The Manager
Companies Announcements Office
Australian Securities Exchange
20 Bridge Street SYDNEY NSW 2000

WEEKLY

IRON ORE DRILLING REPORT – No. 20

HAMERSLEY PROJECT, WA

HIGHLIGHTS

HAMERSLEY TENEMENT E47/882 Flinders Mines Limited (FMS) 100%

- *Shallow Bedded Iron Deposit (BID) mineralisation now intersected over good thicknesses in three of the four areas drilled*
- *Thick BID mineralisation consistently not closed off at the margin of the current drilling and close to surface in several locations*

Drilling Statistics

Table 1 Completed Reverse Circulation drillholes in each area.

Target Area	No of Holes	Metres Drilled
Area A	0	0
Area B	34	1,208
Area C	103	5,027
Area D	67	3,011
Area E	97	5,793
Total	301	15,039

Number of samples sent for assay	8,167
Number of assays received	5,754
Number of assay results awaited	2,413

Note: This table includes previously reported numbers.

Inferred Resources

Data and geological interpretation for Area D (Figure 1) sent to Golder & Associates for resource estimation. The geological modelling continues on Area E. Awaiting final assays for Areas B and C to commence geological modelling.

Drilling Activity

Flinders Mines Limited's Hamersley Iron Ore Project in WA comprises five target areas: Areas A, B, C, D and E (see Figure 1).

Since Weekly Report 19, released on 4 February 2009, a total of 296 assays were received for 3 holes in Area B, 6 holes in Area C and 3 holes in Area E. The significant results are presented in Table 2.

List of significant assayed intersections received in week Table 2

Flinders Mines Limited
ABN 46 091 118 044
www.flindersmines.com

62 Beulah Road
Norwood
South Australia 5067

PO Box 3126
Norwood
South Australia 5067

telephone +61 8 8132 7950
facsimile +61 8 8132 7999
email info@flindersmines.com

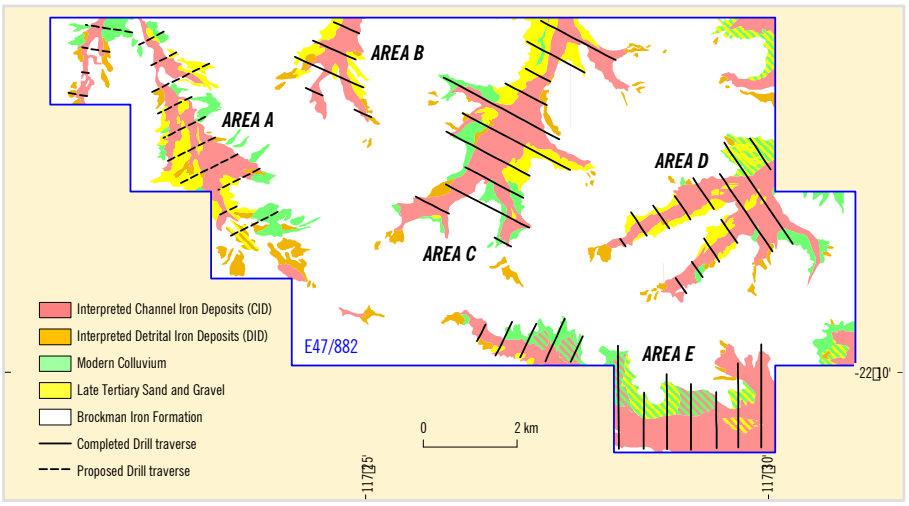

Figure 1 *Hamersley E47/882 showing the location of Target Areas.*

Area E

Assays were received for 3 holes in Area E. Drill hole HRC63 intersected 22m at 58.7% iron and demonstrates the continuity of thick mineralisation on the northern margin of the channel (Figure 2).

Area C

Laboratory results were received for 6 holes in Area C. Drill hole HRC337 intersected 20m of BID mineralisation at 58.2% iron, 2.2% alumina and 3.4% silica. This hole is located at the extreme northwest end of Line 5 (Figure 3). BID mineralisation is consequently not closed off at the end of this line. Further, this mineralisation begins at only 4m from the surface.

Area B

Assays were received for three holes in Area B with HRC412A intersecting BID mineralisation (Figure 3). This hole is an extension of HRC412 and intersected 28m at 61.0% iron from 8m.

Logistics

Nothing to report.

Tenements

Nothing to report.

Dr Kevin Wills
MANAGING DIRECTOR
11 February 2009

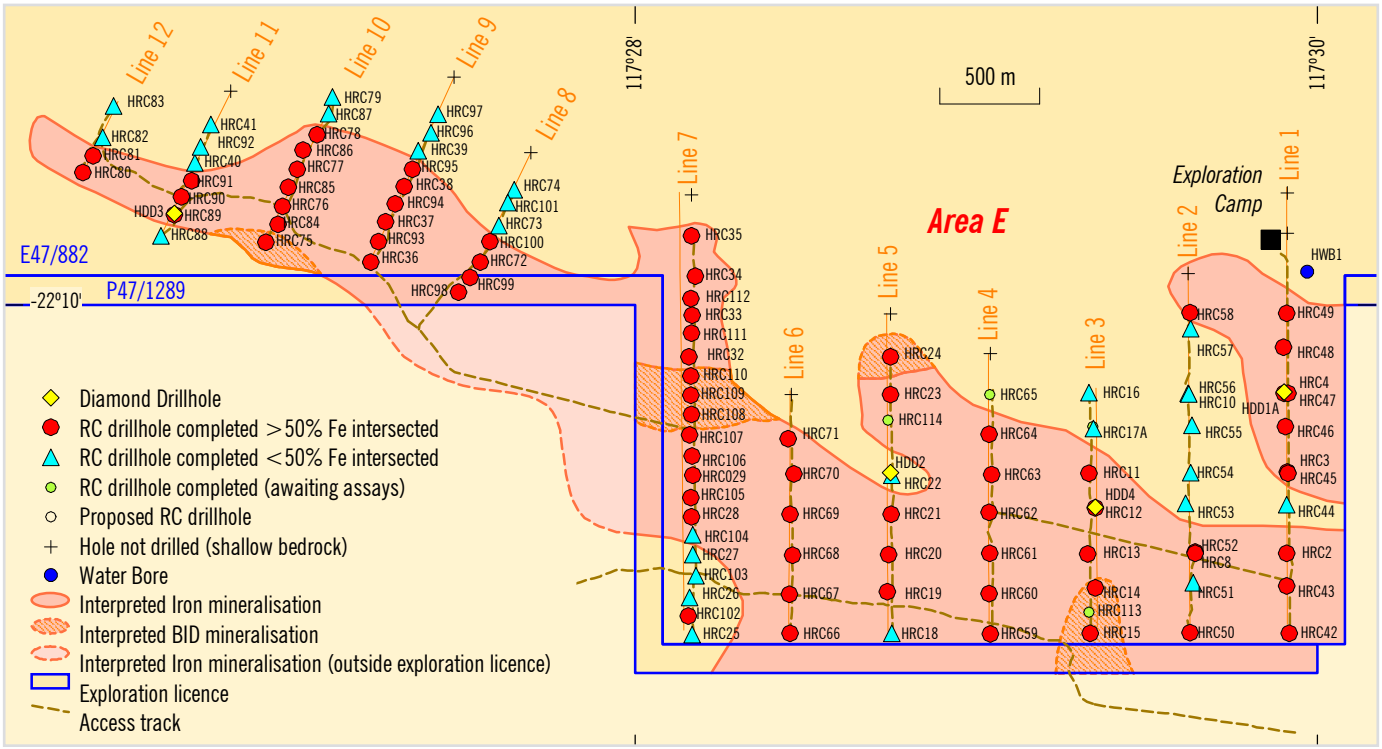

Figure 2 *Completed RC drilling in Area E.*

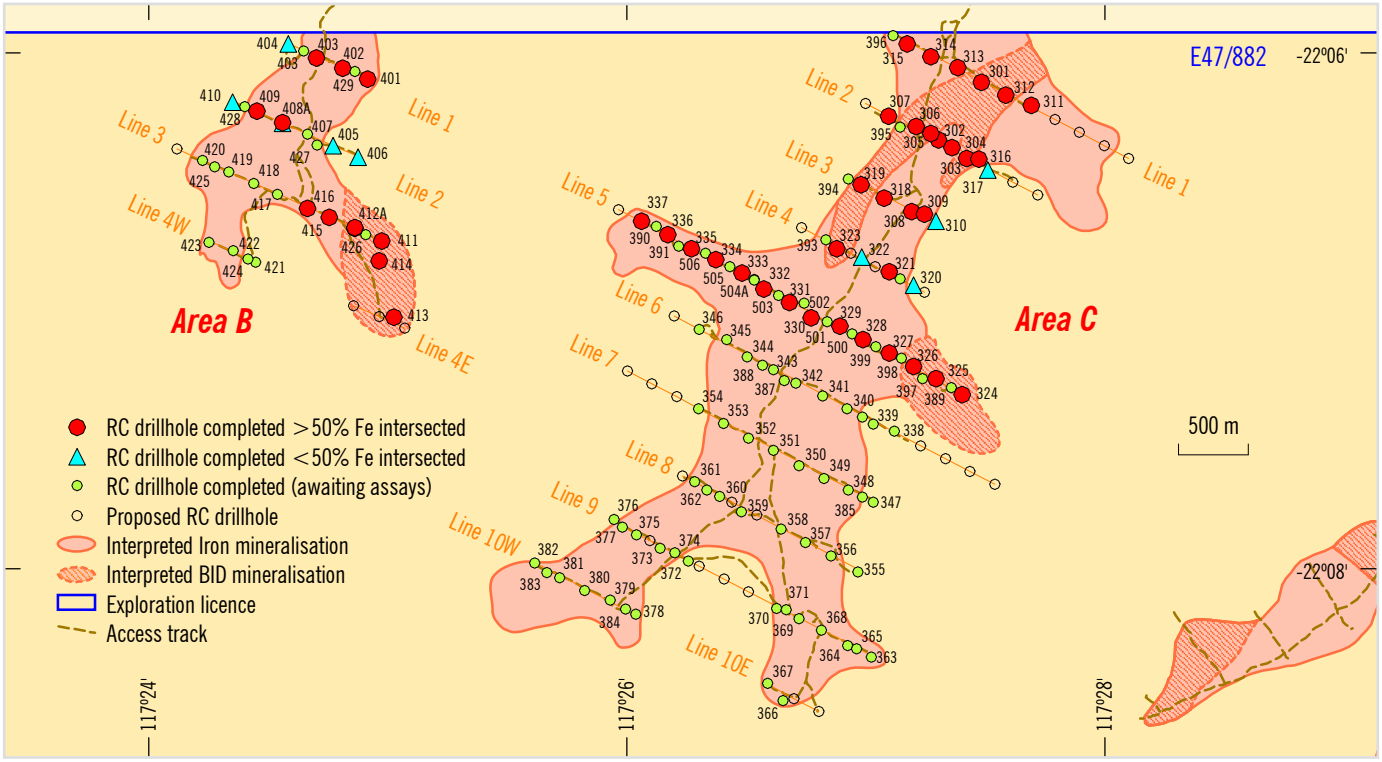

Figure 3 *Proposed and completed RC drilling in Areas B and C.*

Drilling Intersections

Table 2: List of significant RC drillhole intersections (assays received).

Hole ID	From (m)	To (m)	Interval (m)	Fe (%)	Al_2O_3 (%)	SiO_2 (%)	P (%)	LOI (%)	Target Area
HRC63	32	54	22	58.7	4.8	7.1	0.05	3.4	E
HRC332	26	48	22	55.3	4.9	9.4	0.08	5.8	C
HRC337	4	24	20	58.2	2.2	3.4	0.15	9.9	C
HRC412A	8	36	28	61.0	3.0	6.0	0.07	3.2	B
incl	14	36	22	62.5	2.6	4.1	0.08	3.4	

NB: These intersections are based on an Fe cut-off grade of 50%, with no top cut, and a maximum internal dilution of 2m. Analysis via XRF fusion at SGS Laboratories. LOI = Loss of ignition.

For further information please contact:
Kevin Wills on 08 8132 7950 or 0419 850 997
Duncan Gordon – Investor relations on 08 8232 8800 or 0404 006 444
Email: kwills@flindersmines.com

The information in this report that relates to Exploration Results, Mineral Resources and Ore Reserves is based on information compiled by Dr K Wills who is a Fellow of the Australasian Institute of Mining and Metallurgy. Dr Wills is an employee of Flinders Mines Limited. He has more than five years relevant experience in the style of mineralisation and types of deposit under consideration and consents to inclusion of the information in this report in the form and context in which it appears. He qualifies as a Competent Person as defined in the 2004 Edition of the "Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves".