# Buena Vista Iron Ore Nevada USA

Presentation 2021





### INDEX

#### PATH TO MARKETS

Anglo America



#### **LOCATION**

Domestic & Asian Markets



#### FROM MINE TO METAL Green HISMELT Technology



#### **UNIQUE IRON ORE**

A High Grade Producer





### MAGNUM ASX RELEASE 10 JUNE 2021

# **Anglo American** is a leading global mining company.

Anglo American Fact Sheet, February 2020



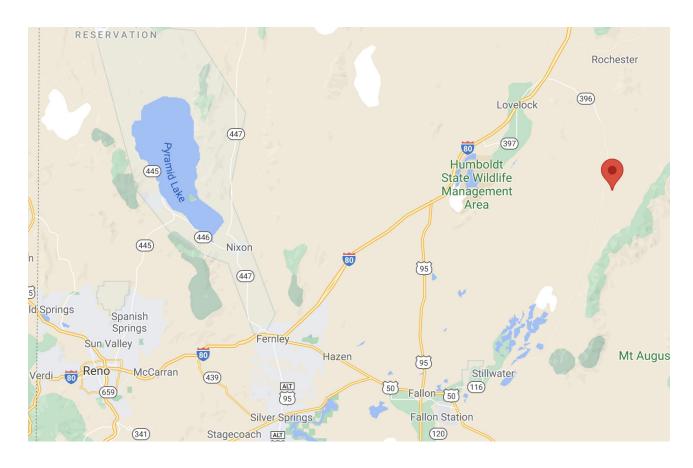
#### **Main Anglo Agreement**

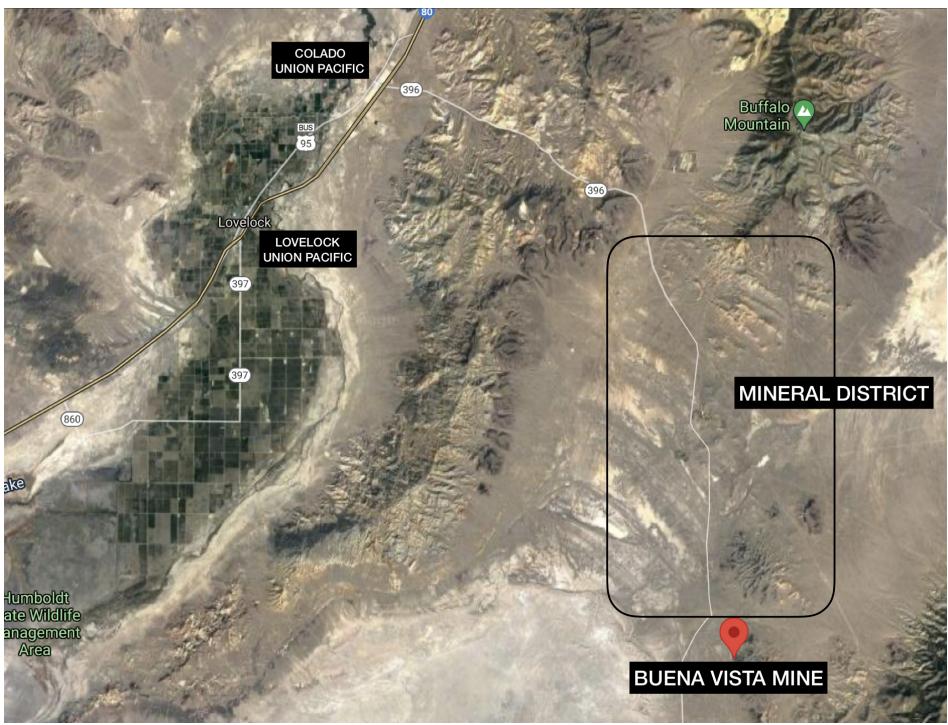
- > USD8M Pre Financing
- > 100% Off Take of DSO up to 800,000MT
- > Pre Payment of Ore at Loading Port
- > No limit on Pre Payment
- > First Right of Refusal on Financing for 68% concentrate and Green Pig Iron

Ref MGU Announcement 11 June, 2021.



### MINE LOCATION





### GLOBAL POLICY SUPPORT

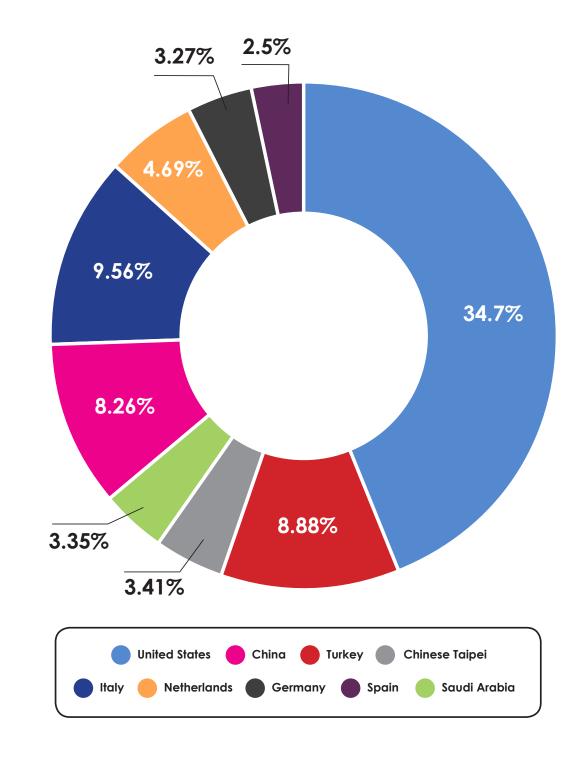




# **GLOBAL STEEL SCRAP**& PIG IRON SHORTAGE

US is the world's largest pig iron importer.
Annual import valued at USD1.5 Billion (2019).

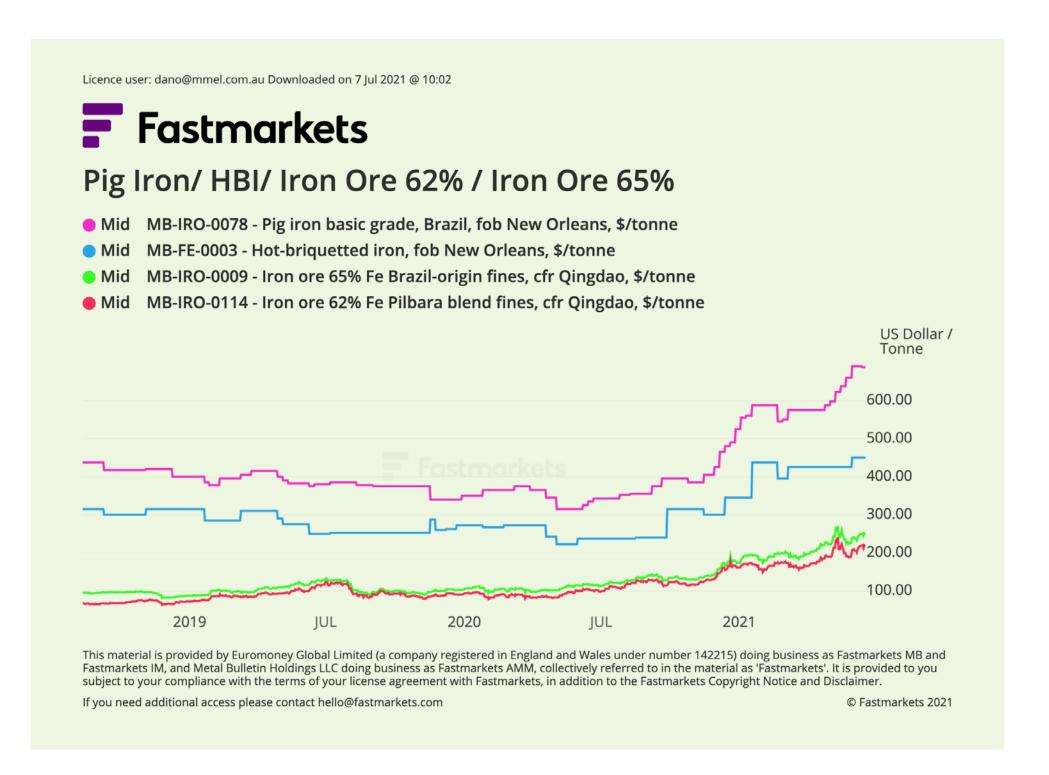
Source: The Observatory of Economic Complexity





### GLOBAL STEEL SCRAP & PIG IRON SHORTAGE

Global steel mills changing to EAF to reduce emission, increasing demand for steel scraps and pig iron. The shortage will continue for the foreseeable future.



### STEEL PLANTS OF NORTH AMERICA





### WEST COAST STEEL MILL IMPORT

**REQUIREMENT JAN 2021** 

6 Million Tons of Existing Steel Capacity on the West Coast





### FROM MINE TO METAL

WITH GREEN HISMELT TECHNOLOGY

Rio Tinto started HISMELT researching 1982. After 30 years, the process was proven successful in Kwinana Australia.

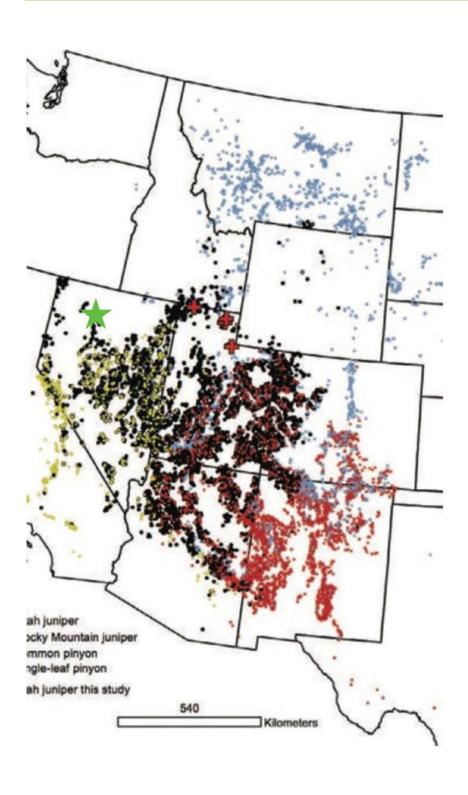
2008 Molong purchased the IPs from Rio Tinto. A 850,000MT Pig Iron per year HISMELT plant is in operation since 2016.

**BV HISMELT in Nevada will use Clean Hydrogen & Local Biomass** from invasive Juniper Trees to produce GREEN HBI & Pig Iron



### **LOCAL BIOMASS**

JUNIPER TREES

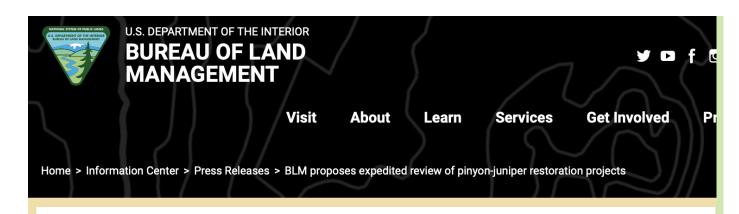


#### **Biomass Advantages**

- > Juniper Tree is dry with around 18% moisture.
- > Juniper Tree Biochar is up to 8,400kCal/kg better than most of thermal coal.
- > Carbon credit for negative Greenhouse gas emission using Biochar
- > Biochar is also low on Sulphur & impurities for good quality steel products
- > Readily available locally with minimum logistics carbon footprint
- > Restore nature balance while providing local jobs

#### **Facts**

- > Juniper Tree is an invasive specie
- Large parts of the Western United States are overgrown with juniper trees. Making little room for other plants.
- > A single juniper tree drinks up to 40 gallons of water per day
- > Depleting Water Table in an increasingly arid area
- > A fire hazard with potent Greenhouse gas emission
- > BLM encourage harvest to control spread



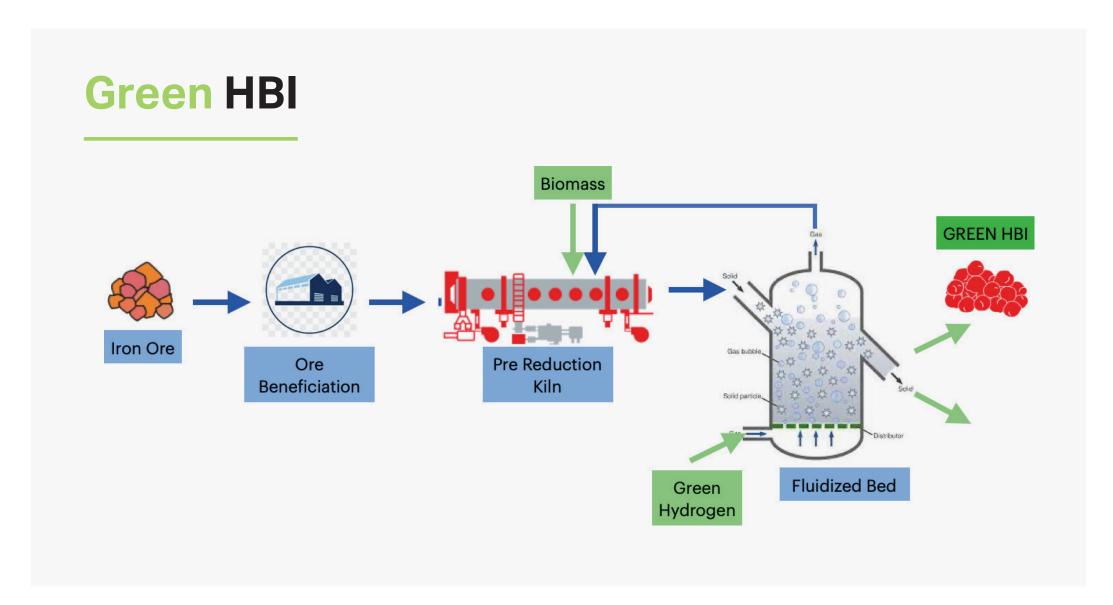
### BLM PROPOSES EXPEDITED REVIEW OF PINYON-JUNIPER RESTORATION PROJECTS

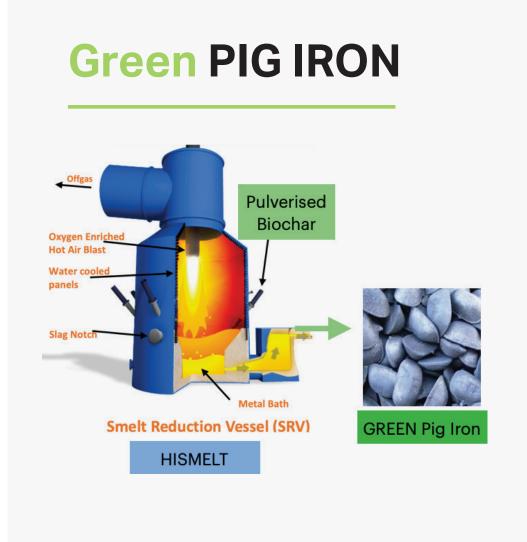
The Bureau of Land Management today announced a proposal to expedite review and approval of restoration projects across the West designed to address the rapid spread of pinyon-juniper woodlands on sagebrush habitat for the benefit of greater sage-grouse, mule deer and other sagebrush-dependent native wildlife and plant species. The proposal would establish a new categorical exclusion under the National Environmental Policy Act, enabling the agency to streamline review of projects that remove encroaching pinyon-juniper trees to allow for sagebrush restoration.

"Improving sagebrush ecosystems by removing Pinyon-juniper woodland is an established and well-studied practice. If finalized, this proposed categorical exclusion would eliminate needless analysis, so we can more quickly protect and restore sagebrush habitat and reduce the threat of wildfires for the benefit of mule deer, sage-grouse and hundreds of other native species," said Secretary of the Interior David Bernhardt.



### GREEN HISMELT PROCESS FLOW



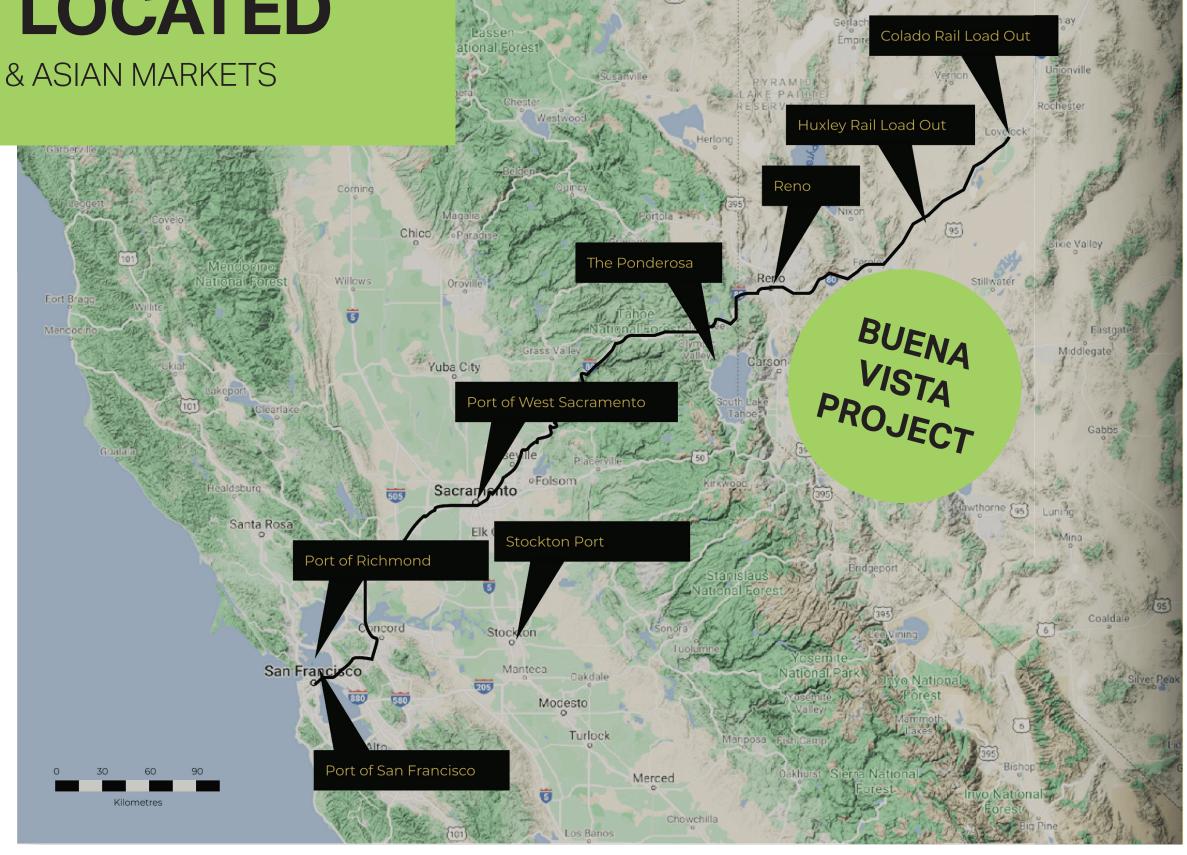




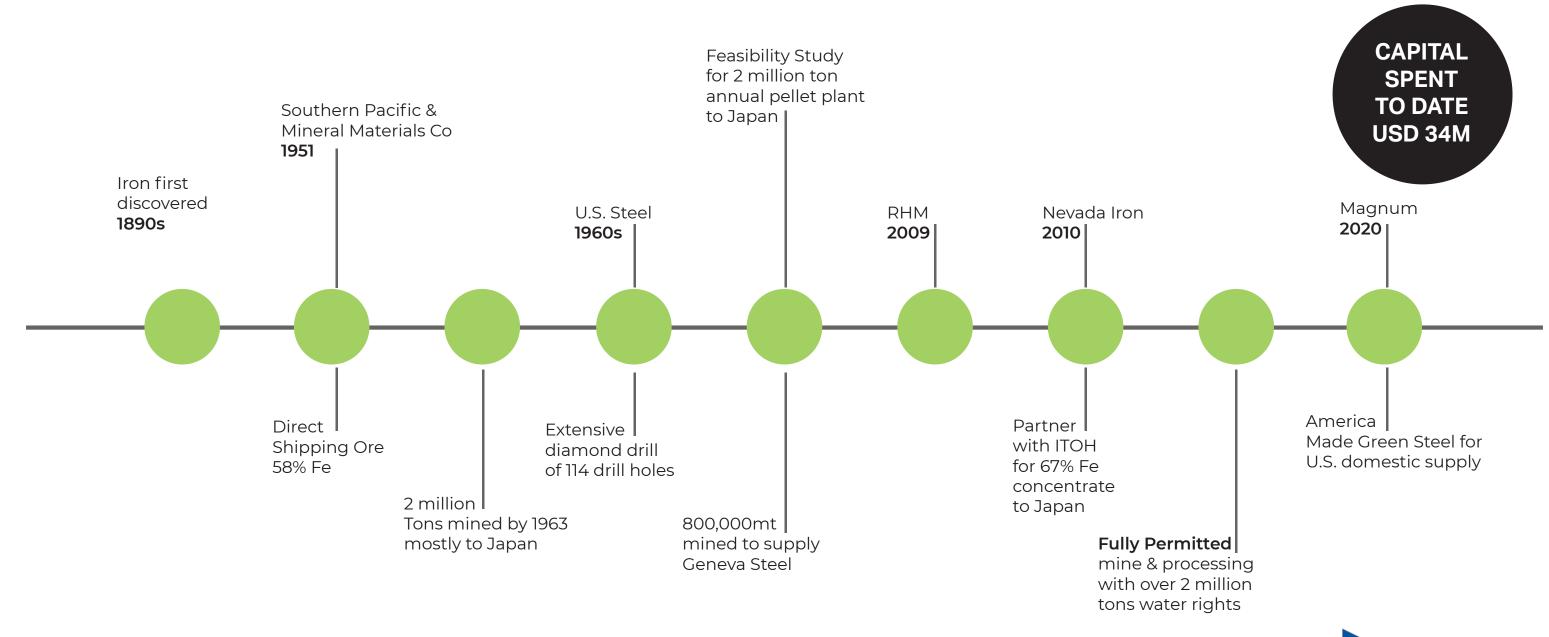
## UNIQUELY LOCATED

TO SUPPLY DOMESTIC & ASIAN MARKETS

- 1. Fully Permitted. Iron **Ore Mining / Crushing** / Dry Magnetic DSO / Wet Magnetic 68%.
- 2. Serviced by **Union Pacific on Transcontinental** Railway.
- 3. Water Rights Grants for the Life of the Mine.
- 4. Panamax Vessel Load at Both Stockton & **Richmond Ports.**

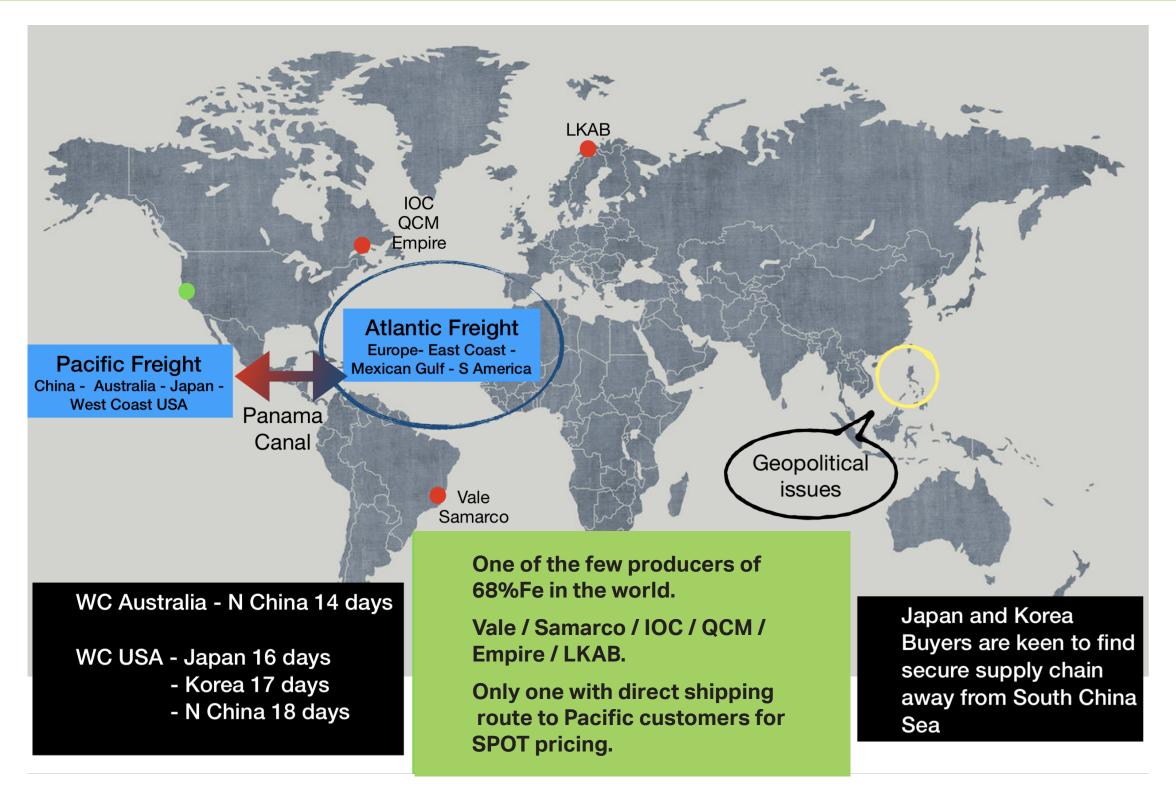


### **DISCOVERY & EXPLORATION HISTORY**



### FROM MINE TO METAL WITH GREEN HISMELT TECHNOLOGY

Supreme **Quality Iron Ore Supply Facing Pacific** Market



PHASE 1 DSO Q4 2021

**PHASE 2** – 68% Fe Concentrate Q4 2022

		2021 2022				2023						
MAGNUM BVNV	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Permitting	COMPLETED											
Mining and processing permit updates												
Iron concentrate plant design update												
Bankable feasibility study updates												
Utility supply application												
Port and railway contract renew												
Iron Ore Product off take												
Ore beneficiation plant construction												
Iron Ore shipment (DSO Grade)												
Iron Ore shipment (Concentrate)												

#### PHASE 3

Green Hismelt Q4 2023

	2021				2022				2023			
MAGNUM BVNV	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
HISMELT plant design												
Permitting												
Green Hydrogen supply	COMPLETED											
Local Biomass supply												
Bankable feasibility study												
Utility supply application												
HBI Product off take												
HISMELT plant construction												
Start operation (turn key)												



### MAGNUM BV DEVELOPMENT PHASES



Agreement in place Mid June Contract in place Mid July

**IRON ORE FINES** 65% -2MM 800,000mt **DSO** 62% 20-50MM

250,000mt

**STOCKTON** 

**PORT** 

**HBI** 800,000mt

> UNION **PACIFIC**

**IRON ORE** CONCENTRATE 67% 100 MESH

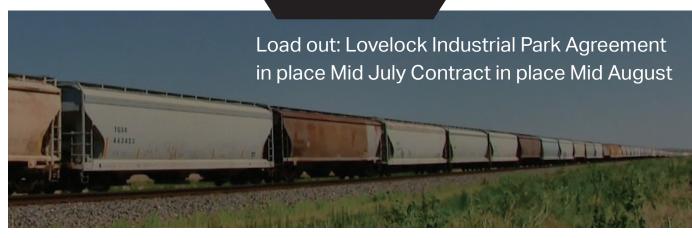
1.7mt

**LEVIN RICHMOND TERMINAL** 



Refer to ASX announcement 28 June, 2021, 11 June 2021, 7 May 2021.

MGU confirms that all material assumptions and technical parameters underpinning the production target continue to apply and have not materially changed from the previous ASX announcements listed above.

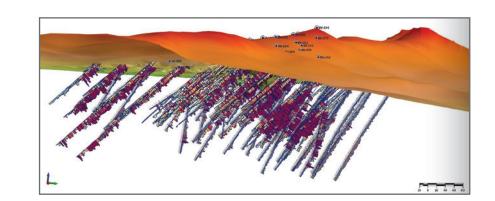




### BUENA VISTA IRON ORE SUMMARY

#### Buena Vista is an advanced magnetite iron ore project. All major development permits have already been secured.

**Total reported Mineral Resources 232Mt (JORC 2012 compliant)** 



- > +67.5 % Fe magnetite concentrate with no deleterious impurities.
- > 40 km from mine gate to railway
- > Potential export via ports of Stockton / Richmond / San Francisco
- > An average 16 day ocean voyage from west coast USA to Asia customers

Refer to ASX announcements 28 June 2021, 11 June 2021 and 7 May 2021 (ASX Announcements).

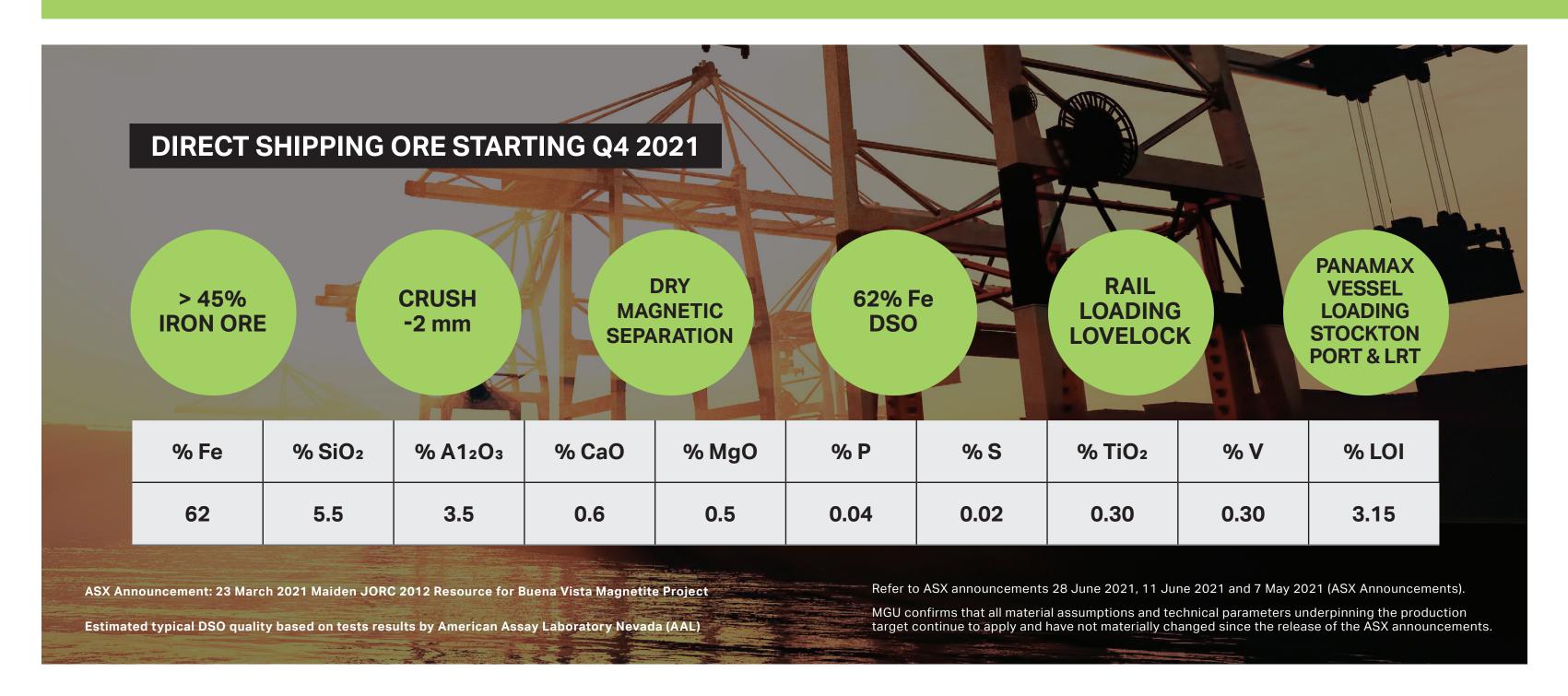
MGU confirms that all material assumptions and technical parameters underpinning the production target continue to apply and have not materially changed since the release of the ASX announcements.

Cut off	Deposit		Indicate	d		Inferre	ł		Total	
Fe %		Mt	Fe %	DTR %	Mt	Fe %	DTR %	Mt	Fe %	DTR %
10.0	Sect 5	34	17.4	21.0	8.0	16	18	42	17.1	20.5
	West	117	19.5	23.9	40	17	21	157	18.9	23.2
	East				33	19	23	33	19.0	23.0
	Total	151	19.0	23.2	81	18	22	232	18.6	22.7
15.0	Sect 5	21	20.2	25.1	3.8	19	24	25	20.0	24.9
	West	90	21.4	26.7	26	20	24	116	21.1	26.1
	East				25	21	26	25	21.0	26.0
	Total	111	21.2	26.4	55	20	25	166	20.9	25.9
20.0	Sect 5	9.1	24.1	30.9	1.3	<b>2</b> 3	29	10	24.0	30.7
	West	40	26.5	34.4	9.6	25	32	50	26.2	33.9
	East				13	24	31	13	24.0	31.0
	Total	49	26.1	33.8	24	24	31	73	25.5	33.0
25.0	Sect 5	2.8	28.6	37.7	0.3	27	36	3.1	28.4	37.5
	West	19	31.5	41.9	3.5	30	39	23	31.3	41.4
	East				3.6	29	38	3.6	29.0	38.0
	Total	22	31.1	41.4	7.4	29	38	29	30.7	40.6

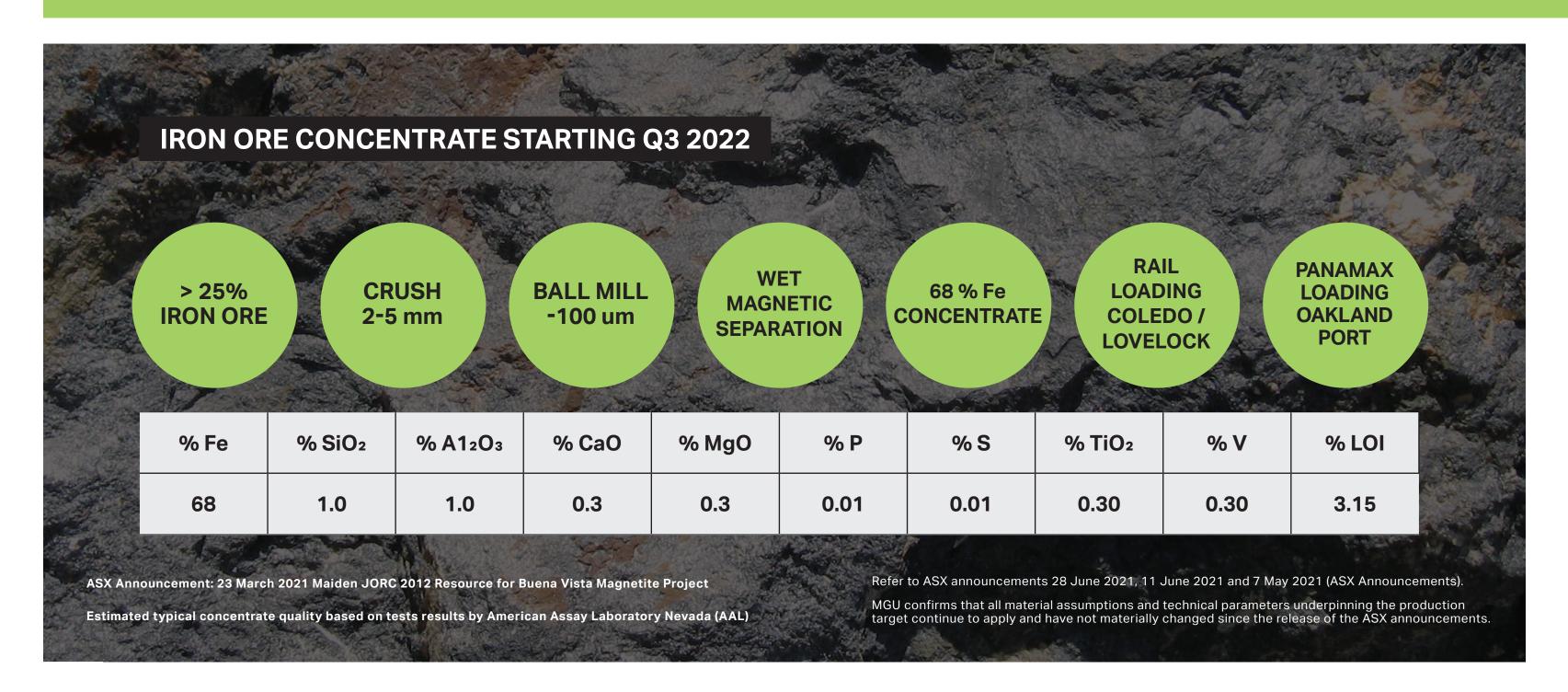
<sup>\*</sup> DTR% is the estimated proportion of the rock mass recoverable by simple magnetic concentration on the basis of the Davis Tube Recovery analyses for drill hole samples. It is strongly correlated to iron grades.



# A STAGED APPROACH STARTING FROM IRON ORE EXPORT



# A STAGED APPROACH STARTING FROM IRON ORE EXPORT



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