

ASX Release

3.9m @ 8.3% Cu and 3m @ 7.6g/t Au in latest Liontown results Cu-Au rich footwall lode extensions intersected

Highlights

- Previous owners of Liontown completed 25 diamond holes. Of these, assays for 18 holes were announced by Sunshine (ASX 8 May 2023, 30 May 2023, 5 July 2023, 19 July 2023).
- Assays have now been received for a further 2 holes and include numerous high-grade Cu-Au and Pb-Zn intersections:
 - 3.9m @ 23.2% ZnEq*** comprising **8.3% Cu and 0.2g/t Au** (from 99m, LTDD22074, Western Footwall)
 - Incl. **2m @ 33.0% ZnEq*** comprising **11.8% Cu and 0.3g/t Au** (from 100m)
 - 3m @ 13.4% ZnEq*** comprising **7.6g/t Au and 0.3% Cu** (from 298m, LTDD22069A, New Queen extension)
 - Incl. **2m @ 19.2% ZnEq*** comprising **11.3g/t Au and 0.4% Cu** (from 299m)
 - 4m @ 12.2% ZnEq*** comprising **1.5g/t Au, 1.7% Cu, 4.9% Zn** (from 145m, LTDD22074, Carrington)
- These results continue to show Resource growth potential to both the east (LTDD22069A) and west (LTDD22074) of the existing Liontown Resource (2.29 Mt @ 10.78% ZnEq*)
- Of the remaining 5 holes, 3 are pending assay, 1 hole is being sampled and 1 was abandoned before target depth.

Sunshine Metals Limited (ASX:SHN, "Sunshine") has received assays for a further 2 diamond drill holes from Liontown at the Ravenswood Consolidated Project (100%), North Queensland.

Sunshine Managing Director, Dr Damien Keys, commented "Diamond drilling results from Liontown continue to deliver high-grade copper and gold in the footwall lodes. The latest intercepts extend the New Queen Lode 180m beyond the reported Resource and will likely add more metal to the existing high-grade Resource when updated in late 2023. All remaining diamond samples have been dispatched to the laboratory and the focus has now shifted to field validation of targets ahead of drilling in late August 2023."

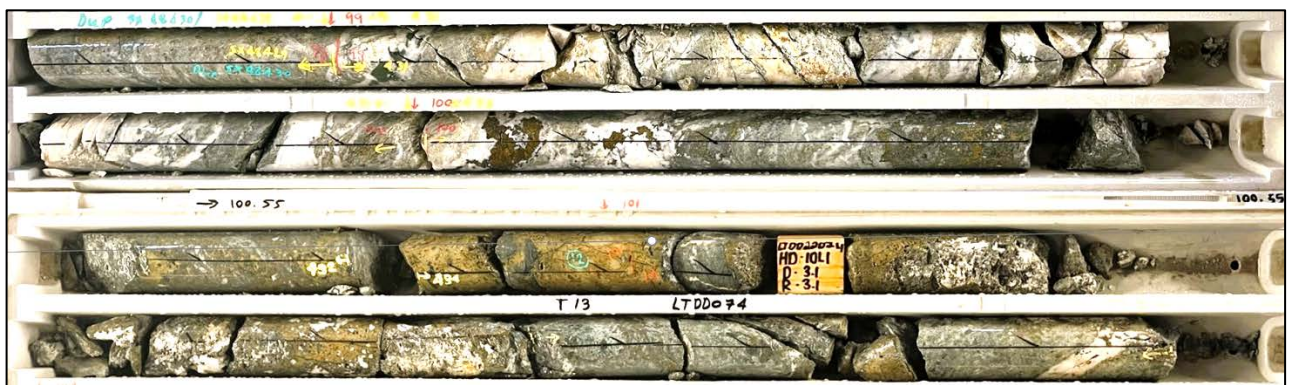


Figure 1: Chalcopyrite and quartz veining from 99m in LTDD22074 within an interval of 3.9m @ 8.30% Cu & 0.20g/t Au.

Cautionary Statement: *Sunshine has entered into binding agreements to acquire 100% of Greater Lontown in two separate transactions with unrelated, third parties. These acquisitions are subject to the satisfaction of certain conditions prior to completion of the transactions. Greater Lontown is not yet owned by Sunshine. Conditions precedent are to be satisfied prior to completion.*

Continued success within the Cu-Au rich footwall horizons

Modelling of the Lontown Resource indicates the deposit is comprised of both Cu-Au rich and Zn-Pb rich lodes within a Volcanogenic Massive Sulphide (VMS) system. The hangingwall lodes, such as Main Lode and New Queen, trend towards more Zn-Pb dominant; whereas the footwall lodes, such as Carrington, Western Footwall and the Gap, are principally more Cu-Au enriched.

Assays have now been received for a further 2 holes at Lontown that targeted the eastern and western extremities of the current Resource.

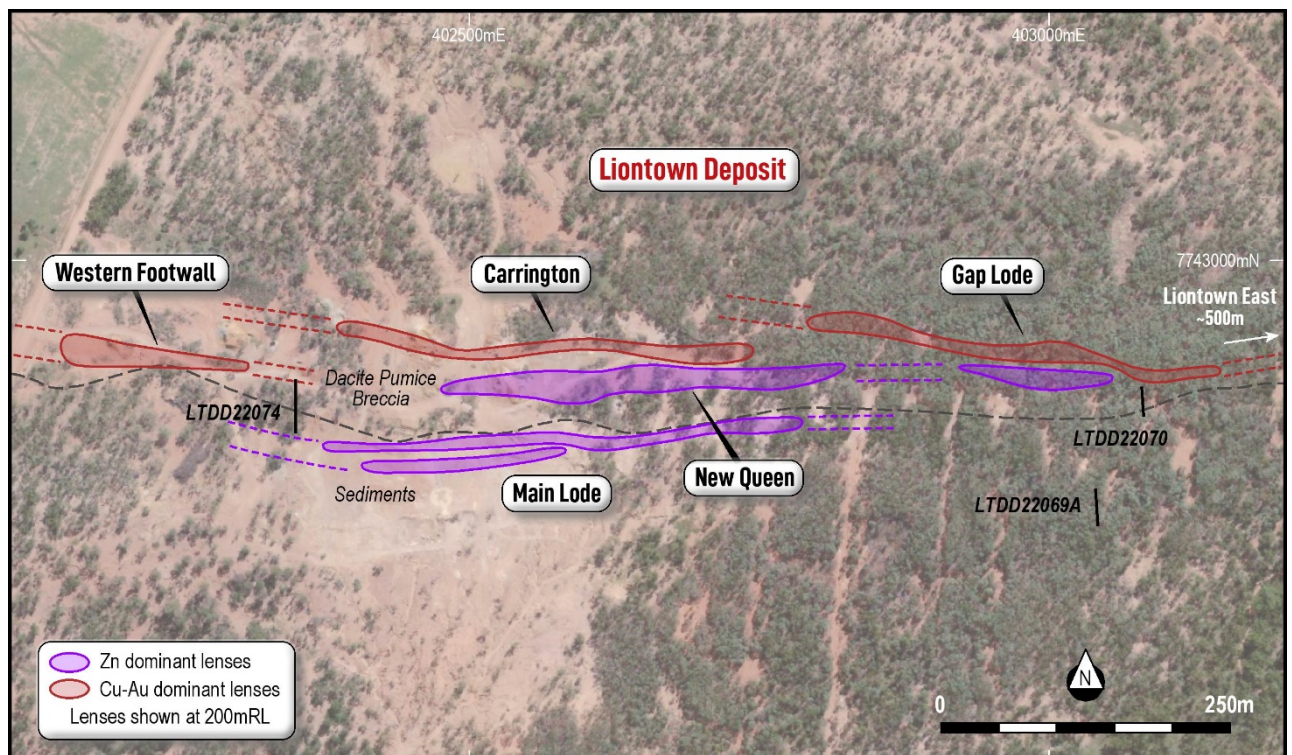


Figure 2: Plan view of the Lontown lodes, showing Zn-dominant lenses (purple) to the south (hangingwall) and Cu-Au enriched lodes (red) to the north (footwall).

Hole LTDD22069A targeted the eastern end of the New Queen Lode. New Queen was intersected 180m below the existing Resource and presented as a Au-rich zone. The lack of Zn, Pb and Ag in the LTDD22069A intersection highlights a possible vertical zonation to mineral distribution. The hole was drilled to steeply to intersect the Gap Lode, which extends between Lontown and Lontown East. The New Queen intersection grades:

- **3m @ 13.35% ZnEq*** comprising **7.63g/t Au and 0.34% Cu** (from 298m, LTDD22069A, New Queen extension)
 - Incl. **2m @ 19.19% ZnEq*** comprising **11.27g/t Au and 0.36% Cu** (from 299m)

The Zn dominant Main Lode was also intercepted shallower in the drill hole. The intersection returned:

- **5.95m @ 2.33% ZnEq*** comprising 0.57g/t Au, 0.35% Pb and 1.13% Zn (from 95.55m, Main Lode extension)

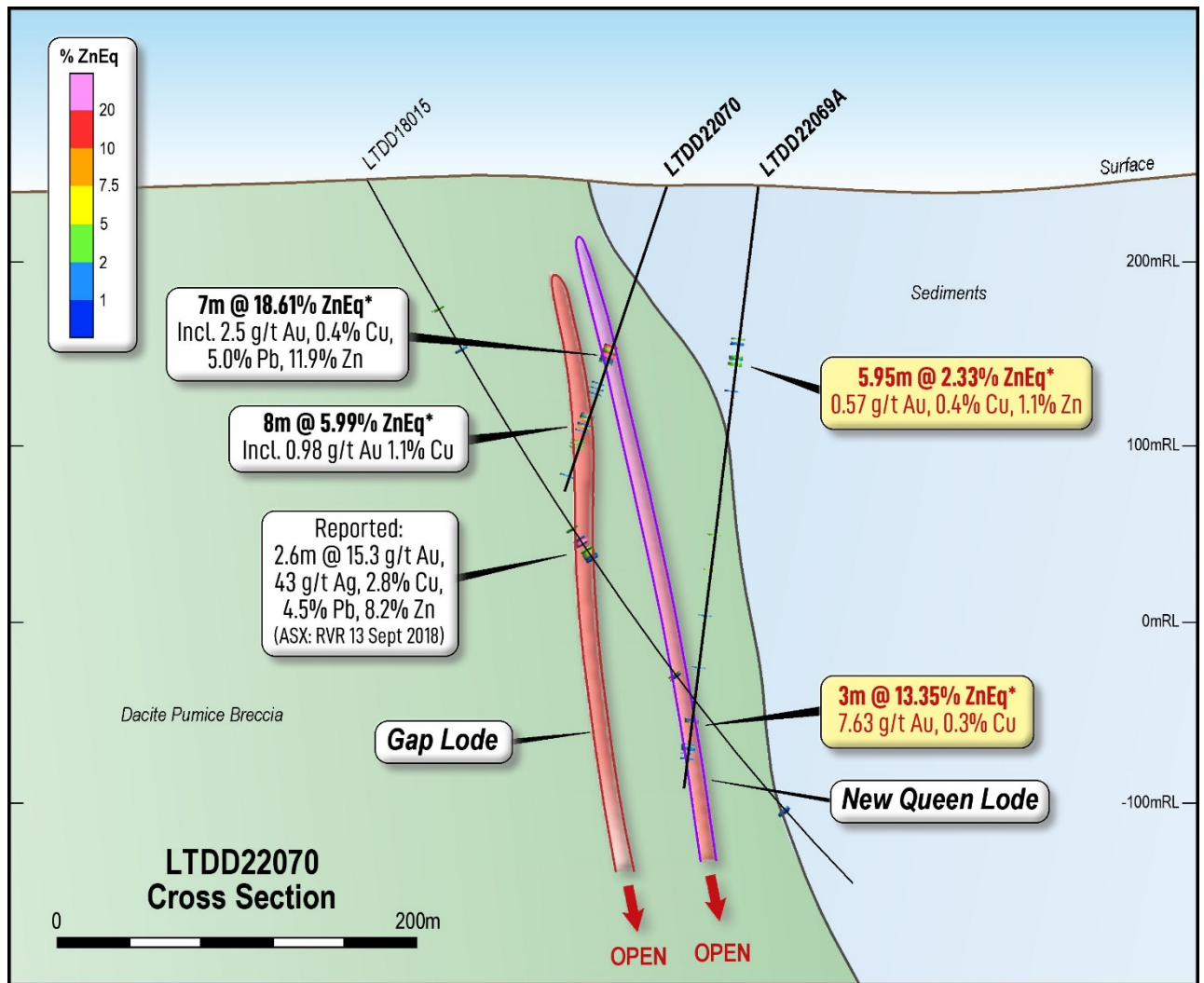


Figure 3: Cross-section through LTDD22069A and LTDD22070 showing high-grade intercepts through the New Queen and Gap Lodes.

To the west, drillhole LTDD22074 tested the Western Footwall and Carrington Lodes. Significantly, the drillhole also identified an extension of the Main Lode, 120m further west than currently modelled. Higher grade intervals included:

- **3.0m @ 5.14% ZnEq*** comprising 0.99% Cu and **2.49% Zn** (from 83m, extension of the Main Lode)
- **3.9m @ 23.20% ZnEq*** comprising **8.30% Cu** (from 99m, NQ)
- **2.1m @ 6.00% ZnEq*** comprising 0.31% Pb and **6.23% Zn** (from 112m, NQ)
- **4.0m @ 12.21% ZnEq*** comprising **1.46g/t Au, 1.73% Cu**, 14g/t Ag, 1.23% Pb and 4.86% Zn (from 145m, Western Footwall)
- **1.0m @ 17.51% ZnEq*** comprising **6.40g/t Au, 2.19% Cu**, 16g/t Ag and 1.18% Zn (from 271m, Carrington North)

Geological logging of holes is now complete. Of the remaining 5 holes, 3 are pending assay and 1 hole is being cut and sampled. One hole was abandoned before reaching target depth.

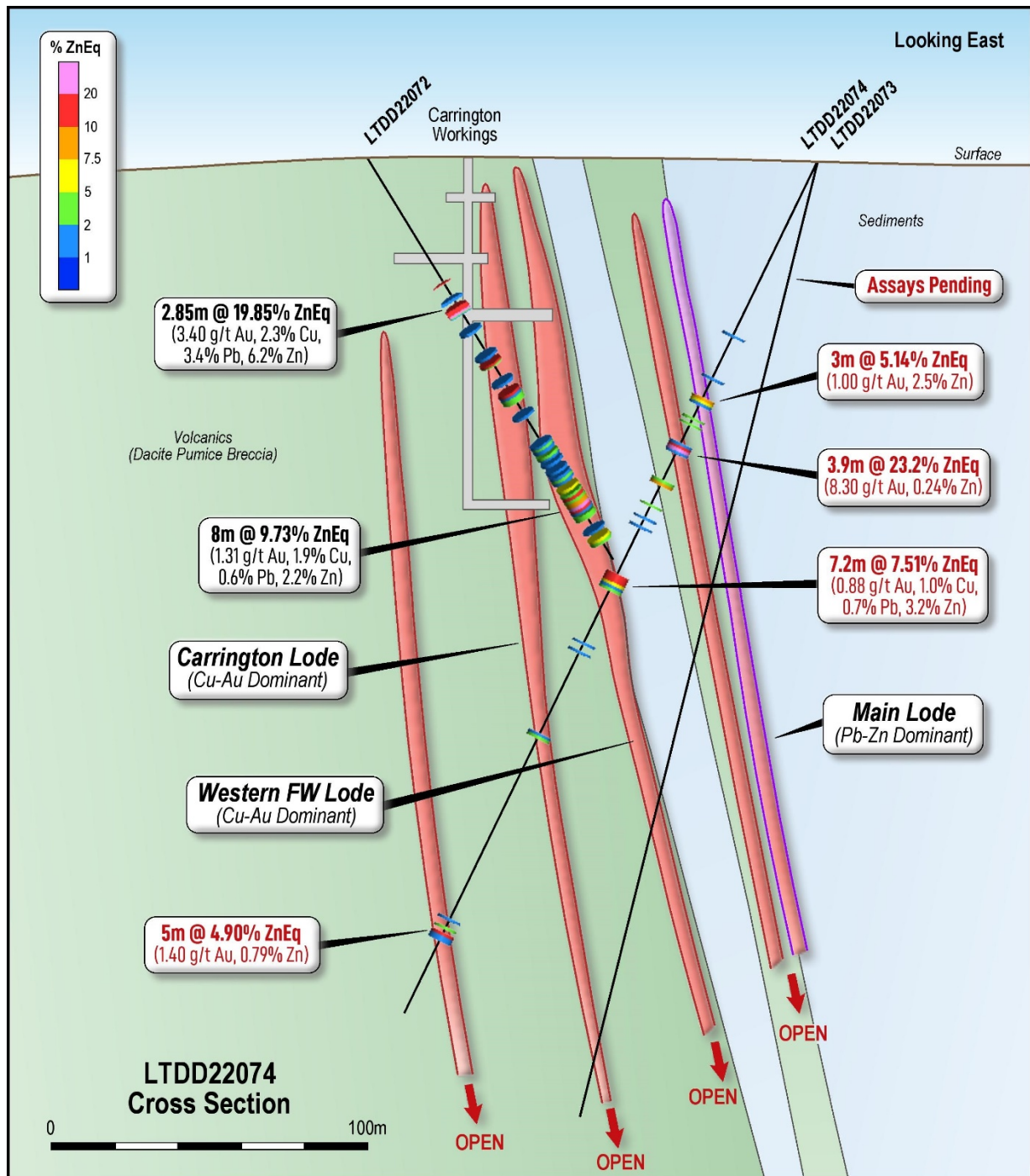


Figure 4: Cross-section through LTDD22074 showing high-grade intercepts through the Carrington, Western Footwall and Main Lodes. Hole LTDD22073 has been sampled and dispatched to the laboratory for analysis (assays pending).

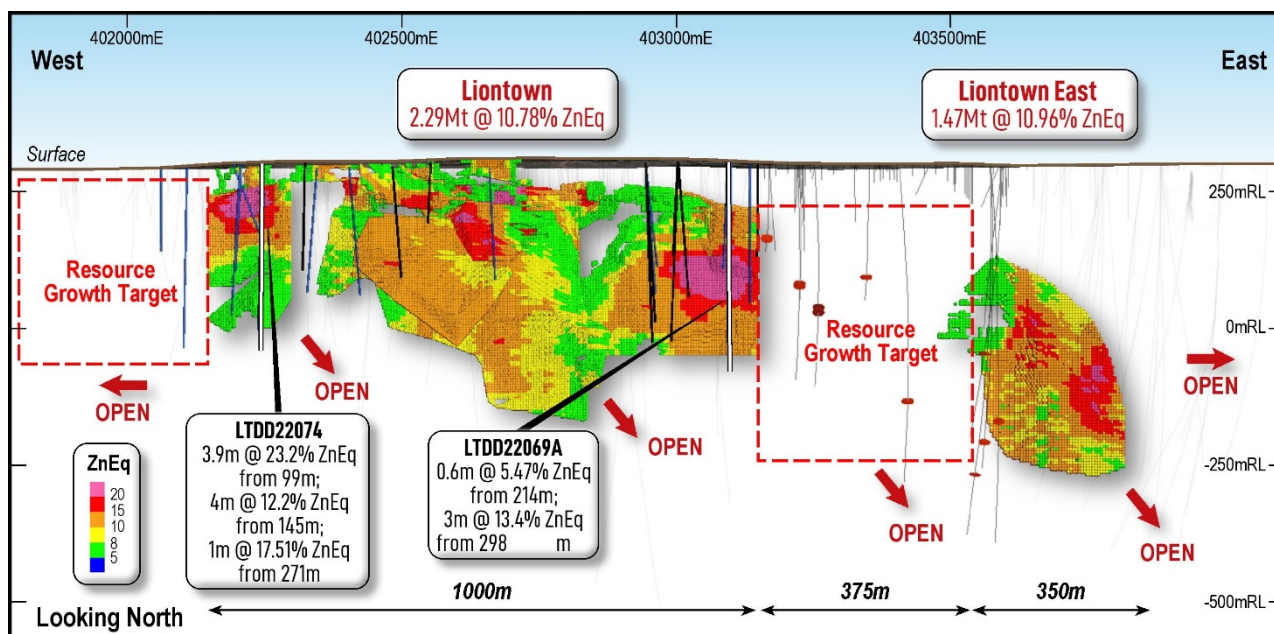


Figure 5: Long section of current Resources at Lontown and Lontown East highlighting the clear growth potential between the two deposits, west of Lontown and at depth.

Table 1: Significant drill hole intercepts from the drill holes attained during the Lontown acquisition (see ASX:SHN 8 May 2023, 30 May 2023, 4 July 2023, 19 July 2023)

BHID	From	To	Interval	Cu %	Pb%	Zn%	Au (g/t)	Ag (g/t)	%ZnEq	Lode
LTDD22069A	195	196	1.0	0.05	0.00	0.02	2.09	0.0	3.46	Main Lode
LTDD22069A	214	214.6	0.6	0.10	1.90	4.28	0.15	6.9	5.47	Main Lode
LTDD22069A	298	301	3.0	0.34	0.06	0.26	7.63	3.3	13.35	NQ
LTDD22069A	299	301	<i>incl.</i> 2.0	0.36	0.07	0.27	11.27	3.6	19.19	NQ
LTDD22074	83	86	3.0	0.99	0.06	2.49	0.08	5.9	5.14	Main Lode
LTDD22074	83	85	<i>incl.</i> 2.0	1.31	0.07	3.54	0.11	7.8	7.01	Main Lode
LTDD22074	99	102.9	3.9	8.30	0.03	0.08	0.24	10.0	23.20	NQ (?)
LTDD22074	100	102	<i>incl.</i> 2.0	11.79	0.05	0.11	0.33	14.2	32.96	NQ (?)
LTDD22074	112	114.1	2.1	0.06	0.31	6.23	0.08	3.7	6.00	NQ (?)
LTDD22074	113	114.1	<i>incl.</i> 1.1	0.06	0.56	9.95	0.07	4.9	9.43	NQ (?)
LTDD22074	120.6	121.4	0.8	0.01	0.43	3.81	0.03	4.2	3.75	NQ (?)
LTDD22074	143.8	151	7.2	1.02	0.71	3.17	0.88	8.7	7.51	WFW
LTDD22074	145	149	<i>incl.</i> 4.0	1.73	1.23	4.86	1.46	13.6	12.21	WFW
LTDD22074	269	274	5.0	0.79	0.05	0.48	1.40	4.7	4.90	Carrington (N)
LTDD22074	271	272	<i>incl.</i> 1.0	2.19	0.16	1.18	6.40	16.3	17.51	Carrington (N)
LTDD22070	94	101	7	0.41	5.04	11.89	2.50	14.6	18.61	NQ
LTDD22070	94	96	<i>incl.</i> 2	0.11	2.55	5.79	9.09	18.2	21.53	NQ
LTDD22070	98	102	<i>and</i> 4	0.67	8.14	19.36	0.27	15.7	24.11	NQ
LTDD22070	134	135	1	4.31	2.72	3.29	7.59	32.7	28.73	Gap
LTDD22070	137	138	1	1.03	1.73	2.14	0.07	17.8	6.06	Gap
LTDD22070	141	142	1	1.13	0.20	2.92	0.05	10.8	6.01	Gap
LTDD22078	92	93	1	0.79	0.17	8.15	0.22	21.9	10.14	Main Lode
LTDD22078	121	123	2	2.11	0.05	0.40	0.07	8.2	6.36	WFW
LTDD22078	183.63	185	1.37	2.63	0.01	0.08	0.07	7.3	7.46	Carrington

BHID	From	To	Interval	Cu %	Pb%	Zn%	Au (g/t)	Ag (g/t)	%ZnEq	Lode
LTDD22181A	136.5	137.8	1.3	0.06	0.24	1.14	0.04	2.7	1.41	NQ
LTDD22181A	180.3	181.45	1.15	0.15	0.27	1.20	0.14	1.4	1.86	Gap
LTDD22080	73	74	1	1.35	0.74	2.64	9.33	19.2	21.52	WFW
LTDD22080	79	89.1	10.1	1.67	1.07	5.25	1.52	20.22	12.51	WFW
LTDD22080	79	81.5	<i>incl.</i> 2.5	2.7	2.89	10.17	3.55	33.02	24.10	WFW
LTDD22080	96	99	3	1.44	0.02	1.14	0.1	5.43	5.17	
LTDD22080	144	145	1	0.18	0.32	1.03	2.46	6.6	5.58	
LTDD22063	185.2	185.7	0.5	6.96	0.11	0.05	0.11	15.5	19.48	
LTDD22063	213.4	216.5	3.1	0.64	0.04	0.32	4.72	5.05	9.63	Gap
LTDD22063	213.4	215.3	<i>incl.</i> 1.9	0.92	0.03	0.22	7.62	5.15	14.90	Gap
LTDD22063	219.45	220.2	0.75	1.26	2.6	9.82	6.44	39.11	24.41	
LTDD22064	139	139.3	0.3	2.96	0.01	0.03	0.02	5	8.20	NQ
LTDD22064	167.65	167.9	0.25	1.03	3.54	1.77	27.7	35.9	50.87	Gap
LTDD22064	171.4	172.5	1.1	3.69	0.01	0.27	0.2	5.47	10.70	Gap
LTDD22066	196.35	198	1.65	0.18	1.61	4.11	0.25	51.13	6.27	Main Lode
LTDD22066	196.35	196.9	<i>incl.</i> 0.55	0.45	4.17	11.15	0.57	141	16.65	Main Lode
LTDD22066	208.1	211	2.9	0.27	2.86	6.52	0.16	28.62	8.81	Main Lode
LTDD22067	159.3	161	1.7	0.33	1.45	9.09	0.14	14.24	10.16	Main Lode
LTDD22067	193.4	194.5	1.1	1.02	0.06	3.7	0.07	16.39	6.46	Main Lode
LTDD22067	193.4	193.7	<i>incl.</i> 0.3	2.8	0.04	9.75	0.16	36.1	17.08	Main Lode
LTDD22067	198.15	198.5	0.35	0.51	0.41	5.37	0.08	7.3	6.58	Main Lode
LTDD22072	50.15	50.5	0.35	4.39	0.16	7.35	0.14	21.6	13.27	FW Carrington
LTDD22072	58.4	60.6	2.2	2.33	4.4	7.94	4.36	54.3	25.22	Carrington
LTDD22072	79.5	80.7	1.2	1.38	2.14	2.7	0.15	33	8.13	WFW/Carrington
LTDD22072	91	92	1	1.02	0.27	2.71	4.97	7.1	13.31	WFW/Carrington
LTDD22072	128	136.7	8.7	1.88	0.61	2.19	1.31	16	9.73	WFW
LTDD22072	147.55	148.6	1.05	0.31	2.31	4.09	0.17	11.4	6.20	WFW
LTDD22053	249.6	250.9	1.3	3	0.02	0.09	0.27	6.38	8.79	Gap
LTDD22053	257	261.55	4.55	0.64	0.04	0.29	2.31	2.22	5.73	Gap
LTDD22053	270	271	1	0.71	0.19	0.11	3.14	13.9	7.34	Gap
LTDD22053	280.8	284	3.2	0.52	0.11	0.85	2.26	2.57	5.85	Gap
LTDD22054	197.5	198.8	1.3	0.78	0.03	0.16	7.65	1.8	14.45	Gap
LTDD22054	195	200.3	5.3	1.36	0.99	2.46	4.95	12.39	14.46	Gap
LTDD22054	196.7	198.35	<i>incl.</i> 1.65	1.68	2.83	7	7.97	25.07	25.40	Gap
LTDD22055	132.6	134.4	1.8	0.04	6.35	11.1	0.28	10.2	14.04	Gap
LTDD22055	152.2	160.3	8.1	0.16	0.25	0.28	10.65	3.5	17.77	Gap
LTDD22055	152.2	154	<i>incl.</i> 1.8	0.06	0.01	0.01	18.93	1.87	30.23	Gap
LTDD22055	156	160.3	<i>and</i> 4.3	0.3	0.46	0.51	12.1	5.78	20.82	Gap
LTDD22055	161.25	162.25	10	2.17	0.01	0.05	0.15	3.3	6.24	Gap
LTDD22061	219.3	223	3.7	6.54	0.15	0.49	0.63	14.55	19.56	Gap
LTDD22061	219.3	221.35	<i>incl.</i> 2.05	10.48	0.15	0.76	1.03	23.5	31.29	Gap
LTDD22062	257.5	258.7	1.2	0.43	0.05	0.06	16.34	6.85	27.28	Gap

BHID	From	To	Interval	Cu %	Pb%	Zn%	Au (g/t)	Ag (g/t)	%ZnEq	Lode
LTDD22062	264.1	266.3	2.2	2.03	0.9	2.64	6.73	27.73	19.50	Gap
LTDD22065	152.82	158.4	5.6	0.29	2.78	6.45	0.88	62.79	10.47	Gap
LTDD22065	161.8	162.8	1	0.06	0.61	4.77	0.1	11.1	5.06	Gap
LTDD22065	171	173.6	2.6	0.25	1.68	4.45	0.37	33.75	6.71	Gap
LTDD22065	175.75	180.1	4.35	1.37	1.73	8.55	0.18	23.3	12.91	Gap
LTDD22071	46.45	48.1	1.65	3.08	9.82	0.65	1.06	10.62	16.30	WFW/Carrington
LTDD22071	50.6	54.3	3.7	1.74	2.43	1.07	1.14	106.63	10.66	WFW/Carrington
LTDD22071	65.8	67	1.2	1.84	0.08	0.07	0.07	8.2	5.35	WFW/Carrington
LTDD22179A	117	117.9	0.9	1.08	1.08	11.98	2.39	20.33	18.23	Gap
MET02	72.95	83.1	10.15	0.15	2.34	4.21	0.67	12.04	6.69	New Queen
MET02	91	92	1	0.02	2.27	4.46	0.03	8.4	5.43	New Queen

Next Steps – diamond program

Previous owners of Lontown completed 25 diamond holes prior to acquisition. Of these, 20 holes have now been announced by Sunshine, with 4 remaining holes either at the laboratory or in geological processing. Results for these remaining holes are expected throughout August 2023.

Planned activities

The Company has a busy period ahead including the following key activities and milestones:

- July 2023: Quarterly Activities Report
- August 2023: Greater Lontown transaction completion
- August 2023: Assays for remaining 4 holes from Lontown
- Aug-Sept 2023: Drilling commences Lontown, Ravenswood Consolidated
- Sept 2023: Annual Financial Report

Attending:

- 29-30 August 2023: Australian Gold Conference, Sydney

Recoverable Zinc Equivalent calculation

The zinc equivalent grades for Greater Lontown (% ZnEq) are based on the following prices:

US\$2,500t Zn, US\$8,500t Cu, US\$2,000t Pb, US\$1,900oz Au, US\$20oz Ag

Metallurgical metal recoveries are supported by metallurgical test work undertaken and are: 88.8% Zn, 80% Cu, 70% Pb, 65% Au, 65% Ag

The ZnEq calculation is as follows:

$$\text{ZnEq} = \text{Zn grade\%} * \text{Zn recovery} + (\text{Cu grade \%} * \text{Cu recovery \%} * (\text{Cu price \$ / t} / \text{Zn price \$ / t})) + (\text{Pb grade \%} * \text{Pb recovery \%} * (\text{Pb price \$ / t} / \text{Zn price \$ / t} * 0.01)) + (\text{Au grade g / t} / 31.103 * \text{Au recovery \%} * (\text{Au price \$ / oz} / \text{Zn price \$ / t})) + (\text{Ag grade g / t} / 31.103 * \text{Ag recovery \%} * (\text{Ag price \$ / oz} / \text{Zn price \$ / t} * 0.01)).$$

It is the opinion of Sunshine and the Competent Person that all elements and products included in the ZnEq formula have reasonable potential to be recovered and sold.

Prospect	Resource Class	Tonnage (kt)	Copper (%)	Lead (%)	Zinc (%)	Gold (g/t)	Silver (g/t)	Zinc Eq. (%) *
Liontown Oxide	Inferred	144	0.6	1.7	1.0	2.1	30	5.76
	Total	144	0.6	1.7	1.0	2.1	30	5.76
LIONTOWN								
Main Lode	Indicated	529	0.5	2.2	7.8	0.4	48	11.04
Main Lode	Inferred	717	0.6	1.8	6.4	0.3	32	9.32
	Total	1,246	0.6	2.0	7.0	0.4	39	10.05
Western Footwall	Indicated	-	-	-	-	-	-	-
Western Footwall	Inferred	200	1.4	0.5	2.5	3.8	15	12.48
	Total	200	1.4	0.5	2.5	3.8	15	12.48
Gap	Indicated	-	-	-	-	-	-	-
Gap	Inferred	376	1.7	0.8	1.9	3.6	13	12.87
	Total	376	1.7	0.8	1.9	3.6	13	12.87
New Queen	Indicated	328	0.3	2.1	5.5	2.3	44	11.14
New Queen	Inferred	129	0.2	1.7	5.9	0.9	12	8.35
	Total	457	0.3	2.0	5.6	1.9	35	10.35
Carrington	Indicated	-	-	-	-	-	-	-
Carrington	Inferred	14	0.4	1.4	4.8	1.4	28	8.66
	Total	14	0.4	1.4	4.8	1.4	28	8.66
LIONTOWN TOTAL	Total	2,293	0.8	1.7	5.5	1.5	32	10.78
Liontown East	Inferred	1,470	0.5	2.5	7.5	0.7	29	10.96
	Total	1,470	0.5	2.5	7.5	0.7	29	10.96
Waterloo	Indicated	402	2.6	2.1	13.3	1.4	68	23.40
Waterloo	Inferred	271	0.8	0.8	6.8	0.4	24	9.26
	Total	673	1.9	1.6	10.7	1.0	50	17.71
Orient	Indicated	329	1.1	2.5	10.9	0.2	55	15.20
Orient	Inferred	32	0.9	2.2	14.5	0.2	51	17.74
	Total	361	1.0	2.5	11.2	0.2	55	15.43
GRAND TOTAL		4,941	0.8	2.0	7.1	1.1	35.00	11.97

Table 2: Resource tonnage & grade by metal, recoverable zinc equivalent, deposit and category.

Sunshine's Board has authorised the release of this announcement to the market.

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Competent Person's Statement

The information in this report that relates to Exploration Results is based on, and fairly represents, information compiled by Mr Matt Price, a Competent Person who is a Member of the Australian Institute of Geoscientists (AIG) and the Australian Institute of Mining and Metallurgy (AusIMM). Mr Price 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 JORC Code. Mr Price consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resources at Waterloo and Orient is based on information compiled and reviewed by Mr Stuart Hutchin, who is a Member of the Australian Institute of Geoscientists (AIG) and is a Principal Geologist employed by Mining One Pty Ltd. Mr Stuart Hutchin 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 Mineral Resources. Mr Stuart Hutchin consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resources at Lontown and Lontown East is based on information compiled and reviewed by Mr Peter Carolan, who is a Member of the Australasian Institute of Mining and Metallurgy and was a Principal Geologist employed by Red River Resources Ltd. Mr Peter Carolan 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 Mineral Resources. Mr Peter Carolan consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

About Sunshine Metals

Two projects. Big System Potential.

Triumph Project (Au): More than 85% of Triumph's Inferred Resource of 118,000oz @ 2.03g/t Au¹ is <100m deep and largely located within 1.2km of strike within a 6km long trend. Recent drilling has confirmed Triumph's intrusion-related gold system is analogous to the large Ravenswood Mine (5.6Moz Au Resource).

#Ravenswood Consolidated Project (Zn-Cu-Pb-Au-Ag-Mo): Located in the Charters Towers-Ravenswood district which has produced over 20Moz Au and 14mt of VMS Zn-Cu-Pb-Au ore. The project comprises:

- a Zn-Cu-Pb-Au VMS Resource of 4.94mt @ 12.0% ZnEq (32% Indicated);
- 26 drill ready VMS Zn-Cu-Pb-Au IP geophysical targets where testing of a similar target has already lead to the Lontown East discovery which hosts a current Resource of 1.47mt @ 11.0% ZnEq;
- the under-drilled Carrington Au Lode in the footwall of the Lontown VMS deposits with significant intersections including **3m @ 46.2 g/t Au from 20m** (LRC0018) and **2m @ 68.6 g/t Au from 24m** (LRC0043);
- advanced Cu-Au VMS targets at Coronation analogous to the nearby Highway-Reward Mine (4mt @ 6.2% Cu & 1.0 g/t Au mined);
- overlooked orogenic, epithermal and intrusion related Au potential with numerous historic gold workings and drill ready targets; and
- a Mo-Cu Exploration Target at Titov of 5-8mt @ 0.07-0.12% Mo & 0.28-0.44% Cu.

***Investigator Project (Cu):** Located 100km north of the Mt Isa, home to rich copper-lead-zinc mines that have been worked for almost a century. Investigator is hosted in the same stratigraphy and similar fault architecture as the Capricorn Copper Mine, located 12km north.

***Hodgkinson Project (Au-W):** Located between the Palmer River alluvial gold field (1.35 Moz Au) and the historic Hodgkinson gold field (0.3 Moz Au) and incorporates the Elephant Creek Gold, Peninsula Gold-Copper and Campbell Creek Gold prospects.

**A number of parties have expressed interest in our other quality projects (Investigator Cu and Hodgkinson Au-W). These projects will be divested in an orderly manner in due course.*

#Cautionary Statement: **Sunshine** has entered into binding agreements to acquire 100% of Greater Lontown in two separate transactions with unrelated, third parties. These acquisitions are subject to the satisfaction of certain conditions prior to completion of the transactions. Greater Lontown is not yet owned by Sunshine. Conditions precedent are to be satisfied prior to completion.

¹ SHN ASX Release, 31 March 2022, "Robust Maiden Resource at Triumph Gold Project".
No new information has been collected and all material assumptions remain unchanged.

Two projects. Big system potential.

01

Highly prospective projects in under explored Tier 1 jurisdiction.

02

Experienced, successful management team, North Queensland based.

03

Highly active explorer - 30km of drilling to date, delivered encouraging results

04

Leveraged to multiple high value metals with large-scale system potential

05

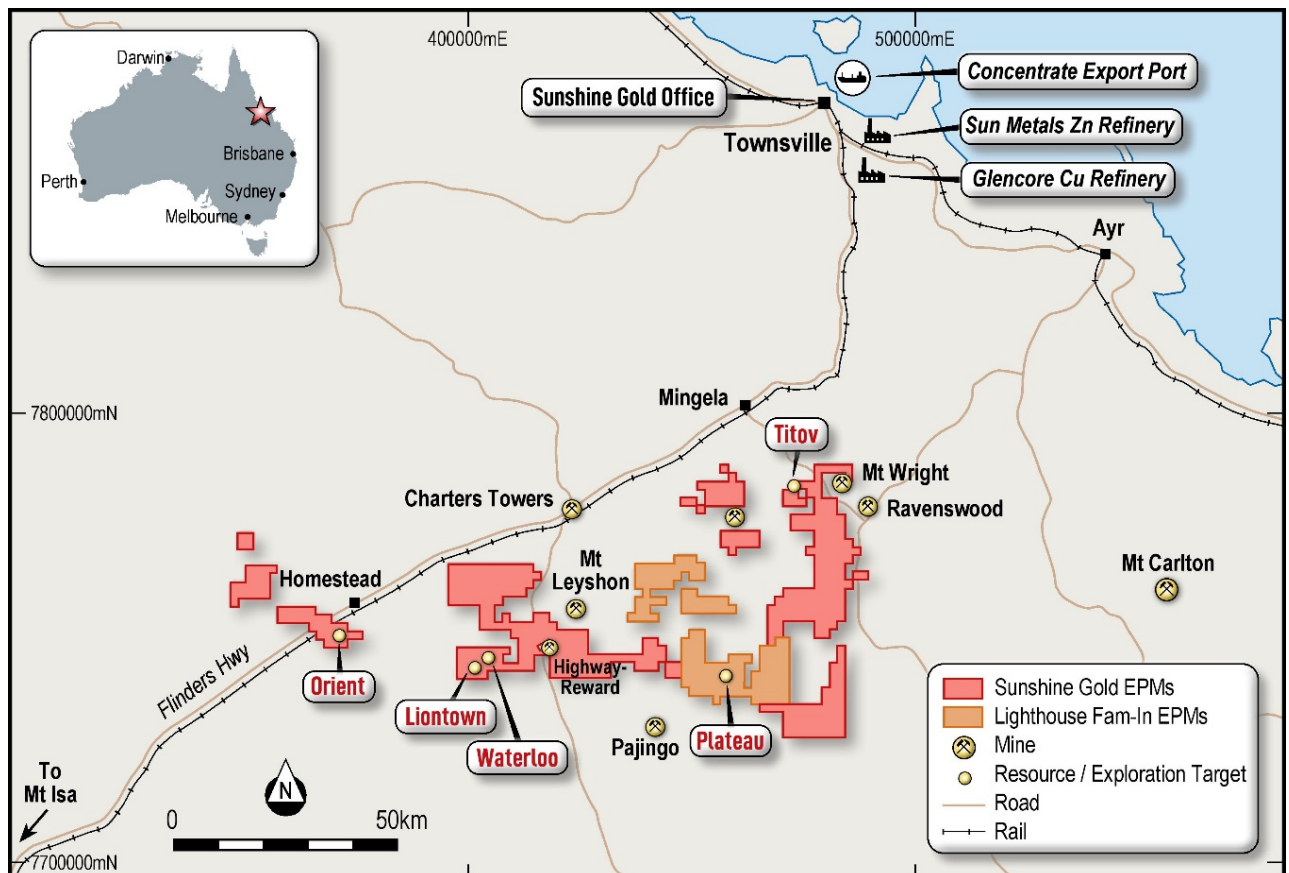
Transformational transaction to consolidate Ravenswood West and divest non-core assets

Hodgkinson Project
Au-W

Investigator Project
Cu

Ravenswood Consolidated
Au-Cu-Mo-Zn-Pb

Triumph Project
Au



Attachment A: Drill Collar, Survey and Status of Outstanding Resource Infill and Extensional Drilling, Liontown Resource.

Hole ID	Resource	Tenement (collar)	Prospect	Drill Method	Planned Easting	Planned Northing	Planned Elevation	Dip	NAT Grid AZI	Est PCD Depth	Actual EOH Depth	Status
LTDD22071	Liontown	ML10277	Western Footwall	PCD-NQ	402397	7742817	298.3	-54.7	358.2	40	213.2	Assays received
LTDD22179A	Liontown	EPM14161	The Gap	NQ	403133	7742904	213.8	-60.5	359.0	0	174.6	Assays received
LTDD22062	Liontown	EPM14161	The Gap	PCD-NQ	402951	7742808	299.3	-67.0	8.0	60	281.7	Assays received
LTDD22055	Liontown	EPM14161	The Gap	PCD-NQ	403003	7742819	299.0	-58.9	354.7		176.9	Assays received
LTDD22065	Liontown	EPM14161	Main Lode Upper	PCD-NQ	402549	7742729	292.0	-57.0	6.8	70	213.8	Assays received
LTDD22054	Liontown	EPM14161	The Gap	PCD-NQ	403003	7742819	299.0	-64.0	9.0		243.2	Assays received
MET02	Liontown	ML10277	New Queen Met	HQ	402602	7742855	300.0	-50.0	357.0	20	128.2	Assays received
LTDD22053	Liontown	EPM14161	The Gap	PCD-NQ	403003	7742819	299.0	-71.9	353.0		304.9	Assays received
LTDD22061	Liontown	EPM14161	The Gap	PCD-NQ	402951	7742808	299.3	-75.0	8.0	60	302.2	Assays received
LTDD22063	Liontown	EPM14161	The Gap	PCD-NQ	402951	7742808	299.3	-62.0	8.0	60	242.2	Assays received
LTDD22072	Liontown	ML10277	Western Footwall	PCD-NQ	402279	7742969	297.5	-54.0	147.5	70	157.9	Assays received
LTDD22066	Liontown	EPM14161	Main Lode Upper	PCD-NQ	402469	7742689	291.0	-56.0	7.0	70	251.0	Assays received
LTDD22067	Liontown	EPM14161	Main Lode Upper	PCD-NQ	402416	7742715	290.0	-59.0	352.8	70	235.9	Assays received
LTDD22064	Liontown	EPM14161	The Gap	PCD-NQ	402951	7742808	299.3	-52.0	8.0	60	215.2	Assays received
LTDD22080	Liontown	ML10277	Western Footwall	PCD-NQ	402205	7742869	291.6	-52.0	358.9	64	209.0	Assays received
LTDD22070	Liontown	EPM14161	The Gap	PCD-NQ	403084	7742852	296.9	-71.0	353	60	180.2	Assays received
LTDD22181A	Liontown	EPM14161	The Gap	NQ	403120	7742807	293.0	-62.0	0.0		252.0	Assays received
LTDD22078	Liontown	ML10277	Western Footwall	PCD-NQ	402292	7742813	294.7	-62.0	353.5	70	278.0	Assays received
LTDD22069A	Liontown	EPM14161	The Gap	PCD-NQ	403090	7742802	296.9	-83.0	355.0	60	337.2	Assays received
LTDD22068	Liontown	ML10277	Western Footwall	PCD-NQ	402293	7742867	297.1	-60.0	355.0	59	203.1	Sampled
LTDD22073	Liontown	ML10277	Western Footwall	PCD-NQ	402326	7742826	295.7	-76.0	359.0	70	311.2	Sampled
LTDD22074	Liontown	ML10277	Western Footwall	PCD-NQ	402326	7742826	296.1	-64.0	357.9	70	299.2	Assays received
LTDD22075	Liontown	ML10277	Western Footwall	PCD-NQ	402162	7742879	291.9	-61.0	359.8	68	156.8	Sampled
LTDD22076	Liontown	ML10277	Western Footwall	PCD-NQ	402205	7742802	292.8	-65.0	357.8	80	326.0	Sampled
LTDD21039	Liontown	EPM14161	Main Lode Lower	PCD-NQ	402697	7742600	290.5	-60.0	5.0		210.0	Abandoned

Section 1 - Sampling Techniques and Data

Criteria	Explanation	Commentary
Sampling techniques	<p><i>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.</i></p> <p><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></p> <p><i>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i></p>	<p>LIONTOWN DRILLING</p> <ul style="list-style-type: none"> Sample intervals were selected by company geologists based on visual mineralisation and geological boundaries with an ideal sample length of one metre. Samples were sawn in half onsite using an automatic core saw. Independent certified assay laboratories were used for analysis. Recent sampling was analysed at Intertek Genalysis Laboratory or Australian Laboratory Services (ALS) in Townsville where samples were crushed to sub 6mm, split and pulverised to sub 75µm. A sub sample was collected for a four-acid digest and ICP-OES analysis of the following elements: Ag, As, Ba, Bi, Ca, Cu, Fe, K, Mg, Mn, Na, Pb, S, Sb, Ti, Zn & Zr (at Intertek); and Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, K, La, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sr, Th, Ti, Tl, U, V, W, Zn (at ALS). Samples were assayed for Au using either a 30g or 50g Fire Assay technique.
Drilling techniques	<p><i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or</i></p>	<p>LIONTOWN DRILLING</p> <ul style="list-style-type: none"> Mud rotary, RC and Diamond drilling methods were used. Mud rotary was used to establish hole collars to the base of the cover sequence then a change of drilling method to Diamond core (HQ size) or RC was undertaken. For most holes a further change

Criteria	Explanation	Commentary
	<i>other type, whether core is oriented and if so, by what method, etc.).</i>	<p>in method to Diamond core NQ2 or BQ size took place for intersecting the target zone and drilling to end of hole.</p> <ul style="list-style-type: none"> Reverse circulation drilling used a 5.5" bit Mud rotary drilling used a 7 7/8" PCD bit.
Drill sample recovery	<p><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></p> <p><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></p> <p><i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></p>	<p>LIONTOWN DRILLING</p> <ul style="list-style-type: none"> Core loss was recorded by company geologists. Recovery within the sulphide zones was 98%. Partial core loss occurs within shear zones.
Logging	<p><i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></p> <p><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i></p> <p><i>The total length and percentage of the relevant intersections logged.</i></p>	<p>LIONTOWN DRILLING</p> <ul style="list-style-type: none"> Holes were logged to a level of detail that would support mineral resource estimation. Qualitative logging includes lithology, alteration and textures. Quantitative logging includes sulphide and gangue mineral percentages. All drill core was photographed. Drill holes were logged in full.
Sub-sampling techniques and sample preparation	<p><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></p> <p><i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i></p>	<p>LIONTOWN DRILLING</p> <ul style="list-style-type: none"> Diamond core was placed in core trays for logging and sampling. Diamond core was cut in half using a core saw. Sample intervals were sampled to geological boundaries. The sample sizes are considered to be sufficient to correctly represent the mineralisation style.

Criteria	Explanation	Commentary
	<p><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></p> <p><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></p> <p><i>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</i></p> <p><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></p>	
Quality of assay data and Laboratory tests	<p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p> <p><i>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.</i></p> <p><i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i></p>	<p>LIONTOWN DRILLING</p> <ul style="list-style-type: none"> • The assay methods employed are considered appropriate for near total digestion. • Various degrees of Quality Assurance and Quality Control processes were implemented through the different drilling programs. Records post 2007 are available. • Red River Resources used blanks and standard reference material inserted at a rate of 1 in 20. Certified standards returned results within an acceptable range. No field duplicates were submitted for diamond core. • Drill holes processed by SHN have inserted blanks and standard reference material at a rate of 1 in 30. Certified standards returned results within an acceptable range with the exception of one CRM which assayed below 3SD for Au within LTDD22070. This is in further review although is not expected to materially affect any results. Field duplicates have been submitted as quarter core and have returned acceptable results.

Criteria	Explanation	Commentary
Verification of sampling and assaying	<p><i>The verification of significant intersections by either independent or alternative company personnel.</i></p> <p><i>The use of twinned holes.</i></p> <p><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></p> <p><i>Discuss any adjustment to assay data</i></p>	<p>LIONTOWN DRILLING</p> <ul style="list-style-type: none"> Laboratory results have been reviewed by Company geologists and laboratory technicians.
Location of data points	<p><i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></p> <p><i>Specification of the grid system used.</i></p> <p><i>Quality and adequacy of topographic control.</i></p>	<p>LIONTOWN DRILLING</p> <ul style="list-style-type: none"> Holes LTDD21039 and LTDD22181A were surveyed with RTKGPS. Remaining holes in Appendix A have been picked up with a handheld GPS unit (accuracy to 5m). A resurvey of 105 historic drill collars was carried out by Liontown Resources Limited in 2007. Recent down hole surveys conducted with digital magnetic multi-shot camera at 20-40m intervals. Historic drill hole surveys were taken using Eastman single shot cameras. Coordinate system used is MGA94 Zone 55. Topographic control is based on a detailed 3D Digital Elevation Model.
Data spacing and distribution	<p><i>Data spacing for reporting of Exploration Results.</i></p> <p><i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></p> <p><i>Whether sample compositing has been applied.</i></p>	<p>LIONTOWN RESOURCE DRILLING</p> <p>The drilling has infilled and extended Resource classified material at Western Footwall, Main Lode, New Queen, Carrington and the Gap Lode.</p> <p>The distribution of drilling provides drill intersection spacings of:</p> <p>10 – 40m for majority of New Queen Lode</p> <p>20 – 70m for the Main Lens upper sections</p> <p>60 – 100m for the Inferred area of the Main Lode</p> <p>15 – 70m for the Western Footwall Lode</p>

Criteria	Explanation	Commentary
		<p>15 – 150m for the Gap Lode</p> <p>The drill spacing provides evidence of mineralised zone continuity for the purposes of resource estimation. Compositing of within mineralised domains of raw assay data to approximate 1m intervals was completed in preparation for the resource estimation process.</p>
Orientation of data in relation to geological structure	<p><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></p> <p><i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></p>	<p>LIONTOWN DRILLING</p> <ul style="list-style-type: none"> • Where possible holes were orientated to ensure drill intersections were approximately perpendicular to the strike of the ore lenses and overall geological sequence. Dip intersections to the plane of mineralisation generally occur between 45° and 80°. • The orientation of the multiple lenses varies resulting in some intersections being less than perpendicular. • Some holes were drilled approximately down dip for comprehensive investigation of the ore zones. • The effect of local sampling biases due to orientation and spacing of drill holes is mitigated in the estimation process. • Drill holes are orientated perpendicular to the strike of the host lithologies and mineralised zone. • The drilling direction and inclination is designed to not bias sampling • The orientation of the drill core for structural assessment is determined using a downhole digital orientation tool.
Sample security	<i>The measures taken to ensure sample security.</i>	<p>LIONTOWN DRILLING</p> <ul style="list-style-type: none"> • During Red River drill programs, samples were overseen by company staff during transport from site to Laboratories. Sample security for earlier programs cannot be validated. Given the primarily base metal nature of the deposit, sample security is not considered as a significant risk.

Criteria	Explanation	Commentary
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	LIONTOWN DRILLING <ul style="list-style-type: none"> A review of the resource estimation process for Liontown was completed by Mining One Consultants in November 2015. A due diligence review of the resource estimation was also completed by Mining One Consultants in November 2013. A review of the assay data was completed by McDonald Speijers Consultants in 2008. Earlier data reviews were carried out and documented by the various previous owners of the project.

Section 2 - Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	Explanation	Commentary
Mineral tenement and land tenure status	<p><i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></p> <p><i>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.</i></p>	<p>The acquired leases consist of those granted to Cromarty Resources Pty Ltd and Hebrides Resources Pty Ltd. The Exploration Permits are: EPMs 10582, 12766, 14161, 16929, 26718, 27168, 27221, 27223, 27357, 27520 and 27731 and Mining Lease Applications 100221, 100290 and 100302 (Cromarty) for a total of 463km²; and EPMs 18470, 18471, 18713, 25815 and 25895 (Hebrides) for a total of 221km². The tenements are in believed to be in good standing and no known impediments exist.</p> <p>The Thalanga mill and mining operation was abandoned by administrators to Red River Resources. A restricted area has been placed over the mill, dumps and tailings facilities. The Queensland Department of Environment is now responsible for the rehabilitation of the aforementioned facilities. There are no known other Restricted Areas located within the tenure.</p> <p>Five third-party Mining Leases are present exist on the Exploration Permits – named MLs 1571, 1734, 1739 and 10028 (Thalanga Copper Mines Pty Ltd) and 100021 (Clyde Ian Doxford).</p>

Criteria	Explanation	Commentary
		<p>Liontown, Waterloo and the majority of tenure exist on the native land of the Jangga People #2 claim, with northwestern tenure located on the native land of the Gudjala People.</p> <p>A 0.8% Net Smelter Return (NSR) royalty is payable to Osisko Ventures Ltd and a 0.7% NSR royalty payable to the Guandong Guangxin Mine Resources Group Co Ltd (GMRG) on sale proceeds of product extracted from EPM 14161.</p>
Exploration done by other parties	<i>Acknowledgment and appraisal of exploration by other parties.</i>	<p>LIONTOWN RESOURCE AND LIONTOWN EAST RESOURCE DRILLING</p> <p>Exploration activities have been carried out by Nickel Mines(1970-1973), Esso (1982-1983), Great Mines (1987), Pancontinental (1994-1995), and Liontown Resources (2007). Work programs included surface mapping, and sampling, costeans, drilling and geophysics.</p> <p>Historic exploration was carried out by Esso Exploration and Pancontinental Mining. This included drilling and geophysics. Historic drilling over the Liontown East area is shallow and did not intercept the current Mineral Resource mineralisation.</p>
Geology	<i>Deposit type, geological setting and style of mineralisation.</i>	<p>LIONTOWN RESOURCE AND LIONTOWN EAST RESOURCE DRILLING</p> <ul style="list-style-type: none"> The Liontown and Liontown East deposits are hosted within Cambro-Ordovician marine volcanic and volcano-sedimentary sequences of the Mt Windsor Volcanic sub-province The Liontown and Liontown East deposits are volcanogenic massive sulphide (VMS) base metal style deposits. Liontown East consists of stratiform massive and stringer sulphide zones developed within the lower units of a thick sedimentary package immediately above a rhyodacite pumice breccia. Lenses of Cu Au dominated mineralisation continue into the footwall. The Carrington Au lodes are considered to be formed during a later orogenic Au event.
Drill hole Information	<p><i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i></p> <ul style="list-style-type: none"> <i>easting and northing of the drill hole collar</i> 	<p>LIONTOWN RESOURCE AND LIONTOWN EAST RESOURCE DRILLING</p> <ul style="list-style-type: none"> The estimate is based on 7 major drilling programs by 6 companies over a period spanning 40 years. Drill intersections from 241 drill holes were used in the Liontown estimation. <p>All drill holes comprising the resources are listed in Appendix A of this report.</p>

Criteria	Explanation	Commentary
	<ul style="list-style-type: none"> elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. <p>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case</p>	
Data aggregation methods	<p>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</p> <p>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.</p> <p>The assumptions used for any reporting of metal equivalent values should be clearly stated.</p>	<p>The zinc equivalent grades for Greater Lontown (Zn Eq) are based on zinc, copper, lead, gold and silver prices of US\$2500/t Zinc, US\$8500/t Copper, US\$2000/t Lead, US\$1900/oz Gold and US\$20/oz Silver with metallurgical metal recoveries of 88.8% Zn, 80% Cu, 70% Pb, 65% Au and 65% Ag and are supported by metallurgical test work undertaken.</p> <p>The zinc equivalent calculation is as follows: $Zn\ Eq = Zn\ grade\% * Zn\ recovery + (Cu\ grade\% * Cu\ recovery\% * (Cu\ price\ \\$/t / Zn\ price\ \\$/t)) + (Pb\ grade\% * Pb\ recovery\% * (Pb\ price\ \\$/t / Zn\ price\ \\$/t)) + (Au\ grade\ g/t / 31.103 * Au\ recovery\% * (Au\ price\ \\$/oz / Zn\ price\ \\$/t * 0.01)) + (Ag\ grade\ g/t / 31.103 * Ag\ recovery\% * (Ag\ price\ \\$/oz / Zn\ price\ \\$/t * 0.01))$.</p> <p>It is the opinion of Sunshine Metals and the Competent Person that all elements and products included in the metal equivalent formula have a reasonable potential to be recovered and sold.</p> <p>LIONTOWN RESOURCE AND LIONTOWN EAST RESOURCE DRILLING</p> <ul style="list-style-type: none"> The exploration results reported for Lontown and Lontown East were included as weighted average assay intervals for Zn, Cu, Ag and Pb. No cutting of high grades was completed when reporting as exploration results

Criteria	Explanation	Commentary
Relationship between mineralisation widths and intercept length	<p><i>These relationships are particularly important in the reporting of Exploration Results.</i></p> <p><i>If the geometry of the 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 (e.g. 'down hole length, true width not known').</i></p>	<p>LIONTOWN RESOURCE AND LIONTOWN EAST RESOURCE DRILLING</p> <ul style="list-style-type: none"> • The mineralisation is stratabound and interpreted to be dipping at ~70 degrees, drill holes have been designed to intercept the mineralisation as close to perpendicular as possible. • Where down hole intercepts are reported, true widths are likely to be ~75%. • The typical drill sample interval is 1m in length • At Liontown East the average downhole thickness of the mineralised zone is 8.2m.
Diagrams	<p><i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i></p>	<ul style="list-style-type: none"> • All diagrams are located within the body of this report
Balanced reporting	<p><i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i></p>	<ul style="list-style-type: none"> • All drill intercepts are recorded within the body of this report
Other substantive exploration data	<p><i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></p>	<ul style="list-style-type: none"> • All meaningful and material data is reported

Criteria	Explanation	Commentary
Further work	<p><i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></p> <p><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></p>	<ul style="list-style-type: none"> • Further infill drilling will be required within the deposit areas to increase confidence to Measure or Indicated Resource status. • Further extensional drilling will be required to test possible extensions to mineralisation. • Exploration will continue within the target VMS horizons • Further metallurgical testwork is required to improve confidence in the resource and ZnEq calculation.