



## ENCOURAGING NEAR SURFACE COPPER AND GOLD RESULTS RETURNED AT RED MOUNTAIN

21 June 2024

**Xanadu Mines Ltd (ASX: XAM, TSX: XAM) (Xanadu or the Company)** is pleased to report encouraging copper and gold results across all four prospects drilled (**Figure 1**) at the 100% owned Red Mountain Copper and Gold Project, in the South Gobi region of Mongolia (**Figure 6**).

### Highlights

- Approximately 4,880m of discovery-focused diamond drilling completed across four prospects has encountered significant, shallow mineralisation warranting near term follow-up. Best intersections include:
- **EPITHERMAL GOLD EXTENSIONS AT TARGET 33**
  - **41m @ 1.07g/t Au** from 34m (OUDDH128)  
Including **5m @ 2.67g/t Au** from 38m  
And **6m @ 2.28g/t Au** from 58m
  - **29m @ 0.54g/t Au** from 4m  
Including **4.1m @ 1.39g/t Au** from 18m (OUDDH130)
- **MAIDEN DRILLING FOR HIGH GRADE COPPER SULPHIDE LODS AT NOWIE**
  - **8m @ 1% Cu and 0.12g/t Au** from 267m (OUDDH134)
  - **14m @ 0.75% Cu and 0.26g/t Au** from 113m (OUDDH136)
- **COPPER GOLD PORPHYRY EXTENSIONS AT 2 PROSPECTS**
  1. **Target 10** copper sulphide lodes returns
    - **4m @ 0.85% Cu and 1.52g/t Au** from 186m (OUDDH132)

And 4m @ 0.85% Cu and 1.52g/t Au from 186m

2. **Bavuu** Copper-Gold Porphyry Prospect returns

- **9.5m @ 0.47% Cu and 0.21g/t Au** from 110.3m (OUDDH137)

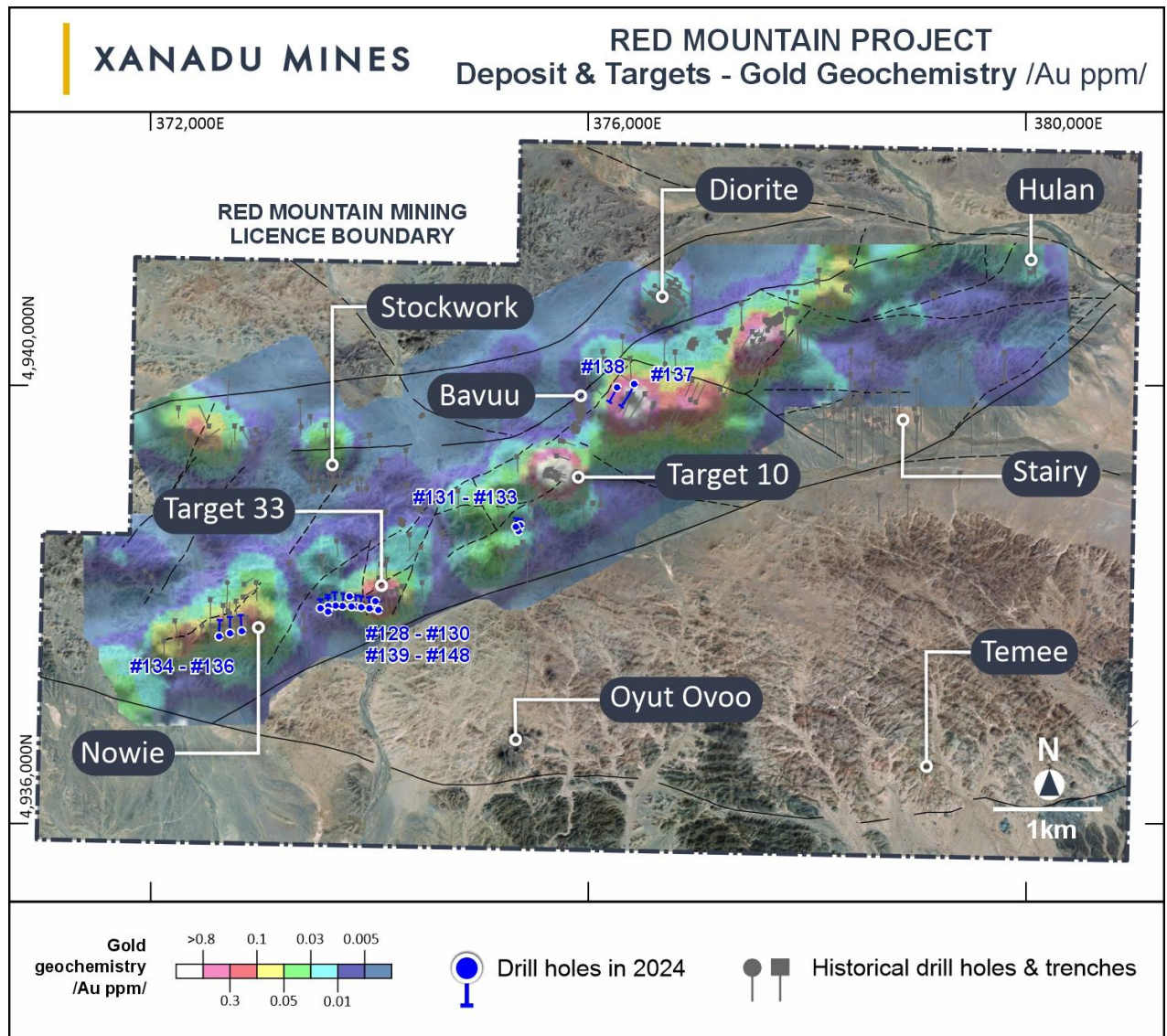
**Xanadu's VP Exploration, Dr Andrew Stewart, said,** *"We are very pleased with the latest results from the Red Mountain diamond drilling program which tested several shallow gold and copper targets. At Target 33 drilling continues to define multiple broad zones of near surface gold mineralisation that remain open a long strike, The first drilling at Nowie has been very encouraging returning broad intervals of copper and gold, including several narrower intervals of higher-grade copper demonstrating both scale and grade potential. These latest drilling results validate and refine our exploration models providing our exploration team with direction towards a significant discovery at Red Mountain. Follow up drilling is planned for the second half of 2024".*

## Exploration Program Design

Approximately 4,880m of diamond drilling was designed to test and has successfully encountered shallow high-grade gold and copper-gold targets across the Red Mountain Lease (**Figures 1 and 2**).

Each prospect drill-tested was targeting the following mineralisation:

- Shallow epithermal gold at **Target 33**,
- High-grade copper sulphide lodes at **Target 10**, and
- Shallow copper-gold porphyry mineralisation at **Nowie** and **Bavuu**.
- Meters originally designed for Stockwork were reallocated to Target 33 during the program, following the highly encouraging initial results achieved.



**Figure 1:** The Red Mountain Mining Lease with drill holes and target locations.

## Target 33 Epithermal Gold

Drilling at the **Target 33** Prospect (**Figure 1**) comprised thirteen shallow holes targeting the gold surface expression from previous drilling and trenching (**Figure 2**).

This drilling encountered multiple broad zones of gold mineralisation associated with the main east-west trending intrusive and some narrow higher-grade associated with cross cutting epithermal mineralisation.

OUDDH128 was drilled targeting previous shallow RC drill holes with the object of identifying the geological features hosting gold mineralisation. It returned several broad intersections of epithermal gold-rich mineralisation, at shallow depths:



- **41m @ 1.07g/t Au** from 34m  
Including **13m @ 1.74g/t Au** from 34m  
Including **5m @ 2.67g/t Au** from 38m  
And **17m @ 1.06g/t Au** from 58m  
Including **6m @ 2.28g/t Au** from 58m

OUIDDH130 was drilled 200m along strike from OUIDDH128 and returned broader zones of shallow gold mineralisation

- **142m @ 0.32g/t Au** from 4m  
Including **29m @ 0.54g/t Au** from 4m  
Including **4.1m @ 1.39g/t Au** from 18m  
And **16.2m @ 0.65g/t Au** from 51.8m  
And **5.1m @ 0.55g/t Au** from 95m

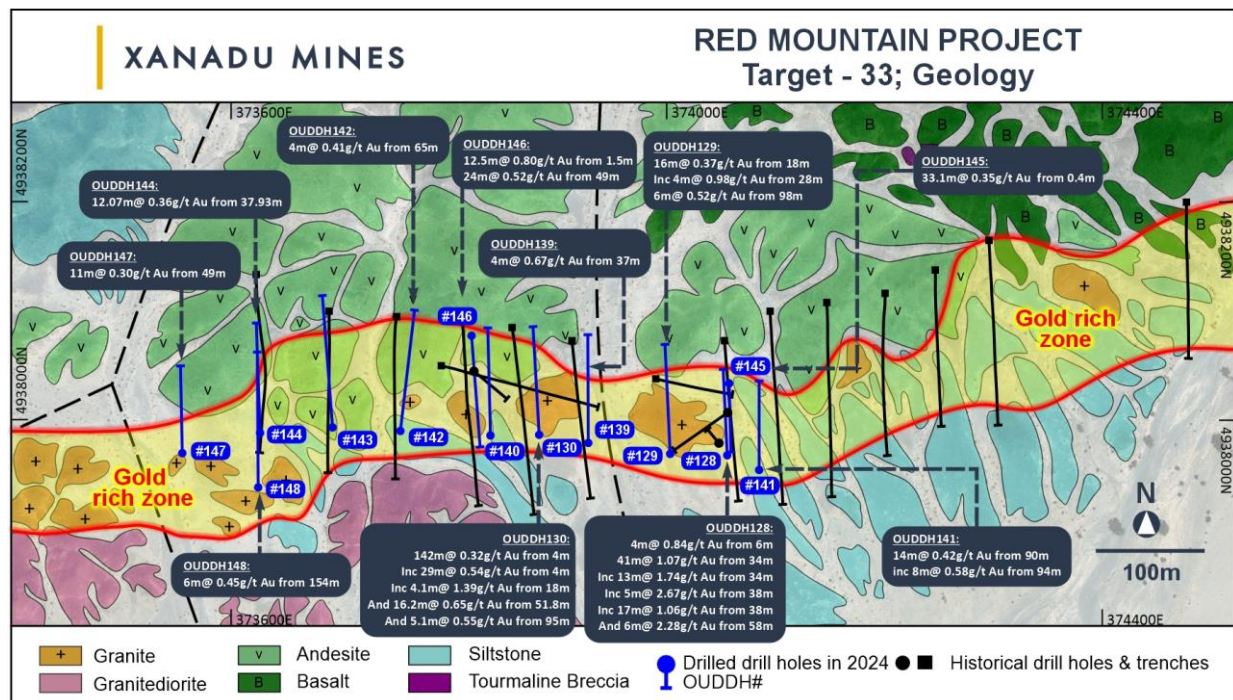


Figure 2: Target 33 drilling and trenching.

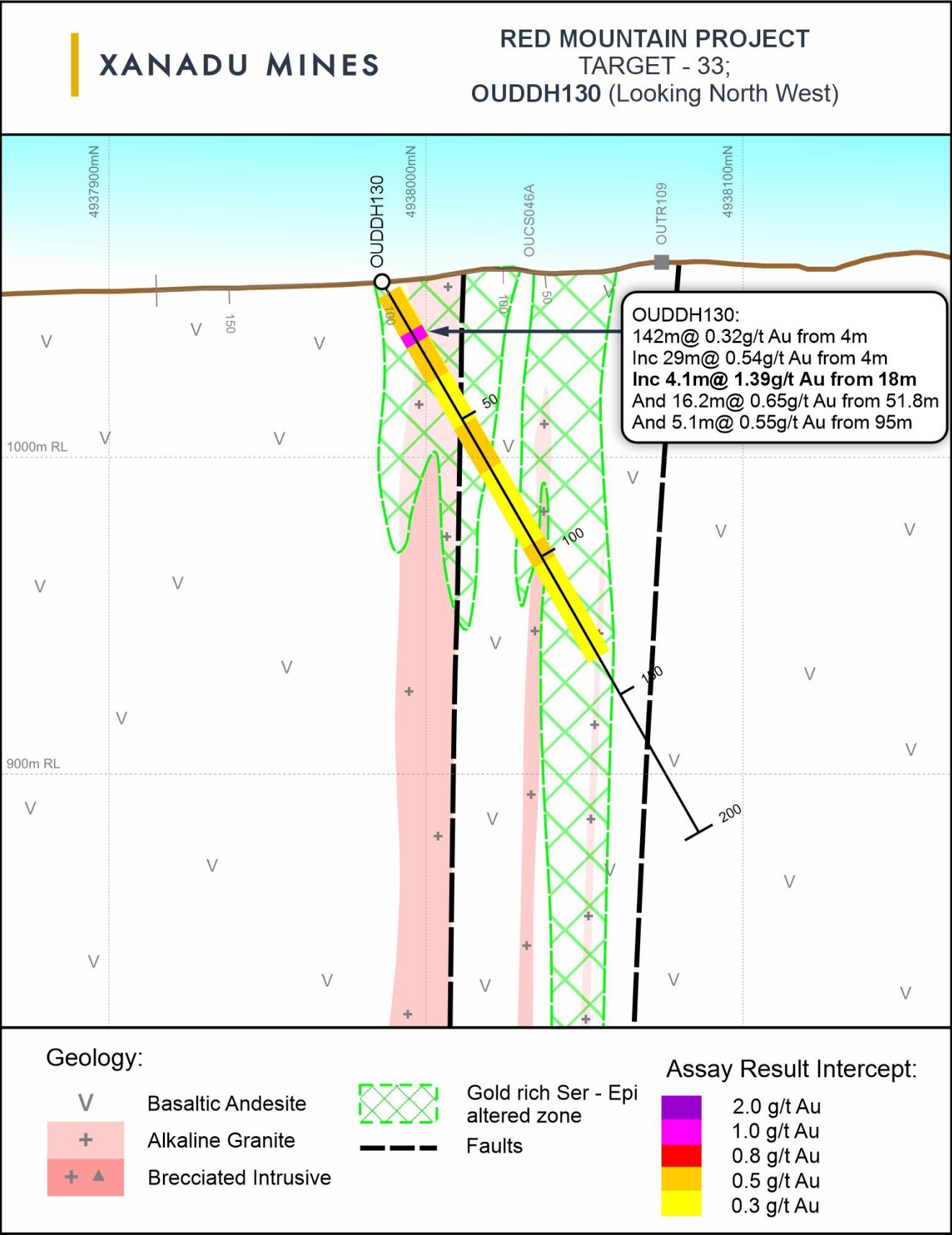


Figure 3: Target 33 cross section OUDDH130.

## Nowie Copper Copper-Gold Porphyry

Drilling at the Nowie Prospect (**Figures 1, 4 and 5**) comprised three holes targeting the surface expression of copper-gold porphyry stockwork.

**OUDDH134** was drilled on the western end of Nowie targeting outcropping stockwork and copper oxides at surface. **OUDDH134** returned several broad intercepts of copper and gold and several narrower (4-8m) intervals of higher-grade copper:

- **120m @ 0.14% Cu and 0.12g/t Au (0.20% CuEq)** from 1m
  - Including **24m @ 0.26% Cu and 0.22g/t Au (0.37% CuEq)** from 5m
  - And **45m @ 0.27% Cu and 0.15g/t Au (0.45% CuEq)** from 139m
  - Including **4m @ 0.75% Cu and 0.55g/t Au (1.03% CuEq)** from 141m
  - And **8m @ 1.00% Cu and 0.12g/t Au (1.06% CuEq)** from 267m

**OUDDH136** was drilled on the eastern end of Nowie targeting outcropping stockwork and previous trench results. **OUDDH136** returned an encouraging zone grading up to 0.75% Cu (with full mineralised intersection detailed in Table 2):

- **10m @ 0.37% Cu and 0.16g/t Au (0.46% CuEq)** from 78m
  - And **14m @ 0.75% Cu and 0.26g/t Au (0.88% CuEq)** from 113m

Given this was Xanadu's maiden drill program at the Nowie prospect, significant mineralisation is expected to be uncovered both along strike and at depth.



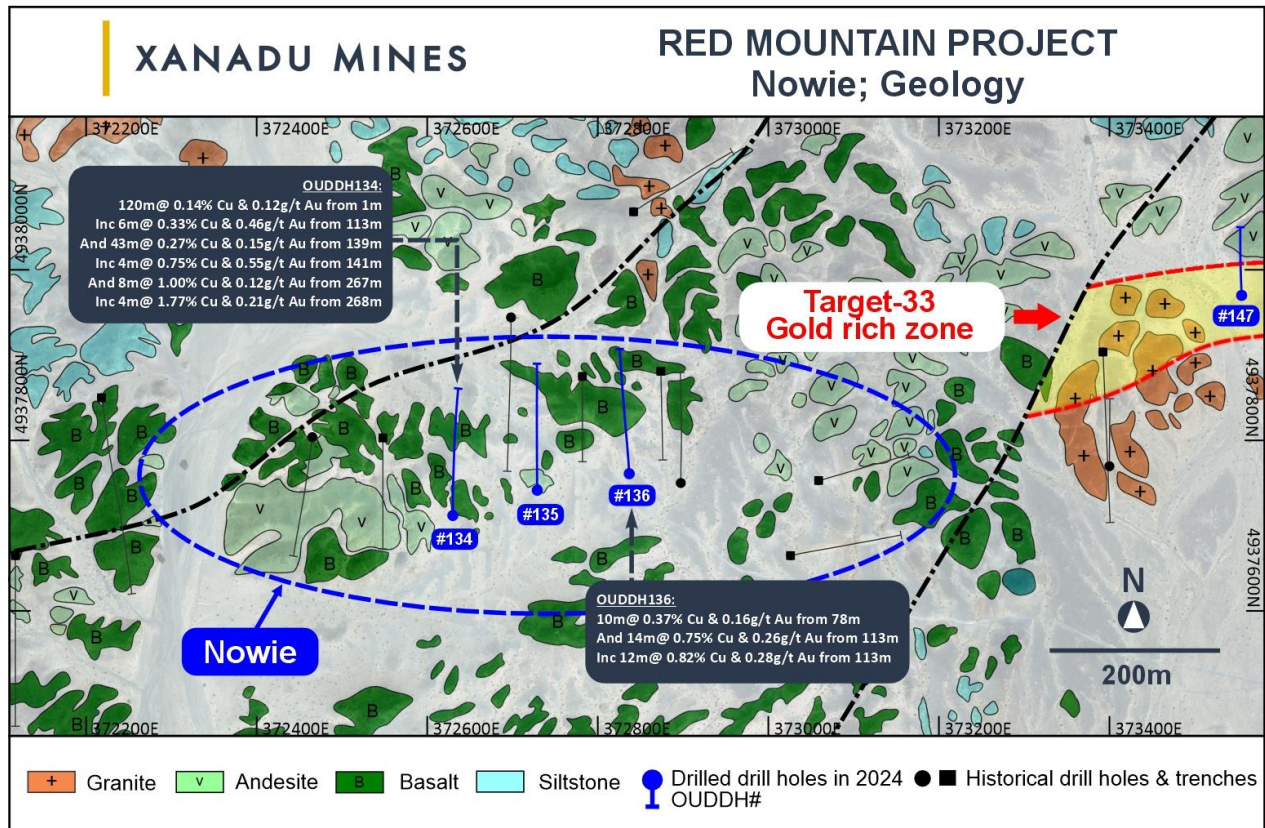


Figure 4: Nowie Prospect drilling results over geology.

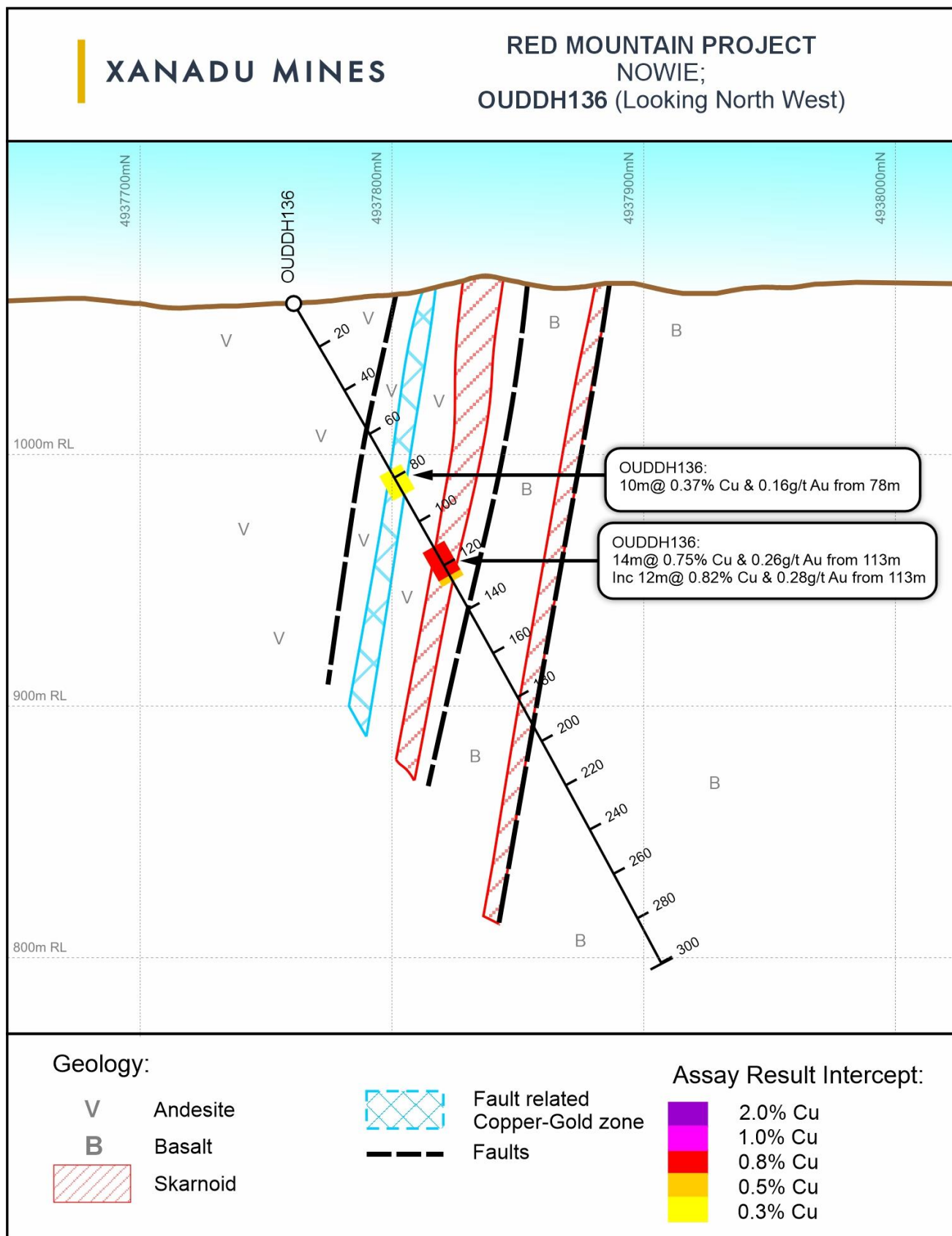


Figure 5: Nowie Drill Section OUDDH0136

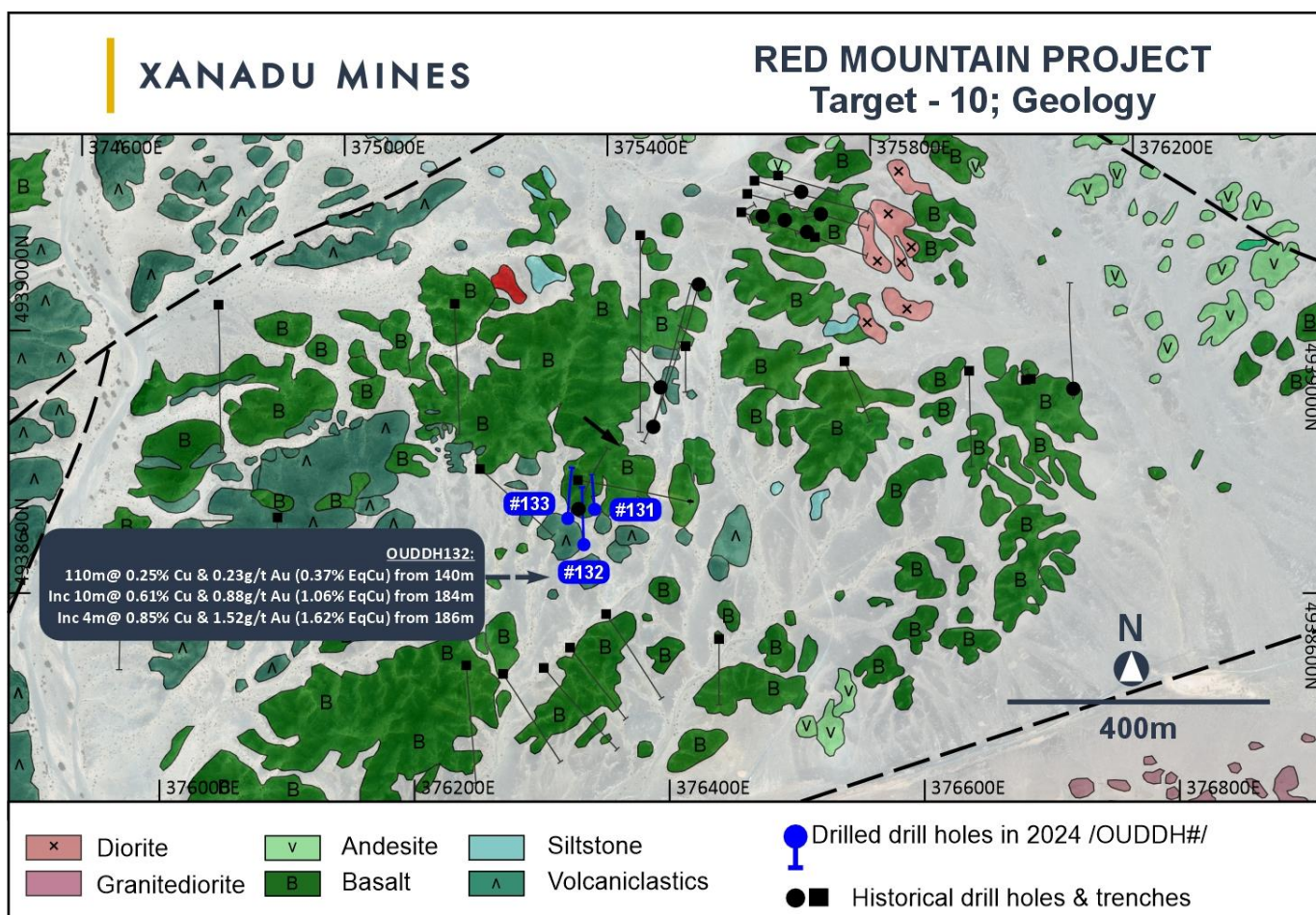


## Target 10 Copper Gold Porphyry

Drilling at **Target 10** (Figures 1 and 6) was designed to expand upon the very high-grade copper intercept drilled in 2017. Three close spaced (25m) holes were designed to determine the orientation of the high-grade copper vein. One of these holes, **OUDDH132** intercepted the target zone, returning broad zones of mineralisation:

- **109.8m @ 0.25% Cu and 0.23g/t Au (0.37% CuEq)** from 140.2m  
Including **10m @ 0.61% Cu and 0.88g/t Au (1.06% CuEq)** from 184m  
Including **4m @ 0.85% Cu and 1.52g/t Au (1.62% CuEq)** from 186m

Combined with previous drilling results, Target 10 represents a compelling larger-scale porphyry target, spanning across 100m+ mineralised intercepts. Further drilling will be designed to expand and bring this mineralisation closer to surface.



**Figure 6:** Target 10 showing drilling and potential larger scale porphyry target.

## Bavuu Copper-Gold Porphyry

Two diamond drill holes were drilled at Bavuu porphyry prospect (**Figures 1 and 7**) to expand upon previous drilling and trenching results.

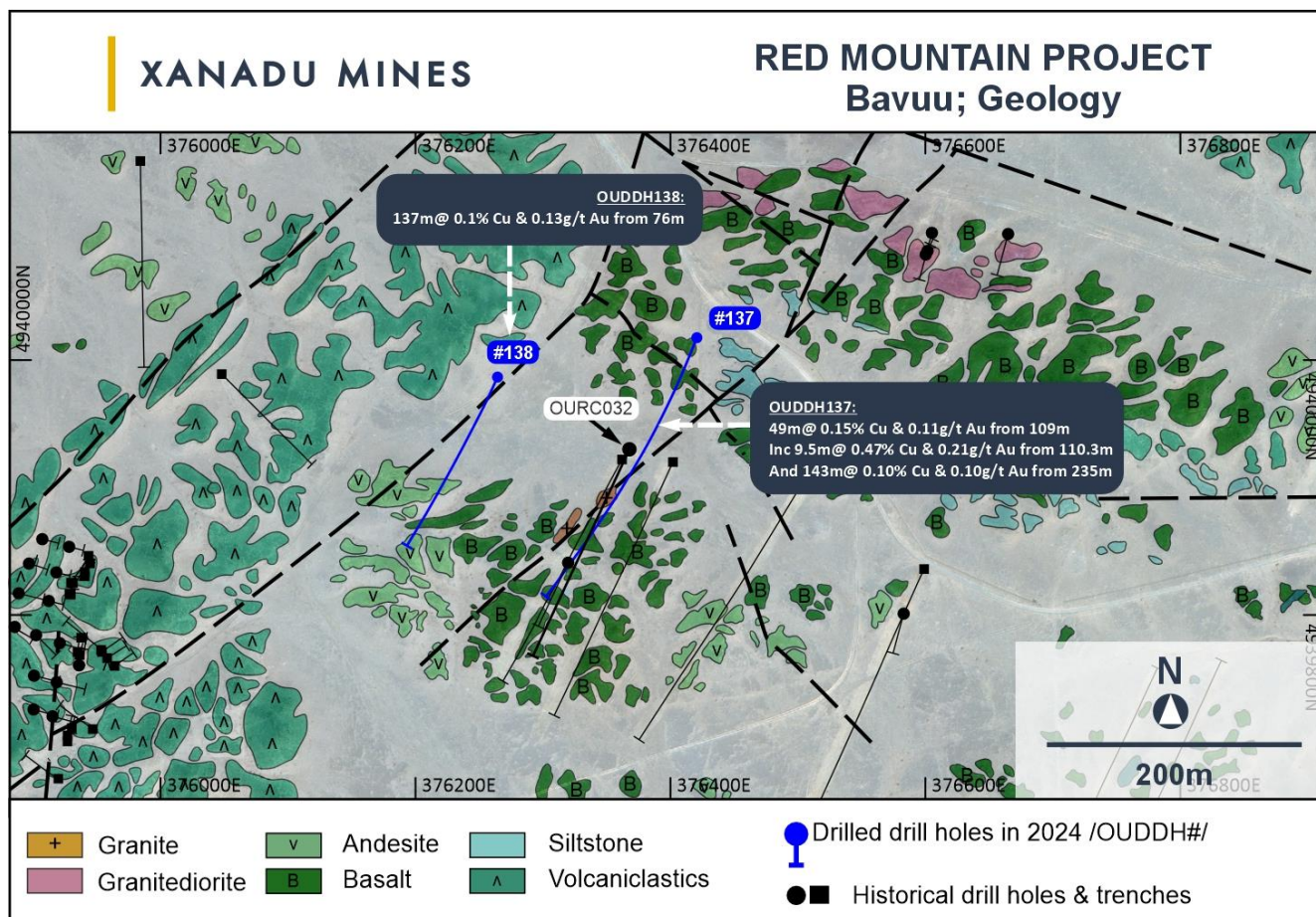
**OUDDH137** was drilled as 100m step-out to the east relative to previous drill hole OURC032, returning broad zones of low-grade mineralisation:

- **49m @ 0.15% Cu and 0.11g/t Au** from 109m  
Including **9.5m @ 0.47% Cu and 0.21g/t Au** from 110.3m  
And **143m @ 0.10% Cu and 0.10g/t Au** from 235m

OUDDH138 was drilled 100m west and along strike from OURC032, returning similar width and tenor of mineralisation as OUDDH137:

- **137m @ 0.1% Cu and 0.13g/t Au** from 76m

Both holes highlight the presence of a large-scale porphyry system. Future drilling at Bavuu will focus on targeting a higher-grade core for this emerging, yet highly encouraging system.



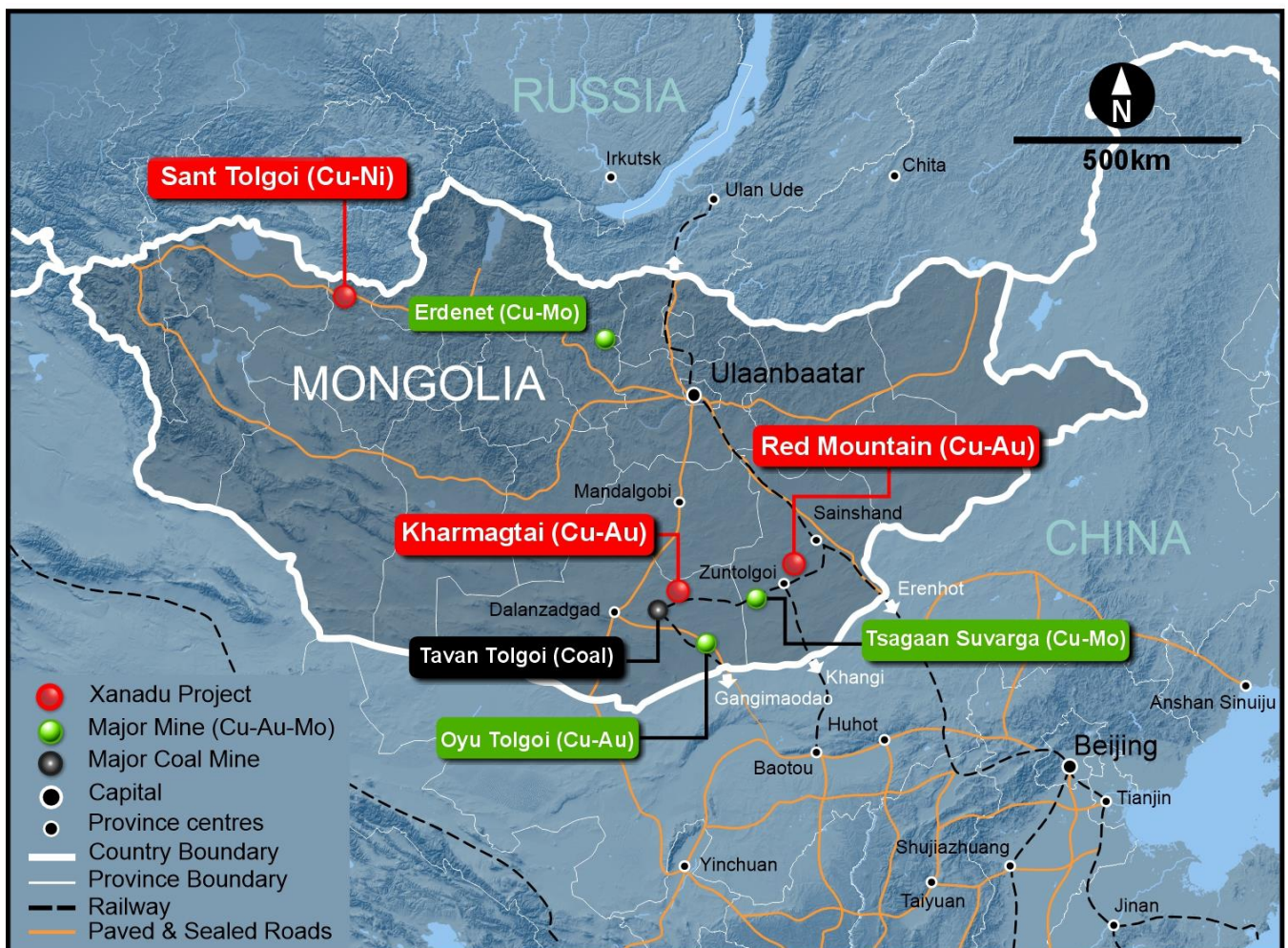
**Figure 7:** Bavuu showing previous and recent drilling results, relative to geology.



## About Red Mountain

The 100% owned Red Mountain project, located within the Dornogovi Province of southern Mongolia, approximately 420 kilometres southeast of Ulaanbaatar (**Figures 1 and 8**).

The project covers approximately 57 square kilometres in a frontier terrane with significant mineral endowment across a granted 30-year mining licence. Red Mountain comprises a cluster of outcropping porphyry intrusions which display features typically found in the shallower parts of porphyry systems where narrow dykes and patchy mineralisation branch out above a mineralised stock. This underexplored porphyry district includes multiple porphyry copper-gold centres, mineralised tourmaline breccia pipes, copper-gold/base metal skarns and high-grade epithermal gold veins.



**Figure 8:** Map of Mongolia, showing location of the Red Mountain Mining Lease.

Existing porphyry mineralisation at Red Mountain is hosted within narrow stockwork zones that have been focused around several narrow structurally controlled monzonite porphyry dykes. Emplacement of mineralisation appears to be controlled by intersection of northeast and north-northwest trending structures. The quartz-chalcopyrite-

bornite stockwork mineralisation is associated with strong reddening albite-sericite-biotite-magnetite (potassic) alteration assemblage in the host lithology. The thin nature of the mineralising dykes, their irregular intrusion geometry, and the patchy distribution of stockwork mineralisation are all features typically found in the shallower parts of porphyry systems, where narrow dykes and patchy mineralisation branch out above a mineralised stock. Similar orebody geometries are found in the shallower parts of the Northparkes porphyry copper-gold (Cu-Au) deposits in New South Wales, Australia. For these orebodies, the porphyry mineralisation has also been tightly focused along a controlling structure adjacent to a felsic pluton. Like Northparkes, there is the potential for further near surface mineralisation along the main structures at both Diorite and Stockwork prospects, and high likelihood that mineralisation extends (and could amalgamate) at depth.

## About Xanadu Mines

Xanadu is an ASX and TSX listed Exploration company operating in Mongolia. We give investors exposure to globally significant, large-scale copper-gold discoveries and low-cost inventory growth. Xanadu maintains a portfolio of exploration projects and remains one of the few junior explorers on the ASX or TSX who jointly control a globally significant copper-gold deposit in our flagship Kharmagtai project. Xanadu is the Operator of a 50-50 JV with Zijin Mining Group in Khuiten Metals Pte Ltd, which controls 76.5% of the Kharmagtai project.

For further information on Xanadu, please visit: [www.xanadumines.com](http://www.xanadumines.com) or contact:

**Colin Moorhead**

Executive Chairman & Managing Director

E: [colin.moorhead@xanadumines.com](mailto:colin.moorhead@xanadumines.com)

P: +61 2 8280 7497

This Announcement was authorised for release by Xanadu's Executive Chairman and Managing Director.



## Appendix 1: Drilling Results

Note that true widths will generally be narrower than those reported. See disclosure in JORC explanatory statement attached.

**Table 1: Drill hole collar**

Hole ID	Prospect	East	North	RL	Azimuth (°)	Inc (°)	Depth (m)
OUDDH128	Target 33	374056	4937968	1058	0	-60	200.0
OUDDH129	Target 33	374003	4937969	1047	0	-60	200.0
OUDDH130	Target 33	373883	4937987	1061	0	-60	200.0
OUDDH131	Target 10	375380	4938728	1072	0	-70	150.0
OUDDH132	Target 10	375364	4938674	1071	0	-70	250.0
OUDDH133	Target 10	375340	4938714	1071	0	-70	220.0
OUDDH134	Nowie	372630	4937712	1072	0	-60	300.0
OUDDH135	Nowie	372729	4937741	1058	0	-60	300.5
OUDDH136	Nowie	372837	4937761	1058	0	-60	300.5
OUDDH137	Bavuu	376421	4940018	1084	205	-60	450.0
OUDDH138	Bavuu	376264	4939987	1087	205	-60	303.5
OUDDH139	Target 33	373928	4937979	1050	0	-60	200.0
OUDDH140	Target 33	373838	4937986	1051	0	-60	200.0
OUDDH141	Target 33	374085	4937954	1057	0	60	162.5
OUDDH142	Target 33	373755	4937990	1057	0	-60	221.6
OUDDH143	Target 33	373693	4937993	1057	0	-60	234.5
OUDDH144	Target 33	373627	4937989	1057	0	-60	200.0
OUDDH145	Target 33	374057	4938034	1060	180	-60	191.5
OUDDH146	Target 33	373821	4938077	1060	180	-60	200.0
OUDDH147	Target 33	373555	4937970	1052	0	-60	160.0
OUDDH148	Target 33	373625	4937938	1051	0	-60	244.0

**Table 2: Significant drill results**

Hole ID	Prospect	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (%)	CuEq (%)	AuEq (g/t)
OUDDH128	Target 33	6	10	4	0.84	0.24	0.67	1.30
<i>and</i>		34	75	41	1.07	0.15	0.69	1.35
<i>including</i>		34	47	13	1.74	0.03	0.91	1.79
<i>including</i>		38	43	5	2.67	0.01	1.38	2.70
<i>including</i>		58	75	17	1.06	0.31	0.85	1.67
<i>including</i>		58	64	6	2.28	0.57	1.74	3.40
<i>and</i>		111	115	4	0.76	0.01	0.39	0.77
<i>and</i>		170	176	6	0.49	0.05	0.30	0.58

OUDDH129	Target 33	18	34	16	0.37	0.03	0.22	0.44
<i>including</i>		28	32	4	0.98	0.01	0.51	1.00
<i>and</i>		98	104	6	0.52	0.00	0.27	0.53
OUDDH130	Target 33	4	146	142	0.32	0.06	0.22	0.43
<i>including</i>		4	33	29	0.54	0.06	0.34	0.66
<i>including</i>		18	22.1	4.1	1.39	0.05	0.77	1.50
<i>including</i>		51.8	68	16.2	0.65	0.08	0.41	0.80
<i>including</i>		95	100.1	5.1	0.55	0.04	0.32	0.63
<i>and</i>		157	167	10	0.13	0.11	0.17	0.34
OUDDH131	Target 10	<i>No significant intercepts</i>						
OUDDH132	Target 10	140.2	250	109.8	0.23	0.25	0.37	0.73
<i>including</i>		146	207	61	0.30	0.32	0.48	0.93
<i>including</i>		154	166	12	0.24	0.28	0.41	0.79
<i>including</i>		184	194	10	0.88	0.61	1.06	2.07
<i>including</i>		186	190	4	1.52	0.85	1.62	3.17
<i>including</i>		220	226	6	0.19	0.25	0.34	0.67
<i>including</i>		245	250	5	0.29	0.35	0.50	0.97
OUDDH133	Target 10	49	56	7	0.27	0.01	0.15	0.29
<i>and</i>		153	171	18	0.06	0.15	0.18	0.35
<i>and</i>		181	220	39	0.11	0.19	0.25	0.48
<i>including</i>		185	193	8	0.16	0.36	0.44	0.87
<i>including</i>		209	219	10	0.21	0.27	0.37	0.73
OUDDH134	Nowie	1	121	120	0.12	0.14	0.20	0.39
<i>including</i>		5	29	24	0.22	0.26	0.37	0.72
<i>including</i>		89	101	12	0.11	0.12	0.18	0.35
<i>including</i>		113	119	6	0.46	0.33	0.57	1.11
<i>and</i>		139	184	45	0.15	0.27	0.35	0.67
<i>including</i>		139	182	43	0.15	0.27	0.35	0.68
<i>and</i>		141	145	4	0.55	0.75	1.03	2.01
<i>and</i>		229	237	8	0.12	0.26	0.32	0.62
<i>and</i>		267	275	8	0.12	1.00	1.06	2.08
<i>including</i>		268	275	7	0.14	1.12	1.19	2.32
<i>including</i>		268	272	4	0.21	1.77	1.87	3.66
OUDDH135	Nowie	6	44	38	0.10	0.13	0.18	0.35
<i>including</i>		26	40	14	0.16	0.20	0.28	0.55
<i>and</i>		54	87.2	33.2	0.21	0.18	0.29	0.56
<i>including</i>		54	64	10	0.35	0.25	0.43	0.85
<i>including</i>		78	87.2	9.2	0.19	0.24	0.33	0.65
<i>and</i>		103	107	4	0.27	0.39	0.53	1.03
<i>and</i>		179	186.5	7.5	0.06	0.09	0.13	0.25
OUDDH136	Nowie	78	88	10	0.16	0.37	0.46	0.89
<i>and</i>		113	127	14	0.26	0.75	0.88	1.72
<i>including</i>		113	125	12	0.28	0.82	0.96	1.88
<i>including</i>		113	123	10	0.26	0.83	0.96	1.88

<i>and</i>		171.2	189	17.8	0.08	0.13	0.17	0.33
OUDDH137	Bavuu	0	4	4	0.12	0.06	0.12	0.23
<i>and</i>		109	158	49	0.11	0.15	0.20	0.40
<i>including</i>		110.3	119.8	9.5	0.21	0.47	0.58	1.13
<i>and</i>		235	378	143	0.10	0.10	0.15	0.28
<i>including</i>		249	261	12	0.14	0.14	0.21	0.41
<i>including</i>		295	303	8	0.14	0.15	0.22	0.43
<i>and</i>		404	412	8	0.09	0.15	0.20	0.39
OUDDH138	Bavuu	76	213	137	0.13	0.10	0.16	0.31
<i>including</i>		188	198	10	0.25	0.23	0.36	0.70
<i>and</i>		236.4	242.4	6	0.09	0.09	0.13	0.26
<i>and</i>		263	267	4	0.10	0.09	0.14	0.28
<i>and</i>		287	303.5	16.5	0.11	0.18	0.23	0.46
<i>including</i>		291	295.1	4.1	0.22	0.24	0.36	0.69
OUDDH139	Target 33	37	41	4	0.67	0.05	0.39	0.76
<i>and</i>		62	66	4	0.20	0.01	0.11	0.21
OUDDH140	Target 33	12.5	56	43.5	0.19	0.05	0.15	0.30
<i>and</i>		68	107	39	0.11	0.04	0.10	0.19
<i>and</i>		129	160	31	0.14	0.10	0.17	0.33
OUDDH141	Target 33	15	19	4	0.19	0.05	0.15	0.29
<i>and</i>		51	57	6	0.06	0.16	0.19	0.37
<i>and</i>		90	104	14	0.42	0.01	0.22	0.44
<i>including</i>		94	102	8	0.58	0.01	0.30	0.59
<i>and</i>		142	156	14	0.16	0.06	0.14	0.28
OUDDH142	Target 33	1	5	4	0.12	0.13	0.19	0.37
<i>and</i>		19	31	12	0.12	0.06	0.12	0.24
<i>and</i>		65	69	4	0.41	0.03	0.24	0.46
<i>and</i>		101	136	35	0.13	0.09	0.15	0.30
<i>including</i>		107	115	8	0.20	0.16	0.26	0.51
<i>and</i>		146	208	62	0.11	0.11	0.17	0.32
<i>including</i>		198	202	4	0.29	0.28	0.42	0.82
OUDDH143	Target 33	0	8	8	0.16	0.06	0.15	0.29
<i>and</i>		17.8	102	84.2	0.07	0.07	0.10	0.20
<i>and</i>		112	122	10	0.09	0.11	0.16	0.31
<i>and</i>		132	138	6	0.07	0.15	0.19	0.37
<i>and</i>		148	174	26	0.11	0.08	0.13	0.26
OUDDH144	Target 33	12	126	114	0.11	0.12	0.18	0.35
<i>including</i>		37.93	50	12.07	0.36	0.32	0.50	0.99
<i>including</i>		37.93	48	10.07	0.35	0.33	0.51	0.99
<i>including</i>		60	72.9	12.9	0.14	0.17	0.24	0.46
OUDDH145	Target 33	0.4	33.5	33.1	0.35	0.03	0.20	0.40
<i>and</i>		54	62.6	8.6	0.21	0.07	0.18	0.36
OUDDH146	Target 33	1.5	14	12.5	0.80	0.10	0.51	1.00
<i>and</i>		24	83	59	0.28	0.07	0.21	0.41

<i>including</i>		49	73	24	0.52	0.11	0.37	0.73
OUDDH147	Target 33	47	60	13	0.28	0.13	0.28	0.54
<i>including</i>		49	60	11	0.30	0.14	0.30	0.58
<i>and</i>		99	125	26	0.10	0.05	0.11	0.21
OUDDH148	Target 33	19	30.5	11.5	0.19	0.13	0.22	0.44
<i>and</i>		154	160	6	0.45	0.01	0.24	0.47

## Appendix 1: Statements and Disclaimers

### Competent Person Statement

The information in this announcement that relates to exploration results is based on information compiled by Dr Andrew Stewart, who is responsible for the exploration data, comments on exploration target sizes, QA/QC and geological interpretation and information. Dr Stewart, who is an employee of Xanadu and is a Member of the Australasian Institute of Geoscientists, has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as the Competent Person as defined in the 2012 Edition of the *Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves* and the *National Instrument 43-101*. Dr Stewart consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

### Forward-Looking Statements

Certain statements contained in this Announcement, including information as to the future financial or operating performance of Xanadu and its projects may also include statements which are 'forward-looking statements' that may include, amongst other things, statements regarding targets, estimates and assumptions in respect of mineral reserves and mineral resources and anticipated grades and recovery rates, production and prices, recovery costs and results, capital expenditures and are or may be based on assumptions and estimates related to future technical, economic, market, political, social and other conditions. These 'forward-looking statements' are necessarily based upon a number of estimates and assumptions that, while considered reasonable by Xanadu, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies and involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements.

Xanadu disclaims any intent or obligation to update publicly or release any revisions to any forward-looking statements, whether as a result of new information, future events, circumstances or results or otherwise after the date of this Announcement or to reflect the occurrence of unanticipated events, other than required by the *Corporations Act 2001* (Cth) and the Listing Rules of the Australian Securities Exchange (**ASX**) and Toronto Stock Exchange (**TSX**). The words 'believe', 'expect', 'anticipate', 'indicate', 'contemplate', 'target', 'plan', 'intends', 'continue', 'budget', 'estimate', 'may', 'will', 'schedule' and similar expressions identify forward-looking statements.



All 'forward-looking statements' made in this Announcement are qualified by the foregoing cautionary statements. Investors are cautioned that 'forward-looking statements' are not guarantee of future performance and accordingly investors are cautioned not to put undue reliance on 'forward-looking statements' due to the inherent uncertainty therein.

For further information please visit the Xanadu Mines' Website at **[www.xanadumines.com](http://www.xanadumines.com)**.

## Appendix 2: Red Mountain Table 1 (JORC Code, 2012)

Set out below is Section 1 and Section 2 of Table 1 under the JORC Code, 2012 for the Red Mountain project. Data provided by Xanadu. This Table 1 updates the JORC Table 1 disclosure dated 27 September 2022.<sup>1</sup>

### 1.1 JORC TABLE 1 - SECTION 1 - SAMPLING TECHNIQUES AND DATA

Criteria	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>The exploration results are based on diamond drill core samples, reverse circulation (RC) chip samples and channel samples from surface trenches.</li> <li>Representative ½ core samples were split from PQ, HQ &amp; NQ diameter diamond drill core on site using rock saws, on a routine two metre sample interval that also honours lithological/intrusive contacts.</li> <li>The orientation of the cut line is controlled using the core orientation line ensuring uniformity of core splitting wherever the core has been successfully oriented.</li> <li>Sample intervals are defined and subsequently checked by geologists, and sample tags are attached (stapled) to the plastic core trays for every sample interval.</li> <li>RC chip samples are ¼ splits from 1m intervals using a 75%:25% riffle splitter to obtain a 3kg sample.</li> <li>RC samples are uniform 2m samples formed from the combination of two ¼ split 1m samples.</li> <li>Trench samples are collected as 2m composite from 30m above the trench toe.</li> <li>Sampling generally honours lithological contacts.</li> <li>Trench samples are continuous along the length of the trench</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>The exploration results are based upon diamond drilling of PQ, HQ and NQ diameters with both standard and triple tube core recovery configurations, RC drilling and surface trenching with channel sampling.</li> <li>All drill core drilled by Xanadu has been oriented using the “Reflex Ace” tool.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Diamond drill core recoveries were assessed using the standard industry (best) practice which involves removing the core from core trays; reassembling multiple core runs in a v-rail; measuring core lengths with a tape measure, assessing recovery against core block depth measurements and recording any measured core loss for each core run.</li> <li>Diamond core recoveries average 97% through mineralisation.</li> <li>Overall, core quality is good, with minimal core loss. Where there is localised faulting and or fracturing core recoveries decrease, however, this is a very small percentage of the mineralised intersections.</li> <li>RC recoveries are measured using whole weight of each 1m intercept measured before splitting</li> <li>Analysis of recovery results vs grade shows no significant trends that might indicate sampling bias introduced by variable recovery in fault/fracture zones.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>All drill core is geologically logged by well-trained geologists using a modified “Anaconda-style” logging system methodology. The Anaconda method of logging and mapping is specifically designed for porphyry Cu-Au mineral systems.</li> <li>Logging of lithology, alteration and mineralogy is intrinsically qualitative in nature. However, the logging is subsequently supported by 4 Acid ICP-MS (48 element) geochemistry and</li> </ul>

<sup>1</sup> ASX/TSX Announcement 27 September 2022 – Broad, shallow gold zone at Red Mountain

Criteria	Commentary
	<p>SWIR spectral mineralogy (facilitating semi-quantitative / calculated mineralogical, lithological and alteration classification) which is integrated with the logging to improve cross section interpretation and 3D geological model development.</p> <ul style="list-style-type: none"> <li>• Drill core is also systematically logged for both geotechnical features and geological structures. Where drill core has been successfully oriented, the orientation of structures and geotechnical features are also routinely measured.</li> <li>• Both wet and dry core photos are taken after core has been logged and marked-up but before drill core has been cut.</li> </ul>
<b>Sub - sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>• All drill core samples are ½ core splits from either PQ, HQ or NQ diameter cores. A routine 2m sample interval is used, but this is varied locally to honour lithological/intrusive contacts. The minimum allowed sample length is 30cm.</li> <li>• Core is appropriately split (onsite) using diamond core saws with the cut line routinely located relative to the core orientation line (where present) to provide consistency of sample split selection.</li> <li>• The diamond saws are regularly flushed with water to minimize potential contamination.</li> <li>• A field duplicate ¼ core sample is collected every 30<sup>th</sup> sample to ensure the “representivity of the in-situ material collected”. The performance of these field duplicates is routinely analysed as part of Xanadu’s sample QC process.</li> <li>• Routine sample preparation and analyses of DDH samples were carried out by ALS Mongolia LLC (<b>ALS Mongolia</b>), who operates an independent sample preparation and analytical laboratory in Ulaanbaatar.</li> <li>• All samples were prepared to meet standard quality control procedures as follows: Crushed to 75% passing 2mm, split to 1kg, pulverised to 85% passing 200 mesh (75 microns) and split to 150g sample pulp.</li> <li>• ALS Mongolia Geochemistry labs quality management system is certified to ISO 9001:2008.</li> <li>• The sample support (sub-sample mass and comminution) is appropriate for the grainsize and Cu-Au distribution of the porphyry Cu-Au mineralization and associated host rocks.</li> <li>• Trench samples by previous explorers between 2001 to 2007 were prepared and assayed by SGS Mongolia.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>• All XAM samples were routinely assayed by ALS Mongolia for gold.</li> <li>• Au is determined using a 25g fire assay fusion, cupelled to obtain a bead, and digested with Aqua Regia, followed by an atomic absorption spectroscopy (AAS) finish, with a lower detection limit (<b>LDL</b>) of 0.01 ppm.</li> <li>• All samples were also submitted to ALS Mongolia for the 48-element package ME-ICP61 using a four-acid digest (considered to be an effective total digest for the elements relevant to the MRE). Where copper is over-range (&gt;1% Cu), it is analysed by a second analytical technique (Cu-OG62), which has a higher upper detection limit (<b>UDL</b>) of 5% copper.</li> <li>• Quality assurance has been managed by insertion of appropriate Standards (1:30 samples - suitable Ore Research Pty Ltd certified standards), Blanks (1:30 samples), Duplicates (1:30 samples - ¼ core duplicate) by Xanadu.</li> <li>• Assay results outside the optimal range for methods were re-analysed by appropriate methods.</li> <li>• Ore Research Pty Ltd certified copper and gold standards have been implemented as a part of QC procedures, as well as coarse and pulp blanks, and certified matrix matched copper-gold standards.</li> <li>• QC monitoring is an active and ongoing processes on batch-by-batch basis by which unacceptable results are re-assayed as soon as practicable.</li> <li>• Prior to 2014: Cu, Ag, Pb, Zn, As and Mo were routinely determined using a three-acid-</li> </ul>

Criteria	Commentary
	<p>digestion of a 0.3g sub-sample followed by an AAS finish (AAS21R) at SGS Mongolia. Samples were digested with nitric, hydrochloric and perchloric acids to dryness before leaching with hydrochloric acid to dissolve soluble salts and made to 15ml volume with distilled water. The LDL for copper using this technique was 2ppm. Where copper was over-range (&gt;1% Cu), it was analysed by a second analytical technique (AAS22S), which has a higher upper detection limit (UDL) of 5% copper. Gold analysis method was essentially unchanged.</p> <ul style="list-style-type: none"> <li>Trenching samples from 2001 to 2007 were analysed for 6 elements (Cu, Ag, Pb, Zn, As and Mo) by SGS Mongolia using a three-acid-digestion of a 0.3g sub-sample followed by an AAS finish (AAS21R). Samples were digested with nitric, hydrochloric and perchloric acids to dryness before leaching with hydrochloric acid to dissolve soluble salts and made to 15ml volume with distilled water. The LDL for copper using this technique was 2ppm. Where copper was over-range (&gt;1% Cu), it was analysed by a second analytical technique (AAS22S), which has a higher upper detection limit (UDL) of 5% copper. Gold analysis method was essentially unchanged.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>All assay data QA/QC is checked prior to loading into Xanadu's Geobank data base.</li> <li>The data is managed by Xanadu geologists.</li> <li>The data base and geological interpretation is managed by Xanadu.</li> <li>Check assays are submitted to an umpire lab (SGS Mongolia) for duplicate analysis.</li> <li>No twinned drill holes exist.</li> <li>There have been no adjustments to any of the assay data.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>Diamond drill holes have been surveyed with a differential global positioning system (<b>DGPS</b>) to within 10cm accuracy.</li> <li>The grid system used for the project is UTM WGS-84 Zone 49N</li> <li>Historically, Eastman Kodak and Flexit electronic multi-shot downhole survey tools have been used at Red Mountain to collect down hole azimuth and inclination information for the majority of the diamond drill holes. Single shots were typically taken every 30m to 50m during the drilling process, and a multi-shot survey with readings every 3-5m are conducted at the completion of the drill hole. As these tools rely on the earth's magnetic field to measure azimuth, there is some localised interference/inaccuracy introduced by the presence of magnetite in some parts of the Red Mountain mineral system. The extent of this interference cannot be quantified on a reading-by-reading basis.</li> <li>More recently (since September 2017), a north-seeking gyro has been employed by the drilling crews on site (rented and operated by the drilling contractor), providing accurate downhole orientation measurements unaffected by magnetic effects. Xanadu have a permanent calibration station setup for the gyro tool, which is routinely calibrated every 2 weeks (calibration records are maintained and were sighted).</li> <li>The project DTM is based on 1 m contours from satellite imagery with an accuracy of <math>\pm 0.1</math> m.</li> <li>Trenching locations for trenches between 2001 and 2007 were located using a handheld GPS.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Holes spacings range from &lt;50m spacings within the core of mineralisation to +500m spacings for exploration drilling. Hole spacings can be determined using the sections and drill plans provided.</li> <li>Holes range from vertical to an inclination of -60 degrees depending on the attitude of the target and the drilling method.</li> <li>The data spacing and distribution is sufficient to establish anomalism and targeting for porphyry Cu-Au, tourmaline breccia and epithermal target types.</li> </ul>



Criteria	Commentary
	<ul style="list-style-type: none"> <li>Holes have been drilled to a maximum of 1,300m vertical depth.</li> <li>The data spacing and distribution is sufficient to establish geological and grade continuity.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Drilling is conducted in a predominantly regular grid to allow unbiased interpretation and targeting.</li> <li>Scissor drilling, as well as some vertical and oblique drilling, has been used in key mineralised zones to achieve unbiased sampling of interpreted structures and mineralised zones, and in particular to assist in constraining the geometry of the mineralised hydrothermal tourmaline-sulphide breccia domains.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>Samples are delivered from the drill rig to the core shed twice daily and are never left unattended at the rig.</li> <li>Samples are dispatched from site in locked boxes transported on Xanadu company vehicles to ALS lab in Ulaanbaatar.</li> <li>Sample shipment receipt is signed off at the Laboratory with additional email confirmation of receipt.</li> <li>Samples are then stored at the lab and returned to a locked storage site.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>Internal audits of sampling techniques and data management are undertaken on a regular basis, to ensure industry best practice is employed at all times.</li> <li>External reviews and audits have been conducted by the following groups: <ul style="list-style-type: none"> <li>2012: AMC Consultants Pty Ltd. was engaged to conduct an Independent Technical Report which reviewed drilling and sampling procedures. It was concluded that sampling and data record was to an appropriate standard.</li> <li>2013: Mining Associates Ltd. was engaged to conduct an Independent Technical Report to review drilling, sampling techniques and QA/QC. Methods were found to conform to international best practice.</li> </ul> </li> </ul>

## 1.2 JORC TABLE 1 - SECTION 2 - REPORTING OF EXPLORATION RESULTS

(Criteria in this section apply to all succeeding sections).

Criteria	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>The Project comprises 1 Mining Licence (MV-17129A).</li> <li>Xanadu now owns 90% of Vantage LLC, the 100% owner of the Oyut Ulaan mining licence.</li> <li>The <i>Mongolian Minerals Law (2006)</i> and <i>Mongolian Land Law (2002)</i> govern exploration, mining and land use rights for the project.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Previous exploration was conducted by Quincunx Ltd, Ivanhoe Mines Ltd and Turquoise Hill Resources Ltd including extensive drilling, surface geochemistry, geophysics, mapping.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>The mineralisation is characterised as porphyry copper-gold type.</li> <li>Porphyry copper-gold deposits are formed from magmatic hydrothermal fluids typically associated with felsic intrusive stocks that have deposited metals as sulphides both within the intrusive and the intruded host rocks. Quartz stockwork veining is typically associated with sulphides occurring both within the quartz veinlets and disseminated throughout the wall rock. Porphyry deposits are typically large tonnage deposits ranging from low to high grade and are generally mined by large scale open pit or underground bulk mining methods. The deposits at Red Mountain are atypical in that they are associated with intermediate intrusions of diorite to quartz diorite composition; however, the deposits are in terms of</li> </ul>

Criteria	Commentary
	contained gold significant, and similar gold-rich porphyry deposits.
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>• Diamond drill holes are the principal source of geological and grade data for the Project.</li> <li>• See figures in this ASX/TSX Announcement.</li> </ul>
<b>Data Aggregation methods</b>	<ul style="list-style-type: none"> <li>• A nominal cut-off of 0.1% CuEq is used in copper dominant systems for identification of potentially significant intercepts for reporting purposes. Higher grade cut-offs are 0.3%, 0.6% and 1% CuEq.</li> <li>• A nominal cut-off of 0.1g/t AuEq is used in gold dominant systems like for identification of potentially significant intercepts for reporting purposes. Higher grade cut-offs are 0.3g/t, 0.6g/t and 1g/t AuEq.</li> <li>• Maximum contiguous dilution within each intercept is 9m for 0.1%, 0.3%, 0.6% and 1% CuEq.</li> <li>• Most of the reported intercepts are shown in sufficient detail, including maxima and subintervals, to allow the reader to make an assessment of the balance of high and low grades in the intercept.</li> <li>• Informing samples have been composited to two metre lengths honouring the geological domains and adjusted where necessary to ensure that no residual sample lengths have been excluded (best fit).</li> <li>• The copper equivalent (<b>CuEq</b>) calculation represents the total metal value for each metal, multiplied by the conversion factor, summed and expressed in equivalent copper percentage with a metallurgical recovery factor applied.</li> <li>• Copper equivalent (CuEq or eCu) grade values were calculated using the following formula: <ul style="list-style-type: none"> <li>◦ <math>CuEq = Cu + Au * 0.62097 * 0.8235</math>,</li> </ul> </li> <li>• Gold Equivalent (AuEq or eAu) grade values were calculated using the following formula: <ul style="list-style-type: none"> <li>◦ <math>AuEq = Au + Cu / 0.62097 * 0.8235</math></li> </ul> </li> <li>• Where: Cu = copper grade (%); Au = gold grade (g/t); 0.62097 = conversion factor (gold to copper); 0.8235 = relative recovery of gold to copper (82.35%)</li> <li>• The copper equivalent formula was based on the following parameters (prices are in USD): <ul style="list-style-type: none"> <li>◦ Copper price = 3.1 \$/lb (or 6834 \$/t)</li> <li>◦ Gold price = 1320 \$/oz</li> <li>◦ Copper recovery = 85%</li> <li>◦ Gold recovery = 70%</li> <li>◦ Relative recovery of gold to copper = 70% / 85% = 82.35%.</li> </ul> </li> </ul>
<b>Relationship between mineralisation on widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>• Mineralised structures are variable in orientation, and therefore drill orientations have been adjusted from place to place in order to allow intersection angles as close as possible to true widths.</li> <li>• Exploration results have been reported as an interval with 'from' and 'to' stated in tables of significant economic intercepts. Tables clearly indicate that true widths will generally be narrower than those reported.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>• See figures in this ASX/TSX Announcement.</li> </ul>
<b>Balanced Reporting</b>	<ul style="list-style-type: none"> <li>• Exploration results have been reported at a range of cut-off grades, above a minimum suitable for open pit mining, and above a minimum suitable for underground mining.</li> </ul>
<b>Other substantive</b>	<ul style="list-style-type: none"> <li>• Extensive work in this area has been done and is reported separately.</li> </ul>

Criteria	Commentary
exploration data	
Further Work	<ul style="list-style-type: none"><li>• The mineralisation is open at depth and along strike.</li><li>• Current estimates are restricted to those expected to be reasonable for open pit mining. Limited drilling below this depth (-300m RL) shows widths and grades potentially suitable for underground extraction.</li><li>• Exploration ongoing.</li></ul>

### 1.3 JORC TABLE 1 - SECTION 3 ESTIMATION AND REPORTING OF MINERAL RESOURCES

Mineral Resources are not reported so this is not applicable to this report.

### 1.4 JORC TABLE 1 - SECTION 4 ESTIMATION AND REPORTING OF ORE RESERVES

Ore Reserves are not reported so this is not applicable to this report.