

# **Highly Encouraging New Drilling Results- Red Mountain Gold Project, Queensland**

### **Highlights**

- Key New Gold Drill Intercepts include:
  - o 23m @ 1.49 g/t Au from 48m, including 2m @ 11.3 g/t Au from 55m (ZRMRC055)
  - o 4m @ 4.45 g/t Au from 122m including 2m @ 8.11 g/t Au from 122m (ZRMRC056)
  - o 3m @ 1.00 g/t Au from 90m including 1m @ 1.69 g/t Au from 91m (ZRMRC053)<sup>1</sup>
- Drilling Details: A total of 1,809 metres drilled across 11 Reverse Circulation (RC) holes, with nearly all planned holes completed successfully. The program was curtailed due to adverse weather conditions.
- **IP Targets:** Drilling intersected widespread gold mineralisation associated with sulphides that are coincident with shallow Induced Polarisation (IP) geophysical anomalies in places, verifying geophysical modelling as a reliable tool for future targeting.
- Geological Insights: Geochemical modelling indicates:
  - Significant down-hole multi-element anomalism, strongly supporting intrusion-related gold system (IRGS) prospectivity.
  - A surface molybdenum anomaly in the core of the breccia pipe is indicative of proximity to the hotter part of the system. It will require a deep diamond hole to properly test magma-source prospectivity in the core of the breccia. (see Figure 4 and Table 1 in Appendix 2).
- Zenith has engaged highly respected consultants/independent 3<sup>rd</sup> party experts RSC consulting to assist in modelling the IRGS and other potential styles of mineralisation, and the geodynamic setting at Red Mountain.

The recently concluded RC drilling program was designed to test high-priority IP anomalies identified in Zenith's updated 3D geological model. This phase of exploration builds on earlier drilling, which returned significant intercepts such as 129m @ 0.51 g/t Au from 225m (including 12m @ 1.36 g/t Au and 8m @ 1.39 g/t Au)<sup>2</sup> and highlighted the continuity of mineralisation within the breccia system.

Key achievements include:

 $<sup>^{1}</sup>$  Significant intervals reported as values greater than 0.3 g/t Au cutoff with no more than 2m internal dilution and rounded to 2 decimal places. True widths are estimated to be ~90% of reported downhole intersections.

<sup>&</sup>lt;sup>2</sup> ASX: ZNC – Significant widths of gold and silver mineralisation intersected – Red Mountain Project – Central Queensland; 29-August 2023

- 1. **Confirmation of Mineralisation:** Notable intercepts, including **23m** @ **1.49** g/t Au, reinforcing the presence of gold mineralisation along the western flank lodes.
- 2. **Validation of Geophysics:** Shallow IP chargeability anomalies were successfully intersected, providing confidence in Zenith's geophysical approach for targeting mineralisation.
- 3. **Pathfinder Elements:** Highly anomalous levels of molybdenum, tungsten, bismuth, and tellurium, continue to be returned that are consistent with an IRG system, although other styles of mineralisation (i.e. high sulphidation epithermal related gold) cannot be discounted at this stage. These anomalous pathfinders provide robust vectors for future drill targeting<sup>3</sup>.

Andrew Smith, Managing Director of Zenith Minerals, commented: The completion of this phase of drilling at Red Mountain is a significant milestone for the project. We are particularly excited by not only the gold mineralisation encountered in multiple holes, but also the strong geochemical pathfinders that indicate the potential for a spectacularly zoned system, similar to Mt Wright and the (relatively) nearby Mt Rawdon systems. Results indicate proximity to the primary fractionated magma source driving the system, as suggested by the geological and geochemical indicators observed to date. The successful pre-collar drilling provides a clear pathway for the deep diamond drill hole planned for 2025, allowing us to test the nature of this intrusion at depth. We look forward to advancing our exploration efforts with confidence."

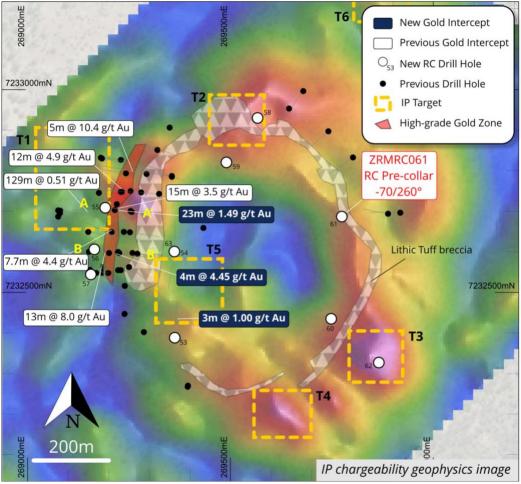


Figure 1: Red Mountain Map showing Significant Gold Intersections (new and historical), Main Targets and the location of the RC pre-collar.

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<sup>&</sup>lt;sup>3</sup> Refer to Appendix 2, Table 2 for a summary of down hole multi-element pathfinder anomalism greater than 5ppm Bi.

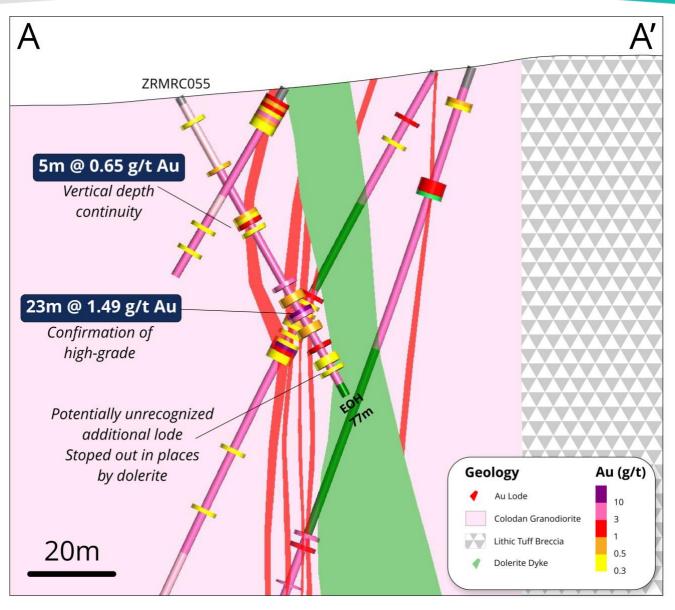


Figure 2: Section of A-A' from Figure 1 showing down hole mineralised intervals encountered in ZRMRC055.

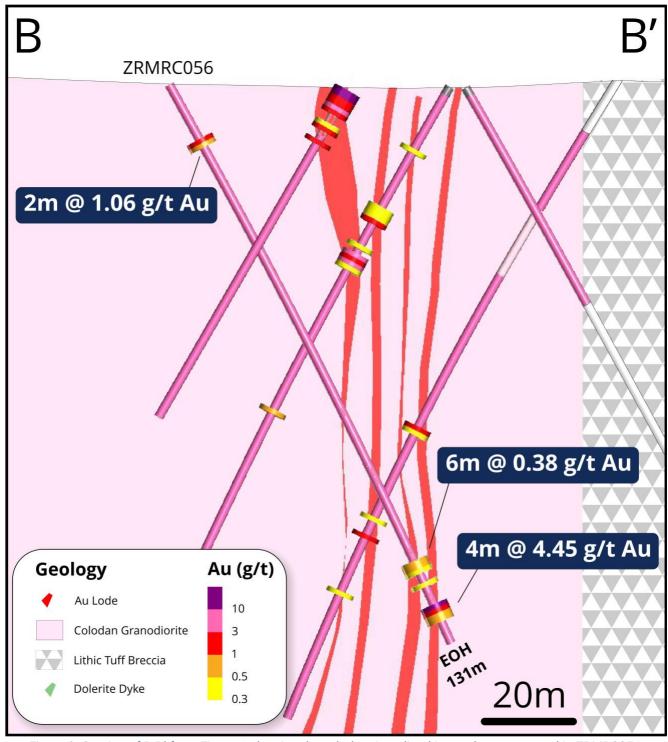


Figure 3: Section of B-B' from Figure 1 showing down hole mineralised intervals encountered in ZRMRC056

The recently concluded RC drilling program was designed to test four high-priority IP anomalies identified in Zenith's updated 3D geological model, as detailed in ASX Release dated 11<sup>th</sup> Nov 2024. This phase of exploration builds on earlier drilling, which returned significant intercepts such as **13m @ 8.0 g/t Au and 129m @ 0.51 g/t Au**<sup>4</sup> and highlighted the continuity of gold mineralisation within the breccia system.

<sup>4</sup> ASX: ZNC – Significant widths of gold and silver mineralisation intersected – Red Mountain Project – Central Queensland; 29-August 2023

#### **Next Steps:**

The next phase of gold exploration will focus on deep diamond drilling along the flanks of the breccia system, using Mt Wright as an analogue, whereby the "gold window" is expected at depths greater than 200m (Halley 2024), as indicated by mineralisation in ZRMDD052 (129m @ 0.51 g/t Au from 225m).

Zenith Minerals is awaiting the outcome of a Queensland Government grant application submitted to support this next phase of exploration of up to \$250,000. A decision is expected in February-March 2025. If awarded, the grant will provide vital funding to accelerate deep drilling efforts and further geophysical studies, enabling a more detailed evaluation of the mineralisation controls and depth extent and nature of the potential causative intrusion at Red Mountain.

A pre-collar (ZRMDRC61) has been drilled as part of the planned deep diamond drill hole during the last phase of RC drilling. This pre-collar will enable targeted exploration at depth, specifically testing the potential for a fractionated magma source beneath the breccia system. The use of Reverse Circulation (RC) for this pre-collar allows for efficient and cost-effective access to deeper targets, providing a strong foundation for diamond drilling in the next phase of exploration.

Pending assay results from previously drilled diamond core samples are expected to provide critical insights into the system's broader geochemical and mineralogical framework. These results, combined with the multielement geochemistry already indicating highly anomalous molybdenum, tungsten, bismuth, copper and tellurium, will help refine the understanding of Red Mountain's IRG potential.

By leveraging the results of the completed RC program, pre-collar drilling, and pending core assays, Zenith Minerals remains committed to unlocking the full value of this highly prospective asset.

#### **IRGS** prospectivity

The Red Mountain gold and multi-element geochemical database was reviewed by an independent 3<sup>rd</sup> part geochemical expert (Scott Halley) in September 2024.

Based on fractionation indicators, Halley theorised that the mineralised rhyolite unit logged in ZRMDD052 was possibly the causative batch of magma linked to the gold mineralisation encountered on the western flank of Red Mountain.

Using Mt Wright as an analogue, the top of the Mt Wright breccia pipe had low grade Au but very high antimony and was vertically zoned, with a discrete gold window within the vertical zoning pattern (Halley, 2024). Deeper diamond drilling along the flanks of the breccia system is required to properly test the IRGS/Mt Wright-analogue hypothesis and is the focus of the 2025 drilling campaign.

The spatial distribution of gold mineralisation to date indicates gold is hosted in mineralised ring dykes surrounding the mapped breccia pipe on the western flank of Red Mountain; the IRGS may therefore be a later event that exploited the pre-existing structural architecture, on the flank of the main breccia system.

The presence of significant molybdenum anomalism in soils across the top of the breccia pipe would indicate proximity to the primary magma source that is driving the Red Mountain system (Halley 2024). It was advised to conduct a review of any surface geochemical surveys (soils/rock chip samples) by ICP-MS across the top of the breccia pipe to look for Mo anomalism.

Although designed with a gold focus, the surface samples collected by Zenith over the project area in previous years have all been analysed for a large suite of multi-elements by four acid digest-ICP-MS (ALS: ME-MS61). Returning to the dataset, a strong coherent Mo-anomaly was observed in the surface sampling results in both soils and rock chips, with the highest value within the northeast sector of the

breccia pipe, returning 41ppm Mo in rock chip sample RMRK1549, with multiple anomalous proximal soil samples great than 5ppm Mo (up to 17.3ppm Mo). This is indicative of a hotter, more proximal part of the Red Mountain system.

Most of the anomalous molybdenum samples are coincident with a strong magnetic-high response as determined by RTP 1VD AMAG data in the NE quadrant of the mapped breccia pipe (see Figure 4):

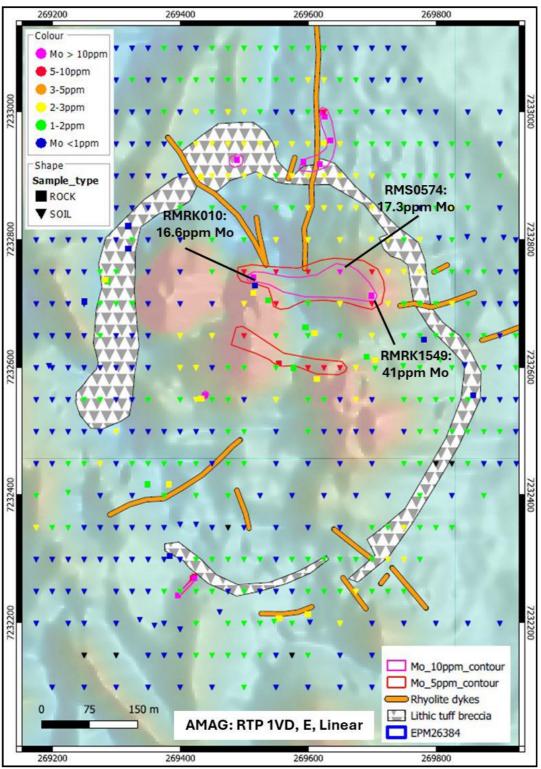


Figure 4: Spatial distribution of Mo anomalism from surface sampling soils and rock chip; contours for values >5ppm and 10>ppm<sup>5</sup>

<sup>&</sup>lt;sup>5</sup> Refer to Table 1 in Appendix 2 for further details of the surface sampling program

The Mo, Bi, As and Sb key pathfinder abundances from surface sampling are zoned, with Mo at the core and As, Bi and Sb around the rim of the breccia system (Figure 5):

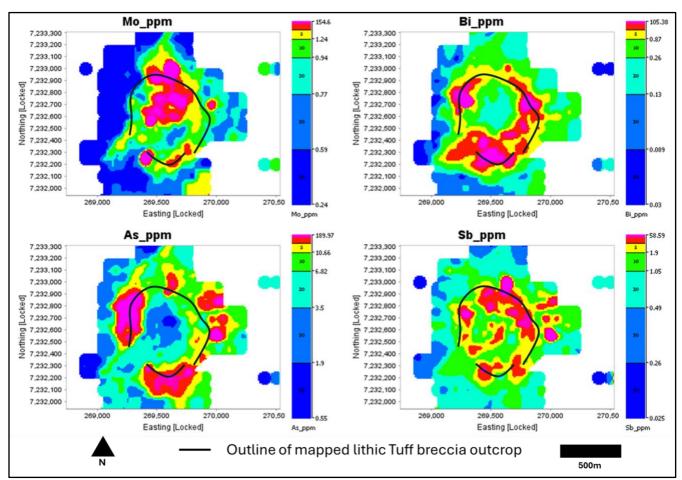


Figure 5: Spatial projection of gridded key pathfinder values at Red Mountain; a black outline of the mapped lith-tuff breccia outcrop added for context.

In particular, the strong antimony anomalism along the NE flank of Red Mountain potentially signifies a shallower part of a zoned hydrothermal system indicating deeper drilling is required in that area to intersect the hotter part of the system, and possibly the "gold window", similar to what is seen at the Mt Wright Gold Mine (S. Halley -2025; pers. coms).

Based on these observations of the molybdenum anomalism across the core of the breccia system, a deep (+800m) diamond hole has been planned, with an application for CEI funding submitted to the Queensland government for up to \$250k in potential funding to test for the nature of any causative intrusion at depth, with a view to identifying any mineral systems related to critical metals correlated to the energy transition, which is the current focus of CEI grant awards (Cu, Mo etc).

A 150m deep RC pre-collar was completed during the last round of drilling (ZRMRC061 -see Figure 1) that can be extended.

#### **Project Overview**

The Red Mountain Gold Project ("the Project") is located within Queensland's Auburn Arc, a region known for its rich mineral endowment. The Project presents significant gold and silver mineralisation hosted within a large breccia pipe system. Discovered by Zenith in 2017, the Project has yielded compelling results through successive exploration phases, confirming its potential as a core asset within Zenith's gold portfolio. With 100% ownership, the Project benefits from existing infrastructure and proximity to other notable gold projects in the region, providing logistical advantages and cost efficiencies for future operations.

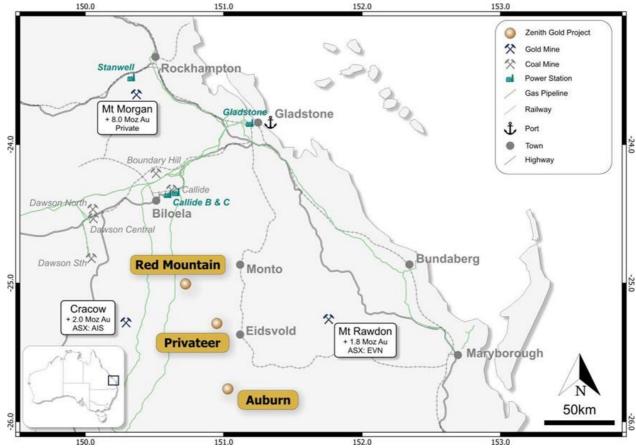


Figure 6: Strategic Red Mountain Location Map

The geological setting at Red Mountain shares notable similarities with other major Australian gold deposits such as Mt Wright, Mt Leyshon, and Mt Rawdon. These systems, characterised by breccia complexes and intrusion-related mineralisation, have produced substantial gold resources, highlighting Red Mountain's potential to host large-scale mineralisation within a similar framework. Recent reevaluation of the geochemical data collected to date, both surface sampling and down-hole geochemistry, continues to support the IRGS story (see Appendix 2; Table 2).

Metallurgical test work has shown that much of the gold at Red Mountain is free-milling and non-refractory, with average recoveries of 83.3% via conventional cyanide leaching. Notably, samples with lower arsenic content achieved recoveries as high as 95.8%, supported by strong gravity gold recovery rates<sup>6</sup>. These positive results indicate a straightforward processing path, which could contribute to the project's economic viability and align with Zenith's goal of cost-effective gold production.

<sup>6</sup> ASX: ZNC - High Gold Recoveries in Metallurgical Test work - Red Mountain; 7 December 2021

### **Previous Exploration**

Since the discovery of the **Red Mountain Gold Project** in 2017, **Zenith Minerals** has completed a total of **62 drill holes**, comprising **49 Reverse Circulation (RC) holes** and **13 Diamond drill holes**, for a cumulative total of **10,972.7 meters** of drilling. These efforts have provided critical data, helping to refine the geological model and identify further exploration targets.

For more details on the drilling programs, please refer to **previous announcements**<sup>7</sup>.

These drilling campaigns have returned several high-grade gold intercepts, including:

- 13m @ 8.0 g/t Au from surface
- 15m @ 3.5 g/t Au from 57m
- 12m @ 4.9 g/t Au from 102m
- 5m @ 10.4 g/t Au from 67m

Deeper drilling in 2023 has confirmed the continuity of mineralisation, including:

129m @ 0.51 g/t Au + 11.6 g/t Ag from 225m, including 12m @ 1.36 g/t Au, and 8m @ 1.39 g/t Au

These results demonstrate both the near-surface and deeper potential for gold, silver and copper mineralisation at Red Mountain, making it a prime candidate for deeper exploration.

Multi-element geochemistry analysis was completed at the same time as Au assay, utilizing the four acid ICP-MS method (ALS: ME-MS61). The Zenith team has conducted a thorough review of this geochemical data set (>3,000 samples to date) using the ioGAS software package, with significant abundances of key Intrusion-Related Gold System (IRGS) pathfinders identified (see Appendix 2).

<sup>&</sup>lt;sup>7</sup> See Zenith's ASX Releases dated: 03-Aug-20, 13-Oct-20, 09-Nov-20, 21-Jan-21 and 19-May-21 and 29 Aug 2023 for details on the previous drilling.

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#### **Competent Persons Statement**

The information in this report that relates to Exploration Results, Mineral Resources and exploration activities is based on information compiled by Mr. Christopher Shanley, who is a Member of the Australian Institute of Geoscientists and an employee of Zenith Minerals Limited. Mr. Shanley 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. Shanley consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### **Material ASX Releases Previously Released**

The Company has released all material information that relates to Exploration Results, Mineral Resources and Reserves, Economic Studies and Production for the Company's Projects on a continuous basis to the ASX and in compliance with JORC 2012. The Company confirms that it is not aware of any new information that materially affects the content of this ASX release and that the material assumptions and technical parameters remain unchanged.

# Appendix 1: Red Mountain RC 2024 Drilling Details

Table 1: Red Mountain November 2024 RC Drill Collar Location Details

Hole ID	Hole Type	EOH Depth	Easting GDA94 Z56	Northing GDA94 Z56	RL (m)	Survey Method	Avg Dip	Avg Azimuth
ZRMRC053	RC	203	269362	7232388	363	GPS	-63.2	4.6
ZRMRC054	RC	185	269361	7232601	365	GPS	-63.5	2.2
ZRMRC055	RC	77	269191	7232709	363	GPS	-60.8	104.7
ZRMRC056	RC	131	269164	7232606	362	GPS	-63.1	102.2
ZRMRC057	RC	137	269155	7232544	357	GPS	-61.8	102.4
ZRMRC058	RC	161	269567	7232930	365	GPS	-62.1	223.7
ZRMRC059	RC	179	269490	7232821	377	GPS	-61.6	41.7
ZRMRC060	RC	201	269748	7232435	406	GPS	-63.2	134.1
ZRMRC061	RC	150	269774	7232687	377	GPS	-70.3	270.6
ZRMRC062	RC	185	269865	7232327	381	GPS	-64.2	316.3
ZRMRC063	RC	200	269361	7232601	365	GPS	-62.6	190.6

Table 2: Red Mountain Significant (>0.1 g/t Au) Gold Intersection (maximum 5m dilution)

HOLE ID	From	То	Interval (m)	Gold (g/t)
ZRMRC053	90	98	8	0.41
incl	91	92	1	1.69
and	173	174	1	0.35
and	182	183	1	0.25
ZRMRC054				NSR
ZRMRC055	6	38	32	0.20
incl	32	33	1	1.91
and	47	71	24	1.43
incl	48	49	1	4.78
and incl	55	57	2	11.26
and incl	64	65	1	1.45
ZRMRC056	10	16	6	0.44
incl	13	14	1	1.40
and	25	26	1	0.27
and	48	49	1	0.20
and	71	72	1	0.21
and	107	129	22	0.97
incl	122	124	2	8.11
ZRMRC057	15	16	1	0.11
and	37	39	2	0.46
and	55	57	2	0.18
and	63	65	2	0.72
incl	63	64	1	1.26
and	79	80	1	0.21
and	91	92	1	0.22
and	101	103	2	0.22
and	112	113	1	0.12
and	130	131	1	0.39

HOLE ID	From	То	Interval (m)	Gold (g/t)
ZRMRC058				NSR
ZRMRC059				NSR
ZRMRC060	1	2	1	0.20
and	18	20	2	0.45
and	158	159	1	0.13
and	196	197	1	0.22
ZRMRC061	25	26	1	0.12
and	39	41	2	0.18
and	47	52	5	0.27
and	64	65	1	0.12
and	69	70	1	0.14
and	87	88	1	0.17
and	122	123	1	0.20
ZRMRC062	170	171	1	0.12
ZRMRC063				NSR

## **Appendix 2: Details of Au and Pathfinder Values**

Table 1: From Figure 4, a subset of the surface sampling dataset of Au, Ag, Cu and related pathfinders, filtered for all values above 5ppm Mo

Sample_ID	Sample_type	Grid	Easting	Northing	RL	Method	Au_ppm	Ag_ppm	As_ppm	Bi_ppm	Cu_ppm	Mo_ppm	Pb_ppm	Sb_ppm	Te_ppm	W_ppm	Zn_ppm
RMRK002	ROCK	GDA94 / MGA zone 56	269624	7233000	500	GPS	BDL	10.85	49.5	0.41	3550	391	254	17.45	0.08	3.5	1140
1970	ROCK	GDA94 / MGA zone 56	269489	7232926	500	GPS	0.0005	18.85	13.9	0.6	2650	163.5	44.3	9.7	0.16	76.5	201
RMRK007	ROCK	GDA94 / MGA zone 56	269593	7232922	500	GPS	0.14	13.7	174.5	0.77	3060	131	39.6	13.05	0.58	8.6	590
RMRK003	ROCK	GDA94 / MGA zone 56	269624	7233000	500	GPS	BDL	2.09	52.4	0.93	1020	100	461	14.3	0.24	5.5	225
RMRK006	ROCK	GDA94 / MGA zone 56	269635	7232956	500	GPS	BDL	4.04	105	0.47	820	70.2	222	39	0.005	9.8	448
1964	ROCK	GDA94 / MGA zone 56	269439	7232557	500	GPS	0.0005	8.15	2.7	0.07	2310	66.1	42.3	3.58	0.07	19.6	344
1971	ROCK	GDA94 / MGA zone 56	269626	7232993	500	GPS	0.04	1.9	33	8.69	455	51.4	255	24.9	1.25	2.9	281
RMRK004	ROCK	GDA94 / MGA zone 56	269397	7232244	500	GPS	BDL	52.5	25.2	0.4	2180	47.4	77.1	2.85	0.15	1	876
1549	ROCK	GDA94 / MGA zone 56	269699	7232713	500	GPS	BDL	BDL	14	1	BDL	41	39	7	BDL	0.025	26
RMRK005	ROCK	GDA94 / MGA zone 56	269618	7232919	500	GPS	BDL	3.1	15	1.11	417	25	152	13	0.08	11.8	145
1552	ROCK	GDA94 / MGA zone 56	269422	7232271	500	GPS	BDL	BDL	120	13	BDL	20	1625	7	BDL	10	1090
RMS0574	SOIL	GDA94 / MGA zone 56	269650	7232750	400	GPS	0.002	0.42	5.5	0.22	75.4	17.25	26.2	6.07	0.005	9.2	57
RMRK010	ROCK	GDA94 / MGA zone 56	269515	7232742	500	GPS	0.05	5.31	3.2	0.8	2680	16.6	11.5	0.57	0.08	0.6	101
1554	ROCK	GDA94 / MGA zone 56	269422	7232273	500	GPS	BDL	BDL	156	6	BDL	10	221	0.025	BDL	0.025	755
RMS0586	SOIL	GDA94 / MGA zone 56	269500	7232650	400	GPS	0.002	0.35	4.3	0.26	101	8.76	21.6	3.97	0.005	3.5	56
RMS0919	SOIL	GDA94 / MGA zone 56	269625	7232600	400	GPS	0.001	0.19	2.1	0.2	40.5	7.66	18.4	1.27	0.005	1.5	32
RMS0463	SOIL	GDA94 / MGA zone 56	269700	7232750	400	GPS	0.002	0.43	9.4	0.43	72.6	7.6	16.7	7.24	0.12	4.5	43
RMS0903	SOIL	GDA94 / MGA zone 56	269950	7232700	400	GPS	0.003	0.75	35.5	0.3	33	7.12	549	6.91	0.07	1.6	474
1553	ROCK	GDA94 / MGA zone 56	269420	7232271	500	GPS	BDL	BDL	121	50	BDL	7	2600	15	BDL	0.025	1120
RMS0582	SOIL	GDA94 / MGA zone 56	269700	7232700	400	GPS	0.002	0.35	3.5	0.52	178.5	6.93	20	2.21	0.13	3.1	69
RMRK013	ROCK	GDA94 / MGA zone 56	269554	7232607	500	GPS	0.0005	0.5	2.8	0.18	138.5	6.11	24.6	1.78	0.005	2.5	37
RMS0045	SOIL	GDA94 / MGA zone 56	269600	7232600	400	GPS	0.008	0.05	BDL	BDL	32.2	6	8.3	0.24	0.01	0.025	26
RMS0573	SOIL	GDA94 / MGA zone 56	269600	7232750	400	GPS	0.0005	0.32	2.3	0.15	20.1	5.99	15.3	1.72	0.005	3	22
RMS0046	SOIL	GDA94 / MGA zone 56	269650	7232600	400	GPS	0.004	0.1	BDL	BDL	105.5	5.9	6.8	0.83	0.02	0.025	29
RMS0572	SOIL	GDA94 / MGA zone 56	269550	7232750	400	GPS	0.001	0.48	3.4	0.21	37.4	5.54	21.2	4.48	0.005	4.8	30
RMS0571	SOIL	GDA94 / MGA zone 56	269500	7232750	400	GPS	0.002	0.48	3.1	0.21	36.3	5.54	21.5	4.53	0.005	4.9	31
RMS0873	SOIL	GDA94 / MGA zone 56	269625	7233000	400	GPS	0.114	0.63	28.1	0.43	147	5.46	76.8	3.56	0.06	4.4	300
RMS0579	SOIL	GDA94 / MGA zone 56	269550	7232700	400	GPS	0.002	0.26	1.7	0.21	45.4	5.19	19.5	1.3	0.005	1.6	55
1972	ROCK	GDA94 / MGA zone 56	269625	7232952	500	GPS	0.01	0.98	22.7	0.78	55.8	5.05	166	17.8	0.11	3.7	242
RMS0585	SOIL	GDA94 / MGA zone 56	269450	7232650	400	GPS	0.004	0.23	2.1	0.17	137	5.02	13	1.1	0.005	1.6	53

Table 2: Subset of the downhole geochemistry data from recent RC drilling with Ag, Cu and related pathfinders filtered for values greater than 5ppm Bi

Hole_ID	from	to	Ag_ppm	As_ppm	Bi_ppm	Cu_ppm	Mo_ppm	Pb_ppm	Te_ppm	W_ppm	Zn_ppm
ZRMRC060	54	55	1.44	5.8	45.3	17.7	1.16	22.8	21.1	2	98
ZRMRC060	59	60	3.08	4	29.1	88.3	1.24	40	2.57	2.1	105
ZRMRC062	109	110	11.85	61.3	28.7	31	1.62	342	13.85	4.2	453
ZRMRC060	94	95	2.16	16.8	26.2	17.7	1.45	42.9	0.16	3.4	54
ZRMRC062	149	150	13.25	9.7	25.5	19.5	1.78	367	12.1	5	1180
ZRMRC058	25	26	1.85	14.6	21	112	7.49	59.6	0.19	6.1	111
ZRMRC062	61	62	9.37	115.5	20.4	19.1	0.91	75.5	1.82	4.8	119
ZRMRC057	114	115	7.04	319	18.95	676	0.94	52.5	0.29	7.7	111
ZRMRC053	14	15	0.52	4	14.85	94.3	2.17	29.5	0.16	2.6	153
ZRMRC057	63	64	1.7	14.4	12.1	59.2	2.06	47	0.13	3.6	188
ZRMRC057	129	130	3.73	7.9	10.05	56.5	0.93	38.3	0.55	4.2	91
ZRMRC055	51	52	1.37	316	9.5	39.5	1.02	160	0.65	6	266
ZRMRC058	27	28	8.81	20	9.46	78.5	6.83	88.6	0.09	3.5	50
ZRMRC062	110	111	5.79	32.9	9.4	43.9	2.77	490	2.85	4.4	2550
ZRMRC055	73	74	3.48	11.7	9.07	31.7	0.93	111	0.21	4.6	218
ZRMRC062	162	163	6.04	23.8	8.72	104	1.33	124.5	2.58	4.4	398
ZRMRC057	109	110	1.79	5.7	8.01	91.8	1.2	27.6	1.08	3.3	122
ZRMRC062	59	60	1.67	16.2	7.55	33.8	0.79	54.6	0.36	4.4	144
ZRMRC060	102	103	1.38	17.1	7.33	16.3	1.64	58.8	0.025	2.4	39
ZRMRC060	157	158	2.74	44.2	7.32	61.3	2.87	58.9	1.9	4.6	516
ZRMRC058	94	95	1.92	15.3	6.98	211	5.51	39.8	0.14	3.3	131
ZRMRC053	34	35	0.45	5	6.91	60.5	1.06	24	0.06	3.6	120
ZRMRC055	24	25	4.85	147	6.61	187.5	1.76	171	0.08	4.1	353
ZRMRC062	144	145	0.58	12.8	6.41	16.4	1.74	53	3.58	4.2	105
ZRMRC060	196	197	2.7	5.6	6.12	33.3	1.32	51.4	3.27	3.3	255
ZRMRC060	187	188	1.34	15.1	6	17.9	0.9	63.6	2.3	3	311
ZRMRC060	99	100	0.55	32.2	5.67	24.2	1.2	17.6	0.06	5.5	80
ZRMRC058	39	40	1.02	18.9	5.4	52.4	1.79	29.6	0.07	3.1	54
ZRMRC055	59	60	5.27	405	5.17	179	1.65	137	0.68	7.9	397
ZRMRC060	49	50	0.79	7.8	5.08	21.7	1.54	31.4	0.3	1.8	108
ZRMRC060	109	110	1.54	27.2	5.07	41.5	1.56	18	0.19	3.5	83

## **References:**

Halley, S (2024): "Red Mountain Drill Hole Geochemistry"; report of review of Red Mountain geochemical database completed on behalf Zenith Minerals.

**Appendix 1: Red Mountain Project - JORC Table 1 - EPM26384** 

Criteria	JORC Code Explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised 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.  Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report.  In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 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 (eg submarine nodules) may warrant disclosure of detailed information.	At Red Mountain gold +/- silver mineralised RC intervals are systematically sampled using industry standard 1m intervals or 4m composites collected from reverse circulation (RC) drill holes. Diamond holes may be sampled along sub 1m geological contacts, otherwise 1m intervals are the default.  Drill hole locations are designed to allow for spatial spread across the interpreted mineralised zone. All RC samples are collected and cone split to 2-3kg samples on 1m metre intervals. When applicable, 4m composites are speared from the bulk residue bags before despatching to the laboratory.  Diamond core is half cut along downhole orientation lines. Half core is sent to the laboratory for analysis and the other half is retained for future reference.  Standard fire assaying is employed, using a 50g charge with an AAS finish for all Diamond and RC chip samples. Trace element determination when undertaken uses a multi (4) acid digest and ICP-AES or MS finish.
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, facesampling bit or other type, whether core is oriented and if so, by what method, etc).	Drilling is completed using best practice HQ + NQ for diamond core and 5 3/4" face sampling hammers for all RC drill holes.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.  Measures taken to maximise sample recovery and ensure representative nature of the samples.  Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	All diamond core is jigsawed to ensure any core loss, if present, is fully accounted for. Bulk RC drill hole samples are visually inspected by the supervising geologist to ensure adequate clean sample recoveries are achieved. Any wet, contaminated or poor sample returns are flagged and recorded in the database to ensure no sampling bias is introduced.  Zones of poor sample return in RC are recorded in the database and cross checked once assay results

Criteria	JORC Code Explanation	Commentary
		are received from the laboratory to ensure no misrepresentation of sampling intervals has occurred. Zero sample recovery is achieved while navi drilling. The navi lengths are kept to a minimum and avoided when close to potentially mineralised units.
Logging	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.  Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged.	All drill samples are geologically logged on site by professional geologists. Details on the host lithologies, deformation, dominant minerals including sulphide species and alteration minerals plus veining are recorded.  Drill hole logging is qualitative on visual recordings of rock-forming minerals and quantitative on estimates of mineral abundance.  The entire length of each drill hole is geologically logged.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.  For all sample types, the nature, quality and appropriateness of the sample preparation technique.  Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.  Whether sample sizes are appropriate to the grain size of the material being sampled.	Duplicate samples are collected every 33 <sup>rd</sup> sample from the RC chips as well as quarter core from the diamond holes. Further, with selected drill-outs, additional duplicates will be planned by ensuring there is an adequate spread of duplicate samples taken from predicted ore positions when ore zones are projected from adjacent drill holes. Dry RC 1m samples are rotary split to 2-3kg as drilled and dispatched to the laboratory.  In addition to duplicates, a high-grade or low-grade standard is included every 40 <sup>th</sup> sample, a controlled blank is also inserted every 40 <sup>th</sup> sample.  The laboratory uses barren flushes to clean their pulveriser and their own internal standards and duplicates to ensure industry best practice quality control is maintained.  Any wet samples are recorded in the database as such and allowed to dry before splitting and dispatching to the laboratory.  All core and RC chips are pulverized prior to splitting in the laboratory to ensure homogenous samples with >85% passing 75um. 200g is extracted by spatula that is used for

Criteria	JORC Code Explanation	Commentary
		the 50g charge on standard fire assays. All samples submitted to the laboratory are sorted and reconciled against the submission documents. The sample size is considered appropriate for the type, style, thickness and consistency of mineralisation.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.  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.  Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	The fire assay method is designed to measure the total gold in the diamond core and RC samples. The technique involves standard fire assay using a 50g sample charge with a lead flux (decomposed in the furnace). The prill is totally digested by HCl and HNO3 acids before measurement of the gold determination with AAS finish to give a lower limit of detection of 0.005 g/t Au. Four acid digest/ICP-MS digest is considered appropriate for surface soil sampling.  No field analyses of gold grades are completed. Quantitative analysis of the gold content and trace elements is undertaken in a controlled laboratory environment.  Industry best practice is employed with the inclusion of duplicates and standards as discussed above and used by Zenith as well as the laboratory. All Zenith standards and blanks are interrogated to ensure they lie within acceptable tolerances. Additionally, sample size, grind size and field duplicates are examined to ensure no bias to gold grades exists.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.	Alternative Zenith personnel must inspect the diamond core and RC chips in the field to verify the correlation of mineralised zones between assay results and lithology, alteration and mineralisation.  All holes are digitally logged in the field and all primary data is forwarded to Zenith's Database Administrator (DBA) where it is imported into MX Deposit, a commercially available and industry accepted database software package. Assay data is electronically merged when received from the laboratory. The responsible

Criteria	JORC Code Explanation	Commentary
		project geologist reviews the data in the database to ensure that it is correct and has merged properly.  The responsible geologist makes the DBA aware of any errors and/or omissions to the database and the corrections (if required) are made in the database immediately.  No adjustments or calibrations are made to any of the assay data recorded in the database.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.  Specification of the grid system used. Quality and adequacy of topographic control.	All drill hole collars are first picked up using a handheld GPS, then picked up using accurate DGPS survey control. All down hole surveys are collected using north-seeking gyro survey tools. All holes are picked up in MGA94 – Zone 56 grid coordinates. Magnetic declination at 9.75° is also taken into account.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.  If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	The core drilling and RC drilling is generally completed orthogonal to the interpreted strike of the target horizon(s).
Sample security	The measures taken to ensure sample security.	Sample security is integral to Zenith's sampling procedures. All bagged samples are delivered directly from the field to the dispatch centre in Biloela. The samples are placed in a Bulka Bag and dispatched overnight to the laboratory in Townsville whereupon the laboratory checks the physically received samples against Zenith's sample submission/dispatch notes.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Sampling techniques and procedures are reviewed prior to the commencement of new work programmes to ensure adequate procedures are in place to maximize the sample collection and sample quality on new programmes. No external audits have been completed to date.

Part 2: Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The Red Mountain Tenement (EPM26384) is owned 100% by Zenith through its wholly owned subsidiary Black Dragon Energy (Aus) Pty Ltd. Heritage surveys were completed as required prior to any ground disturbing activities in accordance with Zenith's responsibilities under the Aboriginal Heritage Act in Australia.</li> <li>Currently the Tenement is in good standing. There are no known impediments to obtaining licences to operate in the area.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Exploration and mining by other parties has been reviewed and is used as a guide to Zenith's exploration activities. There was no previous exploration drilling at Red Mountain before Zenith.
Geology	Deposit type, geological setting and style of mineralisation.	The targeted mineralisation is typical of Permo-Carboniferous Intrusion-Related Gold Systems (IRGS) found elsewhere throughout central and northern Queensland. In all instances the mineralisation is controlled by anastomosing shear zones/fault breccias passing through competent rock units, brittle fracture and stockwork mineralisation is common within the granodiorite and rhyolite host rocks.
Drill hole Information	<ul> <li>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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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</li> </ul>	<ul> <li>All drill holes reported by Zenith must have the following parameters applied. All drill holes completed, including holes with no significant results (as defined in the Appendix tables) are reported in this announcement.</li> <li>Easting and northing are given in MGA94 coordinates as defined in the Appendices.</li> <li>RL is AHD.</li> <li>Dip is the inclination of the hole from the horizontal. Azimuth is measured in magnetic degrees as the direction the hole is drilled. MGA94 and magnetic degrees vary by 9.75° in the project area. All reported azimuths are corrected for magnetic</li> </ul>

Criteria	JORC Code explanation	Commentary
	understanding of the report, the Competent Person should clearly explain why this is the case.	<ul> <li>declinations.</li> <li>Down hole length is the distance measured along the drill hole trace. Intersection length is the thickness of an anomalous gold intersection measured along the drill hole trace.</li> <li>Hole length is the distance from the surface to the end of the hole measured along the drill hole trace.</li> <li>No results currently available from the exploration drilling are excluded from this report. Gold grade intersections &gt;0.3 g/t Au within single metre RC or diamond samples (with up to 5m of internal dilution, where geological continuity is inferred) are considered significant in the broader mineralised host rocks. Diamond core samples are generally cut along geological contacts or up to 1m maximum.</li> <li>Gold grades greater than 0.1 g/t Au are reported.</li> </ul>
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>The first gold assay result received from each sample reported by the laboratory is tabled in the list of significant assays. Subsequent repeat analyses when performed by the laboratory are checked against the original to ensure repeatability of the assay results.</li> <li>Weighted average techniques are applied to determine the grade of the anomalous interval when geological intervals other than 1m have been sampled.</li> <li>Exploration drilling results are generally reported using a 0.1 g/t Au lower cut-off for RC or diamond drilling (as described above and reported in the Attachments) and may include up to 5m of internal dilution.</li> <li>All assay results are reported to 2 decimal places.</li> <li>No metal equivalent reporting is used or applied.</li> </ul>
Relationship between mineralisation	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the</li> </ul>	The intersection length is measured down the length of the hole and is not usually the true width. When sufficient knowledge

Criteria	JORC Code explanation	Commentary
widths and intercept lengths	mineralisation with respect to the drill hole angle is known, its nature should be reported.  If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	on the thickness of the intersection is known an estimate of the true thickness is provided.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	<ul> <li>Detailed drill hole sections and plans for each prospect must be plotted and interpreted as part of the internal QAQC process. Field sections must be compared with Micromine/Leapfrog plots to ensure no errors or omissions creep into the database.</li> <li>The field geologist will interpret/plot their geological observations onto cross sections while logging the hole in the field before validating and transferring the digital data to the DBA.</li> <li>Errors and/or discrepancies with lithological logs must be rectified and forwarded to Perth before the assay results are received.</li> <li>Final cross sections displaying corrected geology and assays are plotted and interpreted. Depending on the target, 3-D wireframes may require construction too. At the very least cross-sectional data must be translated into plan view and the relevant scaled (1:2,500 or 1:25,000) geological interpretation be updated and integrated in QGIS. The project geologist will draft any changes/modifications required as directed by the relevant project geologist / EM.</li> </ul>
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	<ul> <li>Significant widths are defined in the body of the report, detailing cut-off values employed, any internal dilution and from/to intervals.</li> <li>NSR refer to all other intersections that don't meet the criteria described.</li> </ul>
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results;	All known exploration data has been reported in this release and/or referenced from previous announcements and/or historical exploration company reports

Criteria	JORC Code explanation	Commentary
	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.	where appropriate.
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas.</li> </ul>	Details of proposed future work programmes with appropriate plans and cross sections are either reported in the body of this announcement or will be released separately.