

Lab Soil Sample Assays Verify New Years Copper-Gold Targets, Utah, USA

HIGHLIGHTS

- The New Years prospect soil anomaly covers 400m x 300m with portable XRF (pXRF) grades ranging from 120ppm to 0.33% copper (Cu) and additional high order anomalies 1, 2 & 3 have pXRF copper grades up to 615ppm, 444ppm and 524ppm respectively against a background copper grade of less than 60ppm
- Lab assays for ninety eight duplicate soil samples over the New Years target successfully verify Alderan's pXRF assays and confirm the four high order copper anomalies
- Shallow historical drill intersections into New Years and the gap between the Cactus and New Years magnetic anomalies include:
 - 13.7m @ 2.32% Cu within 19.8m @ 1.67% Cu from 22.9m downhole (NY-6)
 - 10.7m @ 1.52% Cu within 27.4m @ 0.85% Cu from surface (NY-2)
 - 10.7m @ 1.60% Cu and 4.6m @ 1.3% Cu within 42.7m @ 0.80% Cu from surface (NYM-1)
- Lab copper assays average 1.35 times higher than Alderan's adjusted pXRF assays for the duplicate soil samples
- New Years Stage 1 drill permitting is imminent - Alderan has paid the standard reclamation bond for drill sites as directed by the Utah Department of Natural Resources
- New Years has received no exploration since the 1960s

Alderan Resources Limited (ASX: AL8) (Alderan or the Company) is pleased to announce that lab analysis of ninety eight duplicate grid soil samples collected over the New Years grid in the Cactus district of the Frisco copper-gold project area has successfully verified and enhanced the pXRF analyses which identified a high order copper anomaly over the New Years prospect.¹ The lab analysis also verified and enhanced the three additional copper anomalies to the west, southwest and south of the New Years prospect.

Permitting for drilling at New Years is well underway. Alderan has paid the standard bond to cover reclamation of drill sites as directed by the Utah Department of Natural Resources hence it is expected that approval for Stage 1 drilling is imminent. Archaeological inspections are required for four Stage 2 drill sites not covered by previous permitting and Alderan's plan is to completed this while Stage 1 drilling is in progress.

Cactus is an historical copper-gold mining district in the Frisco project in southern Utah, USA with reported historical production from the Cactus mine of 1.27Mt grading 2.07% copper and 0.33g/t gold. The New Years prospect sits in the northwest trending Cactus Canyon fault zone approximately 400m northwest of the Cactus mine. Historical drilling (1960s) at New Years intersected 13.7m @ 2.32% Cu within 19.8m @ 1.67% Cu from 22.9m downhole (NY-6) and 10.7m @ 1.52% Cu within 27.4m @ 0.85% Cu from surface (NY-2).² Hole NYM-1

¹ Refer Alderan ASX announcements dated 17 June 2024 & 25 June 2024

² Refer Alderan ASX announcements dated 22 February 2024, 13 March 2024 & 29 April 2024

drilled midway between Cactus and New Years in 2002 intersected **10.7m @ 1.60% Cu** and **4.6m @ 1.3% Cu** within **42.7m @ 0.80% Cu** from surface.

Managing Director of Alderan, Scott Caithness, commented:

“The lab soil sample copper assays over the New Years grid have verified and enhanced Alderan’s pXRF copper assays which identified a 400m x 300m copper anomaly at New Years plus three new copper anomalies. The 98 duplicate samples assayed in the lab are on average 1.35 times higher than the adjusted pXRF sample assays across the entire grid. This has validated Alderan’s previously reported pXRF soil assays and demonstrated that assaying the soils by pXRF is an effective exploration tool for identifying copper anomalies in the Cactus district.”

“The payment of the reclamation bond for drill sites at New Years is expected to be the final requirement ahead of permitting for the Stage 1 drilling. The archaeological inspection of Stage 2 drill sites ahead of permitting these holes is standard procedure and Alderan’s plan is to complete this during Stage 1 drilling. No issues are anticipated.”

New Years Soil pXRF vs Lab Assays

Lab assays for 98 duplicate soil samples collected over the soil sampling grid covering the large composite New Years magnetic anomaly clearly verify and enhance the pXRF assays for soils collected over the same grid.³ Figure 1 shows the contour plan of the adjusted pXRF soil assays which highlights the New Years anomaly plus anomalies 1, 2 & 3 while Figure 2 shows the pXRF copper assays and the 98 duplicate sample lab copper assays.

The 98 duplicate lab assays range from 27.5ppm copper to 1,405ppm copper and average 162ppm copper in comparison to the adjusted pXRF analysed samples collected from the same sites which assay from 0ppm copper to 3,298ppm copper and average 143ppm copper. Importantly, the lab assays over the New Years prospect and Anomalies 1, 2 & 3 confirm and enhance the pXRF assays (see Table 1) and the average copper grade for all 98 duplicate samples assayed in the lab is 1.35 times higher than the adjusted pXRF assays (see Appendix 1).

Table 1: Comparison of pXRF versus Lab copper assays over New Years anomaly and Anomalies 1, 2 & 3

	pXRF Sample ID	Lab Sample ID	Easting	Northing	pXRF Cu Assay (ppm)	Lab Cu Assay (ppm)
New Years	NY24SS 219	NYSS24 219	299350	4262800	102	247
	NY24SS 238	NYSS24 238	299450	4262900	3298	1405
	NY24SS 241	NYSS24 241	299450	4262750	166	180
	NY24SS 257	NYSS24 257	299550	4263000	119	140
	NY24SS 260	NYSS24 260	299550	4262850	153	220
Anomaly 1	NY24SS 001	NYSS24 001	298350	4263150	125	129
	NY24SS 023	NYSS24 023	298450	4263100	107	132
	NY24SS 045	NYSS24 045	298550	4263050	285	360
	NY24SS 064	NYSS24 064	298650	4263150	148	138
Anomaly 2	NY24SS 140	NYSS24 140	298950	4262550	83	168
	NY24SS 159	NYSS24 159	299050	4262650	231	315

³ Refer Alderan ASX announcements dated 17 June 2024 and 25 June 2024

	NY24SS 181	NYSS24 181	299150	4262600	125	190
Anomaly 3	NY24SS 228	NYSS24 228	299350	4262350	113	134
	NY24SS 231	NYSS24 231	299350	4262200	368	443
	NY24SS 250	NYSS24 250	299450	4262300	280	285
	NY24SS 253	NYSS24 253	299450	4262150	414	557
	NY24SS 272	NYSS24 272	299550	4262250	85	152
	NY24SS 291	NYSS24 291	299650	4262350	153	155
	NY24SS 294	NYSS24 294	299650	4262200	253	245

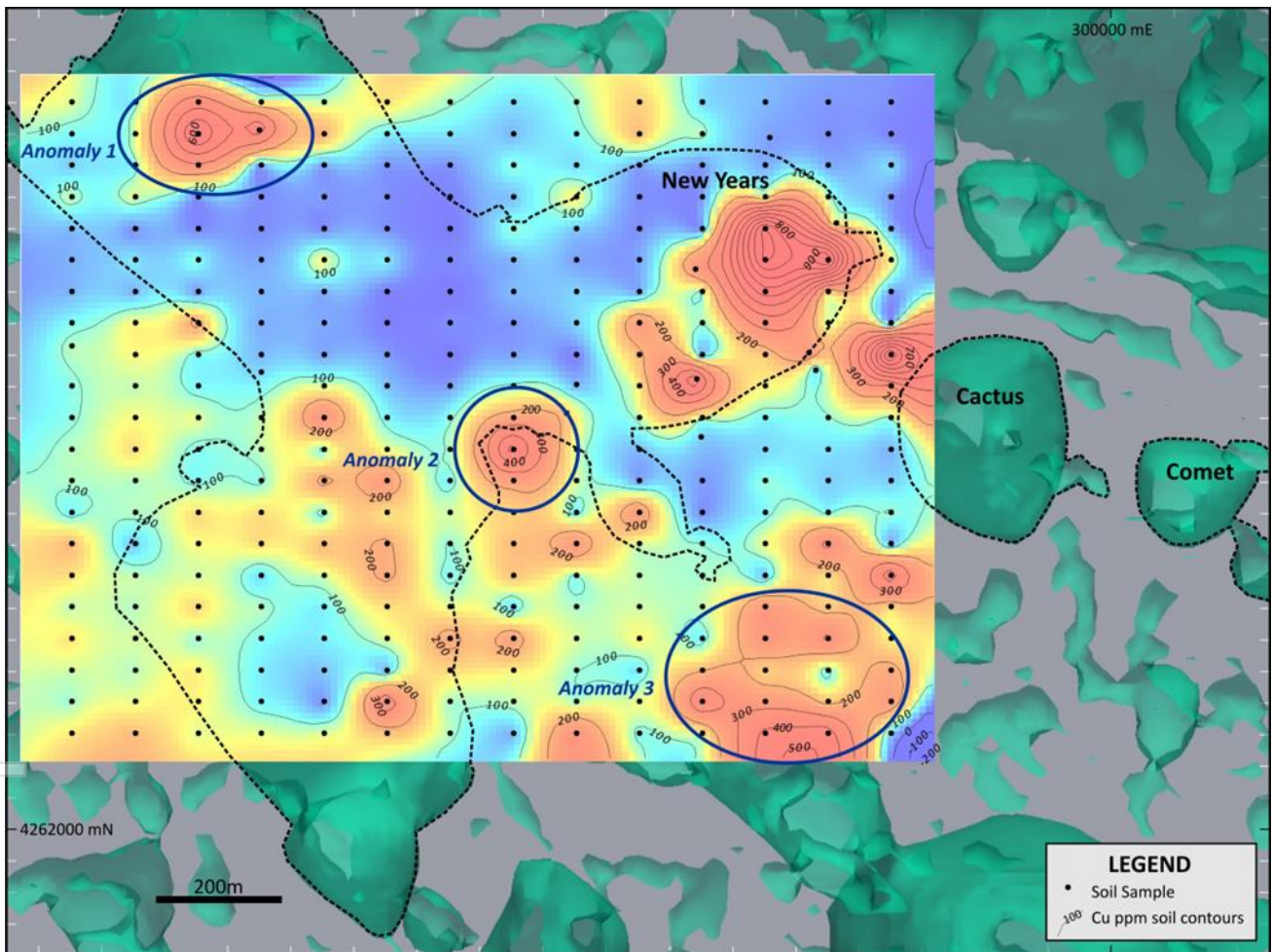


Figure 1: Colour contoured pXRF soil copper assays highlighting the New Years prospect anomaly plus Anomalies 1-3 on the 3D inversion model magnetic anomalies which outlines the New Years anomaly.

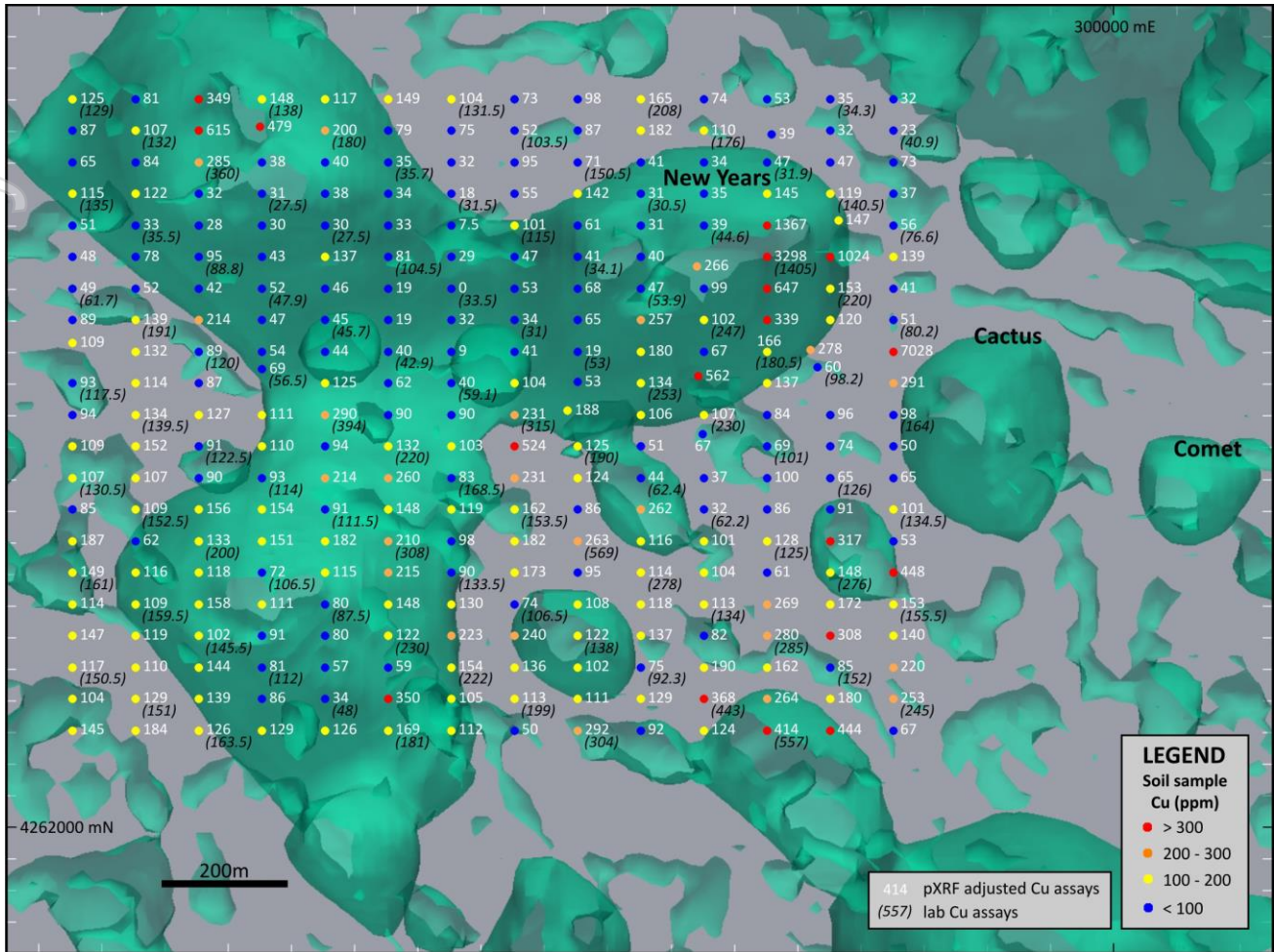


Figure 2: Plan showing the grid soil sampling over the 3-D inversion model magnetic anomalies at New Years with pXRF assays and 98 duplicate sample lab assays in brackets.

Cautionary Statements

The Company stresses that the pre-Alderan assay data from historical drill holes noted in this announcement were not subject to modern quality assurance and quality control practices and hence are not JORC compliant. All historical assays for soils, rocks and drill holes are regarded as indicative of exploration potential only.

In relation to the disclosure of pXRF results, the Company cautions that estimates of copper mineral abundance from pXRF results should not be considered a proxy for quantitative analysis of a laboratory assay result. Assay results are required to determine the actual widths and grade of the mineralisation. Ninety eight samples that are the subject of this report have been analysed in a laboratory and the variation from the results is presented in this announcement.

New Years Soil Sampling Programme - pXRF and Lab Analysis

The sampling was carried out on a 100m x 50m grid with lines oriented north-south. The grid was designed primarily to cover the New Years composite magnetic anomaly which consists of three linked magnetic lows which were highlighted in the 3-D inversion modelling of the 2021 drone magnetic survey. The aim of the programme was to better define the New Years prospect and determine whether soil sampling was an effective tool to prioritise the 12 Cactus-like magnetic anomalies that were identified from the magnetic inversion modelling.

A total of 294 sites were sampled from B-horizon where possible however the soil horizons can be poorly developed in the area. Duplicate samples were collected at each site, one for pXRF analysis and one for check lab analysis. The pXRF samples were dried and coarse sieved to -1mm before undergoing analysis.

The pXRF analysis was carried out using two machines. The initial 111 samples collected on the western side of the grid were analysed with an Olympus Vanta pXRF analyzer. An Hitachi X-MET8000 pXRF analyzer was used for the remaining samples due to a technical failure with the Olympus. The pXRF machines are periodically checked and certified by the manufacturer and were calibrated daily against certified reference material (CRM) provided by the manufacturer. For example, the Hitachi pXRF has three CRMs, “stainless steel (10000883)”, “Nist 2711” and “FeOre 377-6” plus a silica blank and daily checks were run against these to ensure that the machine was assaying within specifications. A check against the CRMs was also carried out following completion of the sample assaying which indicated that the pXRF assays for copper marginally under-reported the CRM copper assays (see Appendix 1). Ninety eight of the duplicate soil samples were submitted to the ALS laboratory in Nevada for ICP-MS multi-element analysis as a check on the pXRF assays.

To ensure that the assays for the two pXRF machines were calibrated against each other, twenty samples were assayed with both machines. This calibration resulted in the Hitachi assays being multiplied by a factor of 2.25 to match the Olympus assays which more closely aligned with the historical Cu assay levels for soils in the area⁴. The 98 duplicate samples assayed in the lab have provided an excellent check on the both the pXRF calibration factor applied to the Hitachi pXRF assays and ultimately to the adjusted pXRF assays following calibration.

Table 2: Assay thresholds for adjusted pXRFsoils and duplicate soils from the same locations highlighting that the lab assay thresholds are all higher than the pXRF thresholds

Adjusted pXRF	Assay Threshold	Lab Cu Assays	Assay Threshold
Top 5% of assays	>292ppm	Top 5% of assays	>443ppm
Top 10% of assays	>253ppm	Top 10% of assays	>304ppm
Top 25% of assays	>148ppm	Top 25% of assays	>191ppm
Top 50% of assays	>102ppm	Top 50% of assays	>129ppm
Top 75% of assays	>56ppm	Top 75% of assays	>80ppm

Next Steps - New Years Prospect Drilling

Permitting is well underway for drilling at New Years. As requested by Utah’s Division of Oil, Gas & Mining within the Department of Natural Resources, Alderan has paid the reclamation bond for new drill sites at the New Years prospect last week and it is expected that approval for the Stage 1 programme is imminent. Four sites in the Stage 2 programme require further routine archaeological inspection before approval, a task which will be completed during the Stage 1 drilling. Alderan has selected a company for the drilling and a confirmed start date will be obtained once the permit has been obtained.

END

This announcement was authorised for release by the Board of Alderan Resources Limited.

⁴ Refer Alderan ASX announcement dated 12 March 2024

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www.alderanresources.com.au**For further information:****Scott Caithness**, Managing Director**Alderan Resources****M:** +61 409 401 078**E:** scott@alderanresources.com.au**Rod North**, Managing Director**Bourse Communications Pty Ltd****M:** +61 408 670 706**E:** rod@boursecommunications.com.au**About Alderan Resources Limited**

Alderan Resources specialises in critical and precious metal exploration.⁵ The Company has seven (7) lithium projects in Minas Gerais, Brazil (AL8 ASX announcement dated 20th October, 2023) plus copper and gold projects in Utah, USA (Frisco, Detroit, White Mountain), with tenements held either directly or through option agreements via Alderan's USA subsidiaries, Volantis Resources Corp and Valyrian Resources Corp (see Figures 3-5). Alderan's objective is to rapidly discover, delineate and develop critical metal and gold deposits for mining. The Company's project portfolio has high potential for discovery as it lies in under-explored geological belts with similar geology to neighbouring mining districts. Our exploration plans also include reviewing new opportunities to secure and upgrade our pipeline of projects.

For more information please visit: <https://alderanresources.com.au/>

Competent Persons Statement

The information contained in this announcement that relates to exploration results is based on, and fairly reflects, information compiled by Mr Scott Caithness, who is a Member of the Australian Institute of Mining and Metallurgy. Mr Caithness is the Managing Director of Alderan 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'. Mr Caithness consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears. Mr Caithness holds securities in the Company.

⁵ <https://www.energy.gov/cmm/what-are-critical-materials-and-critical-minerals>

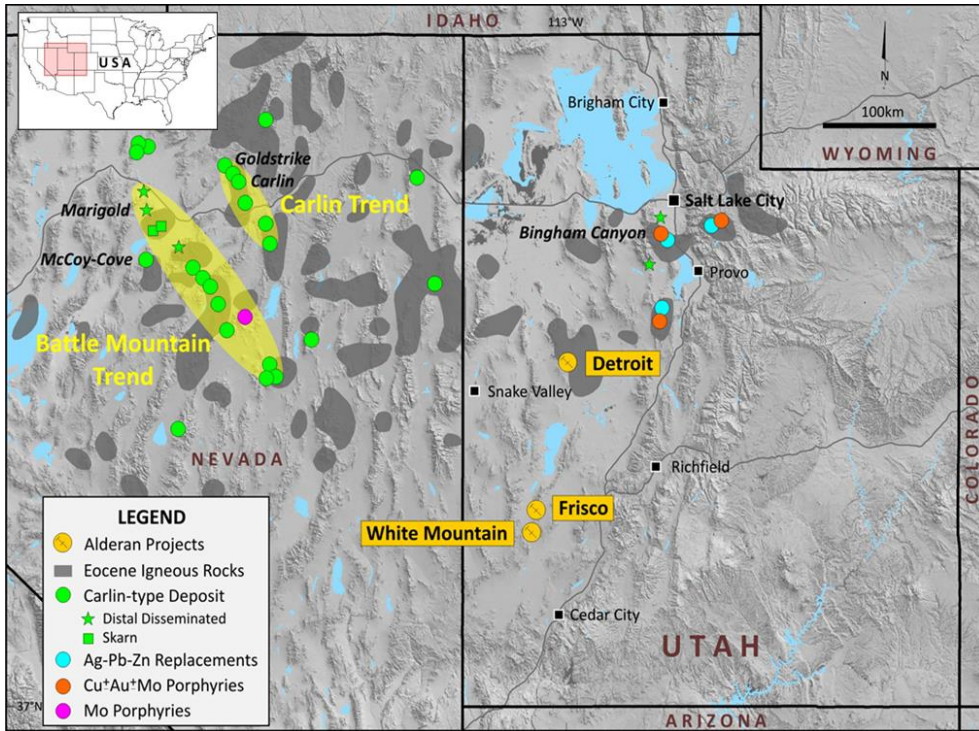


Figure 3: Alderan Resources project locations in Utah, USA.

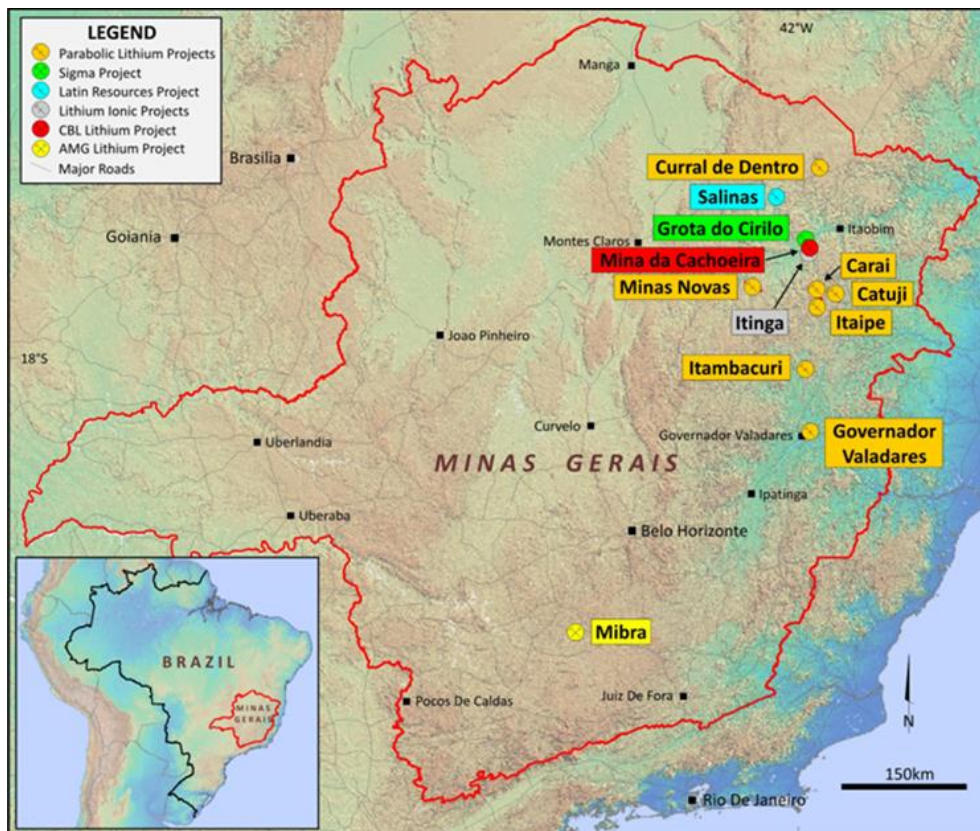


Figure 4: Alderan Resources project locations in Minas Gerais, Brazil.

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Figure 5: Alderan Resources Salitre Lithium project locations in Bahia, Brazil.

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Appendix 1: Adjusted pXRF Copper Assays vs Lab Copper Assays for all Duplicate Samples

Sample ID (pXRF)	Duplicate Sample ID (Lab)	Easting	Northing	Cu Assays (pXRF Adj in ppm)	Cu Assays (Lab in ppm)	Cu (Lab)/Cu (Adj)
NY24SS 001	NYSS24 001	298350	4263150	125	129.0	1.03
NY24SS 004	NYSS24 004	298350	4263000	115	135.0	1.17
NY24SS 007	NYSS24 007	298350	4262850	49	61.7	1.26
NY24SS 010	NYSS24 010	298350	4262700	93	117.5	1.27
NY24SS 013	NYSS24 013	298350	4262550	107	130.5	1.22
NY24SS 016	NYSS24 016	298350	4262400	149	161.0	1.08
NY24SS 019	NYSS24 019	298350	4262250	117	150.5	1.29
NY24SS 023	NYSS24 023	298450	4263100	107	132.0	1.23
NY24SS 026	NYSS24 026	298450	4262950	33	35.5	1.08
NY24SS 029	NYSS24 029	298450	4262800	139	191.0	1.37
NY24SS 032	NYSS24 032	298450	4262650	134	139.5	1.04
NY24SS 035	NYSS24 035	298450	4262500	109	152.5	1.40
NY24SS 038	NYSS24 038	298450	4262350	109	159.5	1.46
NY24SS 041	NYSS24 041	298450	4262200	129	151.0	1.17
NY24SS 045	NYSS24 045	298550	4263050	285	360.0	1.26
NY24SS 048	NYSS24 048	298550	4262900	95	88.8	0.93
NY24SS 051	NYSS24 051	298550	4262750	89	120.0	1.35
NY24SS 054	NYSS24 054	298550	4262600	91	122.5	1.35
NY24SS 057	NYSS24 057	298550	4262450	133	200.0	1.50
NY24SS 060	NYSS24 060	298550	4262300	102	145.5	1.43
NY24SS 063	NYSS24 063	298550	4262150	126	163.5	1.30
NY24SS 064	NYSS24 064	298650	4263150	148	138.0	0.93
NY24SS 067	NYSS24 067	298650	4263000	31	27.5	0.89
NY24SS 070	NYSS24 070	298650	4262850	52	47.9	0.92
NY24SS 073	NYSS24 073	298650	4262722	69	56.5	0.82
NY24SS 076	NYSS24 076	298650	4262550	93	114.0	1.23
NY24SS 079	NYSS24 079	298650	4262400	72	106.5	1.48
NY24SS 082	NYSS24 082	298650	4262250	81	112.0	1.38
NY24SS 086	NYSS24 086	298750	4263100	200	180.0	0.90
NY24SS 089	NYSS24 089	298750	4262950	30	27.5	0.92
NY24SS 092	NYSS24 092	298750	4262800	45	45.7	1.02
NY24SS 095	NYSS24 095	298750	4262650	290	394.0	1.36
NY24SS 098	NYSS24 098	298750	4262500	91	111.5	1.23
NY24SS 101	NYSS24 101	298750	4262350	80	87.5	1.09
NY24SS 104	NYSS24 104	298750	4262200	34	48.0	1.41
NY24SS 109	NYSS24 109	298850	4263050	35	35.7	1.02
NY24SS 112	NYSS24 112	298850	4262900	81	104.5	1.29
NY24SS 115	NYSS24 115	298850	4262750	40	42.9	1.08
NY24SS 118	NYSS24 118	298850	4262600	132	220.0	1.67
NY24SS 121	NYSS24 121	298850	4262450	210	308.0	1.47
NY24SS 124	NYSS24 124	298850	4262300	122	230.0	1.89
NY24SS 127	NYSS24 127	298850	4262150	169	181.0	1.07

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NY24SS 128	NYSS24 128	298950	4263150	104	131.5	1.26
NY24SS 131	NYSS24 131	298950	4263000	18	31.5	1.75
NY24SS 134	NYSS24 134	298950	4262850	0	33.5	1.00
NY24SS 137	NYSS24 137	298950	4262700	40	59.1	1.49
NY24SS 140	NYSS24 140	298950	4262550	83	168.5	2.02
NY24SS 143	NYSS24 143	298950	4262400	90	133.5	1.48
NY24SS 146	NYSS24 146	298950	4262250	154	222.0	1.44
NY24SS 150	NYSS24 150	299050	4263100	52	103.5	2.00
NY24SS 153	NYSS24 153	299050	4262950	101	115.0	1.14
NY24SS 156	NYSS24 156	299050	4262800	34	31.0	0.92
NY24SS 159	NYSS24 159	299050	4262650	231	315.0	1.36
NY24SS 162	NYSS24 162	299050	4262500	162	153.5	0.95
NY24SS 165	NYSS24 165	299050	4262350	74	106.5	1.45
NY24SS 168	NYSS24 168	299050	4262200	113	199.0	1.77
NY24SS 172	NYSS24 172	299150	4263050	71	150.5	2.13
NY24SS 175	NYSS24 175	299150	4262900	41	34.1	0.83
NY24SS 178	NYSS24 178	299150	4262750	19	53.0	2.83
NY24SS 181	NYSS24 181	299150	4262600	125	190.0	1.52
NY24SS 184	NYSS24 184	299150	4262450	263	569.0	2.16
NY24SS 187	NYSS24 187	299150	4262300	122	138.0	1.14
NY24SS 190	NYSS24 190	299150	4262150	292	304.0	1.04
NY24SS 191	NYSS24 191	299250	4263150	165	208.0	1.26
NY24SS 194	NYSS24 194	299250	4263000	31	30.5	0.99
NY24SS 197	NYSS24 197	299250	4262850	47	53.9	1.16
NY24SS 200	NYSS24 200	299250	4262700	134	253.0	1.88
NY24SS 203	NYSS24 203	299250	4262550	44	62.4	1.41
NY24SS 206	NYSS24 206	299250	4262400	114	278.0	2.44
NY24SS 209	NYSS24 209	299250	4262250	75	92.3	1.23
NY24SS 213	NYSS24 213	299350	4263100	110	176.0	1.60
NY24SS 216	NYSS24 216	299350	4262950	39	44.6	1.15
NY24SS 219	NYSS24 219	299350	4262800	102	247.0	2.42
NY24SS 222	NYSS24 222	299350	4262650	107	230.0	2.14
NY24SS 225	NYSS24 225	299350	4262500	32	62.2	1.97
NY24SS 228	NYSS24 228	299350	4262350	113	134.0	1.18
NY24SS 231	NYSS24 231	299350	4262200	368	443.0	1.21
NY24SS 235	NYSS24 235	299450	4263050	47	31.9	0.68
NY24SS 238	NYSS24 238	299450	4262900	3298	1405.0	0.43
NY24SS 241	NYSS24 241	299450	4262750	166	180.5	1.09
NY24SS 244	NYSS24 244	299450	4262600	69	101.0	1.46
NY24SS 247	NYSS24 247	299450	4262450	128	125.0	0.97
NY24SS 250	NYSS24 250	299450	4262300	280	285.0	1.02
NY24SS 253	NYSS24 253	299450	4262150	414	557.0	1.35
NY24SS 254	NYSS24 254	299550	4263150	35	34.3	0.99
NY24SS 257	NYSS24 257	299550	4263000	119	140.5	1.19
NY24SS 260	NYSS24 260	299550	4262850	153	220.0	1.44
NY24SS 263	NYSS24 263	299530	4262725	60	98.2	1.64

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NY24SS 266	NYSS24 266	299550	4262550	65	126.0	1.95
NY24SS 269	NYSS24 269	299550	4262400	148	276.0	1.87
NY24SS 272	NYSS24 272	299550	4262250	85	152.0	1.79
NY24SS 276	NYSS24 276	299650	4263100	23	40.9	1.76
NY24SS 279	NYSS24 279	299650	4262950	56	76.6	1.36
NY24SS 282	NYSS24 282	299650	4262800	51	80.2	1.57
NY24SS 285	NYSS24 285	299650	4262650	98	164.0	1.67
NY24SS 288	NYSS24 288	299650	4262500	101	134.5	1.33
NY24SS 291	NYSS24 291	299650	4262350	153	155.5	1.02
NY24SS 294	NYSS24 294	299650	4262200	253	245.0	0.97
Average				143	162.0	1.35

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Appendix 2: JORC Code, 2012 Edition – Table 1 Report in relation to soil sampling at the Frisco project, Utah, USA.

Section 1 - Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria of JORC Code 2012	JORC Code (2012) explanation	Details of the Reported Project
<i>Sampling techniques</i>	<i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialized 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.</i>	294 soil samples plus the same number of duplicate B-horizon soil samples were collected on a 50 x 100m grid over the New Years composite magnetic anomaly. The samples were collected using standard industry equipment consisting of shovel, hand trowel and plastic bags. Where soils were poorly developed, the sample may be a combination of A and B horizon.
	<i>Include reference to measures taken to ensure sample representativeness and the appropriate calibration of any measurement tools or systems used.</i>	Samples were collected at each location using a standard sampling technique and are considered representative.
	<i>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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</i>	The soil samples were typically collected within 30cm of surface with collected weights approximately 1kg. Samples were coarse sieved in the field to remove coarse rock material that could bias a result. For pXRF analysis, samples were dried and then sieved to -1mm to create a plastic cap charge for analysis. Any organic matter was removed. The pXRF machines were calibrated daily and the samples were analysed three times with the final sample assay being an average of the three analyses.

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<i>Drilling techniques</i>	<i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).</i>	Not applicable. The drilling results outlined in the announcement are from historical holes which were released in Alderan's ASX announcements on 22 February 2024 and 13 March 2024.
<i>Drill sample recovery</i>	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Not applicable. The drilling results outlined in the announcement are from historical holes which were released in Alderan's ASX announcements on 22 February 2024 and 13 March 2024.
	<i>Measures taken to maximize sample recovery and ensure representative nature of the samples.</i>	
	<i>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.</i>	
<i>Logging</i>	<i>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.</i>	All soil sample sites were described during sampling. The drilling results outlined in the announcement are from historical holes which were released in Alderan's ASX announcements on 22 February 2024 and 13 March 2024.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i>	
	<i>The total length and percentage of the relevant intersections logged.</i>	
<i>Sub-sampling techniques and sample preparation</i>	<i>If core, whether cut or sawn and whether quarter, half or all core taken</i>	Not applicable
	<i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i>	Not applicable

	<p><i>For all sample types, the nature, quality, and appropriateness of the sample preparation technique.</i></p>	<p>The soils were coarse sieved during collection in the field to remove coarse material that could bias the soil assays. They were then dried and sieved to -1mm with any organic matter removed ahead of packing into a charge cap for pXRF analysis. This is a standard sample preparation procedure for analysis using a pXRF machine.</p> <p>98 duplicate samples were despatched to the ALS laboratory in Nevada for ICP-MS analysis to provide a check on the pXRF analyses. Sample preparation was done using ALS method PREP-41 which consists of drying and sieving samples to -180 microns.</p>
	<p><i>Quality control procedures adopted for all sub-sampling stages to maximise representativeness of samples.</i></p>	<p>Samples analysed with the pXRF machines were sieved to -1mm and homogenised ahead of placing in a charge cap for analysis.</p> <p>Duplicate samples were collected from all sites – one for pXRF and one for lab analysis. Alderan has analysed 98 of the duplicate samples using ICP-MS at the ALS lab in Nevada to provide a quality control check on the pXRF assays for future reference. Sample weights ranged from 0.06-0.58kg. These analyses have verified and enhanced the pXRF assays with the lab assays averaging 1.35 times the pXRF assays.</p>
	<p><i>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.</i></p>	<p>The soils were coarse sieved in the field to remove any coarse rock material that could bias assays. Duplicate samples were collected from all sites – one for pXRF and one for lab analysis. Alderan has analysed 98 of the duplicate samples using ICP-MS at the ALS lab in Nevada to provide a quality control check on the pXRF assays for future reference. These analyses have verified and enhanced the pXRF assays with the lab assays averaging 1.35 times the pXRF assays as outlined in this announcement.</p>
	<p><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></p>	<p>Sample sizes after sieving in the field were approximately 1kg which is considered appropriate for the programme being undertaken.</p>
<p><i>Quality of assay data and laboratory tests</i></p>	<p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p>	<p>The pXRF analysis was carried out using two machines. The analysis of the initial 111 samples collected on the western side of the grid were analysed with an Olympus Vanta pXRF analyzer. An Hitachi X-MET8000 pXRF analyzer was used for the remaining samples due to a technical failure with the Olympus. To ensure that the assays for the two pXRF machines were calibrated against each other, twenty samples were assayed with both machines which resulted in a calibration factor of 2.25 being applied to the Hitachi results as explained in the body of the announcement.</p> <p>It should be noted that pXRF analysis is not as accurate as lab analysis. The pXRF results are regarded by Alderan as indicative copper grades only but are viewed as suitable for determining areas of anomalous copper mineralisation.</p> <p>The lab analysis of the soil samples was carried out for 53 elements at ALS in Nevada using method ME-MS41L. It should be noted that gold assay determinations using this technique are regarded as semi quantitative due to the small sample weight (0.5g).</p>

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.

Not Applicable.

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.

A standard operating procedure was utilised throughout the pXRF analysis process. Assaying of 20 samples were duplicated with the Olympus and Hitachi pXRF machines so that the results could be compared and calibrated against each other. Duplicate samples were collected in the field at each sample site for lab analysis which has provided a check on the pXRF assays.

The pXRF machines are periodically checked and certified by the manufacturer and were calibrated daily against certified reference material (CRM) provided by the manufacturer. For example, the Hitachi pXRF has three CRMs, "stainless steel (10000883)", "Nist 2711" and "FeOre 377-6" plus a silica blank and daily checks were run against these to ensure that the machine was assaying correctly. A check against the CRMs was also carried out following completion of the assaying with the results for copper in the table below. As can be seen the pXRF readings have marginally under-reported the copper assays in comparison to the CRM assays.

Name	CRM	CRM Cu Assay (ppm)	CRM Cu Assay Standard Deviation	Date	Time	Assay Time (Sec)	pXRF Cu Assay (ppm)	+/- Assay variation	3 Reading Average (ppm)
SS	Soil-FP			19.6.24	15:41:07	30	2565	46	
SS	Soil-FP	3560	91	19.6.24	15:42:08	30	2388	45	2528
SS	Soil-FP			19.6.24	15:42:52	30	2630	47	
SiO2	Soil-FP			19.6.24	15:46:02	30	0	2	
SiO2	Soil-FP	0	0	19.6.24	15:46:42	30	0	0	0
SiO2	Soil-FP			19.6.24	15:47:22	30	0	2	
Fe	MiningLE-FP	not available	not available	19.6.24	15:50:18	30	817	43	not applicable
Fe	MiningLE-FP	not available	not available	19.6.24	15:51:00	30	874	43	not applicable
Fe	MiningLE-FP	not available	not available	19.6.24	15:51:39	30	898	44	not applicable
NIST	Soil-FP	140	4	19.6.24	15:53:23	30	128	5	117
NIST	Soil-FP			19.6.24	15:54:03	30	118	5	
NIST	Soil-FP			19.6.24	15:55:13	30	105	5	

Ninety eight duplicate soil samples have undergone ICP-MS analysis for 53 elements using method ME-MS41L at the ALS laboratory in Nevada to provide checks against the pXRF assays. The lab assay results for these

		samples average 1.35x the pXRF assays. The comparison between the pXRF and lab assays are shown in Appendix 1 of this announcement.
<i>Verification of sampling and assaying</i>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Not applicable.
	<i>The use of twinned holes.</i>	Duplicate samples were collected in the field at each sample site for lab analysis to provide a check on the pXRF assays and 98 have been assayed at ALS in Nevada.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	All data has been stored electronically in the company's secure digital database.
	<i>Discuss any adjustment to assay data.</i>	As outlined in the body of the announcement, the initial 111 samples collected on the western side of the grid were analysed with an Olympus Vanta pXRF analyzer. An Hitachi X-MET8000 pXRF analyzer was used for the remaining samples due to a technical failure with the Olympus. To ensure that the assays for the two pXRF machines were calibrated against each other, twenty samples were assayed with both machines. This duplicate assaying resulted in a calibration factor being calculated and the Hitachi assays being multiplied by a factor of 2.25 to match the Olympus assays. The calibration factor led to excellent alignment of assays for the bottom 50% of assays and acceptable alignment for the top 25% of assays. The variation that occurs in the top 10% of assays is more likely due to higher grade assays coming from samples collected in known mineralised areas on the prospect. Lab assays for 98 duplicate soil samples have been used to check the pXRF assays. This has verified that the calibration of the pXRF assays undertaken by Alderan is valid and that the adjusted pXRF results have on average under-reported in comparison to the lab assays for samples collected from the same sites.
<i>Location of data points</i>	<i>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.</i>	All sample sites were located using a Garmin Montana 750i GPS.
	<i>Specification of the grid system used.</i>	All data are recorded in a UTM zone 12 (North) NAD83 grid.
	<i>Quality and adequacy of topographic control.</i>	The elevation data for sample sites is collected by the Garmin Montana 750i GPS used to locate each sample site. Elevation data is not considered critical for the soil sampling. No new data has been generated for this announcement.
<i>Data spacing and distribution</i>	<i>Data spacing for reporting of Exploration Results.</i>	The soil sampling was carried out on a 100m x 50m grid.

	<i>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.</i>	The 100m x 50m grid used for the soil sampling is considered appropriate to identify anomalous zones of mineralisation. Infill sampling may be required in future to better define the anomalous areas.
	<i>Whether sample compositing has been applied.</i>	No applicable.
<i>Orientation of data in relation to geological structure</i>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	No applicable.
	<i>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.</i>	Not applicable.
<i>Sample security</i>	<i>The measures taken to ensure sample security</i>	All samples were managed and controlled by the sampling crew from Burgex that executed the programme. Samples sent to the lab were transported by Burgex personnel.
<i>Audits or reviews</i>	<i>The results of any audits or reviews of sampling techniques and data.</i>	Not Applicable

Section 2 – Reporting of Exploration Results
(Criteria in this section apply to all succeeding sections)

Criteria of JORC Code 2012	JORC Code (2012) explanation	Details of the Reported Project
<i>Mineral tenement and land tenure status</i>	<i>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.</i>	The Frisco Prospect comprises over 300 patented and unpatented claims which are governed by the Cactus and Northern Carbonate lease agreements entered into with the private landowners and held by Alderan in its own right. The Cactus lease agreements grant Alderan all rights to access the property and to explore for and mine minerals, subject to a retained royalty of 3% to the landholder. Alderan holds options to reduce the royalty to 1% and to purchase the patented claims. The Northern Carbonate Lease grants Alderan all rights to access the property and to explore for and mine minerals, subject to a retained royalty of 3% to the landholder. Alderan holds an option to reduce the royalty to 1%.

	<i>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.</i>	All licences covering the Frisco project are granted.
<i>Exploration done by other parties (2.2)</i>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	A large amount of historical exploration has been carried out by numerous different parties dating back to the 1800's. Historical mining records including level plans and production records exist for the Cactus and Comet mines for the period between 1905 and 1915 when the vast majority of production occurred. Historical drilling has been carried out by multiple parties including Anaconda Company, Rosario Exploration Company, Amax Exploration and Western Utah Copper Corporation/Palladon Ventures. Data has been acquired, digitized where indicated, and interpreted by Alderan. This announcement covers pXRF copper assays for 294 soil samples collected over the New Years prospect.
<i>Geology</i>	<i>Deposit type, geological setting, and style of mineralisation.</i>	Mineralisation throughout the district includes copper-gold rich tourmaline breccias, skarns, structurally hosted mineralisation and manto style mineralised zones. Part of the larger Laramide mineralising event. Overprinted by Basin and Range tectonics.
<i>Drill hole Information</i>	<i>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:</i>	No new drilling data has been generated for this announcement - all relevant historical data is referenced in past Alderan announcements dating back to 2015 and recent announcements on 22 February 2024 and 13 March 2024.
	<i>Easting and Northing of the drill hole collar. Elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar.</i>	
	<i>Dip and azimuth of the hole.</i>	
	<i>Down hole length and interception depth and hole length.</i>	
	<i>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.</i>	Not applicable. All new data has been reported in this announcement.

<i>Data aggregation methods</i>	<i>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.</i>	The method for calculating the calibration factor applied to the pXRF assays and the results of this calibration being applied has been outlined in the body of this announcement.
	<i>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.</i>	Not applicable.
	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	Not applicable.
<i>Relationship between mineralisation widths and intercept lengths</i>	<i>These relationships are particularly important in the reporting of Exploration Results.</i>	Not applicable
	<i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i>	Not applicable
	<i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i>	
<i>Diagrams</i>	<i>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.</i>	Maps are presented in the text of this ASX release.

<i>Balanced reporting</i>	<i>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.</i>	All new data has been reported in this announcement.
<i>Other substantive exploration data</i>	<i>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.</i>	All new data has been reported in this announcement.
<i>Further work</i>	<i>The nature and scale of planned further work (e.g. 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.</i>	<ol style="list-style-type: none"> 1. Permitting for drill holes to test the New Years target. 2. Drill site preparation 3. Drill testing the New Years prospect
	<i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	Maps showing targets are presented in the text of this ASX release.