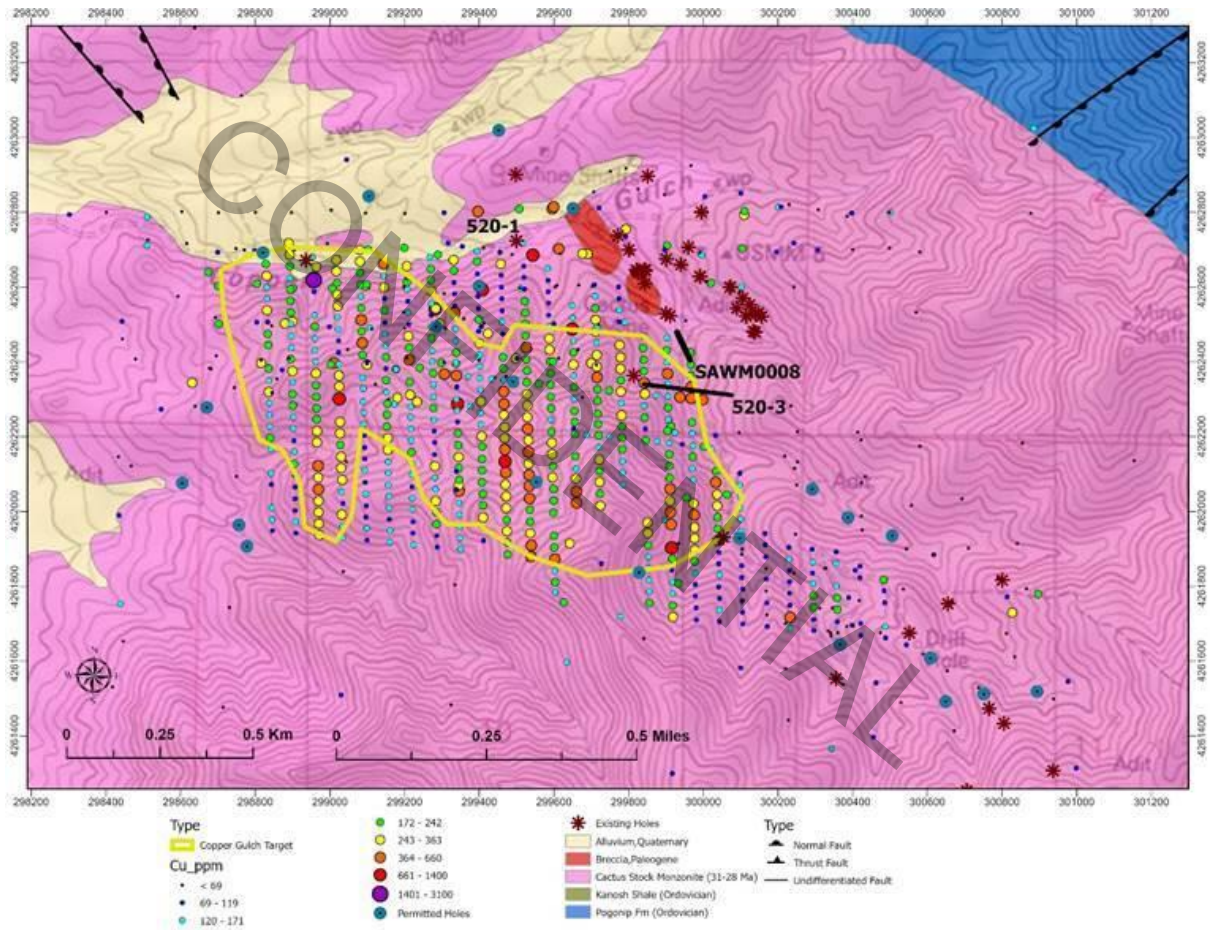


Figure 1: Copper Gulch/Cactus area map showing Cu in rocks

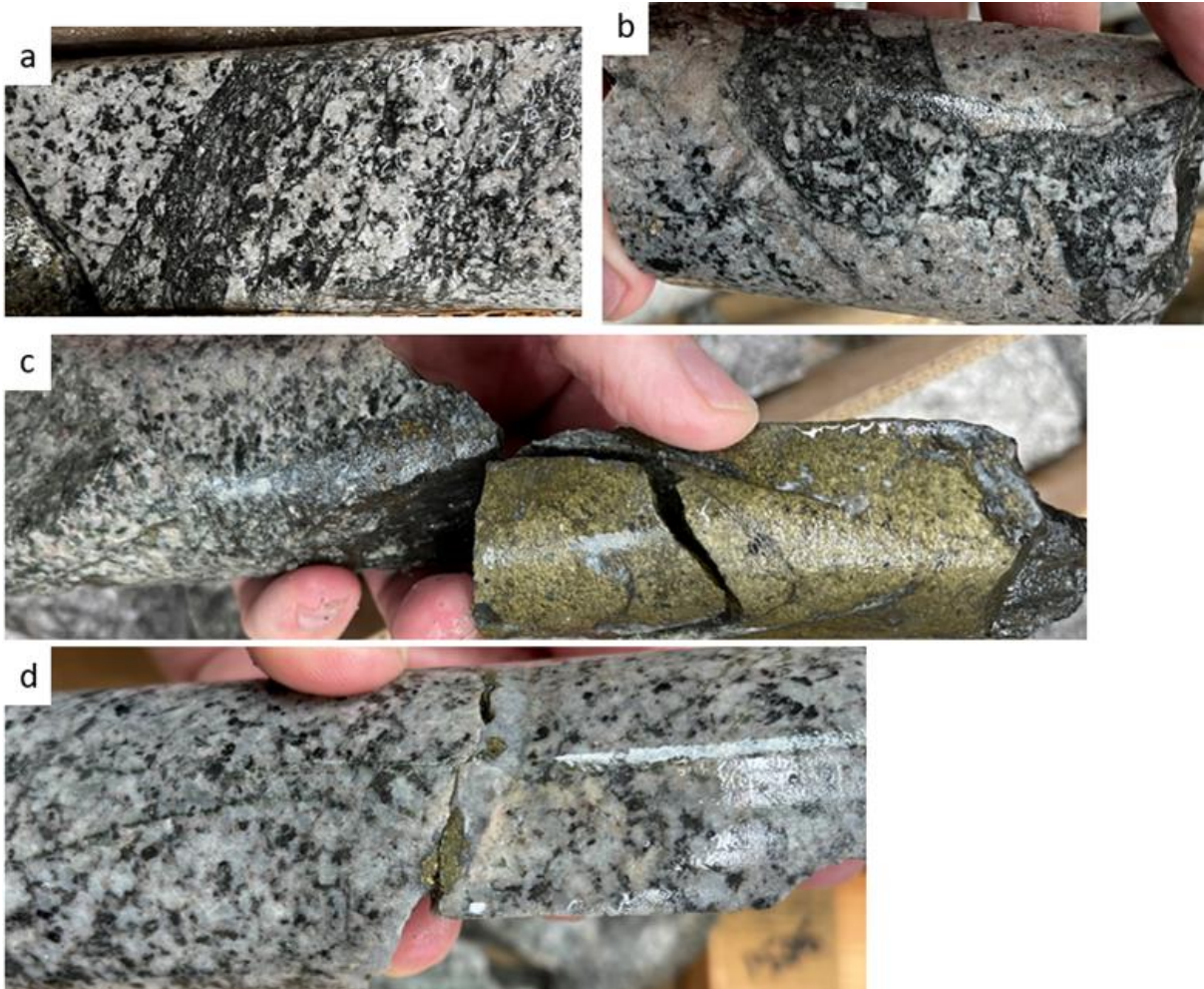


Figure 2: Drillhole 520-1 Photos - a) biotite-magnetite-pyrite-chalcopyrite veins/breccia at 208.2m; b) quartz-biotite-pyrite breccia at 328m; c) quartz-biotite-kspar with centerline chalcopyrite vein at 446.2m; d) quartz-chalcopyrite-molybdenite-kspar vein at 459.6m



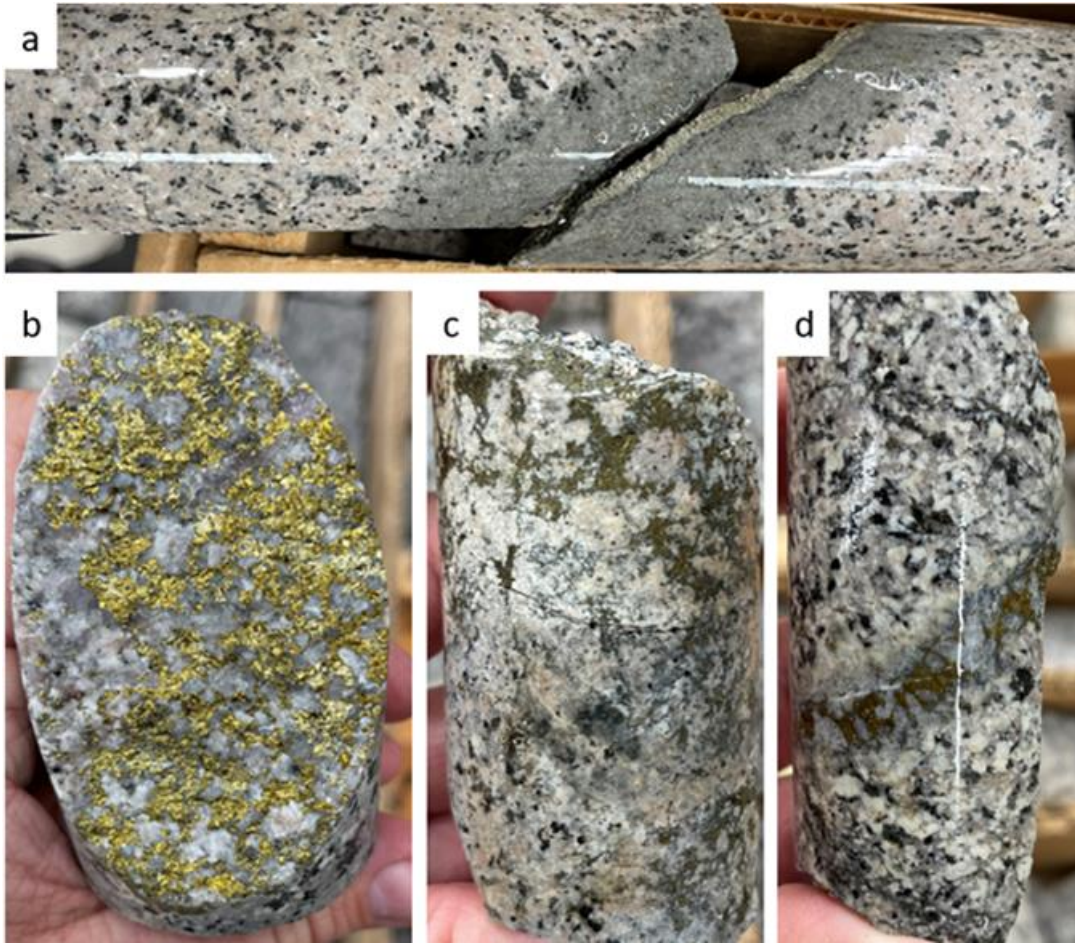


Figure 3: Drillhole 520-3 Photos - a) pyrite-quartz-sericite vein at 153m; b) chalcopyrite veinlet at 537.4m; c) quartz-chalcopyrite breccia with kspar altered clasts at 572.7m; d) quartz-chalcopyrite-molybdenite-kspar vein at 583.4m