

# **Iron Ore Holdings Ltd**

### **Investor Presentation**

July 2014





# **IOH - Company Status**



### **Corporate Overview**

#### Background

- ASX listed in 2005
- 1.6 billion tonnes JORC Mineral Resources
- Iron Valley Project production in Q3 CY2014
- Buckland Project construction ready
- ~\$50M cash in bank and zero debt

#### **Board Members**

- Hon. Richard Court AC (Non-Executive Chairman)
- Alwyn Vorster (Managing Director)
- Ryan Stokes (Non-Executive Director)
- Malcolm Randall (Non-Executive Director)
- Brian O'Donnell (Non-Executive Director)

#### **Capital Structure**

**Cash** (as at 30 June 2014) ~**P** 

~A\$50 million

**Shares On Issue** 

161 million

52 Week Range

~A\$0.71 - A\$1.02

Market Cap

(as at 24 July 2014)

~A\$140 million



### 12 Month Results

**Find** 

- JORC Mineral Resources now 1.6 billion tonnes
- JORC Ore Reserves now 269 million tonnes
- Total of 26 prospective tenements held in Western Australia

Derisk

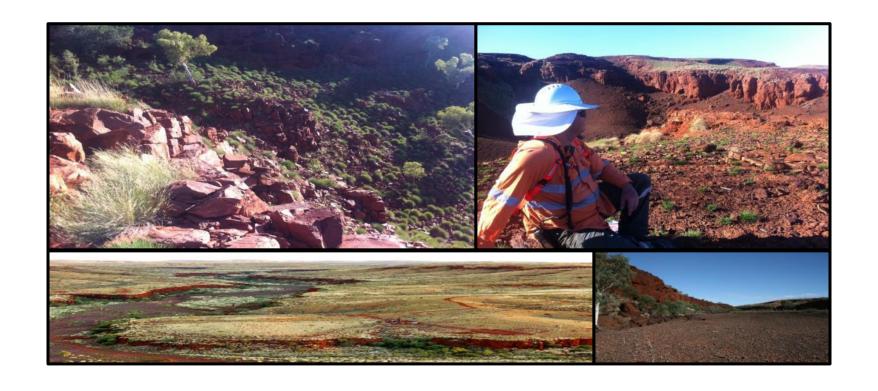
- Iron Valley Project final development approval secured
- Buckland Project positive Feasibility Study completed<sup>1</sup>
- Buckland Project primary approvals secured

**Monetise** 

- Iron Valley Mine Gate Sale revenue in Q1 FY2015
- North Marillana divestment A\$2.5 million + royalty
- Buckland partnership progressing

Corporate

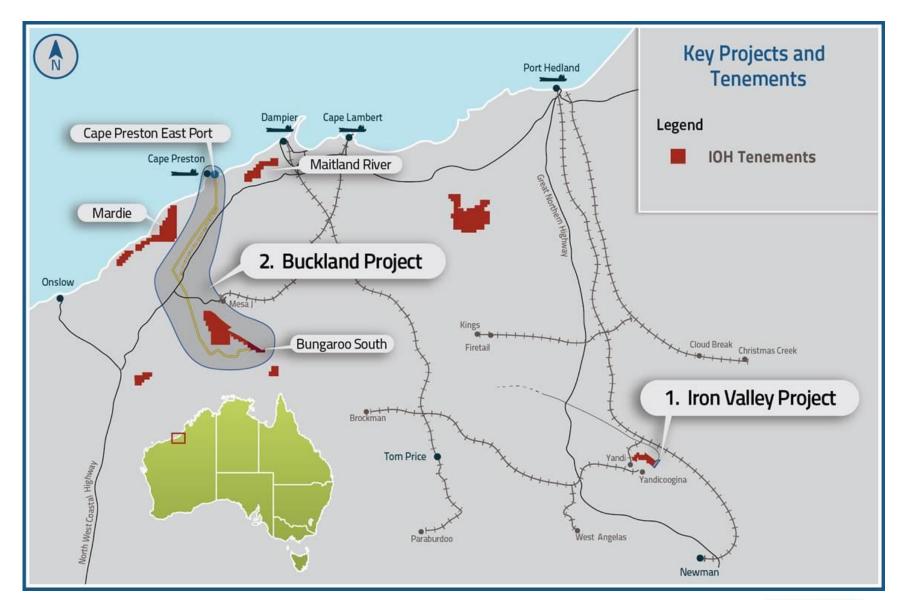
- Zero fatalities and zero lost time injuries
- ~A\$50 million cash and zero debt

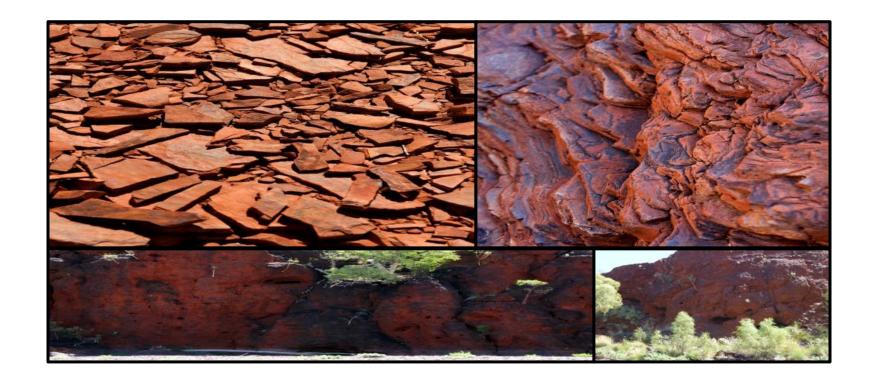


# **IOH Projects**



## **IOH Project Locations**

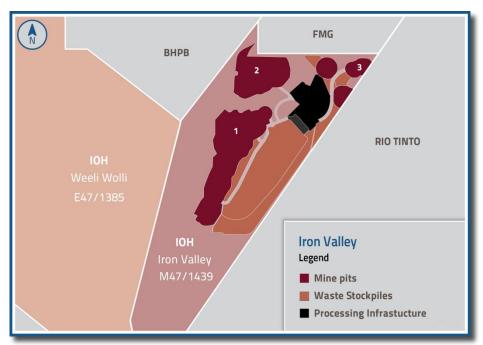




# **Iron Valley Project**



### Iron Valley - IOH Revenue expected in 2014



- Mine Gate Sale Agreement with Mineral Resources Limited¹
- JORC Resource of 259Mt @ 58.3% Fe<sup>1</sup>
- JORC Reserve of 134Mt @ 58.5% Fe<sup>1</sup>

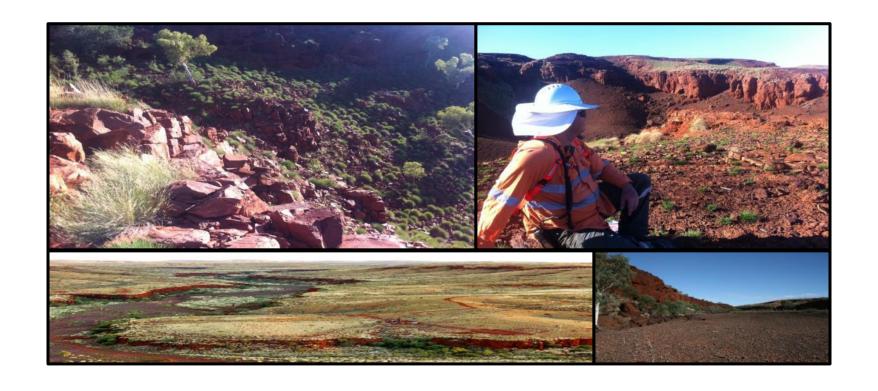
Iron Valley - Mine Layout



Iron Valley - Construction Underway (Image Date: 24 June 2014)

- Construction 80% complete (July 2014)
- Bulk sample produced (June 2014)
- First shipments expected in Q3 CY2014
- Ramp-up expected to ~ 5Mtpa
- IOH revenue expected in 2H CY2014



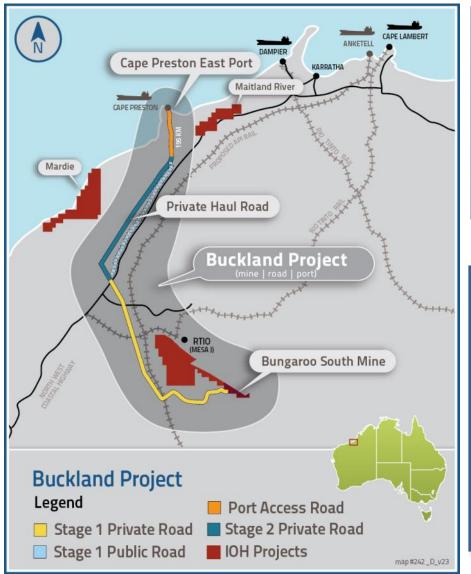


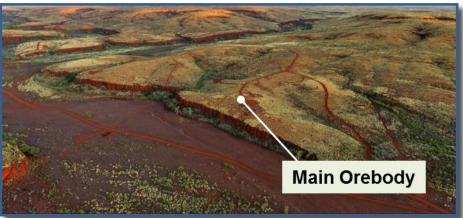
# **Buckland Project**



### **Buckland Project**

#### **Bungaroo South Mine and Haul Roads and Cape Preston East Port**





**Bungaroo South - Mine Area** 



### **Buckland Project – Independent Mine to Ship Solution**

**Drill & Blast** 1:1 Strip Ratio





Truck & Shovel
Contract Miner moving
18-20Mtpa

Haul via 196km Private Road 115-200t Trucks





**Crush and Screen**Dry and Wet Plant
8Mtpa Production

Cape Preston East Port

20Mtpa Allocation 20 Year Port Lease





Transhipment to Cape Size Vessels Self-propelled and self-unloading Transhipper vessel





### **Buckland Project - Animation Video**

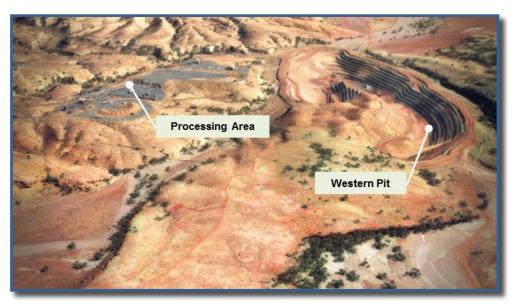
This video can be can be viewed from the home page of the IOH website at:

www.ironoreholdings.com

### **Bungaroo South Mine**

- JORC Ore Reserve of 134Mt @ 57.6% Fe<sup>1</sup>
- 15 year mine life @ 8Mtpa<sup>1</sup>
- 1:1 Waste to Ore ratio
- Conventional blast, truck and shovel operation
- Conventional crushing and dry & wet processing
- <12mm Fines product with average</li>~58% Fe over mine life

	Fe %	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Р%
Average	58.0	5.8	2.4	0.145



**Bungaroo South – Mine Layout** 

(Artist's Impression)



**Bungaroo South - Processing Area** 

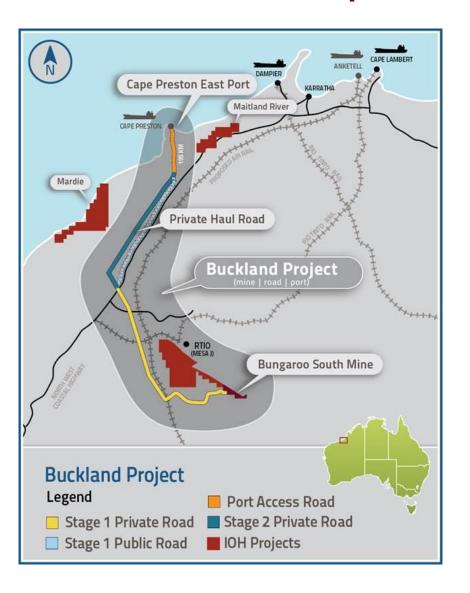
(Artist's Impression)



## **Bungaroo South – West Pit**



### **Buckland Road Transport Solution**



#### Stage 1

- ~200km haul route
   (~130km private and ~70km public)
- Approval secured for 8Mtpa haulage on public road
- 115 tonne quad wagon trucks

#### Stage 2

- 100% private road (construct additional 70km private road)
- 200 tonne triple wagon trucks
- Operating cost savings

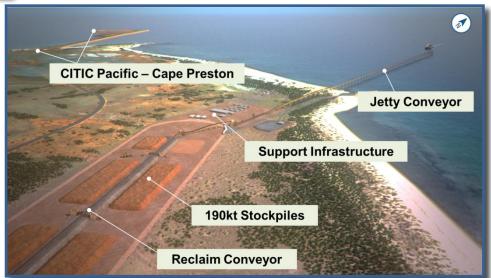
### **Cape Preston East Port - Onshore Operations**



**Cape Preston East - Port Location** 

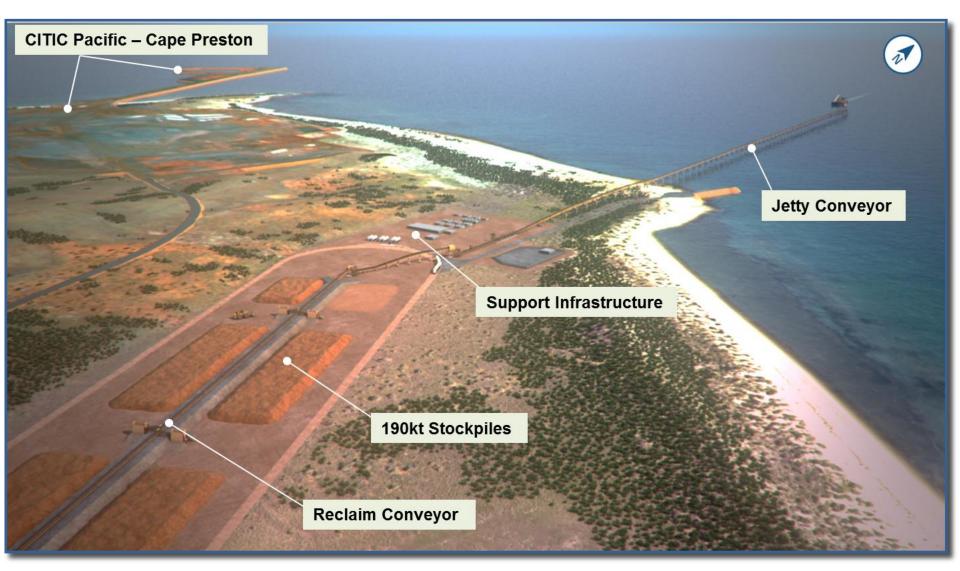
- Cape Preston East port lease secured
- IOH has exclusive rights to construct and operate onshore & marine facilities
- Lease allows ~20 Mtpa operations for ~20 years with options to expand

- Allowance for 8 stockpiles of 190kt each
- Onshore operational approach similar to Utah Point facility at Port Hedland



Cape Preston East – Feasibility Study (June 2014) Base Case Port Layout >8Mtpa (Artist's Impression)

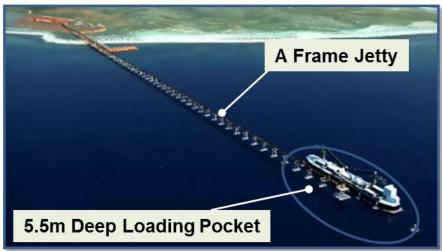
## **Cape Preston East – Port Facilities**



Cape Preston East - Feasibility Study (June 2014) Base Case Port Layout >8Mtpa

(Artist's Impression)

## **Cape Preston East Port - Marine Facilities**



**Planned Cape Preston East Jetty** 

(Artist's Impression)

#### **Jetty**

- 1.4km piled A-Frame jetty to 5.5m deep loading pocket
- No dredging required environmental assessment and approvals streamlined
- Slewing and luffing shiploader

#### **Transhipment**

- Self propelled and self discharging vessel
- 15kt to 20kt capacity (5.5m loaded draft)
- Loading 180kt Cape Size vessel in five days



**Transhipper and Cape size Vessels** 

### **Buckland Status**

#### **Approvals**

- All Environmental Approvals from Federal and State Governments secured
- All Native Title Agreements and Heritage clearance approvals secured

#### **Tenure**

- Mining lease secured
- Approval for 8Mtpa haulage on 70km public road secured
- Access Agreements for 100% of private road secured
- Cape Preston East port lease secured

### Feasibility Study

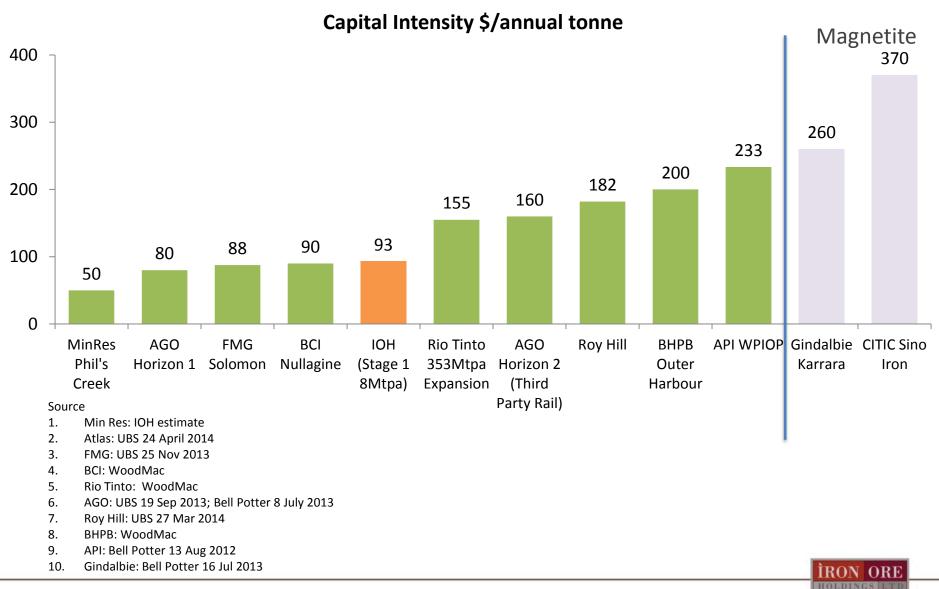
- Feasibility Study complete positive results
- Capital Cost to reach 8Mtpa: A\$744 million<sup>1</sup>
- Average C1 Cash Operating Cost (FOB): A\$48.40/t<sup>1</sup>
- Projected NPV<sub>10</sub> real of A\$990 pre tax; A\$260M average annual EBITDA

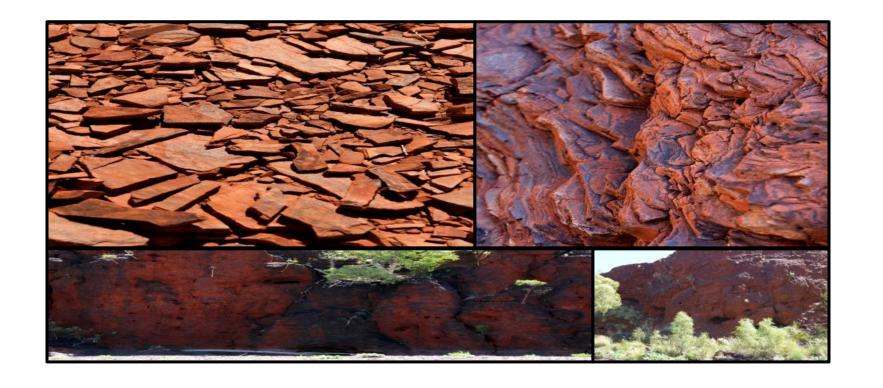
#### 1H FY15

- Optimise and finalise engineering design
- Secure sales agreements
- Advance funding solutions (equity and debt)



## **Capital Intensity Benchmarking**





## **IOH Future**



### **IOH Key Objectives for FY15**

Prudent allocation of ~A\$50M cash reserves



Receive first revenue from Iron Valley



Commence construction at Buckland



Find and derisk new tenements and projects



Maintain high HSEC standards





Table 1: IOH Buckland Project Ore Reserve at 30 June 2014

Project	Deposit	JORC Ore Reserve	Cut-off (% Fe)	Tonnes (Mt)	<b>Fe</b> (%)	CaFe (%)	SiO <sub>2</sub> (%)	Al <sub>2</sub> O <sub>3</sub> (%)	<b>P</b> (%)	<b>LOI</b> (%)
Buckland	Bungaroo South	Proved	54	23.2	58.3	62.9	5.8	2.9	0.15	7.4
	Bullgaroo Soutii	Probable		106.7	57.5	62.6	6.6	2.3	0.15	8.1
	Dragon	Proved		-	-	-	-	-	-	-
		Probable		4.4	57.1	62.3	6.5	2.8	0.14	8.4
	Sub Total	Proved		23.2	58.3	62.9	5.8	2.9	0.15	7.4
	Sub Total	Probable		111.1	57.5	62.6	6.6	2.3	0.15	8.1
Total				134.3	57.6	62.6	6.5	2.4	0.15	8.0

Tonnages are dry metric tonnes and have been rounded, hence small differences may be present in the totals.

Table 2: IOH Total Ore Reserves at 30 June 2014

Project	Deposit	JORC Ore Reserve	Tonnes <sup>B</sup> (Mt)	Cut-off (% Fe)	Fe (%)	CaFe (%)	SiO <sub>2</sub> (%)	Al <sub>2</sub> O <sub>3</sub> (%)	<b>P</b> (%)	<b>LOI</b> (%)
Iron Valley	Iron Valley <sup>A</sup>	Proved	-	-	-	-	-	-	-	-
	iron valley	Probable	134.7	53	58.5	63.0	4.9	3.2	0.17	7.2
Buckland	Dungana South	Proved	23.2	54	58.3	62.9	5.8	2.9	0.15	7.4
	Bungaroo South	Probable	106.7		57.5	62.6	6.6	2.3	0.15	8.1
	Dragon	Proved	-		-	-	-	-	-	-
	Dragon	Probable	4.4		57.1	62.3	6.5	2.8	0.14	8.4
Total			269.0		58.1	62.8	5.7	2.8	0.16	7.6

<sup>&</sup>lt;sup>A</sup> Reported in 2012 in accordance with JORC Code 2004 edition.

<sup>&</sup>lt;sup>B</sup> Tonnages are dry metric tonnes and have been rounded, hence small differences may be present in the totals.

Table 3: IOH Total Mineral Resource at 30 June 2014

Location		Project	Deposit	JORC	Cutoff	Tonnes <sup>D</sup>	Density	Fe	CaFe	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Р	LOI	
	Type			Class	(% Fe)	(Mt)	t/m³	(%)	(%)	(%)	(%)	(%)	(%)	
Central		Iron Valley <sup>A+B</sup>	Iron	Indicated	50	216.3	2.9	58.4	63.0	5.1	3.1	0.18	7.2	
Pilbara			Valley <sup>A+B</sup>	Valley <sup>A+B</sup>	<sup>B</sup> Valley	Inferred	50	42.8	3.0	57.9	61.1	7.0	3.9	0.14
			Bungaroo	Measured	50	30.9 <sup>c</sup>	2.6	57.4	62.1	6.7	3.0	0.15	7.6	
			South	Indicated	50	214.9 <sup>c</sup>	2.5	56.6	61.6	7.8	2.4	0.15	8.1	
		Buckland <sup>c</sup> <sup>E</sup>	Dragon	Indicated	50	9.1	2.3	55.8	60.9	8.1	3.1	0.14	8.3	
				Inferred	50	3.4	2.3	54.7	59.4	10.2	3.0	0.13	7.9	
Western Pilbara	DSO <sup>E</sup>		Rabbit	Indicated	50	5.9	2.6	55.0	58.9	10.3	3.4	0.13	6.6	
T iibulu				Inferred	50	1.3	2.5	53.7	58.1	11.2	3.3	0.08	7.5	
			Rooster	Indicated	50	5.2	2.6	55.8	60.2	7.2	4.6	0.08	7.3	
				Inferred	50	5.4	2.5	52.1	56.8	9.6	6.3	0.06	8.3	
			Snake	Inferred	50	7.1	2.6	57.0	62.6	5.8	2.8	0.15	9.0	
			Measured		50	30.9	2.6	57.4	62.1	6.7	3.0	0.15	7.6	
Sub Total			Indicated		50	451.4	2.7	57.4	62.2	6.5	2.8	0.16	7.7	
Total			Inferred		50	60.0	2.9	57.0	60.7	7.3	3.9	0.13	6.1	
Total						542.3	2.7	57.4	62.0	6.6	2.9	0.16	7.5	
<b>Coastal</b> Pilbara	BFO <sup>F</sup>	Maitland	Maitland River <sup>A</sup>	Inferred	26	1,106.0 <sup>G</sup>	3.25	30.4	30.8	44.0	2.3	0.06	1.2	
Total						1,106.0	3.25	30.4	30.8	44.0	2.3	0.06	1.2	

<sup>&</sup>lt;sup>A</sup> This information was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with JORC Code 2012 on the basis that the information has not materially changed since it was last reported. All other resources classified and reported in accordance with JORC Code 2012 edition.

Note: Table 3 IOH Total Mineral Resource is unchanged from the Table published in the IOH ASX announcement of 28 January 2014.



<sup>&</sup>lt;sup>B</sup> Includes Probable Ore Reserve of 134.7 Mt (see Table 2 above) - JORC Code 2004 edition.

<sup>&</sup>lt;sup>c</sup> Includes Proved and Probable Ore Reserves of 134.3 Mt (see Table 1 above) - JORC Code 2012 edition.

<sup>&</sup>lt;sup>D</sup> Tonnages are dry metric tonnes and have been rounded, hence small differences may be present in the totals.

<sup>&</sup>lt;sup>E</sup> DSO ("Direct Shipping Ore") is considered to be ore types which do not require significant beneficiation (upgrading) before it is usable as feedstock in the sinter or iron making processes.

F BFO ("Beneficiable Feed Ore") is comprised of ore types which require significant beneficiation (upgrading) before it is usable as feedstock in the sinter or iron making processes.

<sup>&</sup>lt;sup>G</sup> Indicative Davis Tube Recovery (grind size, P80 25μ) testwork produced a magnetite concentrate with weight yields ranging from 13 - 28%.

### **Disclaimer**

#### **Disclaimer:**

This document or presentation may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Iron Ore Holdings' planned exploration program, commencement of exporting of iron ore, industry outlook and other statements that are not historical facts. When used in this document, the words such as "could," "target," "plan," "estimate," "intend," "may," "potential," "should," and similar expressions reflected in these forward-looking statements are reasonable, such as statements involving risks and uncertainties and no assurance can be given that actual results be consistent with these forward-looking statements.

#### **Competent Persons Statement:**

The information in the report to which this statement is attached that relates to Exploration Targets, Exploration Results, is based on information compiled by Mr Roland Bartsch, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Bartsch is a full time contract employee of IOH and has sufficient experience which 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 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Bartsch consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

In respect of the Iron Valley and Maitland deposits the information in this report that relates to Mineral Resources estimates has been compiled by Mr Lynn Widenbar, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Widenbar is a full time employee of Widenbar and Associates and produced the Mineral Resource Estimates based on data and geological information supplied by IOH. Mr Widenbar has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves'. Mr Widenbar consents to the inclusion in this report of the matters based on his information in the form and context that the information appears.

In respect of the Bungaroo South, Dragon, Rabbit, Rooster and Snake deposits the information in this report that relates to Mineral Resources is based on information compiled by Mr Lynn Widenbar, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Widenbar is a full time employee Widenbar and Associates and produced the Mineral Resource Estimates based on data and geological information supplied by IOH and has sufficient experience which 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 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Widenbar 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 Ore Reserve estimations for the Iron Valley Deposit is based on information compiled by Mr Alan G. Cooper, who is a member of the Australasian Institute of Mining and Metallurgy. Mr Cooper is a full time employee of Snowden Mining Industry Consultants Pty Ltd. Mr Cooper 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 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Cooper consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. This information was prepared and first disclosed under the JORC Code 2004. It has been not been updated to comply with JORC Code 2012 on the basis that the information has not materially changed since it was last reported.

The information in this report that relates to Ore Reserve estimations for Bungaroo South and Dragon Deposits is based on information compiled by Mr Alan G. Cooper, who is a member of the Australasian Institute of Mining and Metallurgy. Mr Cooper is a full time employee of Snowden Mining Industry Consultants Pty Ltd. Mr Cooper has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Cooper consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

