



Hon Mark McGowan MLA
Minister for the Environment;
Racing and Gaming

197 St Georges Terrace, Perth WESTERN AUSTRALIA 6000
Telephone: (+61 8) 9222 9111 Facsimile: (+61 8) 9222 9410
Email: mark-mcgowan@dpc.wa.gov.au • Website: www.ministers.wa.gov.au/mcgowan/

Statement No.

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

000727

**JACK HILLS IRON ORE PROJECT
SHIRE OF MEEKATHARRA, MURCHISON REGION**

Proposal: To develop and operate an open-cut iron ore mine at Jack Hills, approximately 100 kilometres west of Meekatharra. The proposal will consist of one open pit and a crushing plant and will produce approximately 40 million tonnes of ore and waste material. The proposal is further documented in schedule 1 of this statement.

Proponent: Murchison Metals Ltd (ACN 078 257 799)

Proponent Address: Level 1, 610 Murray Street, WEST PERTH WA 6005

Assessment Number: 1637

Report of the Environmental Protection Authority: Bulletin 1220

The proposal referred to above may be implemented by the proponent subject to the following conditions and procedures:

1 Proposal Description

1-1 The proponent shall implement the proposal as documented and described in schedule 1 of this statement subject to the conditions and procedures of this statement.

2 Proponent Nomination and Contact Details

2-1 The proponent for the time being nominated by the Minister for the Environment under section 38(6) of the *Environmental Protection Act 1986* is responsible for the implementation of the proposal.

2-2 The proponent shall notify the Chief Executive Officer of the Department of Environment and Conservation (CEO) of any change of the name and address for the serving of notices or other correspondence within 30 days of such change.

Published on

06 SEP 2006

3 Time Limit of Authorisation

- 3-1 The authorisation to implement the proposal provided for in this statement shall lapse and be void within five years after the date of this statement if the proposal to which this statement refers is not substantially commenced.
- 3-2 The proponent shall provide the CEO with written evidence which demonstrates that the proposal has substantially commenced on or before the expiration of five years from the date of this statement.

4 Compliance Reporting

- 4-1 The proponent shall submit to the CEO Compliance Reports in accordance with an audit program developed in consultation with the CEO.
- 4-2 The Compliance Reports shall be prepared in accordance with compliance monitoring guidelines, and shall:
 - 1. describe and provide evidence of the status of the implementation of the proposal;
 - 2. include evidence of compliance with the conditions, procedures and commitments of this statement;
 - 3. provide a review of the effectiveness of corrective and preventative actions contained in the environmental management plans and programs;
 - 4. provide verifiable evidence of the fulfilment of requirements specified in the environmental management plans and programs;
 - 5. identify all confirmed non-conformities and non-compliances and describe the related corrective and preventative actions taken; and
 - 6. identify potential non-conformities and non-compliances and provide evidence of how these are being determined for corrective action.
- 4-3 The proponent shall submit an Annual Audit Compliance Report to the CEO by 31 December each year, commencing 2006, signed by the proponent's chief executive officer indicating the extent to which the proponent has complied with the conditions of this approval.
- 4-4 The proponent shall make all Compliance Reports publicly available on request.

5 Performance Review

- 5-1 The proponent shall submit an annual Performance Review report to the CEO by 31 December each year, commencing 2006, which addresses:
 - 1. the major environmental issues associated with implementing the project; the environmental objectives for those issues; the methodologies used to achieve these; and the key indicators of environmental performance measured against those objectives;

2. the level of progress in the achievement of sound environmental performance, including industry benchmarking, and the use of best available technology where practicable;
3. significant improvements gained in environmental management, including the use of external peer reviews;
4. stakeholder and community consultation about environmental performance and the outcomes of that consultation, including a report of any on-going concerns being expressed; and
5. the proposed environmental objectives over the next two years, including improvements in technology and management processes.

6 Responsibility for On-site Environmental Matters

- 6-1 At all stages of the proposal from construction through to closure and decommissioning, the proponent shall have a senior employee based on site who shall be the designated officer with lead responsibility for environmental matters.

7 Environmental Induction for Employees and Contractors

- 7-1 At all stages of the proposal from construction through to closure and decommissioning, the proponent shall provide adequate environmental induction for all employees and contractors before they start work on the site.
- 7-2 The environmental inductions required by condition 7-1 shall address:
1. statutory requirements for protection of the environment;
 2. relevant work procedures;
 3. environmental management measures;
 4. weed hygiene and control measures; and
 5. incident reporting requirements.

8 Vegetation Management

- 8-1 Prior to ground-disturbing activities, the proponent shall implement the Vegetation Management Plan contained within the proponent's Environmental Protection Statement for the proposal published on 22 May 2006.

In the event that a difference exists between the Vegetation Management Plan and conditions 8-2 to 8-11, then conditions 8-2 to 8-11 shall prevail.

- 8-2 In consultation with the Department of Environment and Conservation, the proponent shall put in place measures (which may include fencing and/or signposting) to delineate and protect the locations of plants, vegetation, or other areas of particular conservation significance.
- 8-3 At all times the proponent shall ensure, through weed hygiene, monitoring and control procedures, that no weed species are introduced into the proposal area.

- 8-4 In the event that weed species are introduced into the proposal area, the proponent shall undertake appropriate weed control measures and shall continue those measures for such duration as required by the Minister for the Environment on advice of the Environmental Protection Authority.
- 8-5 In carrying out rehabilitation activities, the proponent shall only use native plant species of local provenance (defined as plant material or seeds collected within ten kilometres of the project site), except with permission in writing from the Department of Environment and Conservation.
- 8-6 The proponent shall construct and maintain roadside drains or other structures as necessary to contain runoff from roads and to prevent runoff impacts on adjacent native vegetation.
- 8-7 The proponent shall carry out monitoring, and shall take such remedial or management action as may be required, to ensure that surrounding native vegetation is not significantly adversely affected by dust, water used for dust control or other emissions or factors resulting from implementation of the proposal.
- 8-8 The proponent shall review and revise as appropriate the Vegetation Management Plan referred to in condition 8-1 to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.
- 8-9 The proponent shall make any revisions of the Vegetation Management Plan, as required by condition 8-8, publicly available in a manner approved by the Department of Environment and Conservation.
- 8-10 The proponent shall by no later than 31 December 2009 participate in and contribute to integrated regional studies in conjunction with the Department of Environment and Conservation, with the key aim of defining the extent of plant communities on Jack Hills Range. The objectives of that study are to include:
1. identify rare and priority flora and flora which is restricted or occurs as range extensions; and
 2. identify the extent of Spinifex communities on the Jack Hills, the Robinson Ranges and Mt Gould.
- NOTE: see Note 4 below.
- 8-11 The proponent shall prepare and submit a report to the Environmental Protection Authority in relation to the findings of the research carried out in 8-10 by no later than 31 March 2010.

9 Fauna Management

- 9-1 The proponent shall cap all open drill holes each day before nightfall to prevent native fauna from falling into them.
- 9-2 The proponent shall not permit cats, dogs or other domestic pets to be brought onto the site of the proposal, except with permission in writing from the Department of Environment and Conservation.

- 9-3 The proponent shall develop and implement a feral animal control program in consultation with the Department of Environment and Conservation and local pastoral leaseholders by 31 December 2007.

10 Decommissioning and Closure Plan

- 10-1 From the commencement of ground-disturbing activities, the proponent shall implement the Decommissioning and Closure Plan contained within the proponent's Environmental Protection Statement for the proposal published on 22 May 2006.

In the event that a difference exists between the Decommissioning and Closure Plan and conditions 10-2 to 10-4, then conditions 10-2 to 10-4 shall prevail.

- 10-2 The proponent shall prepare a Final Decommissioning and Closure Plan at least two years prior to the anticipated completion of productive mining, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority and the Department of Industry and Resources.

- 10-3 The Final Decommissioning and Closure Plan shall include:

1. removal or, if appropriate, retention of plant and infrastructure in consultation with relevant stakeholders;
2. long-term management of ground and surface water systems affected by the mining operations, including groundwater drawdown and diversion;
3. rehabilitation to a standard suitable for the agreed new land use(s); and
4. identification of contaminated areas, including provision of evidence of notification and proposed management measures to relevant statutory authorities.

- 10-4 The proponent shall implement the Final Decommissioning and Closure Plan required by condition 10-2 until such time as the Minister for the Environment determines, on advice of the Environmental Protection Authority, that the proponent's decommissioning and closure responsibilities have been fulfilled.

- 10-5 The proponent shall make the Final Decommissioning and Closure Plan required by condition 10-2 publicly available in a manner approved by the Department of Environment and Conservation.

11 Rock Overhang

- 11-1 The proponent shall protect the rock overhang located at 523,895 E 7,119,178 N (See figure 3 attached) by installing and maintaining fencing at an appropriate setback to exclude human access.

12 Electromagnetic Radiation and Radio Transmissions

- 12-1 The proponent shall within three months of the first transportation of iron ore from the mine prepare and implement a program to monitor the impacts of radio transmissions and other electromagnetic radiation emitted from mining activities including the transportation of ore on research activities at the Radio Astronomy Park (RAP) located at Mileura Station south of Jack Hills, in consultation with Curtin University of Technology the Department of Environment and Conservation and the Department of Industry and Resources.
- 12-2 The objective of the monitoring is to ascertain the extent to which mining activities including the transportation of ore may have an adverse impacts on the radio quiet zone at the RAP.
- 12-3 In the event that monitoring conducted under 12-1 discloses that mining activities (including transportation of iron ore) could adversely impact on research activities at the RAP, proponent shall, in consultation with the Minister for Energy; Science and Innovation on advice from the Western Australian Radio Astronomy Committee, develop and implement an Electromagnetic Radiation Management Plan which has as its primary aim the avoidance of emissions that could impact on the RAP.
- 12-4 The key elements of the plan are:
1. The identification of times during which mining and transport activities could impact on research activities at the RAP.
 2. Develop management measures to apply at these times so that emissions that could impact on the RAP are avoided (See Note 5).
- 12-5 The management plan referred to in condition 12-3 is to be prepared and implemented to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

Notes

1. The CEO may seek the advice of the Environmental Protection Authority, government agencies and relevant parties, as necessary, for the preparation of written notice to the proponent.
2. The proponent shall relinquish the nomination following the procedure under section 38(6a) of the *Environmental Protection Act 1986*.
3. 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 1986*.
4. Condition 8.10 reflects Commitment 6 of the proponent on Page 33 of the proponent's Environmental Protection Statement.

5. The on-going use of Beringarra-Cue Road, including for the haulage of ore, may be found to impact significantly on the RAP and associated activities. If so, the Government may need to determine whether the road can continue to be used for these purposes or whether an alternative route or means of transport needs to be found.



**HON MARK McGOWAN MLA
MINISTER FOR THE ENVIRONMENT;
RACING AND GAMING**

06 SEP 2006

Schedule 1

The Proposal (Assessment No. 1637)

The proposal is to develop an iron ore (haematite) mine at Jack Hills, approximately 100 kilometres west of Meekatharra. The project will have a lifespan of approximately seven years (5 years of mining, 2 years of closure activities) and will be a contract mining operation. The project will consist of an open-cut mine with one pit up to 140 metres deep (approximately 41.2 Megatonnes of ore and waste rock). The floor of the pit will be above the water table and the pit will not be backfilled. Product will be crushed on-site and carried to the Port of Geraldton by road. A haul road approximately 24 kilometres long will be constructed to connect the project to the Beringarra-Cue road.

The main characteristics of the proposal are summarised in Table 1 below.

Table 1 – Key Proposal Characteristics

Element	Description
Project Life (approximate)	7 years (including mining and closure)
Construction (approximate)	3 months
Mining (approximate)	5 years
Closure (approximate)	2 years
Rehabilitation	Progressive during operations.
Land Tenure	Mining and Miscellaneous leases over Pastoral leases
Mining Tenements	Mining Lease M20/506 and Miscellaneous Licences L20/47 and L20/53
Ore Quantity	8.2 MT
Waste Rock Quantity	32.7 MT
Rate of Extraction (waste rock and ore)	Up to 11 MT per year
Processing Rate	1.8 MT per year
Extraction Method	Open pit mining with crushing and screening
Number of Mine Pits	One
Size of Mine Pit	260 metres wide by 1050 metres long
Depth of Mine Pit	140 metres approximately
Area of Disturbance	25.6 Hectares for the pit
Area of Vegetation Disturbance	Total area of disturbance 127.7 Hectares
Water Supply Source	Bores in structurally controlled aquifers
Groundwater Abstraction Rates	250,000 kilolitres per annum.
Maximum Process Water Requirements	Included in above and only for dust suppression in the crushing and screening circuit.

Abbreviations

MT – Mega tonnes

Figures (attached)

Figure 1 – Jack Hills Project Location.

Figure 2 – Jack Hills Project General Mine Layout.

Figure 3 – Jack Hills Project Detailed Mine Layout.

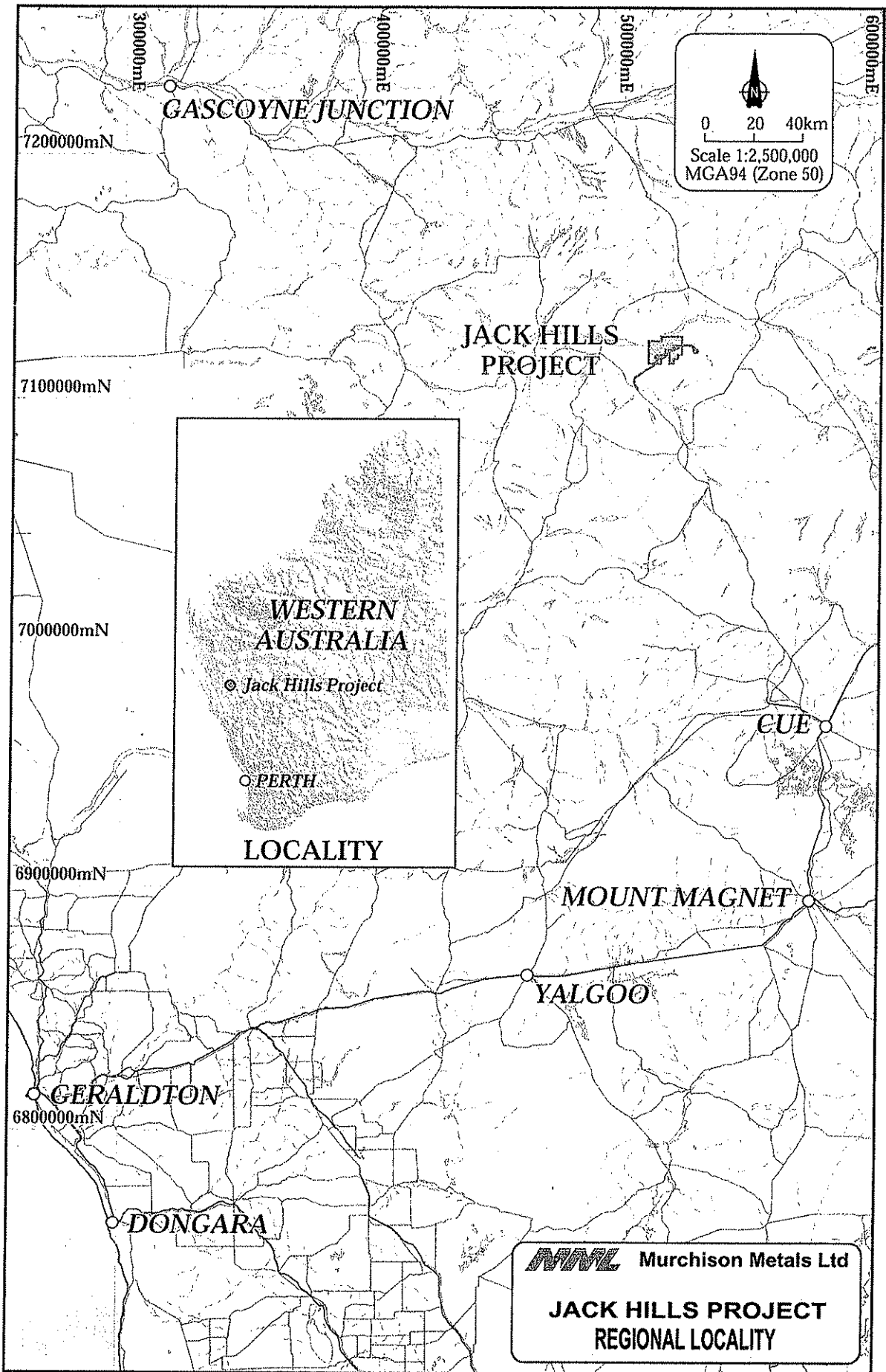


Figure 1: Jack Hills Project Location

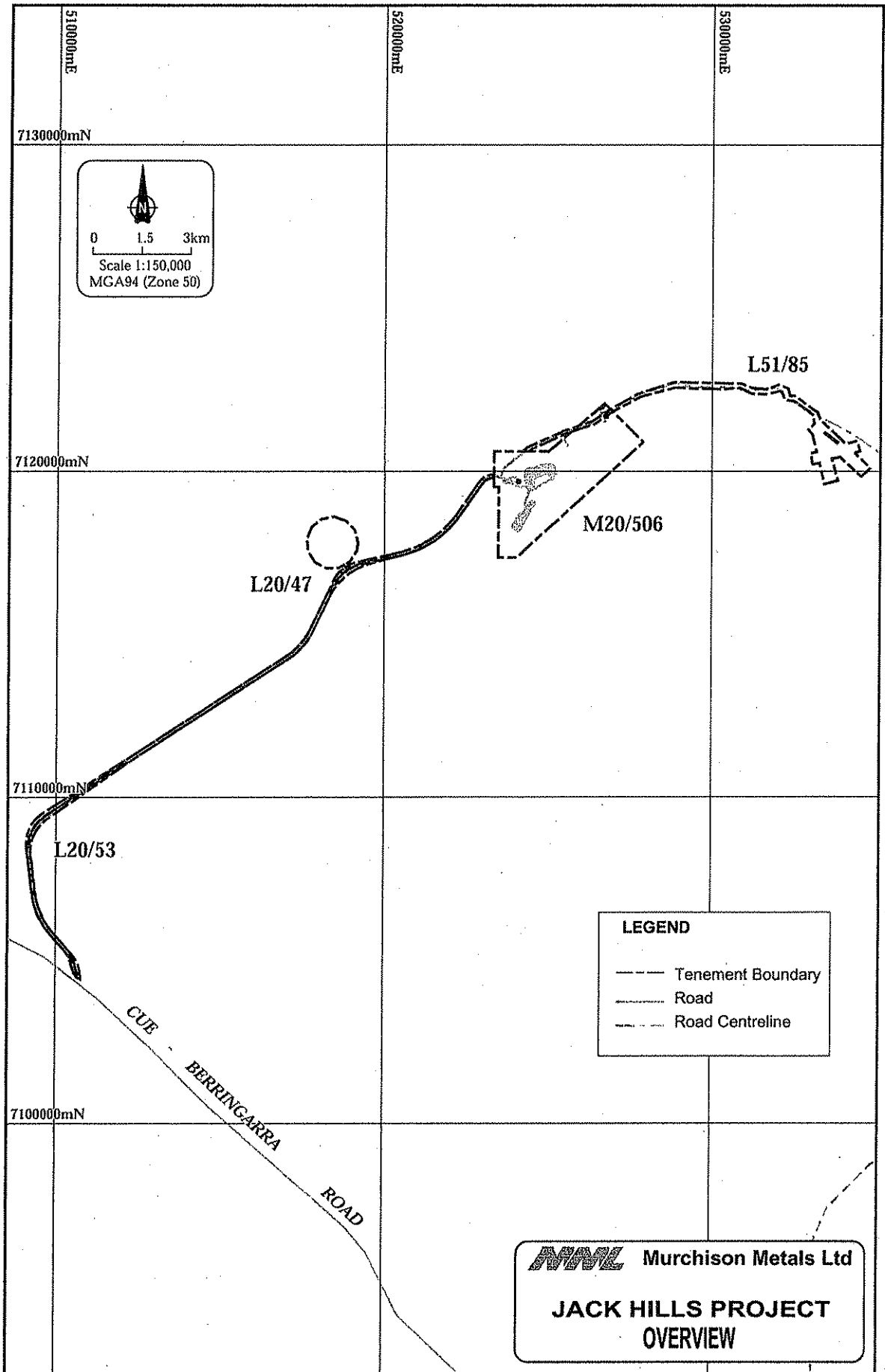


Figure 2: Jack Hills Project General Mine Layout.

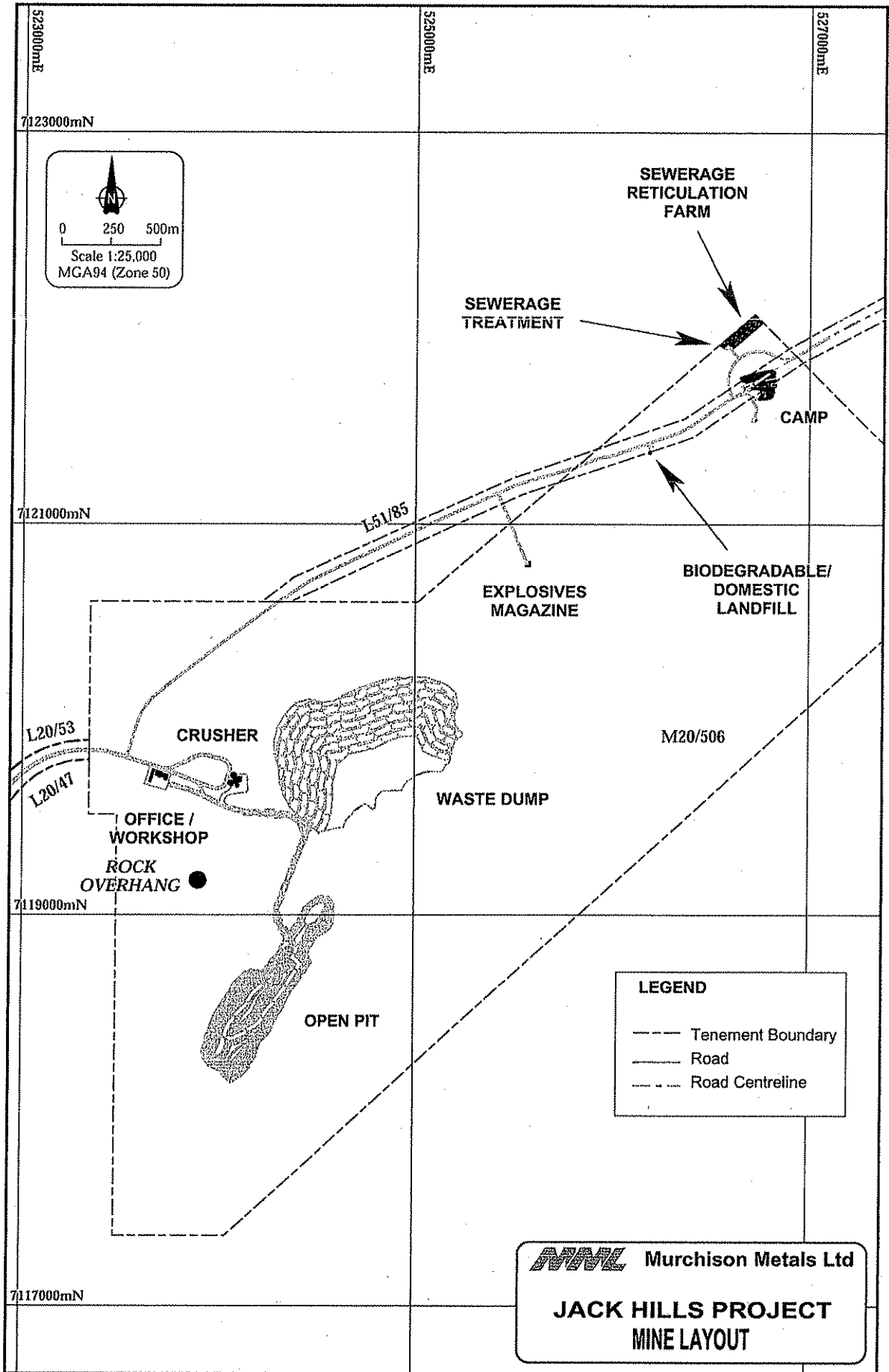


Figure 3: Jack Hills Project Detailed Mine Layout

Attachment to Statement 727

Change to Description of Proposal

Proposal: Jack Hills Iron Ore Project

Proponent: Murchison Metals Ltd

Changes: Construction of replacement borefield and associated pipeline to service the Jack Hills Iron Ore Mine and camp.

Revision of the Jack Hills operational footprint to ensure that any potential impacts to the significant *Triodia* vegetation communities were minimised as far as practicable and to also rationalise the areas required for operations.

From:

Element	Quantities/Description
Water Supply Source	Original borefield and pipeline located within the approved Mining Lease (M20/506).
Area of Vegetation Disturbance	Operational footprint of 128 hectares originally proposed as part of the Environmental Protection Statement documentation.

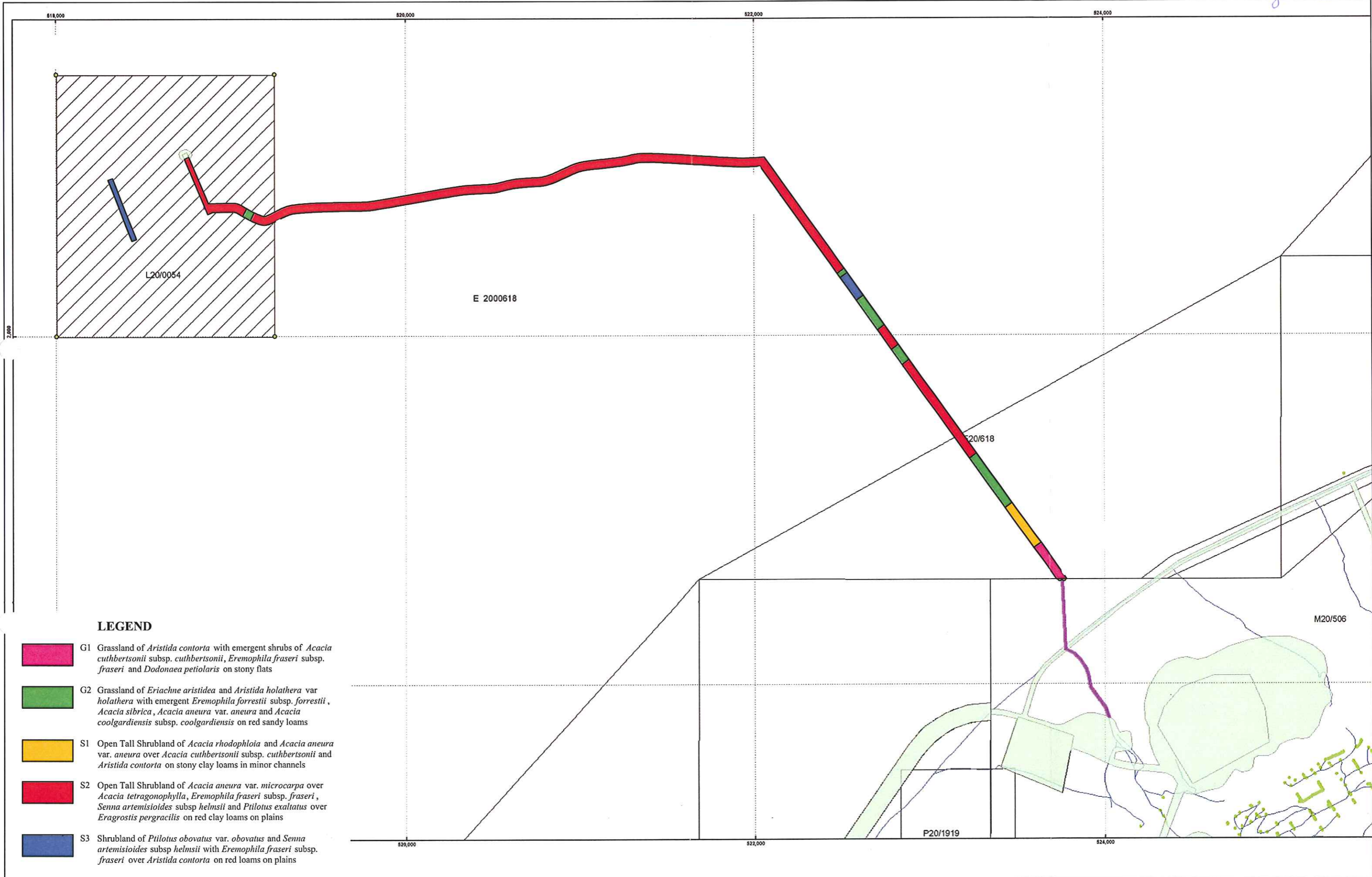
To:

Element	Quantities/Description
Water Supply Source	Replacement borefield and pipeline located at L20/54 and required for the supply of 250,000kL per annum of non-potable water for the operations (Figure 1).
Area of Vegetation Disturbance	Revised operational footprint of 138 hectares (Figure 2).

Figure 1: Borefield and Pipeline.

Figure 2: Revised Mine layout.

Approval Date: 12/03/07



LEGEND

- G1 Grassland of *Aristida contorta* with emergent shrubs of *Acacia cuthbertsonii* subsp. *cuthbertsonii*, *Eremophila fraseri* subsp. *fraseri* and *Dodonaea petiolaris* on stony flats
- G2 Grassland of *Eriachne aristidea* and *Aristida holathera* var. *holathera* with emergent *Eremophila forrestii* subsp. *forrestii*, *Acacia sibirica*, *Acacia aneura* var. *aneura* and *Acacia coolgardiensis* subsp. *coolgardiensis* on red sandy loams
- S1 Open Tall Shrubland of *Acacia rhodophloia* and *Acacia aneura* var. *aneura* over *Acacia cuthbertsonii* subsp. *cuthbertsonii* and *Aristida contorta* on stony clay loams in minor channels
- S2 Open Tall Shrubland of *Acacia aneura* var. *microcarpa* over *Acacia tetragonophylla*, *Eremophila fraseri* subsp. *fraseri*, *Senna artemisioides* subsp. *helmsii* and *Ptilotus exaltatus* over *Eragrostis pergracilis* on red clay loams on plains
- S3 Shrubland of *Ptilotus obovatus* var. *obovatus* and *Senna artemisioides* subsp. *helmsii* with *Eremophila fraseri* subsp. *fraseri* over *Aristida contorta* on red loams on plains

DATE	No.	ACTIVITY-REVISION DESCRIPTION	DES	DRN	CHKD	APPD.

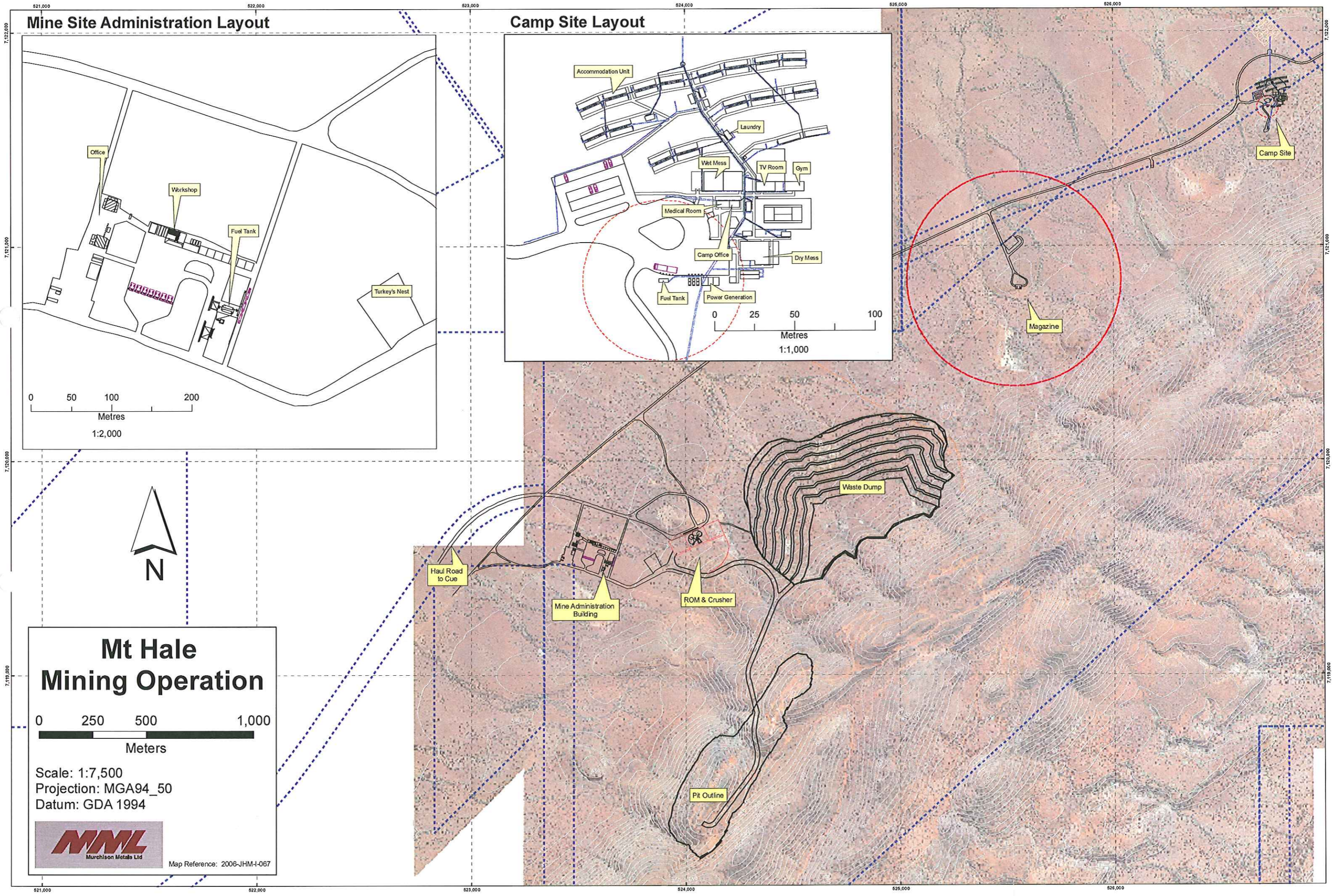
PROJECT JACK HILLS IRON ORE PROJECT, L20/54 BOREFIELD & PIPELINE
 DRAWING TITLE FIGURE 1 : PLANT COMMUNITIES
 PRINCIPAL MURCHISON METALS LTD

This drawing has been prepared in accordance with the Cardno BSD Quality Management System. It remains the property of Cardno BSD Pty. Ltd. and shall not be used without permission. This drawing shall be preliminary only and/or not for construction until signed approved.

SCALE: 1:20000

	CONSULTING ENGINEERS	Cardno BSD Centre 2 Bagot Road	Project Number
	TOWN PLANNERS	P.O. Box 155 Subiaco	V6038
PROJECT MANAGERS	Western Australia 6904	Designed	Drawing Number
ENVIRONMENTAL CONSULTANTS	Telephone (08) 9273 3888	Drawn SP	V6038-SK01
	Facsimile (08) 9388 3831	Approved	Revision
		Local Authority	A3
			Date 31.01.07
			Sheet Of

Figure 2.



Mine Site Administration Layout

Camp Site Layout

Mt Hale Mining Operation

0 250 500 1,000
Meters

Scale: 1:7,500
Projection: MGA94_50
Datum: GDA 1994



Map Reference: 2006-JHM-067