

LION ONE ANNOUNCES RECORD GOLD PRODUCTION AT TUVATU, INCREASES PLANT EXPANSION, EXPANDS SURFACE FOOTPRINT SOUTH OF TUVATU, UPDATES TECHNICAL REPORT

North Vancouver, B.C., June 26, 2024 - Lion One Metals Limited (TSX-V: LIO) (OTCQX: LOMLF) (ASX: LLO) (“Lion One” or the “Company”) is pleased to report record preliminary gold production at Tuvatu for the month of June and significantly expands the surface gold-in-soil anomaly to the south of Tuvatu. The company also announces an increase in the planned mill expansion to 600-700 TPD, and files an updated NI43-101 compliant Technical Report with an effective date of June 24, 2024.

Gold production at Tuvatu has steadily increased since the completion of mill commissioning in December 2023/January 2024. A step change in production occurred in June following the commencement of mechanized production. The total gold recovered for the month of June up to and including June 24th is approximately 1370 oz of gold, with projected gold recovered of approximately 1700 oz for the month.

Soil sampling to the south of Tuvatu has revealed a 650 m extension of anomalous gold at surface. High-grade gold in soil results were recovered along a north-south corridor directly south of and along strike from the known deposit at Tuvatu. The gold anomaly is coincident with wider arsenic, lead, and zinc anomalies, which are known pathfinders for gold, thereby widening the potential footprint of the gold mineralization. The Tuvatu deposit has a north-south strike length of approximately 950 m. The southern soil extension therefore represents a potential 70% increase in the overall strike length of Tuvatu. These soil results are a significant discovery at Tuvatu and represent a prime target for near-mine exploration and resource expansion. They highlight the potential for more discovery both near-mine at Tuvatu and regionally throughout the Navilawa Caldera.

The planned mill expansion has been increased to 600-700 TPD. The current pilot plant operation has a name plate capacity of 300 TPD, and the originally planned expansion was to 500 TPD. The expansion has now been increased to 600-700 TPD, which represents a doubling of the name plate capacity at Tuvatu. The expansion is expected to be complete in mid-2025.

Highlights:

- **Record gold production for the month of June**
- **Consistent month-over-month increase in gold production since January 2024**
- **650 m high-grade gold-in-soil anomaly extension to the south of Tuvatu**
- **Coincident arsenic-, lead-, and zinc-in-soil anomalies**
- **Potential 70% increase in strike length of Tuvatu**
- **Increased planned mill expansion to 600-700 TPD**



Figure 1. Gold Dore Bars Poured at Tuvatu. Gold doré bars poured for the June 25th, 2024 gold sale.

Gold Production

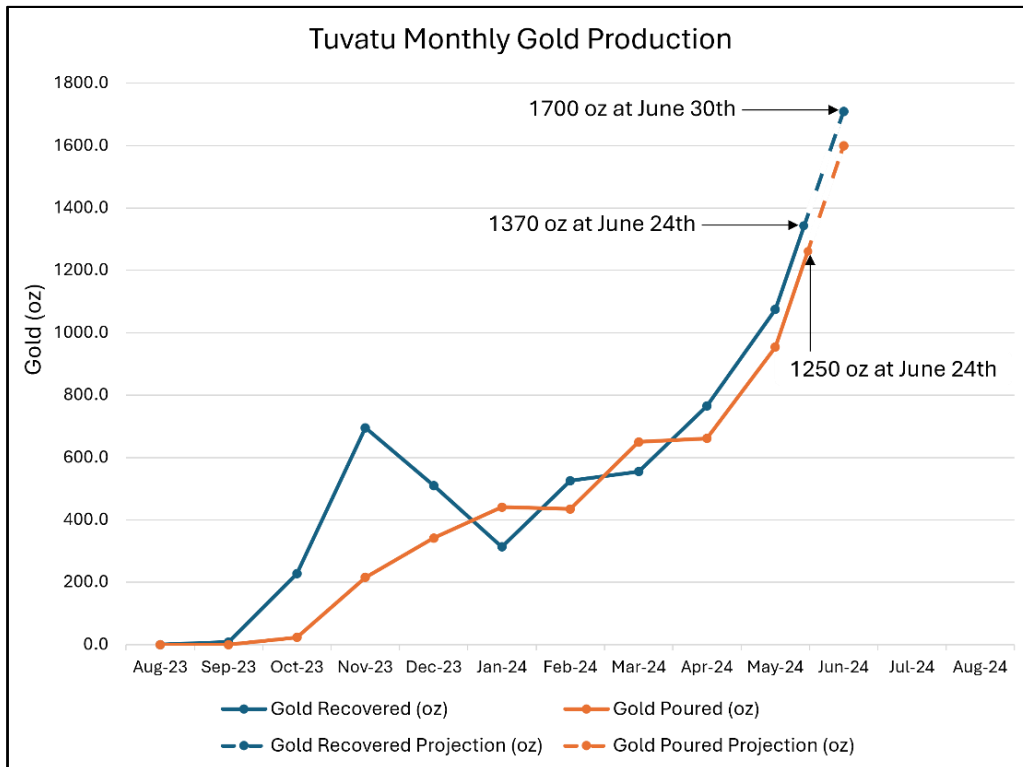


Figure 2. Tuvatu Monthly Gold Production. Gold recovery and production has increased steadily at Tuvatu as mining and processing activities have ramped up during the pilot plant phase of operations. Projected gold recovery for June is approximately 1700 oz with approximately 1370 oz recovered as of June 24th.

Gold production at Tuvatu has steadily increased since the first gold pour in October 2023 and the completion of mill commissioning in December 2023/January 2024. Record gold production of approximately 1700 oz is projected for June 2024, with 1370 oz of gold already recovered as of June 24th, 2024. This is a step change increase in production from previous months and is a result of the onset of mechanized production mining at Tuvatu.

During the period from October 2023 to May 2024, the majority of the material mined at Tuvatu was development material, with limited production material resulting from handheld mining methods. Mechanized production mining commenced in mid-May with the first long hole stope blast occurring on May 18th, as reported in the [June 5, 2024](#) news release. The proportion of production material being processed at Tuvatu has therefore increased in May and June, with further increases expected as the mine continues to develop.

Long hole stoping is ongoing both in Zone 2 and in Zone 5. In Zone 2, where the deposit is characterized by a large stockwork zone of mineralization, the mining widths are 10 m to 12 m wide. In Zone 5, where the deposit is characterized by high grade narrow vein mineralization, the mining widths are 0.9 m to 1.2 m wide.

Plant Expansion

Mill throughput at Tuvatu has also increased steadily from January to June 2024. The current name plate capacity of the Tuvatu processing plant is 300 TPD. As a result of improved efficiency initiatives, the plant is now capable of operating sustainably at over 400 TPD. This has resulted in steadily increased tonnage from February to May with a record throughput of over 11,000 tonnes in May. Mill throughput in June is projected to be over 10,000 tonnes (Figure 3).

The Tuvatu processing plant is a modular processing plant that was originally planned for a staged expansion up to 500 TPD. As a result of the successful mining operations and the increased throughput achieved at the 300 TPD capacity, the company is now planning to expand plant operations from 300 TPD directly to 600-700 TPD. This is expected to double mill throughput and production at Tuvatu. The plant expansion is anticipated to be complete in mid-2025.

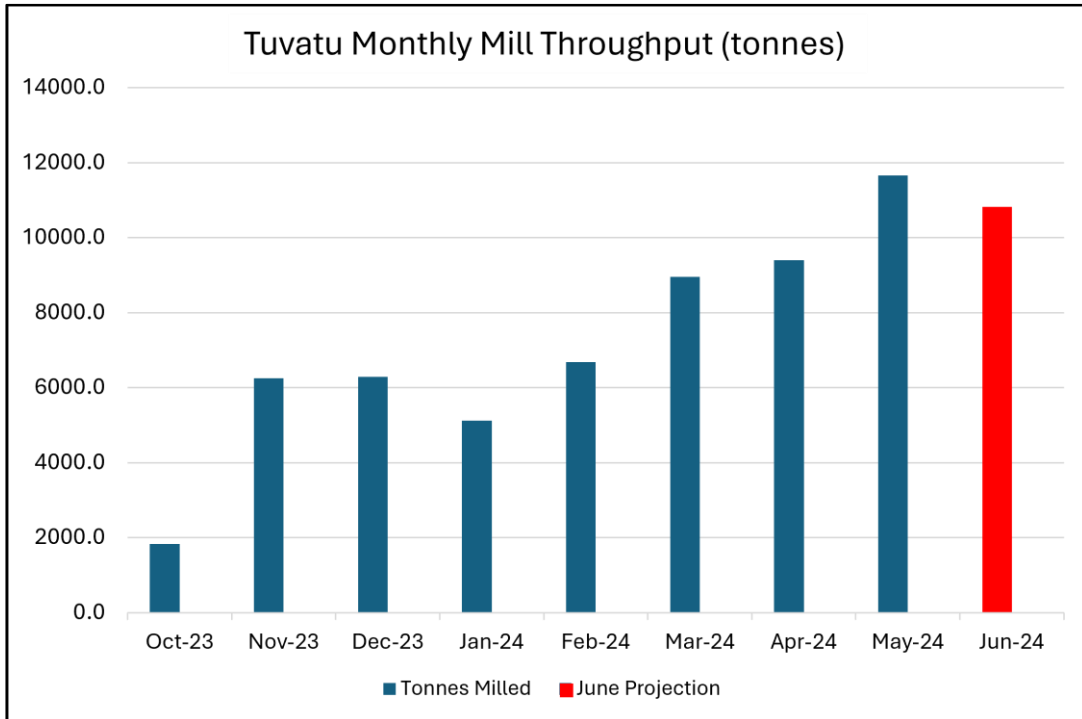


Figure 3. Tuvatu Monthly Mill Throughput. Mill throughput at Tuvatu has steadily increased since the first gold pour in October 2023. A significant increase in production was achieved from February to May as a result of the successful implementation of debottlenecking and efficiency improvement initiatives at the plant.

Soil Sampling and Gold Extension

As part of Lion One’s regional exploration program, a near-mine soil sampling program has been completed. The soil program is divided into two halves: the West Grid and the East Grid (Figure 4). The West Grid encompasses the area immediately to the West of Tuvatu, including the West Zone, as well as the area immediately to the south of Tuvatu. The East Grid encompasses the area immediately to the east of Tuvatu.

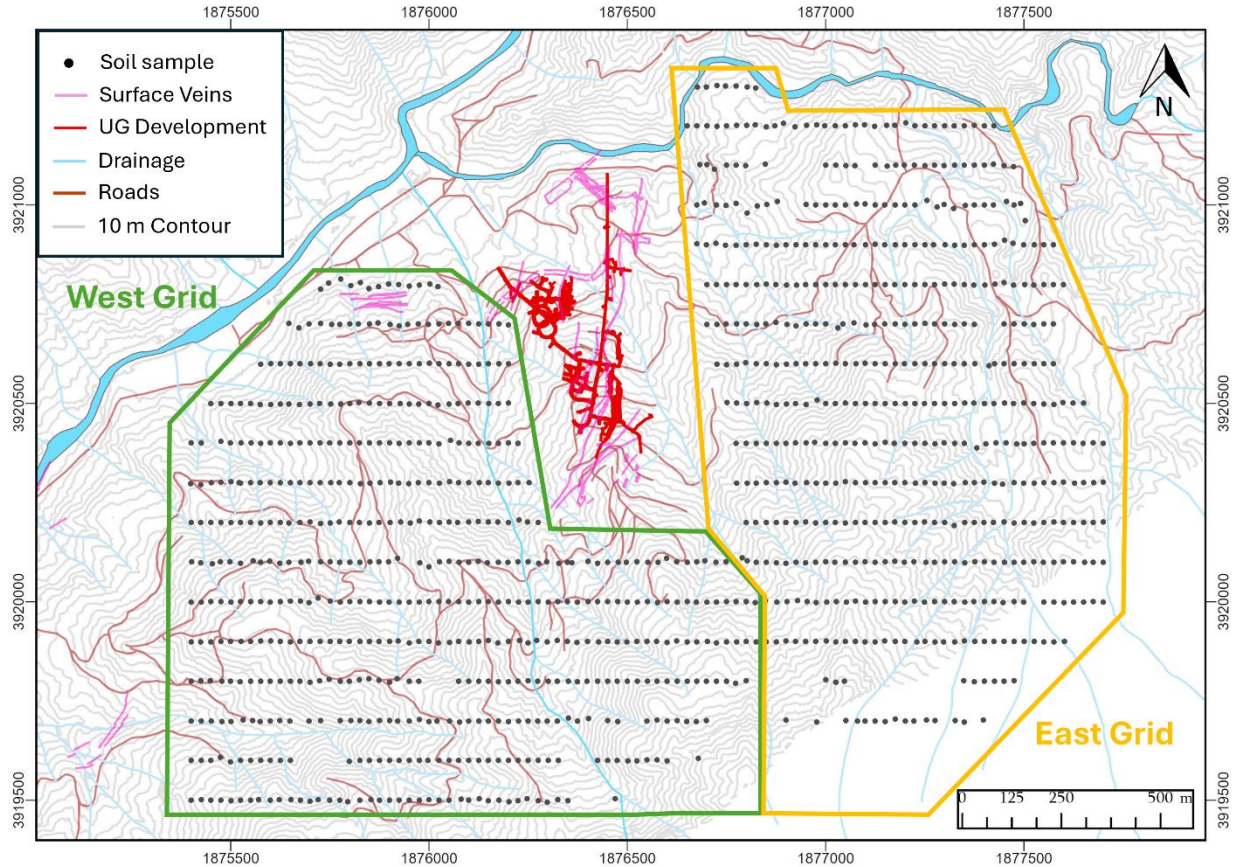


Figure 4. Tuvatu Soil Sample Locations. The 2024 near-mine soil sample program is divided into two sections – a West Grid and an East Grid.

The soil sampling program consisted of 25 m spacing between samples and 100 m spacing between sample lines. Samples were collected from the B or C horizon of the soil profile by means of hand auger with extension rod. A total of 549 samples were collected across 14 lines in the West Grid, with a total of 521 samples collected across 17 lines in the East Grid, for a total of 1070 samples across both grids. Assay results from the West Grid have been received whereas those from the East Grid are still outstanding. Peak gold assay results returned from the West Grid are 1.66 g/t, 0.65 g/t, 0.57 g/t, and 0.51 g/t gold, which are significantly above background values and are considered very high-grade for soil samples. A total of 19 samples returned gold assays above 0.1 g/t gold. This compares favourably to the Tuvatu deposit itself, which is associated with a 0.05 g/t surface gold-in-soil anomaly from historic auger soil surveys. Soil assay results above 0.1 g/t gold are available in Table 3 in the appendix.

Assay results from the West Grid indicate a clear 650 m long north-south gold anomaly immediately to the south of and along strike from the known mineralization at Tuvatu. The Tuvatu deposit has a known strike length of 950 m and therefore these results indicate a potential 70% increase in the strike length of Tuvatu. The gold-in-soil anomaly is coincident with wider arsenic, lead, and zinc anomalies, all of which are known pathfinders for gold, thereby increasing the strength of the anomaly. These soil results are a new discovery at Tuvatu and represent a prime target for near-mine exploration and resource expansion. Making such a significant discovery in close proximity to Tuvatu highlights the potential for more discovery both near-mine at Tuvatu and throughout the Navilawa Caldera. Strong gold soil assay results were also observed in the West Zone.

In 2023 Lion One upgraded the multi-element assay capacity at its Nadi laboratory. This increase in capacity has enabled Lion One to incorporate widespread soil sampling into its exploration program. Throughout 2024 and 2025 further soil sampling campaigns will be completed targeting extensions of

Tuvatu, as well as gold only and copper-gold targets throughout the Navilawa caldera.

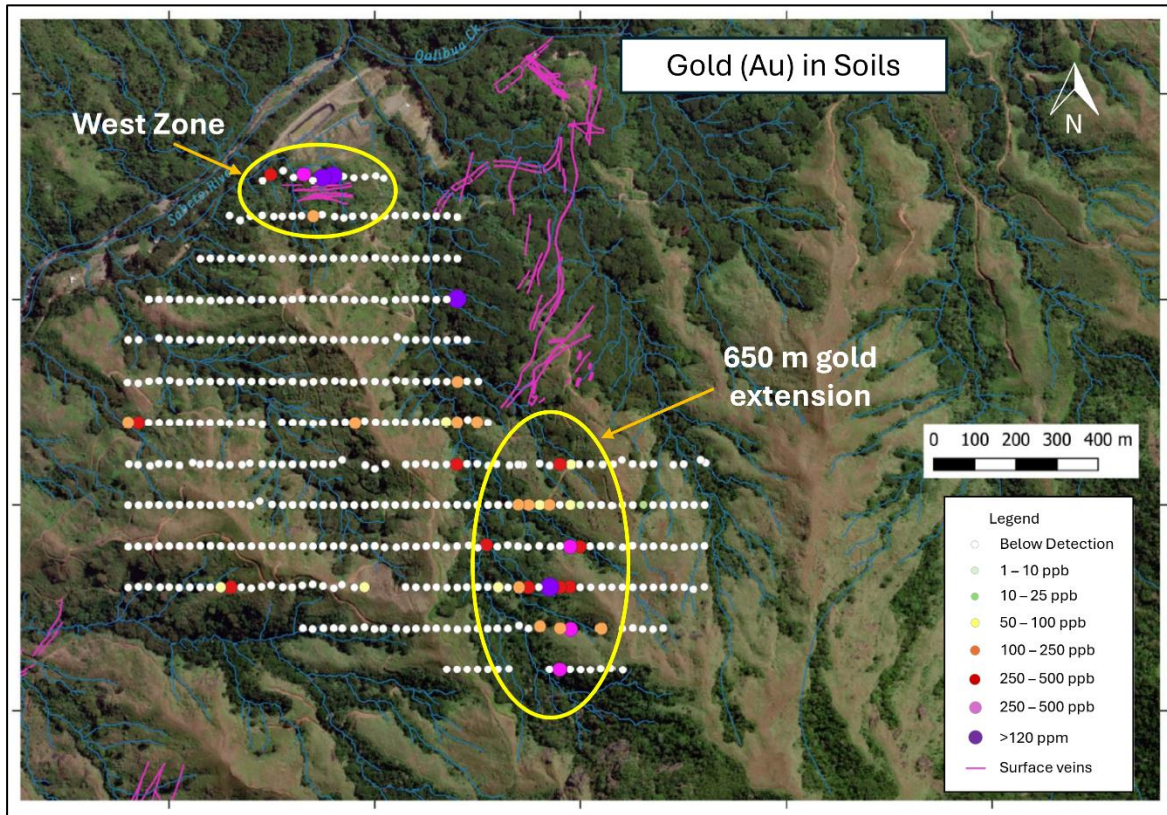


Figure 5. Gold Soil Assay Results, West Grid. The gold assay results from the West Grid soil sampling program reveal a clear 650 m long north-south anomaly directly south of and along strike from the Tuvatu deposit. This represents a potential 70% increase in the strike length of Tuvatu and is a prime target for near-mine exploration and resource expansion. Strong gold results are also observed in the West Zone.

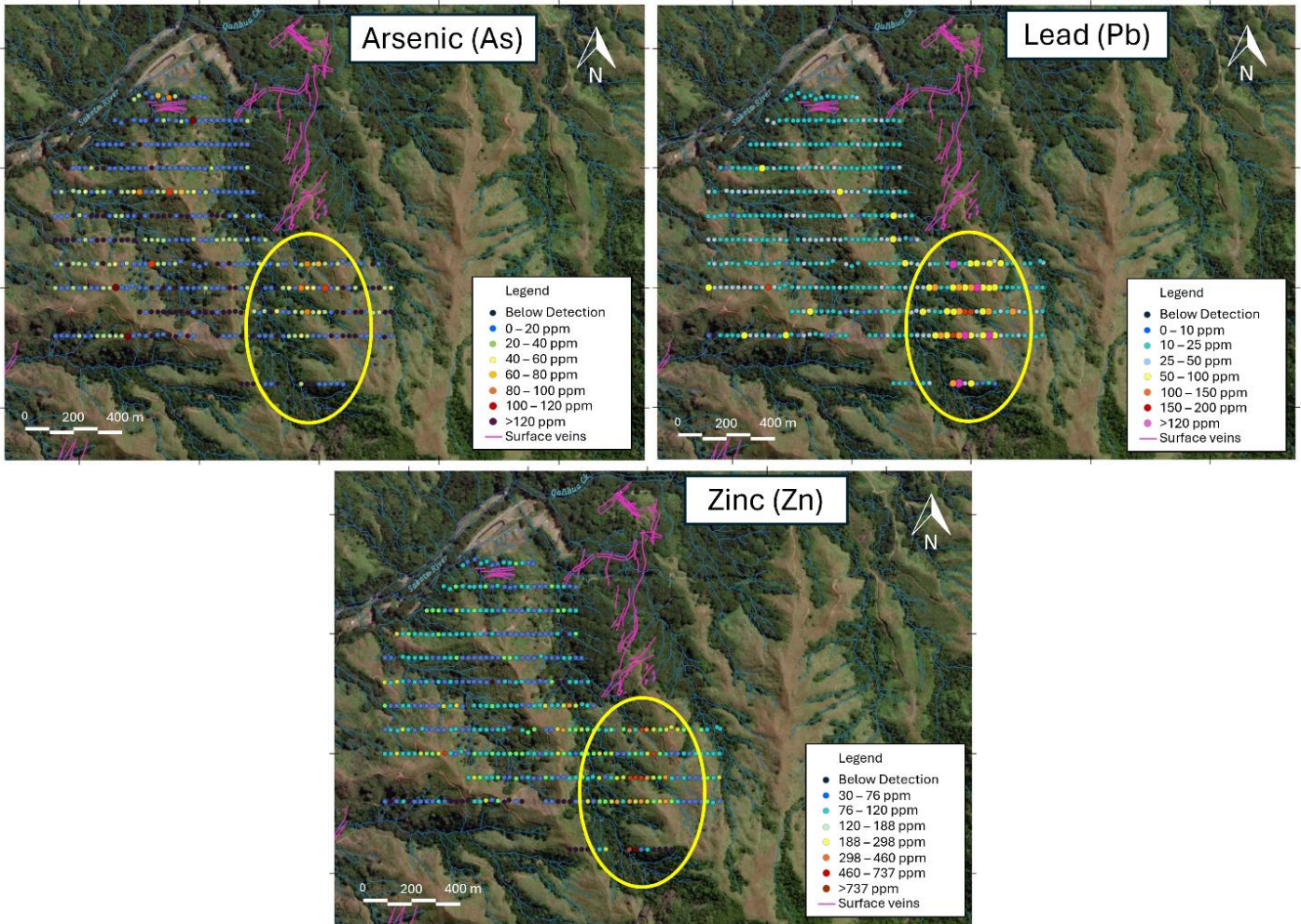


Figure 6. Arsenic, Lead, and Zinc Soil Assay Results, West Grid. The arsenic, lead, and zinc assay results from the West Grid soil sampling program also reveal a strong north-south anomaly directly south of and along strike from the known deposit at Tuvatu.

It is important to note that the gold assays reported here exhibit a binary grade distribution whereas a bell curve distribution would be expected to result from a soil sample grid. Low grade gold assay results appear to be under-represented in the soil survey and an investigation is underway to determine if this is due to higher than expected detection limits in the lab. The under-representation of gold assays has been highlighted by the failed detection of low grade QAQC Samples (0.016 and 0.049 g/t Certified Reference Material). Higher grade QAQC samples performed successfully with respect to accuracy and precision indicating that the high gold in soil values are valid. Duplicate samples will be sent to ALS Australia to determine the low-grade gold results. With a bell curve distribution of gold assay results it would be expected that the gold anomalies presented in Figure 5 would broaden out with low grade results, similar to the arsenic, lead, and zinc anomalies seen in Figure 6.

NI 43-101 Technical Report

Lion One Metals has SEDAR-filed an updated NI 43-101 Technical Report for Tuvatu with an effective date of June 24, 2024. An independent mineral resource estimate (MRE) has been carried out for gold contained in the portion of the Tuvatu Property that is currently being developed and mined. The effective date of the MRE is March 25, 2024, and is based on a drillhole dataset in csv format, 69 wireframes representing mineralized veins and zones in the Tuvatu deposit, as well as underground

development as of March 24, 2024, all in dxf format and all provided by Lion One. Two wireframes representing satellite mineralization around Zones Two and Five that were not captured by the wireframes for those zones were provided by Lion One on April 05, 2024.

The drillhole database, including pre-Lion One drilling, contained 7,592 collar locations and 240,002 assays for gold. Some samples fall outside the limits of the MRE, and their exclusion resulted in a useable data set of 233,703 assays. Assays for sludge (69) and face (channel) samples (6,205) were removed from the data set. The sludge samples were removed because the source location of their assay values cannot be established with sufficient accuracy for use in an MRE. The face samples were removed because attempts to reconcile estimated resources against mined resources within Zone Two resulted in an overestimation of gold present when face samples were included in the dataset. A further 30 samples were removed because they had anomalously long lengths and were either of unidentified source or had not been sampled. The resultant imported dataset included 1,288 collars and 233,703 gold assays. All sample data used for the MRE was obtained from drill core samples (85%) and reverse circulation cuttings (15%).

The estimated tonnes and ounces of gold represented by the Underground Development were subtracted from the estimated tonnes and ounces of gold estimated for the 69 Domains and the net (depleted) resource within the 69 Domains is reported as the current MRE. The resource within the Outside Domains is reported separately. Blocks were classified as Indicated or Inferred. For the 69 Domains, classification was carried out using all composites for all 69 domains. Classification of the Underground Development was carried out using composites for only that domain. In both cases, interpolation was by ID². The Outside Domains were classified as Inferred. The search ellipse for the Indicated class is of the same dimensions as that used for the first interpolation pass for most domains. The Inferred classification was designed to capture all blocks in each domain that fall outside the Indicated category.

Table 1 summarizes the Tuvatu MRE for the 69 Domains by Class. The left-hand columns of the table show the gross tonnes and ounces within the 69 Domains, the central columns show the tonnes and ounces in the Underground Development, and the right-hand columns show the resources in the 69 Domains net of the tonnes and ounces in the Underground Development. The base case is taken as 3 g/t and is highlighted. Table 2 shows the resource in the Outside Domains. The 3 g/t base case is highlighted.

Table 1. Tuvatu 69 Domains Mineral Resource Estimate Summary Net of Underground Development

CutOff Au g/t	Classification	69 Domains Gross			Underground Development			69 Domains Net		
		Au g/t	Tonnes	Ounces	Au g/t	Tonnes	Ounces	Au g/t	Net Tonnes	Net Ounces
4	Indicated	9.95	500,000	160,000	5.00	8,000	1,300	10.05	492,000	159,000
4	Inferred	9.47	958,000	292,000	5.22	2,000	300	9.50	956,000	292,000
3	Indicated	8.41	655,000	177,000	4.44	14,000	2,000	8.48	642,000	175,000
3	Inferred	7.61	1,388,000	340,000	4.43	3,000	500	7.62	1,384,000	339,000
2	Indicated	6.89	880,000	195,000	3.84	19,000	2,300	6.97	861,000	193,000
2	Inferred	5.99	2,023,000	389,000	4.23	4,000	500	5.99	2,019,000	389,000

Table 2. Tuvatu Mineral Resource Summary for Outside Domains

CutOff Au g/t	Classification	Au g/t	Tonnes	Ounces Au
4	Inferred	11.72	8,000	3,000
3	Inferred	9.32	11,000	3,000
2	Inferred	7.47	15,000	4,000

- a) Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
b) There is no certainty that all or any part of the Mineral Resources estimated will be converted into Mineral Reserves.

- c) Mineral Resource tonnage and contained metal have been rounded to reflect the accuracy of the estimate, and numbers may not add due to rounding.
- d) The base case is based on a 3 g/t Au cutoff and cost estimates for mining of US\$56/tonne, processing of US\$56/tonne and G&A of US\$25/tonne; gold recovery of 80%; and a three-year trailing gold price of US\$1,973/ounce.
- e) Mineral Resource tonnage and grades are reported as undiluted.
- f) The effective date of the mineral resource estimate is March 25, 2024

The MRE in the NI 43-101 Technical Report was prepared independently by Gregory Z. Mosher, P. Geo. with cooperation and information from Lion One geologists. Other portions of the Technical Report were prepared by Darren Holden, Ph.D., FAusIMM and William J. Witte, P.Eng. Messrs. Mosher, Holden and Witte have read and approved this news release, and consent to the inclusion in this news release of the matters based on form and context of the June 24, 2024 “NI 43-101 Technical Report and Mineral Estimate Tuvatu Gold Project.”

The Technical Report is available for download from SEDAR and from the company’s website.

Competent Persons Statement

The information in this report that relates to mineral exploration at the Tuvatu Gold Project is based on information compiled by the Lion One team and reviewed by Alex Nichol, who is the company’s Vice President of Geology and Exploration. Mr Nichol is a Member of the Australian Institute of Geoscientists and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration, and to the activity being undertaken, 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’ (JORC code). Mr Nichol has read and approved this news release and consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

Lion One Laboratories / QAQC

Lion One adheres to rigorous QAQC procedures above and beyond basic regulatory guidelines in conducting its drilling, sampling, testing, and analyses. The Company operates its own geochemical assay laboratory and its own fleet of diamond drill rigs using PQ, HQ and NQ sized drill rods.

Diamond drill core samples are logged and split by Lion One personnel on site and delivered to the Lion One Laboratory for preparation and analysis. All drill samples are pulverized at the Lion One lab to 85% passing through 75 microns and gold analysis is carried out using fire assay with an AA finish. Samples that return grades greater than 10.00 g/t Au are re-analyzed by gravimetric method, which is considered more accurate for very high-grade samples.

For soil samples, 2 samples (A & B) of 2 kg each are taken using a hand auger at each sampling site. The A- sample is then dried and sieved using -80 stainless steel mesh at the Lion One Laboratory and assayed for gold and multi-element. Each batch of 50 samples will have one specific low-grade CRM, one blank and one duplicate. The B duplicate sample is retained for further testing.

Due to the elevated gold detection limits observed at the Lion One laboratory (not suitable for less than 100 part per billion analysis), a sub-set of the soil campaign will be sent to ALS in Australia. The sub-set will be based on the area defined by the multi-element soil anomaly as defined by the associated pathfinder elements (As, Cu, Pb, Te and Zn). The Lion One lab can test a range of up to 71 elements through Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES), but currently focuses on a suite of 23 important pathfinder elements with an aqua regia digest and ICP-OES finish.

About Lion One Metals Limited

Lion One Metals is an emerging Canadian gold producer headquartered in North Vancouver BC, with

new operations established in late 2023 at its 100% owned Tuvatu Alkaline Gold Project in Fiji. The Tuvatu project comprises the high-grade Tuvatu Alkaline Gold Deposit, the Underground Gold Mine, the Pilot Plant, and the Assay Lab. The Company also has an extensive exploration license covering the entire Navilawa Caldera, which is host to multiple mineralized zones and highly prospective exploration targets.

On behalf of the Board of Directors,

Walter Berukoff, Chairman & CEO

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Appendix 1: Soil Survey Results

Table 3. Soil Survey Results and Sample Coordinates.

Assay results >0.01 ppm Au, listed in descending gold grade. Coordinates are in Fiji map grid.

Campaign	Sample ID	Easting	Northing	Elevation	Au (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
West Grid	TUS042758	1875872	3920795	158	1.66	85.87	356.88	15.73	68.52
West Grid	TUS042992	1876426	3919800	513	0.65	44.54	107.33	185.56	448.61
West Grid	TUS029726	1876200	3920502	251	0.57	38.32	291.54	39.55	128.75
West Grid	TUS042757	1875898	3920801	153	0.51	38.28	430.55	19.55	95.53
West Grid	TUS042760	1875827	3920804	141	0.46	60.54	723.80	17.17	77.05
West Grid	TUS043419	1876475	3919899	490	0.32	27.55	45.14	157.49	531.85
West Grid	TUS043473	1876476	3919699	565	0.32	14.41	145.29	1026.32	625.58
West Grid	TUS043040	1876450	3919600	566	0.30	-2.00	200.42	418.29	1004.67
West Grid	TUS042994	1876374	3919799	484	0.25	30.01	100.61	113.63	406.11
West Grid	TUS042990	1876475	3919801	551	0.21	18.51	115.49	203.49	421.93
West Grid	TUS042991	1876451	3919800	533	0.20	35.83	52.98	125.98	259.39
West Grid	TUS043418	1876499	3919899	499	0.16	49.00	41.27	188.75	368.49
West Grid	TUS043051	1876150	3919600	525	0.14	15.58	137.55	36.04	51.03
West Grid	TUS043361	1876450	3920100	424	0.13	89.51	48.90	17.55	112.42
West Grid	TUS042763	1875747	3920803	131	0.12	30.72	268.30	19.86	69.08
West Grid	TUS043372	1876199	3920099	375	0.12	6.04	396.43	22.94	141.70
West Grid	TUS043427	1876272	3919903	419	0.12	28.69	783.24	28.20	116.41
West Grid	TUS042914	1875424	3920199	235	0.11	-2.00	134.17	28.84	73.74
West Grid	TUS043022	1875650	3919800	365	0.11	23.85	347.85	28.16	64.32
West Grid	TUS042932	1876425	3920000	451	0.09	81.77	94.32	59.56	90.20
West Grid	TUS043475	1876402	3919705	518	0.09	-2.00	170.74	100.30	288.02
West Grid	TUS029715	1875850	3920700	197	0.08	20.04	818.54	23.83	67.94
West Grid	TUS042935	1876349	3920000	412	0.08	31.13	126.37	110.99	290.18
West Grid	TUS042830	1876200	3920200	395	0.07	24.15	763.27	31.47	194.71
West Grid	TUS042995	1876351	3919800	472	0.07	7.89	119.15	70.05	269.94
West Grid	TUS042828	1876249	3920201	412	0.06	5.77	225.06	7.17	77.48
West Grid	TUS042841	1875952	3920199	429	0.06	14.74	335.24	38.75	83.08
West Grid	TUS042915	1875400	3920200	216	0.06	-2.00	94.37	37.65	159.21
West Grid	TUS042934	1876375	3920000	424	0.06	49.60	139.55	21.79	63.75
West Grid	TUS043311	1876201	3920299	295	0.06	4.97	220.44	26.12	87.26
West Grid	TUS043472	1876549	3919700	603	0.06	-2.00	158.47	216.27	625.89
West Grid	TUS043474	1876451	3919700	551	0.06	7.76	93.72	164.40	735.42
West Grid	TUS043610	1877225	3921000	308	0.06	9.18	150.51	22.62	52.68
West Grid	TUS042832	1876174	3920201	392	0.05	2.61	1328.20	84.90	460.19
West Grid	TUS043602	1875570	3919501	395	0.05	7.93	175.16	28.39	60.61
West Grid	TUS043639	1876749	3920999	230	0.05	5.12	196.58	6.42	77.58
West Grid	TUS042933	1876401	3920000	435	0.04	7.09	92.96	14.78	46.70
West Grid	TUS042929	1876476	3920000	476	0.03	59.58	113.89	98.82	119.73
West Grid	TUS042997	1876300	3919800	466	0.03	2.36	124.99	29.54	143.92

West Grid	TUS043009	1875975	3919800	450	0.03	14.16	349.91	18.73	26.58
West Grid	TUS043023	1875625	3919800	353	0.03	20.95	289.63	23.01	91.65
West Grid	TUS043067	1875650	3919600	336	0.03	27.25	235.12	51.27	451.76
West Grid	TUS043360	1876477	3920100	433	0.03	33.05	88.13	24.02	593.92
West Grid	TUS042922	1876651	3920001	502	0.02	25.63	43.99	14.76	115.16
West Grid	TUS043052	1876125	3919600	512	0.02	13.94	107.52	38.23	53.83
West Grid	TUS043060	1875950	3919600	438	0.02	12.78	127.97	19.67	46.91
West Grid	TUS043643	1876675	3921000	205	0.02	3.04	111.90	10.98	46.16
West Grid	TUS042928	1876501	3920000	488	0.01	8.67	168.25	123.02	297.71
West Grid	TUS043055	1876075	3919600	490	0.01	24.33	263.76	25.69	177.13
West Grid	TUS043062	1875900	3919600	425	0.01	14.14	188.67	24.05	58.63
West Grid	TUS043603	1875550	3919500	386	0.01	5.20	115.93	29.26	83.84
West Grid	TUS043642	1876695	3921005	206	0.01	11.61	387.47	4.15	116.82
West Grid	TUS043645	1877550	3920900	351	0.01	-2.00	92.61	4.31	40.56