

## **ASX ANNOUNCEMENT**



**Rox Resources Limited** 

**ASX: RXL** 

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**Projects:** 

Mt Fisher: nickel-gold (100%)

Reward: zinc-lead (49%)

Bonya: copper-silver (earning

up to 70%)



# INTERSECTION AT TEENA, 38.8m @ 16.9% Zn+Pb

Thick high grade zone of massive zinc-lead sulphide mineralisation intersected at Teena:

38.8m @ 16.9% Zn+Pb from 1068.9m, including 20.0m @ 22.4% Zn+Pb from 1076.0m

Rox Resources Limited (ASX: RXL) ("Rox" or "the Company") is pleased to report assay results from the first diamond hole drilled at the Teena zinc prospect (Figure 1) this year. The Teena prospect forms part of the greater Reward project in the Northern Territory.

Hole TNDD019 was drilled approximately 200m east of discovery hole TNDD009 (Figure 2), and intersected high grade mineralisation with exceptional results.

TNDD019: **38.8m @ 16.9% Zn+Pb** from 1068.9-1107.7m, including **20.0m @ 22.4% Zn+Pb** from 1076.0–1096.0m, and

**8.9m @ 8.0% Zn+Pb** from 1164.0 – 1172.9m, including **5.0m @ 10.8% Zn+Pb** from 1164.3-1169.3m

Managing Director Ian Mulholland commented, "This is our best hole yet, and continues to confirm the huge potential and inherent value of this prospect. 20 metres grading over 22% Zn+Pb within a thicker zone of 38.8 metres grading 16.9% Zn+Pb is a truly outstanding result."

"The strike length of the high grade mineralisation (greater than 13% Zn+Pb) at Teena extends to an impressive 1.3km, with good apparent continuity of the mineralisation indicated between drill holes."

Two further holes have been drilled which close in the drill spacing between holes Teena 8 and TNDD014 (Figure 2), and assays are pending for these. A fourth hole is now underway to the northwest of hole TNDD011.

The Reward project is subject to an option/joint venture (JV) agreement between Rox (49%) and Teck Australia Pty Ltd ("**Teck**") (51%), a subsidiary of Canada's largest diversified resource company Teck Resources Limited. Teck have elected to exercise the option to increase their JV interest to 70% by expending up to \$15 million in total by 31 August 2018.

#### **ENDS**

#### For more information:

### **Shareholders/Investors**

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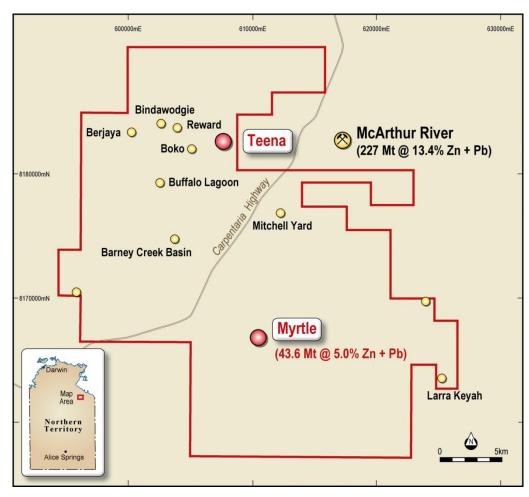


Figure 1: Reward Project Tenement Plan showing prospect locations

(Myrtle Mineral Resource, ASX:RXL 15 March 2010; McArthur River Mineral Resource, Leach et. al., 2005, Economic Geology 100<sup>th</sup> Anniversary Volume, pp561-607)

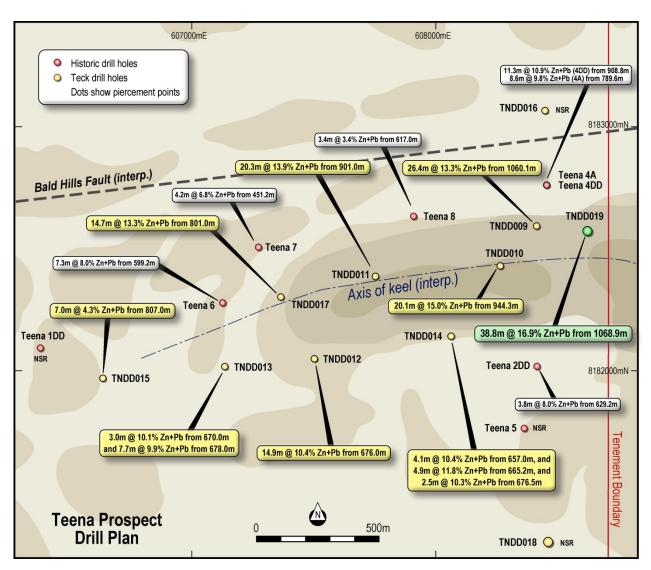


Figure 2: Teena Prospect Drill Plan showing locations of new 2015 holes in green. Selected drill results shown. For a full list of drilling results see Table 1.

**Table 1: Teena Diamond Drilling Results** 

Hole	North	East	RL	From	То	Interval	Zn%	Pb%	Zn+Pb%	Ag ppm
TNDD019	8182154	608530	74	1019.0	1033.0	14.0	2.79	0.49	3.28	1.5
				1058.0	1066.0	8.0	4.37	0.49	4.86	0.8
				1068.9	1107.7	38.8	14.65	2.30	16.94	0.6
	Including				1096.0	20.0	19.37	3.07	22.43	0.7
				1114.0	1117.4	3.4	4.65	2.61	7.26	0.8
				1122.8	1125.8	3.0	5.01	0.70	5.71	1.3
				1164.0	1172.9	8.9	6.90	1.14	8.04	0.4
	Includi	_		1164.3	1169.3	5.0	9.23	1.60	10.83	0.6
TNDD018	8181261	608462	50	NSR						
TNDD017	8182005	607511	57	795.9	821.4	25.5	7.90	1.23	9.13	0.4
	Includii	ng		801.0	815.7	14.7	11.53	1.79	13.32	0.3
	And Includii	n a		828.4 828.4	835.0 832.0	6.6	5.82	0.80	6.62 9.65	1.5 1.5
	And	ng		975.0	977.0	3.6 2.0	8.32 2.93	1.33 0.06	2.99	0.5
TNDD016	8183157	608470	110	NSR	977.0	2.0	2.93	0.00	2.99	0.5
TNDD010	8181695	606655	52	807.0	814.0	7.0	4.13	0.16	4.29	0.3
11100010	And	000000		825.9	829.0	3.1	3.09	0.62	3.71	1.4
TNDD014	8182000	608085	65	652.6	687.0	34.4	5.42	0.78	6.20	0.5
	Includii	l .		657.0	661.1	4.1	9.19	1.25	10.4	0.8
	and inclu	ding		665.2	670.1	4.9	10.23	1.55	11.8	0.8
	and inclu	ding		676.5	679.0	2.5	8.68	1.59	10.3	0.2
	And			710.0	717.0	7.0	3.36	0.23	3.59	0.4
	And			788.0	795.1	7.1	2.42	0.55	2.97	0.4
	And			798.2	827.0	28.8	2.78	0.68	3.46	0.3
	And			838.7	854.0	15.3	2.67	0.64	3.31	0.6
	And			858.0	860.0	2.0	2.20	0.64	2.84	1.5
TNDD013	8181842	607152	51	665.0	700.0	35.0	5.38	0.74	6.12	0.9
	Includii			670.0	673.0	3.0	8.83	1.23	10.06	0.7
	and inclu	ding		678.0	685.7	7.7	8.70	1.21	9.91	1.0
	And			824.0	845.0	21.0	2.65	0.73	3.38	0.4
	And			857.2	861.0	3.8	2.84	0.37	3.21	2.1
TNDD042	And	607500	75	868.0	880.0	12.0	2.79	0.34	3.13	1.5
TNDD012	8182035 Includii		75	671.0 676.0	705.0 690.9	34.0 14.9	6.53 9.08	0.98 1.33	7.51 10.41	
	Includii			676.0	680.5	4.5	10.00	1.37	11.37	
	And			684.9	690.9	6.0	12.55	2.02	14.58	
And				807.1	826.0	18.9	2.75	0.74	3.49	
And			836.2	848.0	11.8	2.78	0.56	3.34		
TNDD011	8182035	607877	79	896.0	898.6	2.6	3.97	0.44	4.41	1.5
	And				921.3	20.3	11.99	1.87	13.86	1.5
Including				905.0	921.3	16.3	14.26	2.25	16.51	1.7
Including				907.1	921.3	14.2	15.83	2.53	18.36	1.7
	And			937.3	943.0	5.7	7.58	0.98	8.56	2.6
	Includii	ng		937.3	939.0	1.7	11.06	2.13	13.18	2.8
And				1095.0	1098.0	3.0	3.01	0.01	3.02	
And				1111.0	1119.8	8.8	2.75	0.27	3.02	

TNDD010	8182661	608278	75	908.0	925.1	17.1	2.55	0.46	3.01	1.8
Including			915.0	917.0	2.0	4.96	0.96	5.92	2.2	
And				935.0	941.0	6.0	4.63	0.58	5.21	0.9
And				944.3	964.4	20.1	13.00	2.03	15.03	0.9
	Includi	ng		951.5	964.0	12.5	16.78	2.68	19.46	1.1
	Includi	ng		954.0	959.0	5.0	21.80	3.62	25.42	1.0
	And			967.6	970.1	2.5	3.69	0.57	4.26	0.5
	And			988.8	996.6	7.8	7.43	1.28	8.71	0.6
	Includi	ng		988.8	995.0	6.2	8.50	1.48	9.98	0.7
	Includi	ng		988.8	992.0	3.2	10.73	2.00	12.73	1.0
	And			1116.0	1119.0	3.0	3.19	1.05	4.24	0.3
	And			1124.0	1133.7	9.7	4.04	1.61	5.65	1.1
	Includi	ng		1125.4	1128.2	2.9	7.64	2.70	10.35	1.9
	Includi	ng		1125.4	1127.0	1.7	8.76	3.04	11.80	2.6
	And			1149.0	1151.0	2.0	2.09	0.72	2.81	1.8
	And			1157.0	1166.0	9.0	2.54	0.93	3.47	1.8
	And			1169.0	1191.0	22.0	3.09	0.81	3.90	1.2
	Includi	ng		1177.0	1179.0	2.0	4.07	1.45	5.52	1.1
	And			1212.2	1232.0	19.8	2.13	0.57	2.70	0.8
	And			1244.0	1246.0	2.0	3.38	0.07	3.45	3.0
	And			1251.0	1255.0	4.0	2.81	0.07	2.88	2.2
TNDD009	8182793	608474	72	1012.0	1018.0	6.0	2.81	0.36	3.17	3.2
	And			1020.6	1039.0	18.4	3.14	0.56	3.70	2.0
	Includi	ng		1022.0	1024.0	2.0	4.87	0.80	5.67	3.2
	Includi	ng		1028.0	1031.0	3.0	4.59	0.77	5.37	2.9
	And			1049.0	1056.0	7.0	4.83	0.57	5.40	0.7
	And			1060.1	1086.5	26.4	11.59	1.73	13.32	0.8
	Includi	ng		1060.1	1068.2	8.1	7.74	0.98	8.71	0.6
And including				1070.3	1086.5	16.2	14.91	2.32	17.23	1.0
Including				1071.0	1079.0	8.0	18.36	2.87	21.24	0.9
	And			1089.5	1092.3	2.8	3.50	0.42	3.92	0.7
	And			1121.0	1127.9	6.9	7.97	0.95	8.92	1.0
Including				1121.0	1126.0	5.0	9.48	1.21	10.70	1.1
And				1276.1	1281.0	4.9	2.89	0.91	3.80	2.0
	Includi	ng		1278.1	1281.0	2.9	3.77	1.22	4.99	2.9

Drill holes TNDD009 – TNDD018 previously announced to ASX (ASX:RXL 5 August 2013, 26 August 2013, 18 September 2013, 11 October 2013, 27 October 2014, 10 November 2014, 15 December 2014).

**Table 2: Drill Hole Collar Coordinates** 

Hole	North	East	RL	Dip	Azimuth	Total Depth (m)
TNDD019	8182154	608530	74	-68	012	1383.0
TNDD018	8181261	608462	50	-75	343	359.4
TNDD017	8182005	607511	57	-65	335	1322.0
TNDD016	8183157	608470	110	-70	170	317.6
TNDD015	8181695	606655	52	-70	350	852.0
TNDD014	8182000	608085	65	-75	351	961.0
TNDD013	8181842	607152	51	-72	349	1005.5
TNDD012	8182000	607500	75	-85	355	1005.8
TNDD011	8182035	607877	79	-70	340	1221.6
TNDD010	8182661	608278	75	-75	174	1383.3
TNDD009	8182793	608474	70	-80	175	1302.0

#### Notes:

- New results shown in bold.
- Grid coordinates GDA94: Zone 53, Collar positions & RL's variably determined by hand held GPS and/or DGPS.
- Correct projected average lateral positions of down hole intercepts are shown on the Figures.
- Hole dip and azimuth determined at collar by compass and clinometer.
- Diamond drilling by HQ and NQ diamond core, with core cut in half and sampled to either logged significant geological boundaries or even 1 metre intervals. Core recovery generally exceeded 98%.
- Duplicate core samples were quarter cut.
- Cut core samples were crushed to nominal 2mm size, then a 3kg split pulverised to nominal 85% passing 75um.
- Samples sent to Bureau Veritas, Mount Isa, with assay by oxidative fusion with XRF analysis (XF001). This method is considered to completely extract Pb and Zn and is a ISO17025 certified method.
- 3 Certified Reference Materials that range from low grade to high grade Zn (30%) were included in the dispatch at a rate of at least 1 sample in 20, with a higher frequency in mineralized intervals. Field duplicates were included in the dispatch and were sent to the laboratory blind. Blanks were included in the dispatch at a rate of 1 in 40 samples.
- All quality control data has been assessed to be within an acceptable level of accuracy and precision.
- Independent assay verification has not yet been completed.
- Weighted average grade by sample interval quoted using a cut-off grade of 2.5% Zn+Pb over a minimum width of 2m, with up to 2m of internal dilution allowed. Internal higher grade zones are selected at a 6% Zn+Pb cut-off grade or higher.
- Reported intercepts may exceed the true width; no sampling bias is believed to have been introduced however. Based on structural measurements and downhole surveys, for hole TNDD009 true thickness is believed to be about 60% of downhole thickness, for holes TNDD010 TNDD019 true thickness is 80-90% of downhole thickness.

## **About Rox Resources**

Rox Resources Limited is an emerging Australian minerals exploration company. The company has three key assets at various levels of development with exposure to gold, nickel, zinc, lead, and copper, including the Mt Fisher Gold Project (WA), Myrtle/Reward Zinc-Lead Project (NT), and the Bonya Copper Project (NT).

## Mt Fisher Gold-Nickel Project (100% + Option to Purchase)

The Mt Fisher gold project is located in the highly prospective North Eastern Goldfields region of Western Australia and in addition to being well endowed with gold the project hosts strong nickel potential. The total project area is  $675 \text{km}^2$ , consisting of a  $600 \text{km}^2$  area 100% owned by Rox and an Option to purchase 100% of a further  $75 \text{km}^2$  of nickel and gold prospective ground.

Discovery of, and drilling at the Camelwood and Musket nickel prospects has defined a JORC 2012 Mineral Resource (ASX:RXL 9 October 2013 and 4 September 2014) of **3.6Mt grading 2.0% Ni** reported at 1.0% Ni cut-off (Indicated Mineral Resource: 1.8Mt grading 2.2% Ni, Inferred Mineral Resource: 1.9Mt grading 1.8% Ni) comprising massive and disseminated nickel sulphide mineralisation, and containing 72,100 tonnes of nickel. Higher grade mineralisation is present in both deposits (refer to ASX announcements above), and is still open at depth beneath each deposit. Additional nickel sulphide deposits continue to be discovered (e.g. Cannonball, Sabre) and these will add to the resource base. Exploration is continuing to define further zones of potential nickel sulphide mineralisation.

Drilling by Rox has also defined numerous high-grade gold targets and a JORC 2004 Measured, Indicated and Inferred Mineral Resource (ASX:RXL 10 February 2012) of **973,000 tonnes grading 2.75 g/t Au** reported at a 0.8 g/tAu cut-off exists for 86,000 ounces of gold (Measured: 171,900 tonnes grading 4.11 g/t Au, Indicated: 204,900 tonnes grading 2.82 g/t Au, Inferred: 596,200 tonnes grading 2.34 g/t Au) aggregated over the Damsel, Moray Reef and Mt Fisher deposits.

## Reward Zinc-Lead Project (49% + Farm-out Agreement diluting to 30%)

Rox has signed an Earn-In and Joint Venture Agreement with Teck Australia Pty Ltd. ("Teck") to explore its highly prospective 670km<sup>2</sup> Myrtle/Reward zinc-lead tenements, located 700km south-east of Darwin, Northern Territory, adjacent to the McArthur River zinc-lead mine.

The first deposit explored, Myrtle, has a current JORC 2004 zinc-lead Mineral Resource (ASX:RXL 15 March 2010) of **43.6 Mt @ 5.04% Zn+Pb** reported at a 3.0% Zn+Pb cut-off (Indicated: 5.8 Mt @ 3.56% Zn, 0.90% Pb; Inferred: 37.8 Mt @ 4.17% Zn, 0.95% Pb).

Drilling at the Teena zinc-lead prospect includes intersections of 26.4m @ 13.3% Zn+Pb including 16.2m @ 17.2% Zn+Pb, and 20.1m @ 15.0% Zn+Pb including 12.5m @19.5% Zn+Pb, and together with historic drilling has defined significant new high grade zinc-lead mineralisation over a strike length of at least 1.9km (ASX:RXL 5 August 2013, 26 August 2013, 18 September 2013, 11 October 2013, 27 October 2014, 10 November 2014, 15 December 2014). Teena is the most significant new discovery of zinc in Australia since Century in 1990.

Under the terms of the Agreement, Teck has earned a 51% interest, with Rox holding the remaining 49%. Teck has elected to earn a further 19% (for 70% in total) by spending an additional A\$10m by 31 August 2018 (ASX:RXL 21 August 2013).

#### Bonya Copper Project (51% + Farm-in Agreement to earn up to 70%)

Rox (51%) is exploring the Bonya Copper Project located 350km east of Alice Springs, Northern Territory, in joint venture with Arafura Resources Limited (49%) (ASX:ARU). Outcrops of visible copper grading up to 34% Cu and 27 g/t Ag are present, with the style of mineralisation similar to the adjacent Jervois copper deposits (see ASX:KGL). Drill testing has intersected visible copper mineralisation at three prospects, with massive copper sulphides intersected at the Bonya Mine prospect, including **38m @ 4.4% Cu** and **11m @ 4.4% Cu** (ASX:RXL 20 October 2014, 5 November 2014, 1 December 2014).

Under the Farm-in Agreement Rox has earned a 51% interest in the copper, lead, zinc, silver, gold, bismuth and PGE mineral rights at Bonya after spending \$500,000 (ASX:RXL 16 December 2014). Rox has elected to earn a further 19% (for 70% in total) by spending a further \$1 million by 10 December 2016.

## **Competent Person Statements:**

The information in this report that relates to new Exploration Results for the Reward Zinc Project is based on information compiled by Mr Ian Mulholland BSc (Hons), MSc, FAusIMM, FAIG, FSEG, MAICD, who is a Fellow of The Australasian Institute of Mining and Metallurgy and a Fellow of the Australian Institute of Geoscientists. Mr Mulholland 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 Mulholland is a full time employee and Managing Director of the Company and 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 nickel Mineral Resources for the Mt Fisher project was reported to the ASX on 3 October 2013 and 4 September 2014. Rox confirms that it is not aware of any new information or data that materially affects the information included in the announcements of 3 October 2013 and 4 September 2014, and that all material assumptions and technical parameters underpinning the estimates in the announcements of 3 October 2013 and 4 September 2014 continue to apply and have not materially changed.

The information in this report that relates to previous Exploration Results and Mineral Resources for the Reward Zinc-Lead, and Bonya Copper projects and for the gold Mineral Resource defined at Mt Fisher, was either prepared and first disclosed under the JORC Code 2004 or under the JORC Code 2012, and has been properly and extensively cross-referenced in the text. In the case of the 2004 JORC Code Exploration Results and Mineral Resources, they have not been updated to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.

All reports are based on information compiled by Mr Ian Mulholland BSc (Hons), MSc, FAusIMM, FAIG, FSEG, MAICD, who is a Fellow of The Australasian Institute of Mining and Metallurgy and a Fellow of the Australian Institute of Geoscientists. Mr Mulholland 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 2004 and 2012 Editions of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Mulholland is a full time employee of the Company and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. Mr Mulholland may have a conflict of interest since under his employment contract a component of his remuneration is linked to Key Performance Indicators that include achieving successful exploration results.

## **Appendix**

The following information is provided to comply with the JORC (2012) requirements for the reporting of the Teena drilling results on tenement EL30042.

## **Section 1 Sampling Techniques and Data**

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	Diamond drill hole core size is initially HQ size but is NQ2 size diameter through the mineralisation. Sampling of diamond holes was by cut half core as described further below.		
	not be taken as limiting the broad meaning of sampling.	Drill holes were generally angled at minus $70-80^\circ$ towards north to intersect geology and mineralisation as required (but see Table for individual hole dips and azimuths).		
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	Drillhole locations were either determined by hand held GPS (TNDD009-012, 014-019), or DGPS (TNDD013). Logging of drill samples included lithology, weathering, alteration, mineralisation, colour, texture, moisture and contamination (as applicable). Sampling protocols and QAQC are as per industry best practice procedures.		
	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	Diamond core is dominantly NQ2 size, sampled on geological intervals, with a minimum of 0.3m up to a maximum of 1.3m. NQ2 core is cut into half, or quarter for HQ holes.		
	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	Samples were sent to Bureau Veritas, Mount Isa, where they are dried, crushed to 2mm, split in a rotary splitter to 2kg, and pulverised in LM5 units, to 90% passing 75um. Samples were then sent to Bureau Veritas, Perth for analysis. The pulps were then analysed by oxidative fusion with XRF analysis (XF001). This method is considered to completely extract Pb and Zn and is a ISO17025 certified method. Trace elements were determined by LA-ICPMS of the fused beads.		
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	Drilling technique was diamond core (DD). Hole depths at the Teena prospect range from 317.6m to 1,383m. DD hole diameter was mostly NQ2 with 5 ¼ inch mud rotary pre-collar and HQ upper hole portions. The core was orientated using a Reflex orientation tool.		
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed	Diamond drill core recoveries were logged and recorded in the database. Overall recoveries were generally >98%, and there were no significant core loss or recovery problems.		
	Measures taken to maximise sample recovery and ensure representative nature of the samples	Diamond core was reconstructed into continuous sample runs on an angle iron used for orientation marking. Depths are measured and checked against marked depths on the core blocks.		
	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.	There is no observable relationship between recovery and grade, and therefore no sample bias.		
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.	Detailed geological and geotechnical logs were carried out on all diamond drill holes for recovery, RQD, structures etc. which included structure type, dip, dip direction, alpha angle, beta angle, texture, shape, roughness, fill material, and this data is stored in the database.		
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging of diamond core recorded lithology, mineralogy mineralisation, structure (DD only), weathering, colour, and othe sample features. Core was photographed and is stored in plastic core trays.		
	The total length and percentage of the relevant intersections logged	All holes were logged in full except for the rock roller bit diamond hole pre-collars (0-120m in most cases).		

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Drill core was cut in half on site using a core saw. All samples were collected from the same side of the core, preserving the orientation mark in the kept core half.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	All holes were cored.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sample preparation followed industry best practice. This involved oven drying, coarse crushing of diamond core to ~2mm, followed by pulverisation of a representative split of sample in an LM5 to a grind size of 90% passing 75 micron.
	Quality control procedures adopted for all subsampling stages to maximise representivity of samples.	Subsampling was controlled by the insertion of duplicates of material created both after the crushing stage and after the pulverization stage. These quality control measures are inserted at the company's request and not a component of the laboratory's internal quality system. Both these stages of sub-sampling were fit for purpose.
	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.	Field QC procedures involve the use of 3 different Certified Reference Materials (CRM's) to monitor accuracy, along with duplicates to monitor precision and blank samples to monitor contamination. Routine samples were cut as half core and one half was sent for analysis. The other half was retained as a geological record. However, 1 sample in 50 was a core duplicate. In this case, both halves were submitted blind to the laboratory to monitor geological representivity. This showed that the geological sampling was fit for purpose.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample sizes are considered more than adequate to ensure that there are no particle size effects relating to the grain size of the mineralisation which lies in the percentage range.
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.	The analytical technique involved an oxidative fusion with XRF analysis (XF001). This method is considered to completely quantify Pb and Zn and is a ISO17025 certified method.
	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.	No geophysical or portable analysis tools were used to determine assay values.
	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.	Samples submitted to the laboratory are split into batches of 50 samples. Each batch contains 3 CRM's appropriate to the project to monitor bias, a coarse blank and a fine blank to monitor contamination in sample preparation and the laboratory and a core duplicate, crush duplicate and a pulp duplicate to monitor sampling and sub sampling. The results of this system have been acceptable in line with industry best practice.
		Check assays have been undertaken by an independent third party assay laboratory. No issues were revealed.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Senior technical personnel (Exploration Manager and Senior Geologist) from Teck Australia Pty Ltd ("Teck"), the operating Company, have visually inspected and verified the significant drill intersections.
	The use of twinned holes.	No holes have been twinned at this stage.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary data is logged using an Acquire logging interface that has been setup with appropriate codes for the Teena drilling program. The data are transferred to Teck's Perth Office for data verification and loading into the database.
	Discuss any adjustment to assay data.	No adjustments or calibrations have been made to any assay data.
Location of data points	Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Not applicable. No Mineral Resource estimate has yet been made. Drillhole locations were either determined by hand held GPS (TNDD009-012, 014-019), or DGPS (TNDD013). A Reflex downhole camera was used to record downhole survey data at approximately 30m intervals.

Criteria	JORC Code explanation	Commentary		
	Specification of the grid system used.	The grid system is MGA_GDA94, zone 53 for easting, northing and RL.		
	Quality and adequacy of topographic control.	A topographic surface was generated from digital terrain models generated from low level airborne geophysical surveys.		
Data spacing and distribution	Data spacing for reporting of Exploration Results.	The drill hole spacing varies 250-500 metres between and along drill sections.		
	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.	The mineralisation and geology shows very good continuity from hole to hole and given sufficient in-fill drilling will be suitable to support the definition of a Mineral Resource or Ore Reserve and the classifications contained in the JORC Code (2012 Edition) in due course.		
	Whether sample compositing has been applied.	No sample compositing has occurred for diamond core drilling. Sample intervals are based on geological boundaries with even one metre samples between.		
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.	The deposit strikes at about 080 degrees and takes a synclinal form plunging to the east. The drill orientation was planned to intersect the mineralised system at specific targeted positions. No bias is believed to have been introduced because of this, but down hole intersections will have varying true widths. This is confirmed in structural logging of mineralised zones.		
	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.	No sampling bias is believed to have been introduced.		
Sample security	The measures taken to ensure sample security.	Sample security is managed by Teck. After preparation in the field samples are packed into polyweave bags and despatched to the laboratory. For a large number of samples these bags were transported by the Company directly to the assay laboratory. In some cases the sample were delivered to a transport contractor who then delivered the samples to the assay laboratory. The assay laboratory audits the samples on arrival and reports any discrepancies back to the Company. No such discrepancies occurred.		
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	A regular review of sampling techniques and data is carried out by Teck personnel experienced in this field. The database is considered to be of sufficient quality to support a Mineral Resource estimate as and when appropriate.		

## **Section 2 Reporting of Exploration Results**

Criteria	JORC Code explanation	Commentary		
Mineral tenement and land tenure status	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.	The mineralisation is located within Exploration License EL30042 in the Northern Territory. Teck (51% interest) is operating the project under an Earn-in and Joint Venture Agreement with Rox Resources Limited ("Rox") (49% interest). Under the Agreement Teck car increase its interest in the project by expending a total of \$15 million by 31 August 2018.		
	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.	The tenement is in good standing and no known impediments exist.		
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	7 of the 8 holes previously drilled at the Teena prospect (Teena 2-8 inclusive) were drilled from 1976 to 1978 by MIM Exploration Pty Ltd. Teena 1 was drilled in 1961.		
Geology	Deposit type, geological setting and style of mineralisation.	The geological setting is of Proterozoic aged sedimentary hosted zinc-lead system, bounded by growth faults in synclinal sub-aqueous basins. Mineralisation is mostly situated in the HYC Shale (or equivalent) within the Barney Creek Formation. The rocks are not significantly metamorphosed or altered, although there is pervasive carbonate addition. The deposit is analogous to the McArthur River and Mt Isa style zinc-lead sulphide deposits.		

Criteria	JORC Code explanation	Commentary
Drill hole Information	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:  • easting and northing of the drill hole collar • 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.	Refer to drill results Table/s and the Notes attached thereto.
Data aggregation methods	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.	All reported assay intervals have been length weighted. No top cuts have been applied. A lower cut-off of 2.5% Zn+Pb is applied with up to 2m of internal dilution allowed. See Notes to Table/s.
	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.	High grade sulphide intervals internal to broader zones of mineralisation are reported as included intervals. See Table/s.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values have been used or reported.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.  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	The deposit strikes at about 080 degrees and takes a synclinal form plunging to the east. The drill orientation was planned to intersect the mineralised system at specific targeted positions. Drillhole azimuths were planned at approximately $350^{\circ}$ and holes generally inclined at minus $70^{\circ}-80^{\circ}$ (but see Table 1 for individual hole details).
	reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	Given the angle of the drill holes and the interpreted dip of the host rocks and mineralisation (see Figures), reported intercepts will be more than true width (see notes to Table).
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.	Refer to Figures and Table in the text.
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.	At this stage only visually mineralised intervals have been fully analysed. Selected samples outside of mineralised intervals have been sampled and analysed for geochemical data purposes.
Other substantive exploration data	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.	All core samples are measured for bulk density in the field by Teck using the water-air displacement method. Multi element assaying on all samples was carried out, including potentially deleterious elements.  Geotechnical data was collected from all diamond drillholes including recovery and RQD. Structural information was recorded; structure type, thickness, lithology, and alpha/beta angles (dip and dip direction).  Geophysical data: specific gravity (SG), gamma and magnetic susceptibility were collected.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).  Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive	Further work (diamond drilling) is justified to fully determine the size of the mineralised system both across and along strike and at depth.