

ASX Announcement

7 May 2025

OPERATIONAL UPDATE PROJECT IRON BEAR

Cyclone Metals Limited (ASX: CLE) (**Cyclone** or the **Company**) is focused on developing of its flagship Iron Bear Project, a world class iron ore project located in the Labrador Trough region of Canada.

Cyclone is pleased to provide an operational update on Iron Bear to its shareholders.

KEY OPERATIONAL HIGHLIGHTS

- As of 30 April 2025, Cyclone Ltd had approximately **A\$1.8m** in cash following a reimbursement of A\$1.2m from Vale S.A. (**Vale**) for operational costs related to the Iron Bear Project expended in January and February 2025.
- In addition, Iron Block 103 Corporation, which is a fully owned subsidiary of Cyclone in Canada, had approximately **A\$7.7m** in cash as of the 30 April 2025. These funds are allocated to the development of the Iron Bear project as outlined in the Development Agreement¹ executed between Vale and Cyclone on the 13 February 2025.
- Cyclone has progressed the engineering workstream, securing the key commercial engagements with subcontractors for drilling, power, rail, environmental, social and community studies.
- **Phase 4** of the metallurgical test work has been completed, delivering following results:
 - **17.7 tons** of sediment processed in the Iron Bear pilot plant;
 - **2.3 tons** of direct reduction (**DR**) concentrate² produced grading **71% Fe** and 1.2% SiO₂ with very low deleterious elements – used for pellet plant design and pellet production;
 - **3.5 tons** of blast furnace (**BF**) concentrate³ produced grading **69.1% Fe** and 3.5% SiO₂ with very low deleterious elements – used for DR concentrate production;
 - **260 kg** of direct reduction pellets produced grading **68.4% Fe** and **1.5% SiO₂** with excellent metallisation and physical properties;
- Completion of **flotation optimisation test work** has confirmed a substantial increase in flotation recoveries from the previous 80% mass yield:
 - **87%** average mass yield to achieve 1.0% SiO₂ for the DR concentrate
 - **89%** average mass yield to achieve 1.2% SiO₂ for the DR concentrate
- Definition of **thermal profile** for a future Iron Bear straight grate pellet plant.
- Completion of **power study** to identify feasible renewable energy supply options for a future Iron Bear mine and concentrator

¹ ASX release dated 17 February 2025 “Cyclone Metals and Vale execute Development Agreement”

² DR concentrate – Direct Reduction concentrate which is used in low carbon DR plants which use natural gas as a reductant

³ BF concentrate - Blast Furnace concentrate which is used is BF steel plants using coal as a reductant

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Cyclone’s Managing Director, Mr Paul Berend comments that: “It is encouraging to see the Project advance so rapidly. Our operational milestones were achieved and we are confident that the Iron Bear project will progress as planned, with the help of our operational partner, Vale”.

1. UPDATE ON THE IRON BEAR DEVELOPMENT PLAN

The Iron Bear Project is underpinned by a clear operational plan to rapidly de-risk the asset and to enable Vale to achieve decision to mine in three to five years, as outlined in the Development Agreement

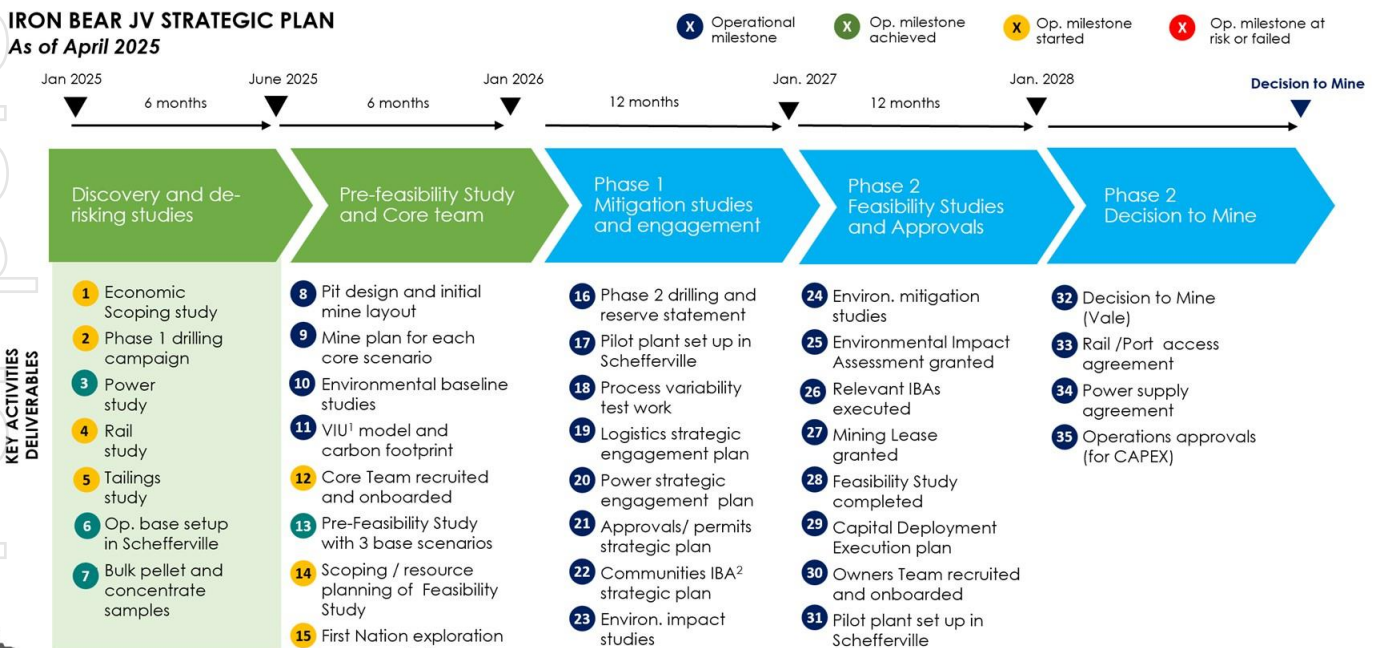
Cyclone is pleased to report that **all of the key development milestones**, as announced to the financial markets in June 2023, have been achieved as planned and on budget.

The key upcoming milestones are the release of the de-risking studies for power and rail and most importantly, the release of the Scoping Study, planned by end of June 2025.

Cyclone is also preparing a large drilling program for the summer of 2025 which should substantially expand the Indicated Mineral Resource estimate and enable the design of mining pit(s).

Iron Bear has also started test work for the design of a dry tailings solution for the mining operation. This is critical for the social acceptability of the Project, as the dry tailings solution will ensure that the mine does not require a tailings dam and that the mining pits are backfilled and rehabilitated as the mining operation progresses.

The chart below summarises the progress of the Iron Bear Strategic Plan on A Page. This is the Project development roadmap.



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2. PHASE 4 METALLURGICAL TEST WORK

The Company collected 17.7t of sediment cores representative of the life of mine Iron Bear ore feed. These cores were processed in Iron Bear’s pilot plant, located at Corem in Quebec City, to Blast Furnace (BF) and Direct Reduction (DR) grade concentrate in Q4 2024 and Q1 2025. The product grades achieved were in line with previous results, with BF concentrate at **69.1% Fe, 3.5% SiO₂**, and DR concentrate at **71.0% Fe and 1.2% SiO₂**.

While it is possible to achieve an even lower silica level at an **87%** flotation mass yield, the higher silica of 1.2% was achieved over a five-day batch run at **89%** mass yield, with a day maximum mass yield of **91.4%**.

This is a significant improvement over the previous 80% flotation mass yield to DR concentrate.

Work was performed to develop a suitable thermal profile for any future Iron Bear straight grate pelletising facilities, with multiple enhancements made to traditional pellet plant operation to ensure CCS>300 and Linder -3.15mm <2.0%, over the whole bed depth, and including modern design features like segregated feeding.



Picture 1. Green Ball manufacture in pelletising disc

Pellet plant operational design

A highly productive pelletising process was designed and tested to achieve these results and it was possible to operate at 30 and 35 t/m²/day and achieve the same metallurgical results.

Fired pellet coating test work was also performed to ensure that the Iron Bear pellets do not stick or clump in direct reduction steel making units

400kg of DR concentrate was reserved for future work, resulting in 260kg total pellet production. The impact of pellet coating with different formulas was tested on clustering performance in a direct reduction shaft.

Bulk blast furnace pellet quality has not yet been optimised because the focus has been on DR pellet production. Swelling index can in future be improved with fluxing adjustments



Picture 2. Fired Pellet Coating test runs

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Table 1 . Fired pellet coating tests results

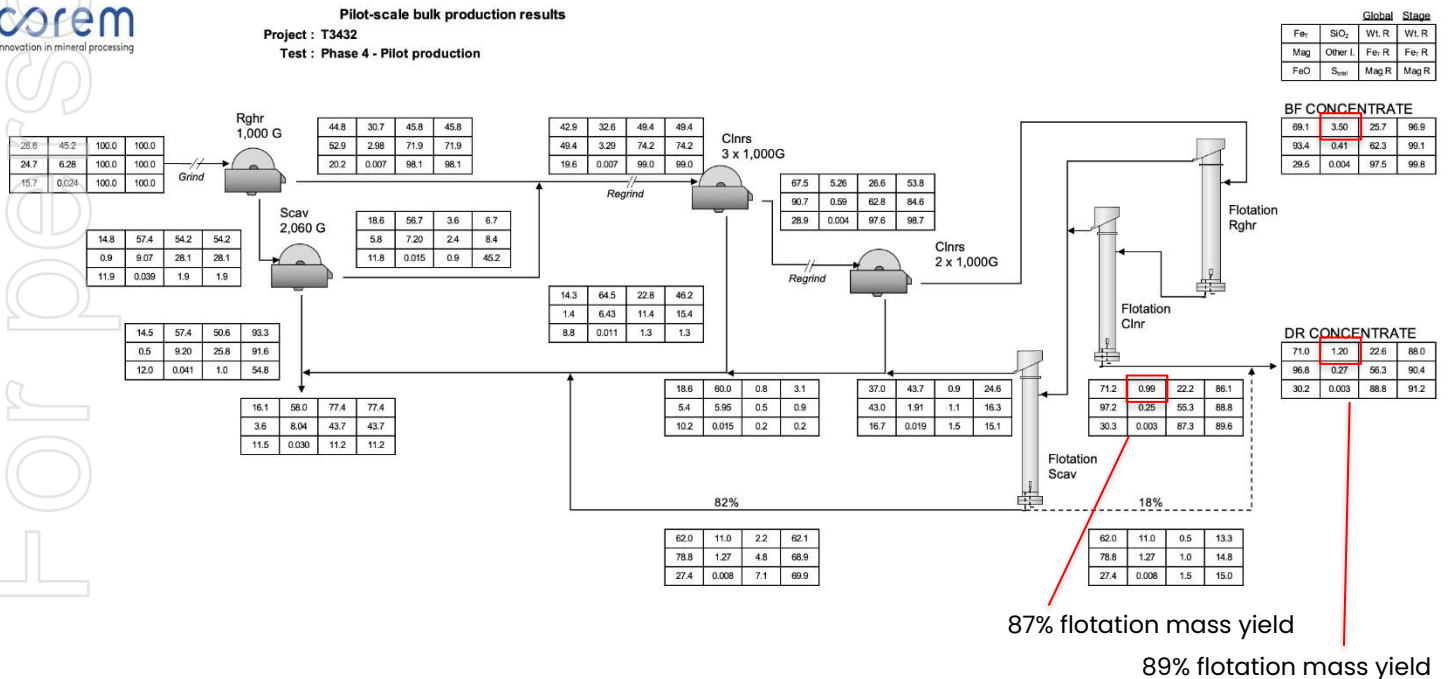
	P-1C	P-1D	P-2A	P-2B	P-2C
Mass before coating (g)	2006.3	2000.8	2000.8	2001.2	2000.0
Mass after coating and 24 drying 105°C	2012.0	2007.6	2008.5	2008.6	2007.2
Δ mass (g)	5.7	6.8	7.7	7.4	7.2
Coating (kg/t _{FP})	2.8	3.4	3.8	3.7	3.6

Coating reduces pellet clustering (sticking) in a direct reduction shaft and is standard practice for pellet export operations. Testing of coating recipes and amounts this early in the development process provides confidence to potential pellet customers and provides accurate costing data for engineering studies. The coating amounts of ~3-4 kg coating/t pellet are within the expected range to provide low clustering test results.

Figure 1. Phase 4 Metallurgical Test Work: Pilot Production Flow Sheet and Mass Balance



Pilot-scale bulk production results
Project : T3432
Test : Phase 4 - Pilot production



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3. PHASE 4 PELLET SPECIFICATIONS

The Phase 4 testwork, performed by Corem, has delivered over **260 kg** of direct reduction pellets, grading **68.4% Fe** and **1.5% SiO₂** with excellent metallisation and physical properties, that will form an integral part of the Scoping Study and Pre-Feasibility Study, proving the benchmark quality of the product.

Table 2. Direct Reduction pellets specification

Phase 4 Pelletizing Test work Pilot Scale		DR pellet Production lot		
Chemical Analyses	Fe total (XRF)	%	68.4	
	FeO	%	<0.30	
	SiO ₂	%	1.54	
	Al ₂ O ₃	%	<0.1	
	MgO	%	0.08	
	CaO	%	0.62	
	Na ₂ O	%	<0.10	
	K ₂ O	%	<0.01	
	TiO ₂	%	0.02	
	MnO	%	0.04	
	P	%	<0.01	
	Cr ₂ O ₃	%	0.03	
	V ₂ O ₅	%	<0.01	
	ZrO ₂	%	<0.02	
	ZnO	%	<0.01	
LOI	%	<0.10		
% Stot	%	<0.01		
Physical Testing	CCS ISO	AVG (daN)	346	
		STDEV (daN)	125	
		%-140 daN	8.9	
		%-90 daN	3.3	
	Porosity	%	24.6	
Pyrometallurgical Testing	DR90 ISO 11258	% Reduction	91.3	
		% metallization ³	87.6	
	COREM R180	% Reduction	97.6	
		CSAR (kg/pel.)	93	
		% -3.15mm	2.3	
	Linder ISO 11257	% metallization ¹	To come	
		% C _{tot} ²	0.5	
	Clustering ISO 11256	Coating type	80% limestone/20% Bentonite	
		Coating rate (kg/t _{FP})	3.6	
Clustering index %		12.1		
Time to reach 95 % reduction (min)		240		

¹ Calculated using chemical analysis (total iron and metallic iron were determined by titration).

² Determined by LECO

³ Calculated by using the following formula : 1.43 * R90 - 43

HIGHLIGHTS

- **68.4% Fe and 1.54% SiO₂** content
- CCS of 346 kg/pellet
- Linder of 2.3% -3.15 mm. Metallisation result N/A.
- Clustering Index 12.1% on coated pellets.

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Table 3. Blast furnace pellet specification

Phase 4 Pelletizing Test work Pilot Scale			BF pellet Production lot
Chemical Analyses	Fe total (XRF)	%	66.6
	FeO	%	<0.30
	SiO ₂	%	3.65
	Al ₂ O ₃	%	<0.1
	MgO	%	0.15
	CaO	%	1.01
	Na ₂ O	%	<0.10
	K ₂ O	%	<0.01
	TiO ₂	%	0.03
	MnO	%	0.05
	P	%	0.01
	Cr ₂ O ₃	%	0.04
	V ₂ O ₅	%	<0.01
	ZrO ₂	%	<0.02
	ZnO	%	<0.01
	LOI	%	-0.75
	% Stot	%	<0.01
Physical Testing	CCS ISO	AVG (daN)	323
		STDEV (daN)	112
		%-140 daN	7.8
		%-90 daN	4.4
	Porosity	%	29.4
Pyrometallurgical Testing	R40 ISO 4695	% O ₂ /min	0.70
	Swelling ISO 4698	% Vol.	23.9
		% Reduction	41.6
	Dynamic LTD ISO 13930	% +6.3mm	93.6
		% -0.5mm	2.4
Softening Corem	T° softening (50% deformation)	0	

HIGHLIGHTS

- **66.6% Fe and 3.65% SiO₂**
- CCS of 323 kg/pellet
- Porosity of 29%
- Swelling index of 24%.
- Softening temp of 1240 °C

Table 4. Blast furnace and direct reduction concentrate specification (Magnetite via Satmagan)

Products	Weight (%)	Grades (%)										
		Fe _T *	FeO	Mag**	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	MgO	CaO	MnO	S _{total}	Sum
BF Concentrate	25.7	69.1	29.5	93.4	3.50	0.10	98.8	0.14	0.13	0.05	0.004	99.9
DR Concentrate	22.6	71.0	30.2	96.8	1.20	0.09	101.6	0.07	0.08	0.04	0.003	99.9

POWER STUDY COMPLETION

The scoping level power study investigated power supply options to the Iron Bear mine site for various potential production scenarios. Menihek turbine upgrades or facility replacement, in combination with wind power provides sufficient power for lower power draw scenarios as well as the residential community, with power supply from Churchill Falls via new transmission lines and switchgear powering larger potential operations.

The results from the power study feed into the scoping study as a module in the economic model and provide confidence that technical and economic solutions exist for power supply to the Iron Bear mine site. The scoping study release will provide more information and context on considered options.

4. COMPLIANCE STATEMENTS

Forward-Looking Statements

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning the Company's planned exploration program and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "expect," "intend," "may", "potential," "should," "further" and similar expressions are forward-looking statements. Although the Company believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that further exploration will result in additional Mineral Resources.

Competent Persons

Exploration and technical information has been reviewed and compiled by Jeremy Peters, FAusIMM CP (Mining, Geology), a Director of Burnt Shirt Pty Ltd, who has sufficient experience which is relevant to the definition and mining of sediment-hosted magnetite mineralisation 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".

Metallurgy and processing information has been reviewed and compiled by Paul Vermeulen MAusIMM, Member Association of Iron and Steel Technology (MAIST), a Director of Vulcan Technologies Pty Ltd, who has sufficient experience which is relevant to the method of processing under consideration 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 Vermeulen consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

Vulcan Technologies has assisted CLE in its development of the Iron Bear Project, Vulcan Technologies indirectly holds an interest in CLE, including Performance Rights. Mr Vermeulen has assumed Competent Person responsibility due to his familiarity with the Project.

The Competent Person for the 2024 Mineral Resource estimate is Mr Jeremy Peters FAusIMM CP (Geo, Min), a Director of Burnt Shirt Pty Ltd. The Mineral Resource estimate is stated in accordance with the provisions of the JORC Code (2012). Mr Peters has more than five years' experience in the estimation and reporting of Mineral Resources for iron mineralisation in Australia and overseas, to qualify as a Competent Person as defined in the JORC Code. Mr Peters consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

The Competent Person for the 2024 Exploration Target estimate is Mr Jeremy Peters FAusIMM CP (Geo, Min), a Director of Burnt Shirt Pty Ltd. The Exploration Target is postulated in accordance with the provisions of the JORC Code (2012). Mr Peters has more than five years' experience in the postulation of Exploration Targets to qualify as a Competent Person as defined in the JORC Code. Mr Peters consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

Announcement authorised for release by the board of Cyclone.