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ENCOURAGING ASSAYS ON FIRST CID INTERSECTIONS

NEW TARGET ON E47/1560 INCREASES COMBINED IRON ORE EXPLORATION TARGET TO 453 - 555 M TONNES IN HAMERSLEY PROJECT, WA



HIGHLIGHTS

HAMERSLEY TENEMENT E47/882 Figure 1 (FMS earning 100%)

- Encouraging assays returned from exploration drill holes in Area E
- New drill rig onsite performing well
- Site camp commissioned

HAMERSLEY TENEMENT E47/1560 Figure 1 (FMS earning 100%)

- Flinders Mines Limited (ASX: FMS) has received an independent review of the iron ore potential on its Hamersley tenement E47/1560 (100% owned), recently purchased from Cazaly Resources.
- An exploration target of between 120 and 175 million tonnes of iron ore averaging 45 to 60% iron is outlined on E47/1560
- The combined exploration target on tenements E47/882 & E47/1560 is estimated to be between 453 and 555 million tonnes of iron ore averaging 45 to 60% iron

Encouraging Assays Returned from Exploration Holes on E47/882

FMS has received encouraging assays from RC drilling on the company's Hamersley E47/882 licence, in the Pilbara region of Western Australia (Figure 2). The results are shown in Table 1 and indicate good widths of channel iron deposit (CID) mineralisation in Area E and continuity of Fortescue Metals Group's (FMG) Serenity deposit into E47/882. All drill holes are vertical and represent true widths.

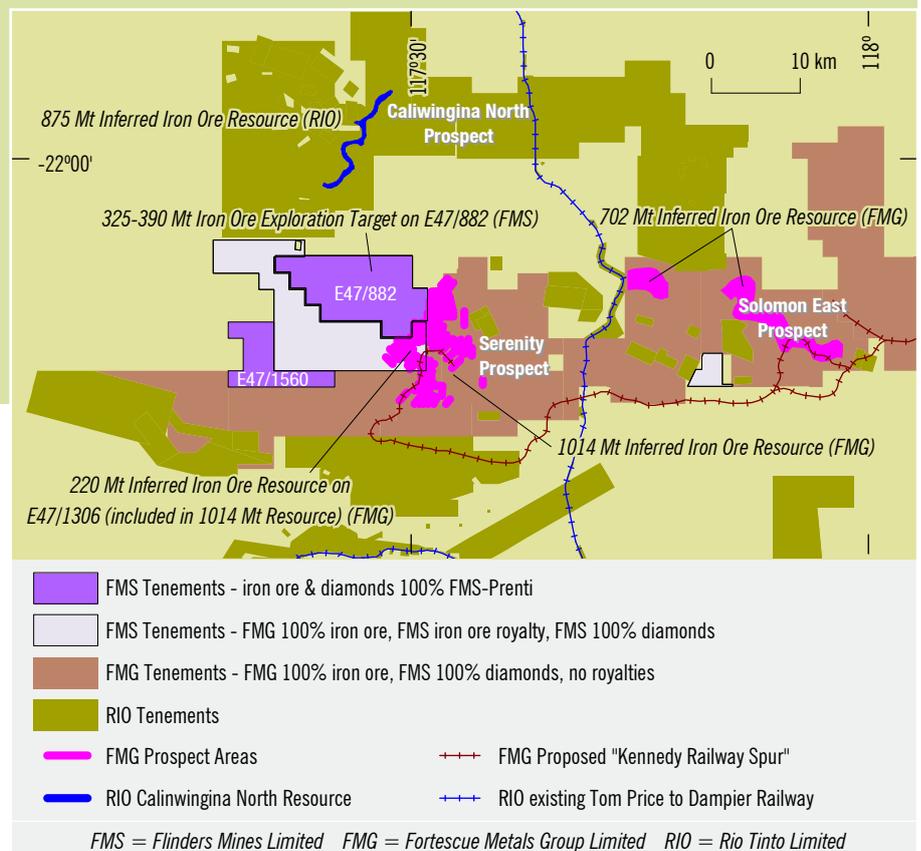


Figure 1 Location of E47/882 and E47/1560 in relation to iron ore deposits and infrastructure in the Hamersley Project Area.

The grades of iron and concentrations of deleterious factors (aluminium, silica, phosphorus and loss on ignition) are comparable with those in the Serenity deposit. All of these intersections are on the eastern most drill line adjacent to the Serenity deposit. The thickness of CID intersected is greater than the average estimated for the entire exploration target, as previously defined by Dr Richard Russell.

The spacing between these drill holes is 400m, with the three holes spanning a total distance across the channel of 800m. Drill hole HRC4 is located to the north of the interpreted extension of the Serenity deposit into E47/882 and may indicate that the channel to the northwest of HRC4 contains good thicknesses of CID mineralisation.

Further exploration drilling continues to intersect CID mineralisation. Four additional drill holes have been completed with all holes intersecting CID except for a single drill hole. The geology in these holes is consistent with the interpretation by Dr Russell. The CID intersections are up to a further 1 kilometre to the west of the intersections shown in Table 1. It is noted that insufficient new information is yet available to make meaningful comparisons to previous target estimates.

FMS's intention, once a regular flow of assays is available, is to release a weekly drilling update.

Table 1: Assays for exploration drill holes on E47/882 (Area E), including a weighted average for the main unit, and a comparison to the grades from the Serenity Deposit (as announced on 15/11/2007 by FMG).

Hole	From	To	Interval	Fe	SiO ₂	Al ₂ O ₃	P	LOI
HRC2	56	66	10	56.7	3.5	5.7	0.120	9.0
HRC3	42	46	4	50.1	4.7	21.0	0.040	1.7
	56	68	12	53.6	4.2	7.7	0.090	10.8
HRC4	58	68	10	55.2	4.1	7.4	0.070	8.9
	76	84	8	50.0	4.8	12.5	0.100	10.7
Weighted average of CID from similar depth			10.7	55.1	3.9	7.0	0.097	9.6
Grades of the Serenity deposit (FMG)				56.0	7.3	3.8	0.081	8.1

NB: These intersections are based on an Fe cut-off grade of 50% and a maximum internal dilution of 2m. Analysis via XRF fusion at SGS Laboratories. LOI – Loss on ignition

Additional Drill Rigs

The first of two new drill rigs has commenced drilling onsite and has seen an improvement in the rate and quality of drilling (Figure 3). The drilling crew quickly adapted to the difficult drilling conditions and is increasing the rate of drilling. The arrival of a second drill rig is expected on 26 August.

Once both drill rigs are settled into routine drilling the schedule will be reviewed to determine if these rigs will be capable of bringing the drilling program back on track. The drilling will initially focus on Areas C, D and E; the

largest exploration targets. A third drill rig is available to be contracted if the rate of drilling needs to be increased. Consequently FMS still anticipates returning JORC compliant inferred resources for all five target areas prior to the end of the 2008 calendar year.

The FMS owned geophysical down hole logging truck is now on site and operational (Figure 4). This will be used to determine in situ physical properties, such as density and porosity, in all drill holes that can be accessed. The collection of down hole physical properties is important for developing reliable resource estimates.

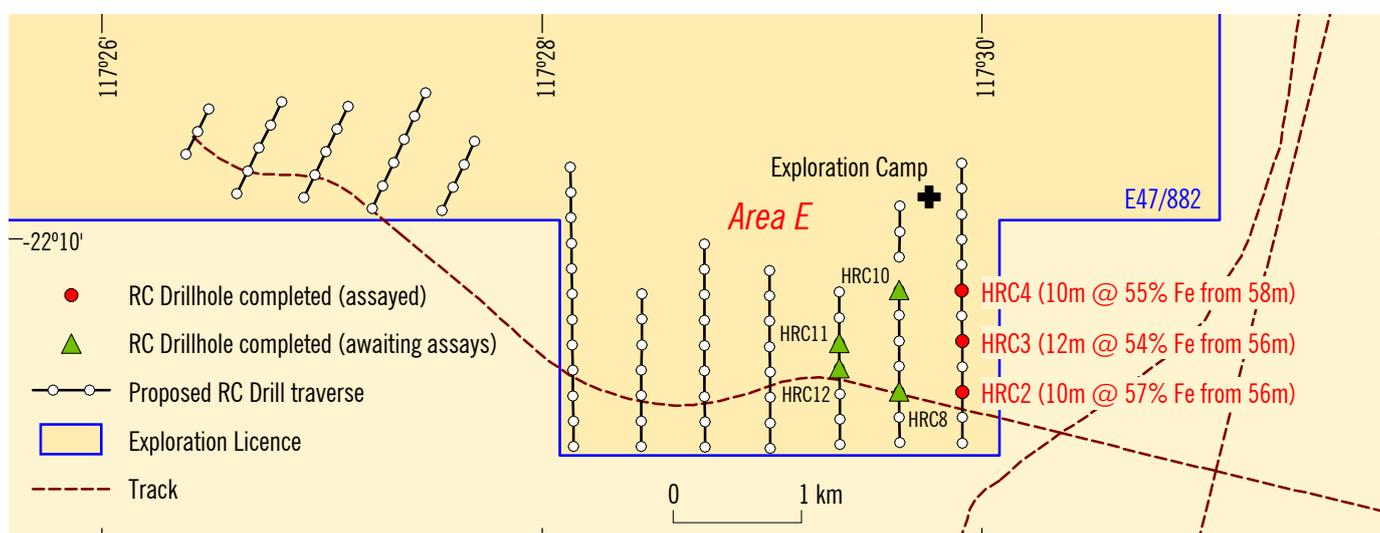


Figure 2 Southeastern part of E47/882 showing location of drill holes HRC2-4, 8 and 10-12.



Figure 3 Silver City Drilling carrying out RC drilling on hole HRC12.

Few geophysical logging trucks are available to carry out such work due to the amount of iron ore exploration work currently being carried out in Western Australia. FMS commissioned the building of this logging truck to ensure that physical properties are collected on all FMS iron ore exploration targets.

Drill Site Preparation and Archaeological Clearances

Drill site preparation is well ahead of the drilling. Both Areas D and E have been prepared for completion of drilling to an inferred resource status. Areas B and C have been marked out in preparation for archaeological clearance, and Area A is currently progressing.

Further archaeological clearances are planned for mid September to allow for the completion of all proposed drilling in 2008, on E47/882. Preferred earth moving contractors have now been established and are scheduled to complete all earthworks following archaeological clearance.



Figure 4 FMS-owned geophysical logging truck preparing to log drill hole HRC12.

Site Camp Commissioned

Campsite construction at the Hamersley Project has been completed (Figure 5). Onsite catering has commenced and FMS staff and subcontractors have successfully settled into site. A water bore was completed in early August and is supplying water to the camp and being used for drilling purposes in Area E.

Iron Ore Exploration Target on E47/1560

In June 2008 FMS completed an agreement with Cazaly Iron Pty Ltd to purchase E47/1560 for a total consideration of \$750,000 in cash and \$750,000 worth of Flinders shares. The tenement is located 15 kilometres southwest of Flinders' 100% owned

E47/882 in the Hamersley Ranges, WA (Figure 1). The tenement totals 44 sq km of ranges and valleys with high potential for channel iron mineralisation. FMS commissioned an initial study by independent iron ore consulting geologist/geomorphologist Dr Richard Russell on the iron ore exploration potential of E47/1560.

Dr Russell has carried out fieldwork for FMS on the Hamersley over the last 3 years and is familiar with the geology and geomorphology of the area. Specifically he has carried out assessments of the exploration target potential of E47/882, detailed in earlier announcements. Dr Russell's work utilised aerial photography and his local geological knowledge to determine the possible location of channel iron deposits (CID) and detrital iron deposits (DID).

The results of this work are shown on Figure 6. Dr Russell has divided the tenement into seven main areas of potential mineralisation (A to G on Figure 6), then from the surface area



Figure 5 Aerial view of FMS's Hamersley Project camp.

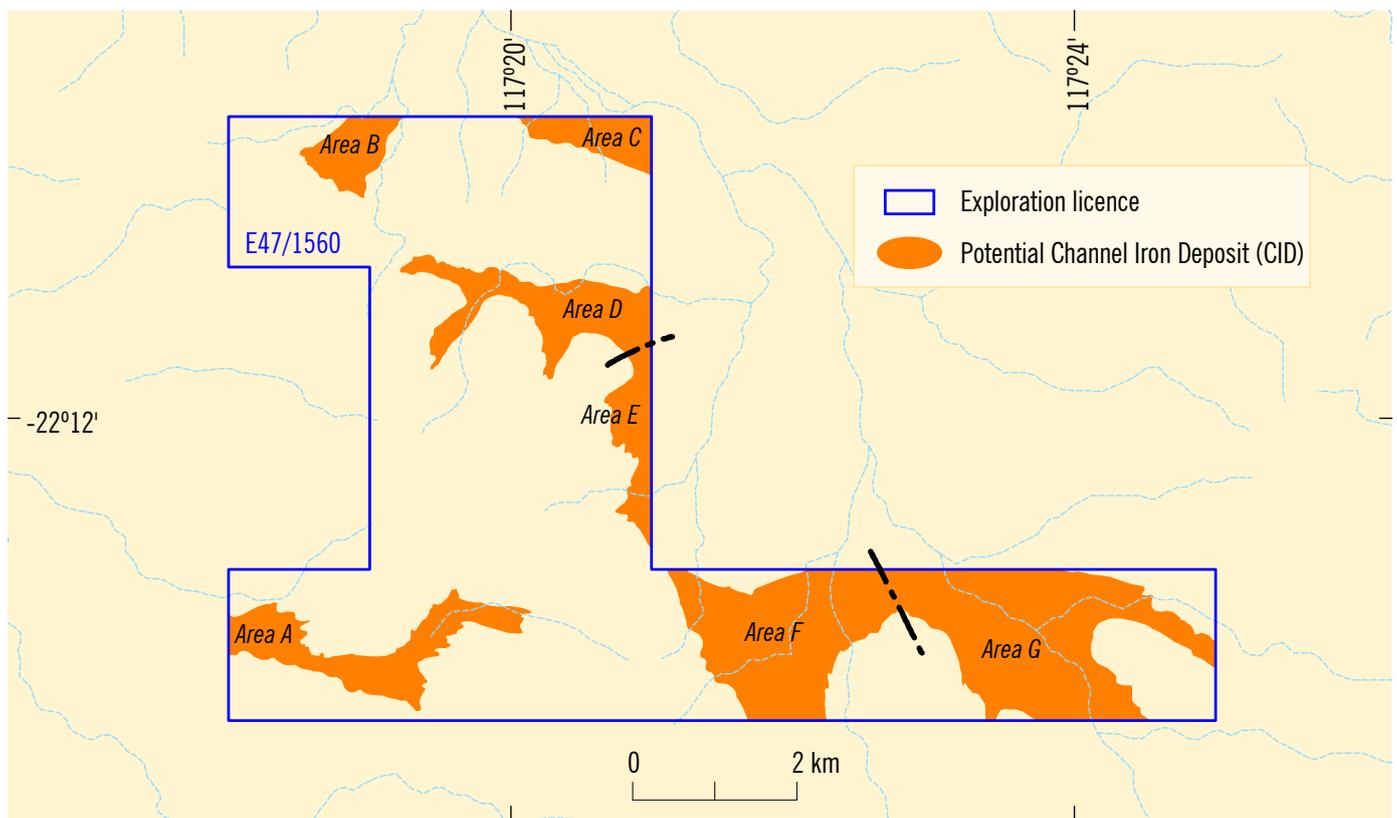


Figure 6 Location of potential CID areas within E47/1560 as tabulated on Table 2.

Table 2: Exploration target estimate on E47/1560.

Area in E47/1560	Area of CID	Estimated Average Thickness		Volume		Possible Tonnage	
	Km ²	Metres		Million Cubic Metres		Million Tonnes	
		Minimum	Maximum	Minimum	Maximum	Minimum SG 2.6	Maximum SG 3.0
A	1.313	2	2.5	2.6	3.3	6.8	9.9
B	0.656	3	3.5	2.0	2.3	5.1	6.9
C	0.719	2	2.5	1.4	1.8	3.7	5.4
D	1.594	3	3.5	4.8	5.6	12.4	16.7
E	1.031	2	2.5	2.1	2.6	5.4	7.7
F	3.094	4	5	12.4	15.5	32.2	46.4
G	4.188	5	6.5	20.9	27.2	54.4	81.7
TOTAL POSSIBLE TONNAGE CID						120.1	174.7
DID	0.228	1.5	2	0.34	0.46	0.9	1.4

and probable average thickness has estimated a total tonnage of CID of between 120 and 175 million tonnes. The estimate based on each area is presented in Table 2. Dr Russell estimates that DID mineralisation in this tenement is less than 1% of the total possible iron mineralisation - a much lower proportion than in E47/882.

The grade of the CID exploration target is estimated to be between 45 and 60% iron. The range of values for the tonnages is calculated on varying the probable average thickness and specific gravity, which in turn has been derived from knowledge gained from exploration on E47/882.

The combined exploration target in E47/1560 and E47/882 is now estimated to be between 453 and 555 million tonnes with an estimated grade of 45 to 60% iron.

It is emphasised that, although based on the best available local experience, this exploration target in E47/882 and E47/1560 is conceptual in nature and there has been insufficient exploration carried out to estimate a Mineral Resource. It is also therefore uncertain whether further exploration will result in a larger, smaller or any Mineral Resource.

Planning for drilling on E47/1560 will commence once a thorough assessment

of Dr Russell's report is complete. A program of works will be submitted as soon as possible to the Western Australian Department of Industry and Resources to provide sufficient time to carry out Native Title clearance and the earthworks. Providing all approvals are obtained in a timely manner, some reconnaissance drilling may commence on E47/1560 prior to the end of 2008.

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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".