



MINISTER FOR THE ENVIRONMENT;
LABOUR RELATIONS

Statement No.

000491

**STATEMENT THAT A PROPOSAL MAY BE IMPLEMENTED
(PURSUANT TO THE PROVISIONS OF THE
ENVIRONMENTAL PROTECTION ACT 1986)**

**MULTIPLE IRON ORE MINE DEVELOPMENT, MINING AREA C - NORTHERN
FLANK, 100 KM NORTH-WEST OF NEWMAN**

Proposal: The mining of 14 deposits (A-F and R, P1-P6 and the Brockman Detrital Deposit) of iron ore in the Northern Flank area of Mining Area C, located in the Hamersley Range in the Pilbara region of Western Australia, including on-site processing, the provision of services, infrastructure and a village and the construction and operation of a rail line, as documented in schedule 1 of this statement.

Proponent: BHP Iron Ore Pty Ltd

Proponent Address: 200 St George's Terrace, Perth WA 6000

Assessment Number: 1108

Report of the Environmental Protection Authority: Bulletin 913

The proposal to which the above report of the Environmental Protection Authority relates may be implemented subject to the following conditions and procedures:

1 Implementation

- 1-1 Subject to these conditions and procedures, the proponent shall implement the proposal as documented in schedule 1 of this statement.
- 1-2 Where the proponent seeks to change any aspect of the proposal as documented in schedule 1 of this statement in any way that the Minister for the Environment determines, on advice of the Environmental Protection Authority, is substantial, the proponent shall refer the matter to the Environmental Protection Authority.
- 1-3 Where the proponent seeks to change any aspect of the proposal as documented in schedule 1 of this statement in any way that the Minister for the Environment determines, on advice of the Environmental Protection Authority, is not substantial, those changes may be effected.

Published on

24 DEC 1998

2 Proponent Commitments

- 2-1 The proponent shall implement the consolidated environmental management commitments documented in schedule 2 of this statement.
- 2-2 The proponent shall implement subsequent environmental management commitments which the proponent makes as part of the fulfilment of conditions and procedures in this statement.

3 Environmental Management System

- 3-1 In order to manage the environmental impacts of the project, and to fulfil the requirements of the conditions and procedures in this statement, prior to ground-disturbing activity for construction purposes, the proponent shall demonstrate to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection that there is in place an environmental management system which includes the following elements:
 - 1 environmental policy and commitment;
 - 2 planning of environmental requirements;
 - 3 implementation and operation of environmental requirements;
 - 4 measurement and evaluation of environmental performance; and
 - 5 review and improvement of environmental outcomes.
- 3-2 The proponent shall implement the environmental management system referred to in condition 3-1.

4 Training in Aboriginal Sites Protection

- 4-1 Prior to personnel starting work within the proposal area where significant aboriginal sites exist or may exist, the proponent shall train all such personnel on the recognition and protection of aboriginal sites.

5 Alternative Water Management Strategy

- 5-1 Prior to the commencement of mining, the proponent shall prepare an Alternative Water Management Strategy as referred to in commitment 5 in schedule 2 to prevent any significant impact on Weeli Wolli Spring caused by groundwater abstraction (as defined in commitment 5), to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection, the Water and Rivers Commission and the Department of Conservation and Land Management.

The Alternative Water Management Strategy shall:

- 1 identify options for alternative water management; and
 - 2 provide measures to ensure that the Alternative Water Management Strategy is implemented immediately in the event that a significant impact on Weeli Wolli Spring as defined in commitment 5 in schedule 2, is observed.
- 5-2 The proponent shall implement the Alternative Water Management Strategy referred to in condition 5-1 and commitment 5 as appropriate, to achieve the protection of Weeli Wolli Spring.

6 Rail Route Environmental Management Plan

- 6-1 Prior to commencement of construction of the rail formation, the proponent shall prepare a Rail Route Environmental Management Plan to minimise adverse environmental impacts of the railway and its formation, to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection.

This Plan shall include:

- 1 a report of a detailed vegetation and fauna survey;
- 2 topographical information;
- 3 a report on a survey of surface water resources;
- 4 a visual amenity study;
- 5 an Aboriginal heritage report;
- 6 measures to minimise adverse environmental impacts of the railway and its formation, in particular drainage impacts; and
- 7 provisions for breaching the formation following decommissioning.

- 6-2 The proponent shall implement the Rail Route Environmental Management Plan required by condition 6-1.

7 Life of Project Environmental Management Plan Reviews

- 7-1 The proponent shall make the Life of Project Environmental Management Plan Reviews referred to in commitment 3 in schedule 2 available for public review to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection.
- 7-2 The proponent shall incorporate any public comment resulting from the requirements of condition 7-1 into the relevant Life of Project Environmental Management Plan Review, to the requirements of the Environmental Protection Authority.

8 Performance Review

- 8-1 Each six years following the commencement of construction, the proponent shall submit a Performance Review to the Department of Environmental Protection:

- to document the outcomes, beneficial or otherwise;
- to review the success of goals, objectives and targets; and
- to evaluate the environmental performance over the six years;

relevant to the following:

- 1 environmental objectives reported on in Environmental Protection Authority Bulletin 913;
- 2 proponent's consolidated environmental management commitments documented in schedule 2 of this statement and those arising from the fulfilment of conditions and procedures in this statement;
- 3 environmental management system environmental management targets;
- 4 environmental management programs and plans; and/or
- 5 environmental performance indicators;

to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection.

Note: The Environmental Protection Authority may recommend changes and actions to the Minister for the Environment following consideration of the Performance Review.

- 8-2 Notwithstanding the requirements of condition 8-1, in the event that the timing requirements of that condition are not compatible with the timing requirements of the triennial reporting required under the Iron Ore (Mount Goldsworthy) Agreement Act 1964, then the timing of the latter shall prevail.

9 Proponent

- 9-1 The proponent for the time being nominated by the Minister for the Environment under section 38(6) or (7) of the Environmental Protection Act 1986 is responsible for the implementation of the proposal until such time as the Minister for the Environment has exercised the Minister's power under section 38(7) of the Act to revoke the nomination of that proponent and nominate another person in respect of the proposal.
- 9-2 Any request for the exercise of that power of the Minister referred to in condition 9-1 shall be accompanied by a copy of this statement endorsed with an undertaking by the proposed replacement proponent to carry out the proposal in accordance with the conditions and procedures set out in the statement.
- 9-3 The proponent shall notify the Department of Environmental Protection of any change of proponent contact name and address within 30 days of such change.

10 Commencement

- 10-1 The proponent shall provide evidence to the Minister for the Environment within five years of the date of this statement that the proposal has been substantially commenced.
- 10-2 Where the proposal has not been substantially commenced within five years of the date of this statement, the approval to implement the proposal as granted in this statement shall lapse and be void. The Minister for the Environment will determine any question as to whether the proposal has been substantially commenced.
- 10-3 The proponent shall make application to the Minister for the Environment for any extension of approval for the substantial commencement of the proposal beyond five years from the date of this statement at least six months prior to the expiration of the five year period referred to in conditions 10-1 and 10-2.
- 10-4 Where the proponent demonstrates to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority that the environmental parameters of the proposal have not changed significantly, then the Minister may grant an extension not exceeding five years for the substantial commencement of the proposal.

11 Compliance Auditing

- 11-1 The proponent shall submit periodic Performance and Compliance Reports, in accordance with an audit program prepared in consultation between the proponent and the Department of Environmental Protection (see note 2 below).
- 11-2 Unless otherwise specified, the Chief Executive Officer of the Department of Environmental Protection is responsible for assessing compliance with the conditions, procedures and commitments contained in this statement and for issuing formal clearances.

Schedule 1

The Proposal

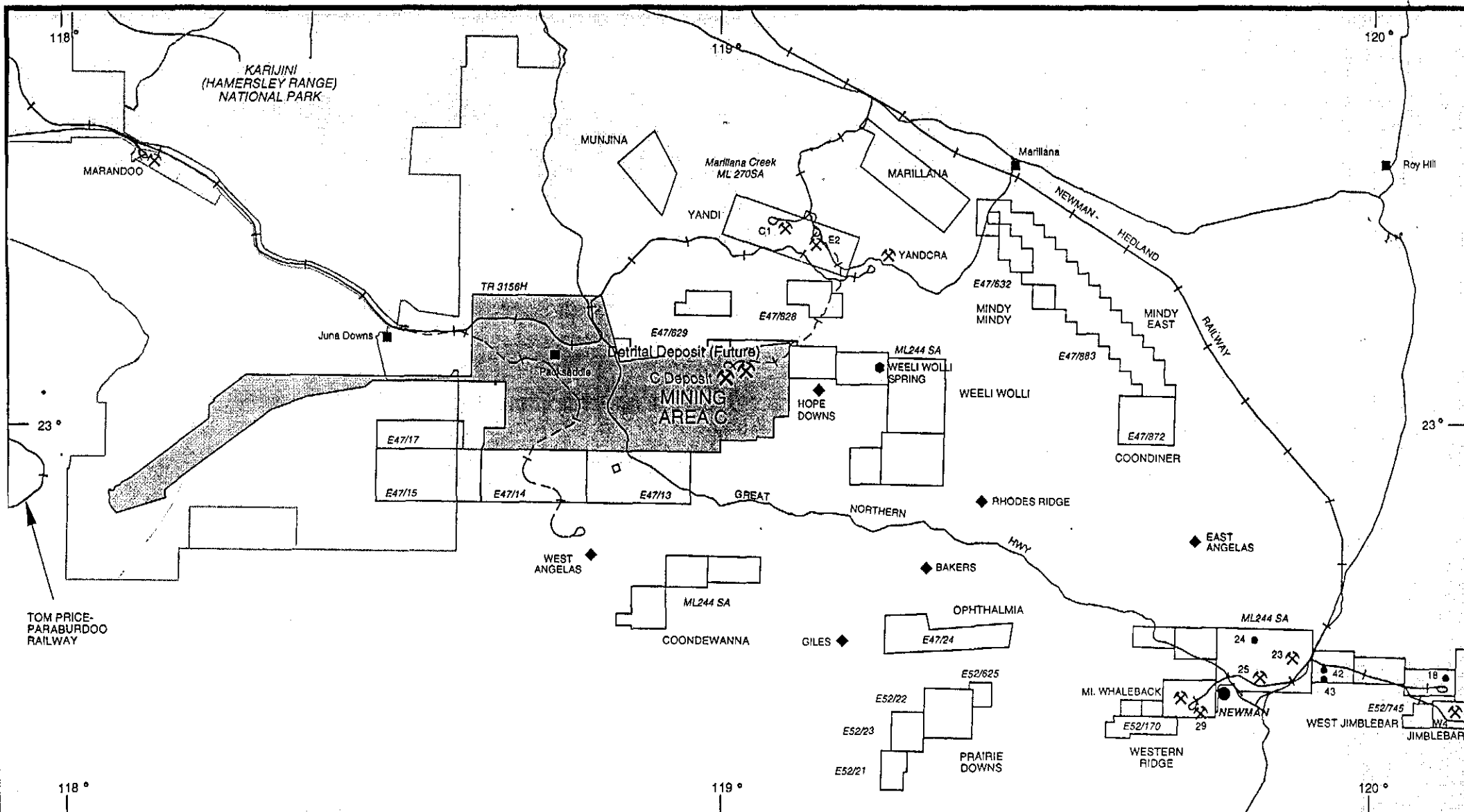
The proposal is to mine the Northern Flank of Mining Area C, which is located in the Hamersley Range of the Pilbara region of Western Australia approximately 100 kilometres north west of Newman in the area shown on Figure 1. Fourteen iron ore deposits have been identified in the Northern Flank area (A-F and R, P1-P6 and the Brockman Detrital Deposit) as shown in Figures 2 and 3.

Initially two deposits will be mined, known as the Marra Mamba C Deposit and the Brockman Detrital Deposit. However, the proposal encompasses the areas to be affected by the mining of the fourteen deposits identified in the Northern Flank area. The ore will be processed and blended on-site, before being loaded into trains and hauled to Port Hedland.

The proposal includes the provision of services and infrastructure for the mine sites, a village and the construction and operation of a rail spur. The rail spur is shown on Figure 2.

The key characteristics of the proposal are as follows:

Element	Description
Life of project (mine production)	more than 50 years (continual operation)
Ore reserves	1 300 million tonnes approximately in 14 deposits
Ore mining rate	up to 18 million tonnes per annum (for initial two deposits ie "C" Deposit and Brockman Detrital Deposit)
Area of disturbance: <ul style="list-style-type: none"> • Deposits C and Brockman Detrital • Rail corridor • other infrastructure • life of project 	656 hectares 210 hectares 95 hectares approximately 5 000 hectares
Water requirements	up to 9 megalitres per day
Rail spur length	35 kilometres
Width of rail corridor	60 metres
Permanent workforce	200 people
Construction workforce	500 people



LEGEND

- Major Satellite Orebodies
- ◆ Exploration Project
- Homestead
- Town
- ✕ Mine
- Potential Railroad
- Existing Railroad
- Mining Area C Lease Area
- ✕ Proposed Mine



BHP Iron Ore Pty Ltd

MINING AREA C
Location Map

FIGURE 1

6230ms34.dgn

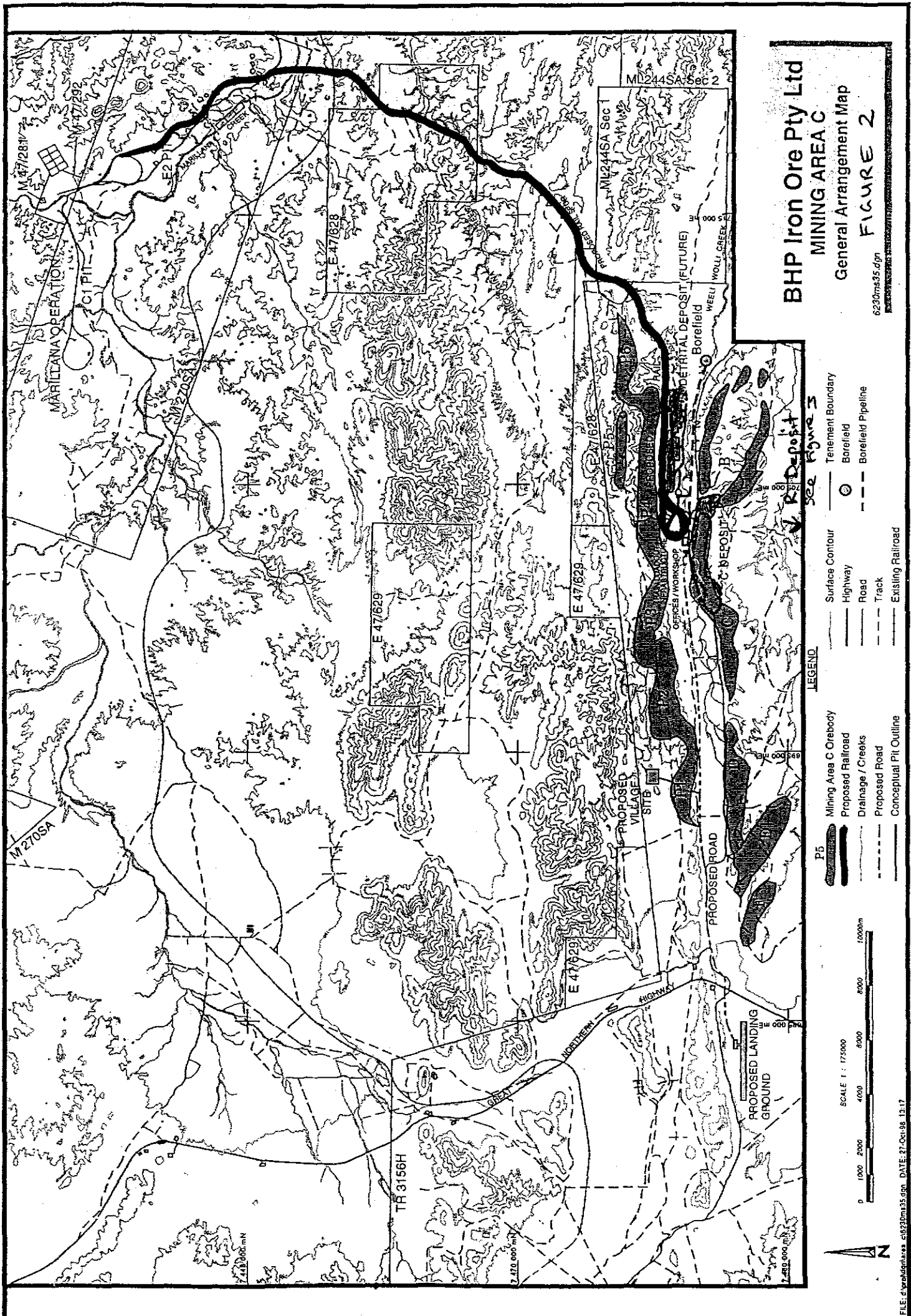
11-3 Where compliance with any condition, procedure or commitment is in dispute, the matter will be determined by the Minister for the Environment.

Notes

- 1 The proponent is required to apply for a Works Approval and Licence for this project under the provisions of Part V of the Environmental Protection Act.
- 2 The audit programme referred to in condition 11-1 will take into account the triennial reports required by the Iron Ore (Mount Goldsworthy) Agreement Act 1964.
- 3 The Environmental Protection Authority may from time to time adjust the magnitude of the Trigger Event referred to in commitment 5 in schedule 2.

CHERYL EDWARDES (Mrs) MLA
MINISTER FOR THE ENVIRONMENT

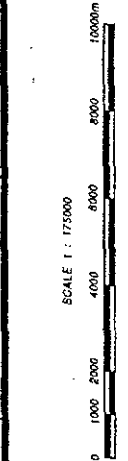
24 DEC 1998



BHP Iron Ore Pty Ltd **MINING AREA C** **General Arrangement Map** **FIGURE 2**

6230ms35.dgn

- LEGEND**
- Surface Contour
 - Highway
 - Road
 - Track
 - Existing Railroad
 - Mining Area C Orebody
 - Proposed Railroad
 - Drainage / Creeks
 - Proposed Road
 - Conceptual Pit Outline
 - Tenement Boundary
 - Borefield
 - Borefield Pipeline

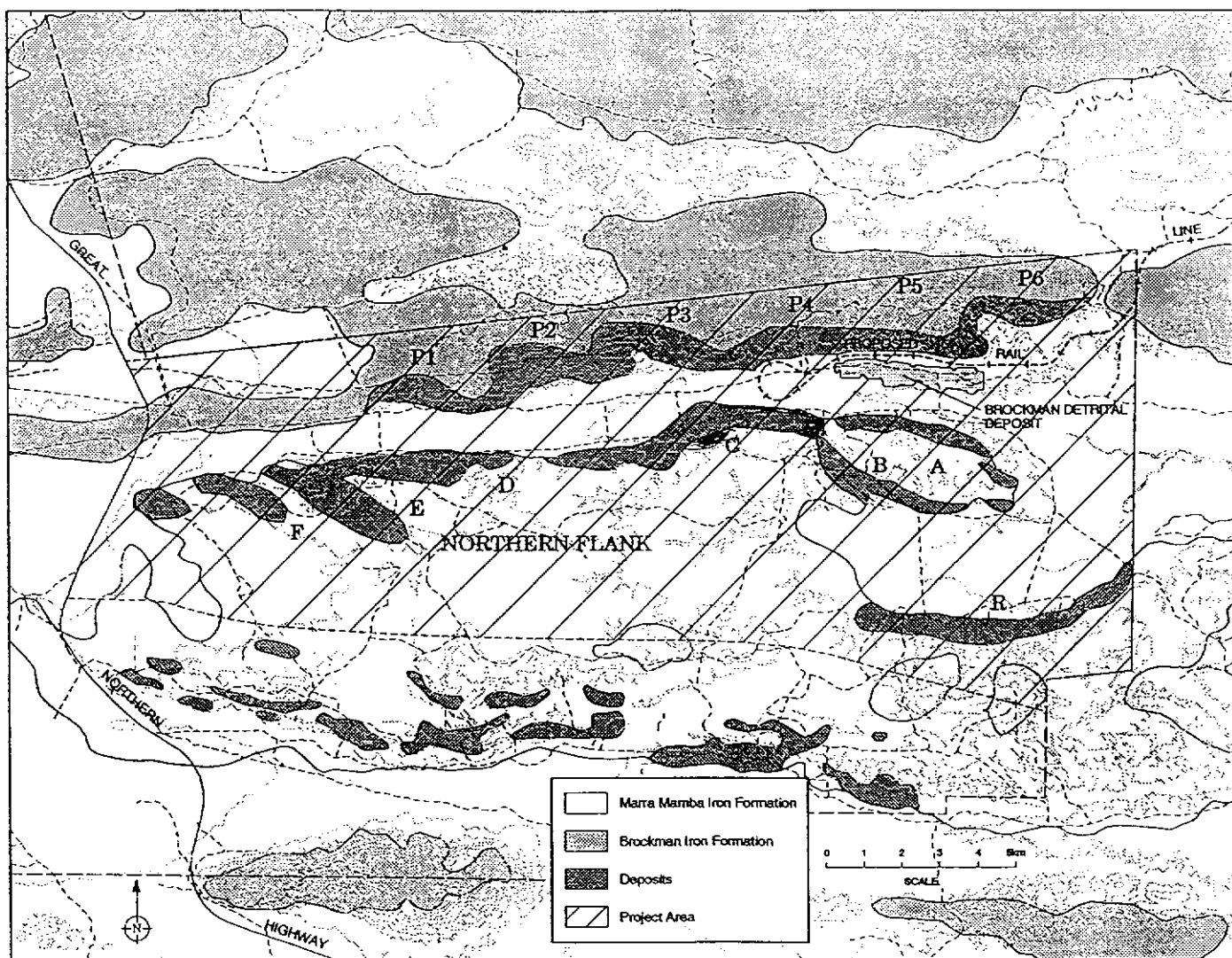


**Proponent's Consolidated Environmental Management
Commitments**

10 November 1998

**MULTIPLE IRON ORE MINE DEVELOPMENT
MINING AREA C - NORTHERN FLANK
100 KM NORTH-WEST OF NEWMAN (1108)**

BHP IRON ORE PTY LTD



MINING AREA C - NORTHERN FLANK DEPOSITS
FIGURE 3

**MULTIPLE IRON ORE MINE DEVELOPMENT, MINING AREA C - NORTHERN
FLANK, 100 KM NORTH WEST OF NEWMAN (Assessment No. 1108)**

10 November 1998

SUMMARY OF PROPONENT'S COMMITMENTS

<i>Commitment</i>	<i>Objective</i>	<i>Action</i>	<i>Timing</i>	<i>Whose Advice</i>	<i>Measurement / Compliance</i>
Commitment 1: Development of a "Life of Project" Environmental Management Plan					
<p>The proponent will prepare and implement a "Life of Project" Environmental Management Plan (EMP) for mining operations within the Northern Flank of Mining Area C.</p> <p>The proponent will address and manage the following environmental factors:</p> <ol style="list-style-type: none"> 1. Surrounding environment 2. Vegetation and topsoil 3. Overburden storage 4. Surface water 5. Groundwater 6. Flora 7. Fauna 8. Aboriginal heritage 9. Noise 10. Dust 11. Waste and hazardous materials 12. Rehabilitation 13. Decommissioning 14. Contracting, and 15. Continuous improvement. 	To manage environmental impact.	Develop and implement "Life of Project" Environmental Management Plan.	Preparation of Plan prior to the commencement of mining. Implementation ongoing to a timetable agreed with the DEP.	EPA, DEP, WRC and DME.	"Life of Project Environmental Management Plan developed and compliance reports submitted.
Commitment 2: Additional Surveys					
<p>The proponent will undertake additional surveys on areas other than Deposit C and Brockman Detrital Deposit to assess potential environmental impacts</p> <p>Those surveys will include:</p> <ol style="list-style-type: none"> 1. Surrounding environment 2. Vegetation and topsoil 3. Overburden storage 4. Surface water 5. Groundwater 6. Flora 7. Fauna 8. Aboriginal heritage 9. Noise 10. Dust 11. Waste and hazardous materials 12. Rehabilitation 13. Decommissioning 14. Contracting, and 15. Continuous improvement. 	To ensure that potential environmental impacts as a result of the development of further deposits are identified and considered.	Undertake additional surveys.	Prior to the commencement of the development of deposits other than Deposit C and Brockman Detrital Deposit within the Northern Flank.	EPA, CALM, WRC, WA Museum.	Additional surveys undertaken.

Commitment	Objective	Action	Timing	Whose Advice	Measurement / Compliance
Commitment 3: Life of Project Environmental Management Plan Review					
<p>The proponent will review and update the "Life of Project" Environmental Management Plan for the development of deposits other than Deposit C and Brockman Detrital Deposit in the Northern Flank to reflect site specific characteristics and the results of any additional surveys as detailed in Commitment 2, and implement.</p> <p>The EMP will be reviewed and updated, and will include provision for public review to meet the requirements of the EPA.</p>	To manage the potential environmental impact associated with the development of deposits other than Deposit C and Brockman Detrital Deposit in the Northern Flank.	Review and revise the "Life of Project" Environmental Management Plan and implement.	Prior to the commencement of the development of deposits other than Deposit C and Brockman Detrital Deposit within the Northern Flank.	EPA, DEP, CALM, DME, W and Rivers Commission.	"Life of Project" Environmental Management Plan reviewed and revised as required and compliance reports submitted.
Commitment 4: Groundwater Monitoring					
The proponent will establish a comprehensive groundwater monitoring programme to assess the potential impacts of groundwater abstraction in the Northern Flank valley on Weeli Wolli Spring.	To detect any changes in the groundwater regime which may result in an impact on Weeli Wolli Spring.	An ongoing monitoring programme will be developed and implemented.	Prior to and during groundwater abstraction.	DEP, EPA, WRC and CALM.	Groundwater monitoring programme developed and implemented.
Commitment 5: Alternative Water Management Strategy					
<p>A.</p> <p>The proponent will develop an Alternative Water Management Strategy.</p>	To prevent any significant impact (which is defined as a statistically significant long term decrease in water level of 0.1 metres or 10% of mean monthly flow attributable to the proponent at the monitoring bore as agreed by Water and Rivers Commission) on Weeli Wolli Spring.	Prepare an Alternative Water Management Strategy.	Prior to the start of mining.	EPA, DEP, WRC, CALM.	Development of an Alternative Water Management Strategy.
<p>B.</p> <p>If the groundwater monitoring programme indicates that groundwater abstraction will cause a statistically significant impact (which is defined as a statistically significant long term decrease in water level of 0.1 metres or 10% of mean monthly flow attributable to proponent at the monitoring bore as agreed by Water and Rivers Commission) on Weeli Wolli Spring, the proponent will implement an alternative water management strategy.</p>	To ensure potential impacts from groundwater abstraction on Weeli Wolli Spring are minimised.	Implement the Alternative Water Management Strategy if the groundwater monitoring programme indicates that groundwater abstraction will cause a significant impact on Weeli Wolli Spring.	Implement if groundwater monitoring indicates a potential impact on Weeli Wolli Spring.	EPA, DEP on advice of WRC and CALM.	Implement an Alternative Water Management Strategy when appropriate.

Commitment	Objective	Action	Timing	Whose Advice	Measurement / Compliance
Commitment 5: Supplementary Information					
<p>The proponent will complete the engineering design of an alternative water supply system prior to the commencement of mining.</p> <p>The proponent will install and commission an alternative water supply system in accordance with the Alternative Water Management Strategy not less than one year prior to the predicted Trigger Event (defined as a statistically significant long term decrease in water level of 0.1 metres or 10% of mean monthly flow at the monitoring bore as agreed by the Water and Rivers Commission) occurring at the Weeli Wolli Spring.</p> <p>The predicted timing and magnitude of the Trigger Event will be re-assessed annually based on re-calibrated hydrological modelling using additional hydrological data subject to review by Water and Rivers Commission.</p>					
Commitment 6: Pyritic Shales					
The proponent will manage any potentially reactive pyritic shales as part of the EMP within overburden storage areas and/or in-pit to prevent acid generation processes occurring.	To ensure that potentially reactive material is managed to prevent the generation of acid rock drainage.	Pyritic material will be stored above the water table in dedicated cells within the overburden storage area and/or in-pit.	During mining.	EPA, DME.	Pyritic materials stored in dedicated cells as previously described. Submit plans/diagrams
Commitment 7: Subterranean Fauna					
<p>In collaboration with the Museum of Western Australia, the proponent will assist with the :</p> <ol style="list-style-type: none"> 1. Identification of stygofauna species to be sampled in the Northern Flank of Mining Area C. 2. Assess the conservation significance of species found. 3. Map the local distribution of species sampled. 4. Undertake sampling in the Mining Area C region if species distribution is found to be a significant conservation issue. 	To determine the risk and consequence of any species of stygofauna becoming threatened or extinct as a result of mining operations.	Design and implement an approved stygofauna assessment program in collaboration with the Museum of Western Australia.	Prior to the commencement of mining.	EPA, WA Museum.	Approved assessment program implemented.

EPA Environmental Protection Authority
 CALM Department of Conservation & Land Management
 DEP Department of Environmental Protection
 WRC Water & Rivers Commission
 DME Department of Minerals & Energy

Attachment to Statement 491

Change to Description of Proposal

Proposal: Addition of E Deposit to Mining Area C Project

Proponent: BHP Billiton Iron Ore

Change: Amendment of Schedule 1 – Key Proposal Characteristics

Features of previously approved Proposal:

Element	Quantities/Description
Mining areas	'C' Deposit, Brockman Detrital Orebody
Ore production	18mtpa
Water usage	Up to 9ML/day
Project components	Not stated in original schedule
Permanent workforce	200

Features of changed Proposal:

Element	Quantities/Description
Mining areas	'E' and 'C' Deposits, Brockman Detrital Orebody
Ore production	42mtpa
Water usage	Up to 12ML/day
Project components for 'E' Deposit	Ore handling plant; primary crusher; conveyor (ore from 'E' Deposit to 'C' Deposit); expansion to stockpiles; workshops and maintenance facilities; village expansion
Permanent workforce	Up to 770

Figure 1. Location of deposits 'C' and 'E'
See separate attachment

Approved under delegation:

13.08.07

EPA Chairman

Approval Date:

ATTACHMENT No 1 to STATEMENT 491
Change to Description of Proposal

Proposal: Multiple Iron Ore Mine Development, Mining Area C-Northern Flank,
100km North-west of Newman

Proponent: BHP Iron Ore Pty Ltd

Change: Amendment of Schedule 1 – Key Proposal Characteristics

Features of previously approved Proposal:

Component	Quantities/Description
Ore production	42mtpa
Project components	on-site ore processing
Permanent workforce	up to 770

Features of changed Proposal:

Component	Quantities/Description
Ore production	55mtpa
Project components	as above, with minor modifications (eg installation of new drives, gearboxes, couplings and breaks, replacement of screens and grizzly feeders) to the existing ore handling plants
Permanent workforce	up to 950

**Approved under delegation
from Minister for the Environment:**

Approval Date: 8.5.08

Attachment 3 to Statement 491
Change to Proposal

Proposal: Multiple Iron Ore Mine Development, Mining Area C – Northern Flank, 100 km Northwest of Newman.

Proponent: BHP Billiton Iron Ore Pty. Ltd.

Change: Installation of a diesel power generation facility; and increase disturbance area for the extension of existing Packsaddle accommodation village and wastewater treatment facilities.

Key Characteristics Table:

Element	Description of approved proposal	Description of approved changes to proposal
Life of Project (mine production)	More than 50 years (continual operation).	More than 50 years (continual operation).
Ore reserves	1,300 million tonnes approximately in 14 deposits	1,300 million tonnes approximately in 14 deposits.
Ore production	55mtpa.	55million tonnes per annum.
Project components	On-site ore processing.	On-site ore processing.
Area of disturbance: <ul style="list-style-type: none"> • 'E' and 'C' Deposits, Brockman Detrital Orebody • Rail corridor • Other infrastructure • Life of project • Accommodation village 	656 hectares 210 hectares 95 hectares Approximately 5,000 ha New Component	Removed – area included in 'Life of project' area 210 hectares 95 hectares Approximately 5,000 hectares 80 hectares
Water requirements	Up to 12ML/day	Up to 12 Megalitres per day
Rail spur length	35 kilometres	35 kilometres
Width of rail corridor	60 metres	60 metres
Permanent workforce	Up to 950 people	Workforce numbers removed as no longer relevant to assessment criteria
Construction workforce	500 people	Workforce numbers removed as no longer relevant to assessment criteria

Dr Paul Vogel
CHAIRMAN
Environmental Protection Authority
under delegated authority

Approval date: 24.4.07

Attachment 4 to Ministerial Statement 491

Change to proposal under s45C of the *Environmental Protection Act 1986*

This Attachment replaces Schedule 1 in Ministerial Statement 491

Proposal: Multiple Iron Ore Mine Development – Mining Area C Northern Flank

Proponent: BHP Billiton Iron Ore Pty Ltd

The proposal (Assessment No. 1154)

The proposal is to mine the Northern Flank of Mining Area C, which is located in the Hamersley Range of the Pilbara region of Western Australia approximately 10 kilometres north west of Newman in the area shown on Figure 1. Fourteen iron ore deposits have been identified in the Northern Flank (A-F and R, P1 – P6 and the Brockman Detrital Deposit) as shown in Figure 2.

Initially two deposits will be mined, known as the Marra Mamba C Deposit and the Brockman Detrital Deposit. However, the proposal encompasses the areas to be affected by the mining of the fourteen deposits identified in the Northern Flank area. The ore will be processed and blended on-site, before being loaded into trains and hauled to Port Hedland.

The proposal will include the provision of services and infrastructure for the mine sites, a village and the construction and operation of a rail spur. The rail spur is shown on Figures 1 and 2.

Changes: Remove 'Ore reserves' and 'Project components'; replace 'Ore Production' with 'Extent of Mining'; revise 'Water usage and dewatering requirements'.

Key Characteristics Table:

<u>Element</u>	<u>Description of Proposal</u>	<u>Description of Proposal Authorised Extent</u>
Life of Project (mine production)	More than 50 years (continual operation)	More than 50 years (continual operation)
Ore reserves	1,300 million tonnes approximately in 14 deposits	Removed as not a key element for environmental protection
Ore production	55 million tonnes per annum	Removed as addressed through 'Water usage and dewatering requirements'
Project components	On-site ore processing	Removed as not a key element for environmental protection
Area of disturbance: <ul style="list-style-type: none">• Rail corridor• Other infrastructure• Life of project• Accommodation village	<ul style="list-style-type: none">• 210 hectares• 95 hectares• Approximately 5,000 hectares• 80 hectares	<ul style="list-style-type: none">• 210 ha• 95 ha• Approximately 5,000 ha (14 deposits)*• 80 ha

<u>Element</u>	<u>Description of Proposal</u>	<u>Description of Proposal Authorised Extent</u>
Water usage and dewatering requirements	Up to 12 Megalitres per day	Up to 8,760 Megalitres per annum
Rail spur length	35 kilometres	35 kilometres
Width of rail corridor	60 metres	60 metres

Note: Text in **bold** in the Key Characteristics Table, indicates change/s to the proposal.

*Authorised extent of mining not previously shown in the Key Characteristics Table, as approved in accordance with *BHP Billiton Iron Ore Pty Ltd – Mining Area C, Environmental Management Plan, Revision 5, September 2012*.

Figures (attached)

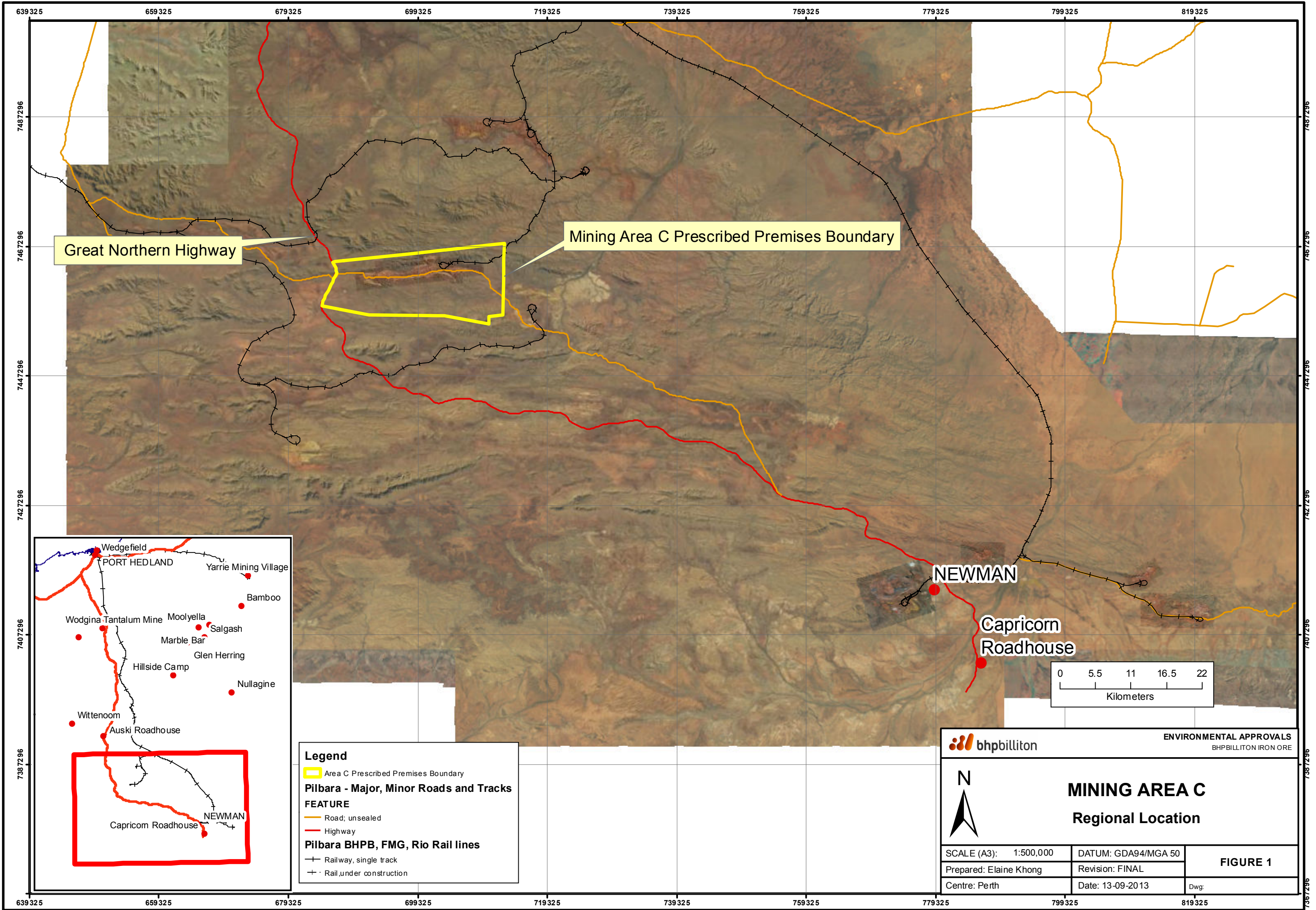
- Figure 1 - Regional location
- Figure 2 - General arrangement

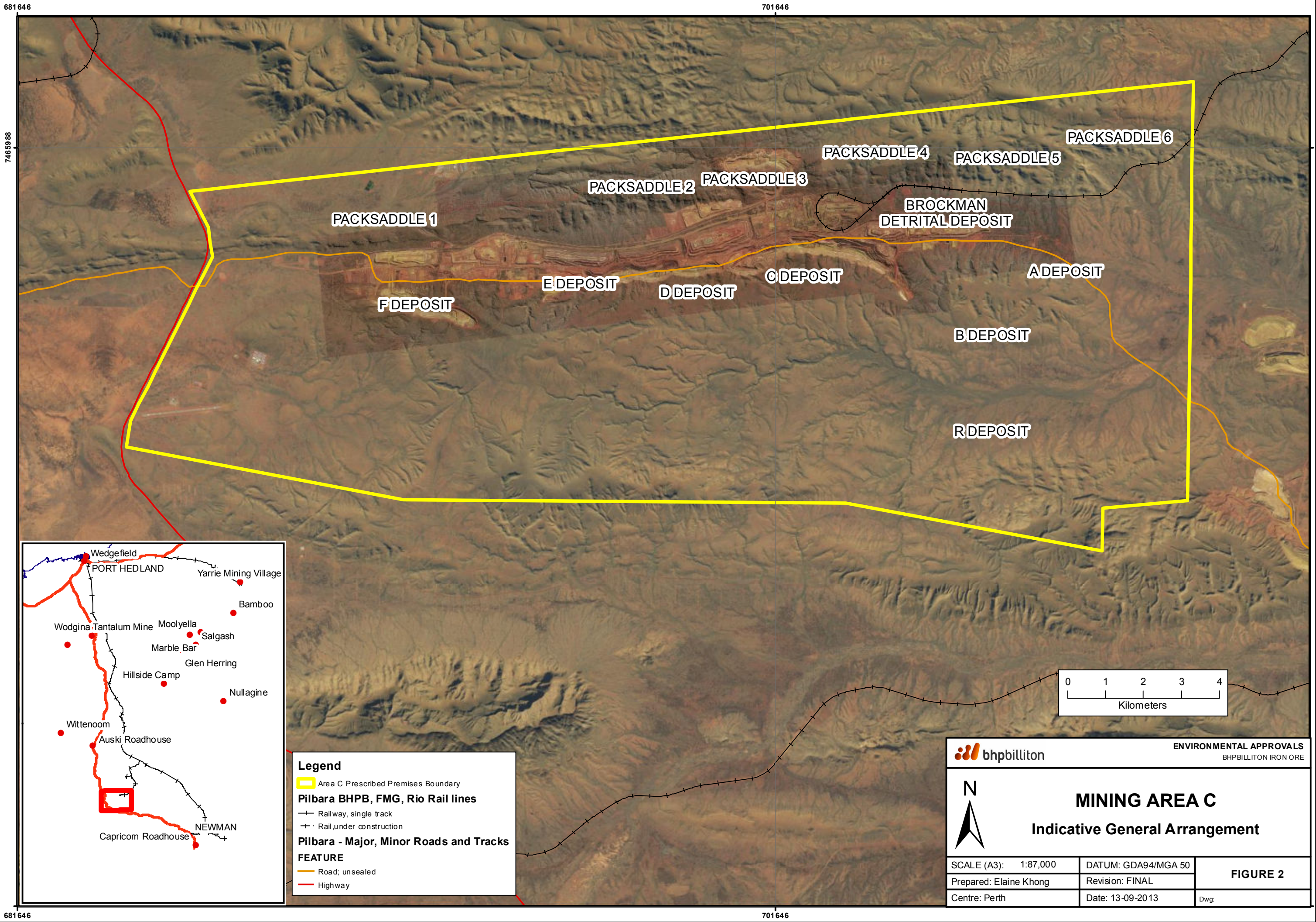
[Signed 18 October 2013]

Dr Paul Vogel

CHAIRMAN

Environmental Protection Authority
under delegated authority





Legend

Area C Prescribed Premises Boundary

Pilbara BHPB, FMG, Rio Rail lines

Railway, single track

Rail, under construction

Pilbara - Major, Minor Roads and Tracks

FEATURE

Road; unsealed

Highway

bhpbilliton

ENVIRONMENTAL APPROVALS
BHPBILLITON IRON ORE

N

MINING AREA C
Indicative General Arrangement

SCALE (A3): 1:87,000	DATUM: GDA94/MGA 50	FIGURE 2
Prepared: Elaine Khong	Revision: FINAL	
Centre: Perth	Date: 13-09-2013	

Attachment 5 to Ministerial Statement 491

Change to proposal under s45C of the *Environmental Protection Act 1986*

This Attachment replaces Schedule 1 and Attachment 4 in Ministerial Statement 491

Proposal: Multiple Iron Ore Mine Development – Mining Area C Northern Flank

Proponent: BHP Billiton Iron Ore Pty Ltd

The proposal (Assessment No. 1154)

The proposal is to mine the Northern Flank of Mining Area C, which is located in the Hamersley Range of the Pilbara region of Western Australia approximately 10 kilometres north west of Newman in the area shown on Figure 1. Fourteen iron ore deposits have been identified in the Northern Flank (A-F and R, P1 – P6 and the Brockman Detrital Deposit) as shown in Figure 2.

Initially two deposits will be mined, known as the Marra Mamba C Deposit and the Brockman Detrital Deposit. However, the proposal encompasses the areas to be affected by the mining of the fourteen deposits identified in the Northern Flank area. The ore will be processed and blended on-site, before being loaded into trains and hauled to Port Hedland.

The proposal will include the provision of services and infrastructure for the mine sites, a village and the construction and operation of a rail spur. The rail spur is shown on Figures 1 and 2.

Changes: Removal of 'Water usage and dewatering requirements'.

Key Characteristics Table:

<u>Element</u>	<u>Description of Proposal</u>	<u>Description of Proposal Authorised Extent</u>
Life of Project (mine production)	More than 50 years (continual operation)	More than 50 years (continual operation)
Area of disturbance: <ul style="list-style-type: none">• Rail corridor• Other infrastructure• Life of project• Accommodation village	<ul style="list-style-type: none">• 210 hectares• 95 hectares• Approximately 5,000 hectares• 80 hectares	<ul style="list-style-type: none">• 210 ha• 95 ha• Approximately 5,000 ha (14 deposits)*• 80 ha
Water usage and dewatering requirements	Up to 8,760 Megalitres per annum	Removed as conservation values are managed under the Life of Mine EMP; dewatering and discharge can be managed under other legislation.
Rail spur length	35 kilometres	35 kilometres
Width of rail corridor	60 metres	60 metres

Note: Text in **bold** in the Key Characteristics Table, indicates change/s to the proposal.

*Authorised extent of mining in the Key Characteristics Table, as approved in accordance with *BHP Billiton Iron Ore Pty Ltd – Mining Area C, Environmental Management Plan, Revision 5, September 2012*.

Figures (attached)

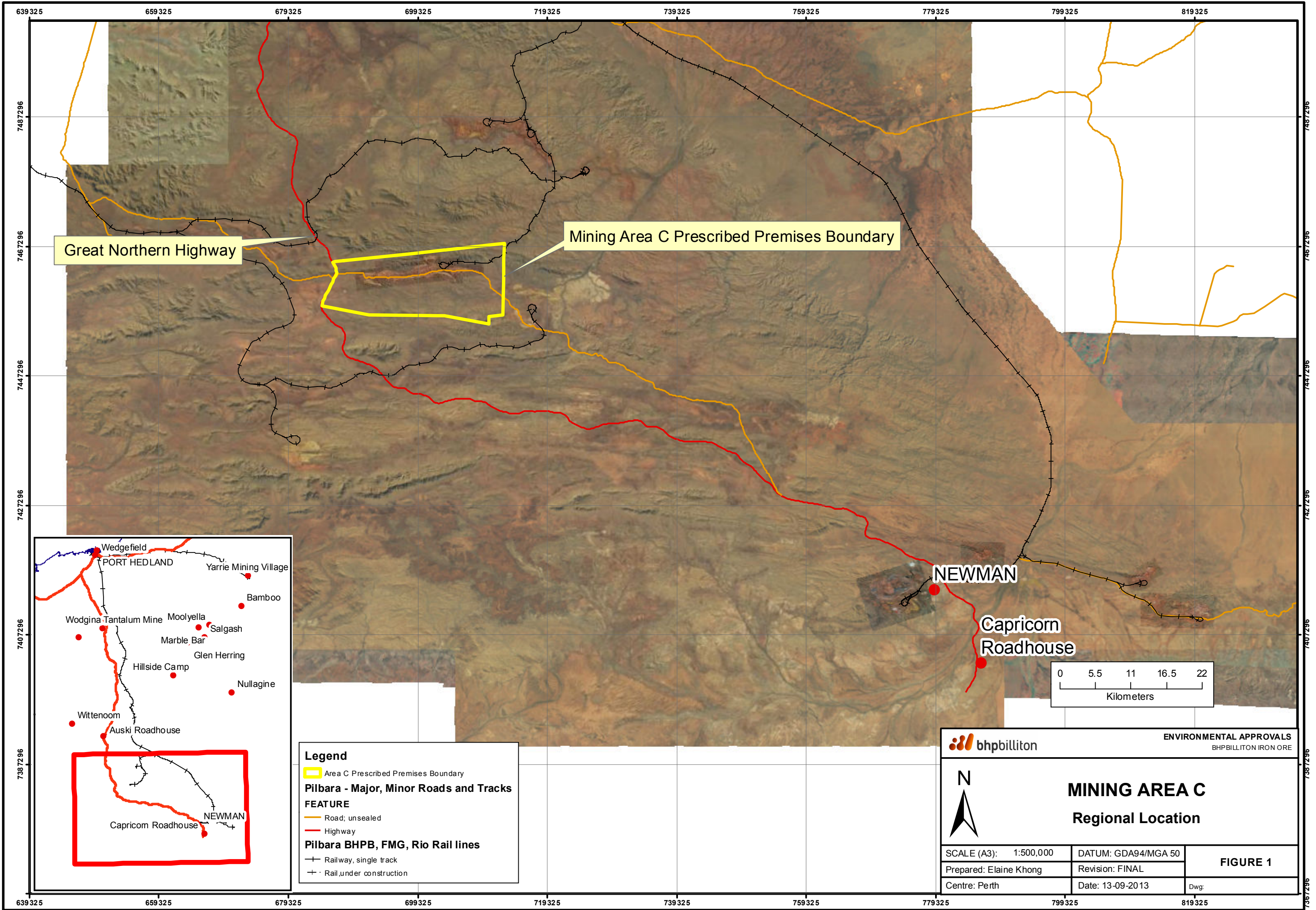
- Figure 1 - Regional location
- Figure 2 - General arrangement

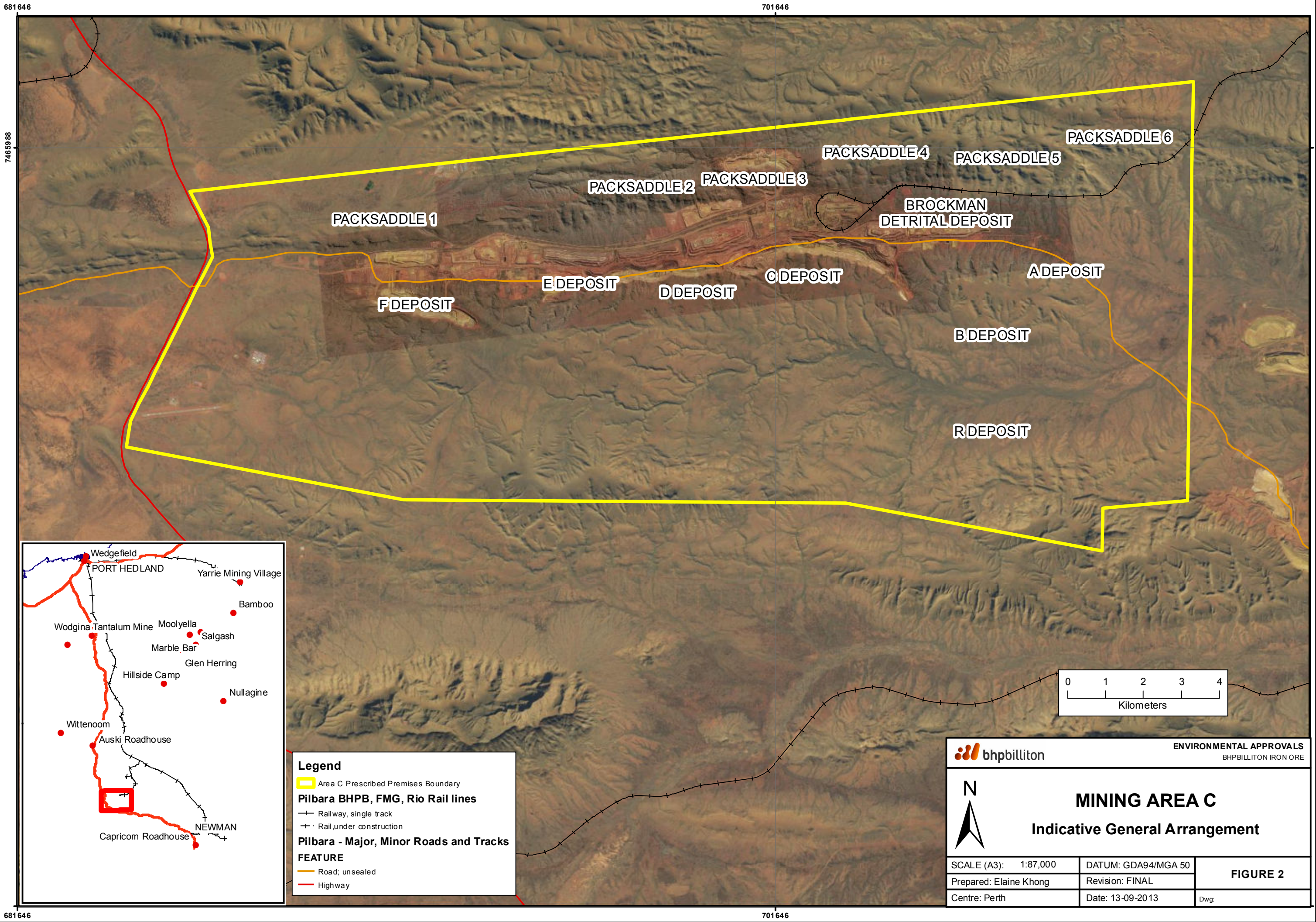
[Signed 24 March 2014]

Dr Paul Vogel

CHAIRMAN

Environmental Protection Authority
under delegated authority





Legend

Area C Prescribed Premises Boundary

Pilbara BHPB, FMG, Rio Rail lines

Railway, single track

Rail, under construction

Pilbara - Major, Minor Roads and Tracks

FEATURE

Road; unsealed

Highway

bhpbilliton

ENVIRONMENTAL APPROVALS
BHPBILLITON IRON ORE

N

MINING AREA C
Indicative General Arrangement

SCALE (A3): 1:87,000	DATUM: GDA94/MGA 50	FIGURE 2
Prepared: Elaine Khong	Revision: FINAL	
Centre: Perth	Date: 13-09-2013	

ATTACHMENT 6 TO STATEMENT 491

Section 46C
Environmental Protection Act 1986

NOTICE OF CHANGES TO IMPLEMENTATION CONDITIONS

MULTIPLE IRON ORE MINE DEVELOPMENT, MINING AREA C – NORTHERN
FLANK, 100 KM NORTH-WEST OF NEWMAN

Pursuant to section 46C(1)(a) of the *Environmental Protection Act 1986*, the implementation conditions applying to the above proposal are changed in accordance with this Notice. I consider these changes to be of a minor nature and desirable in order to standardise conditions relating to different proposals.

[Signed 20 November 2014]

HON ALBERT JACOB MLA
MINISTER FOR ENVIRONMENT; HERITAGE

1. Changes to Condition 5 and commitments 4 and 5

Condition 5 and commitments 4 and 5 are deleted, and replaced with:

5 Groundwater and groundwater dependent ecology

- 5-1 The proponent shall manage groundwater abstraction and dewatering activities to ensure minimal adverse impacts on groundwater dependent ecology at Weeli Wolli Spring and Coondewanna Flats through implementation of Section 4.5 of the “Life of Project” Environmental Management Plan (Revision 5a dated October 2014), approved by the CEO, and any subsequent approved revisions in accordance with condition 5-2.
- 5-2 To verify that the requirements of condition 5-1 are met the proponent shall undertake monitoring and management as outlined in Section 4.5 of the “Life of Project” Environmental Management Plan (Revision 5a dated October 2014), approved by the CEO, and any subsequent approved revisions which include:
 - i) the specific environmental objectives, trigger and threshold criteria for each environmental factor;

- ii) the trigger criteria, threshold criteria and management measures to be applied to avoid and minimise the environmental impact of the proposal;
- iii) monitoring measures to measure the performance of management against trigger and threshold criteria;
- iv) reporting exceedances of trigger and threshold criteria; and
- v) contingency measures to mitigate impacts.

5-3 In the event that the monitoring required by condition 5-2 indicates that the requirements of condition 5-1 are not met, the proponent shall implement contingency actions as outlined in Section 4.5 of the "Life of Project" Environmental Management Plan (Revision 5a dated October 2014), approved by the CEO, and any subsequent approved revisions.

5-4 The proponent shall submit annually the results of monitoring against objectives, trigger and threshold criteria required by condition 5-2 to the *CEO as part of the compliance reports required by condition 11.

* The Chief Executive Officer of the Department of the Public Service which is responsible for the administration of section 48 of the *Environmental Protection Act 1986* or as delegated.

Attachment 7 to Ministerial Statement 491

Change to proposal approved under section 45C of the *Environmental Protection Act 1986*

This Attachment replaces Schedule 1 and Attachment 5 of Ministerial Statement 491

Proposal: Multiple Iron Ore Mine Development, Mining Area C – Northern Flank, 100 km North-West of Newman

Proponent: BHP Iron Ore Pty Ltd

Changes:

- Amend the element 'Accommodation village' to 'Packsaddle Village';
- Include a new element 'Mulla Mulla Village';
- Increase total disturbance from 5,385 ha to 5,563.8 ha;
- Update Figures 1 and 2, and delineation coordinates.

Table 1: Summary of the Proposal

Proposal Title	Multiple Iron Ore Mine Development, Mining Area C – Northern Flank, 100 km North-West of Newman
Short Description	The proposal is to mine the Northern Flak of Mining Area C, which is located in the Hamersley Range of the Pilbara region of Western Australia. The proposal includes the mining of fourteen iron ore deposits (A-F and R, P1-P6 and the Brockman Detrital Deposit), onsite processing and blending of ore, services and infrastructure of the mine sites, accommodation villages and the construction and operation of a rail spur. The ore will be transported via rail to Port Hedland.

Table 2: Location and authorised extent of physical and operational elements

Element	Location	Previously Authorised Extent	Authorised Extent
Life of Project (mine production)	Figure 2	More than 50 years (continual operation)	More than 50 years (continual operation)
Area of Disturbance <ul style="list-style-type: none">• Rail corridor• Other infrastructure• Life of project• Packsaddle Village• Mulla Mulla Village	Figure 2	<ul style="list-style-type: none">• 210 ha• 95 ha• Approximately 5,000 ha (14 deposits)• 80 ha	<ul style="list-style-type: none">• 210 ha• 95 ha• Approximately 5,000 ha (14 deposits)• 80 ha• 178.8 ha
Rail spur length		35 Kilometers	35 km
Width of rail corridor		60 meters	60 m

Note: Text in **bold** in Table 2 indicates a change to the proposal.

Table 3: Abbreviations

Abbreviation	Term
ha	hectare
km	kilometre
m	meters

Figures: Previous Figures are deleted and replaced with the following:

Figure 1 Mining Area C regional location

Figure 2 Mining Area C development envelope and rail supr.

Coordinates that define the Proposal:

Coordinates defining the development envelope and disturbance footprint are held by the Office of the Environmental Protection Authority (Reference Number – 2017-1497495196693)

[Signed 22 June 2017]

Dr Tom Hatton

CHAIRMAN

Environmental Protection Authority
under delegated authority

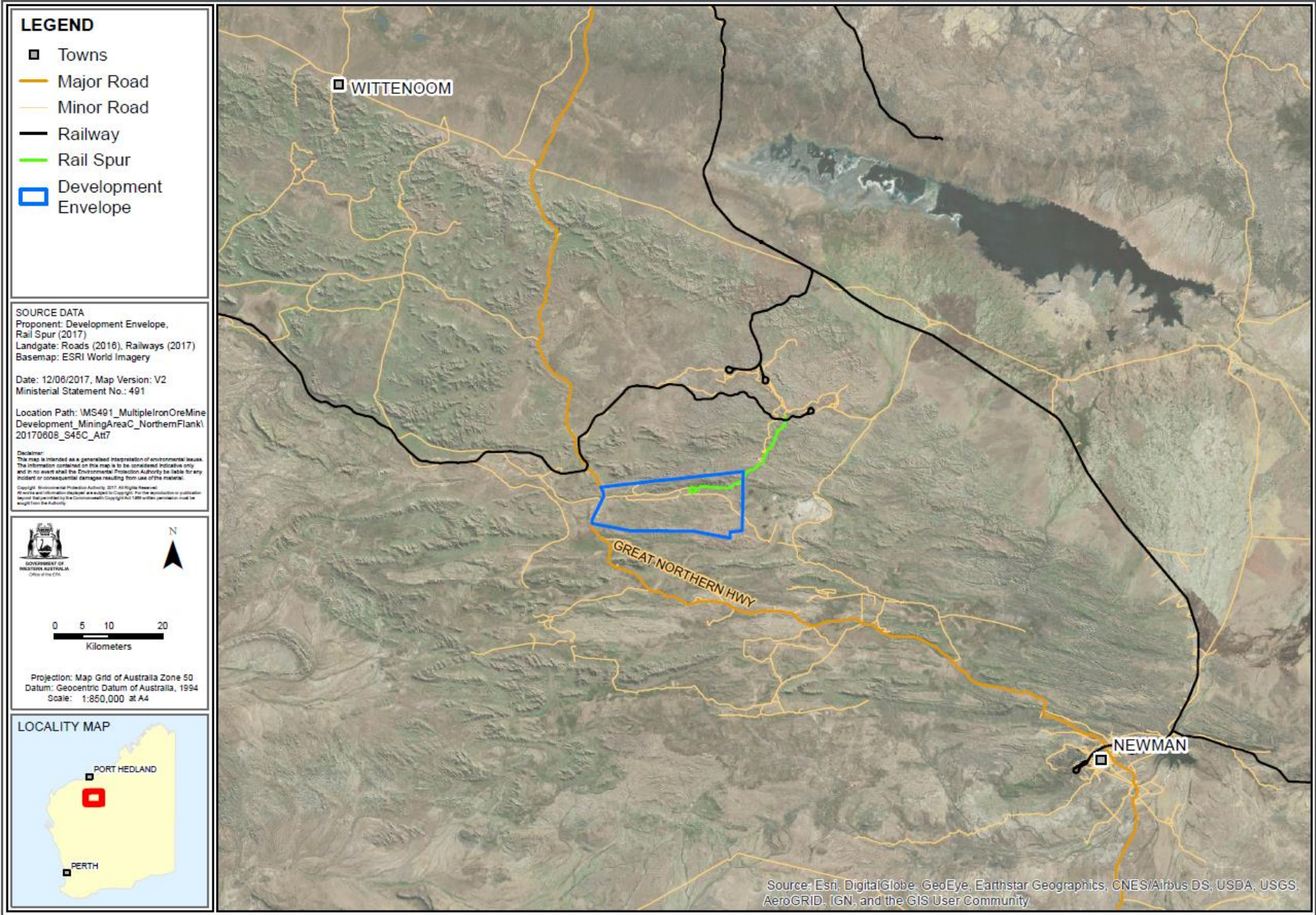


Figure 1: Mining Area C regional location

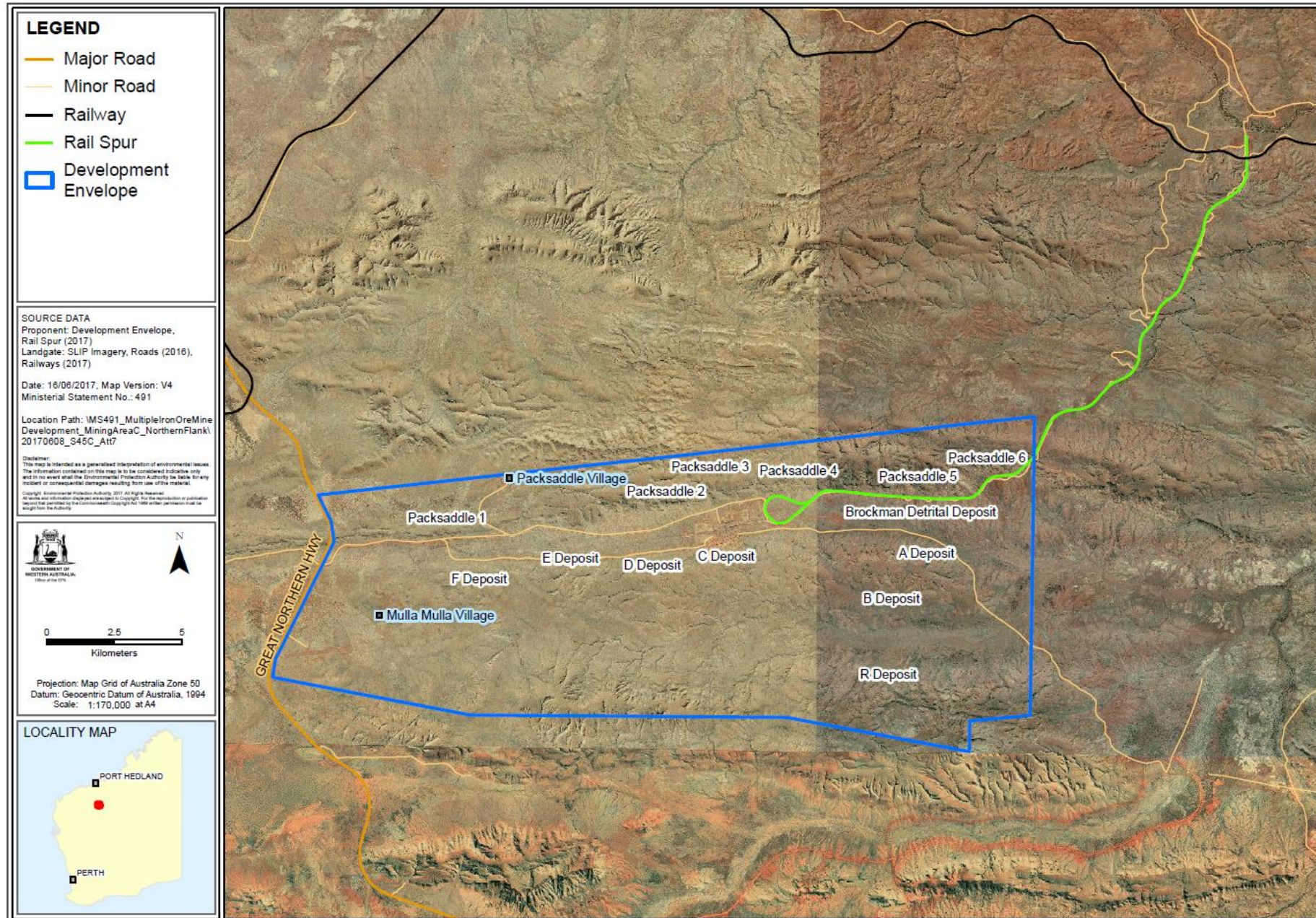


Figure 2: Mining Area C and development envelope and rail spur