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Published on 7 August 2009

Statement No 799

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

TUTUNUP SOUTH MINERAL SANDS PROJECT

Proposal: The proposal is to mine the Tutunup South Mineral Sands Project located approximately 15 kilometres southeast of Busselton on Lots 2, 1827 and 1828 and part of Lots 441, 442, 1268, 1813, 1829 and part of Crown Reserve 22455, Hithergreen and part of State Forest 33 Yoganup. Mining is to extend approximately 15 metres below ground level and will require dewatering.

Proponent: Iluka Resources Limited

Proponent Address: Level 23, 140 St Georges Tce, Perth WA 6000

Assessment Number: 1660

Report of the Environmental Protection Authority: Report 1308

The proposal referred to in the above report of the Environmental Protection Authority may be implemented. The implementation of that proposal is subject to the following conditions and procedures:

1 Proposal Implementation

1-1 The proponent shall implement the proposal as assessed by the Environmental Protection Authority and described in schedule 1 of this statement subject to the conditions and procedures of this statement.

Published

2 Proponent Nomination and Contact Details

- 2-1 The proponent for the time being nominated by the Minister for Environment under sections 38(6) or 38(7) of the *Environmental Protection Act 1986* is responsible for the implementation of the proposal.
- 2-2 The proponent shall notify the Chief Executive Officer (CEO) of the Department of Environment and Conservation of any change of the name and address of the proponent for the serving of notices or other correspondence within 30 days of such change.

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 relates is not substantially commenced.
- 3-2 The proponent shall provide the CEO of the Department of Environment and Conservation 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 prepare and submit a compliance assessment plan to the satisfaction of the CEO of the Department of Environment and Conservation prior to implementation of the proposal and at least six months prior to the first compliance report required by condition 4-6, which ever is sooner. The compliance assessment plan shall indicate:
 - 1. the frequency of compliance reporting;
 - 2. the approach and timing of compliance assessments;
 - 3. the retention of compliance assessments;
 - 4. reporting of potential non-compliances and corrective actions taken;
 - 5. the table of contents of compliance reports; and
 - 6. public availability of compliance reports.
- 4-2 The proponent shall implement and maintain, to the satisfaction of the CEO of the Department of Environment and Conservation, the compliance assessment plan required by condition 4-1.
- 4-3 The proponent shall assess compliance with conditions in accordance with the compliance assessment plan required by condition 4-1.

- 4-4 The proponent shall retain reports of all compliance assessments described in the compliance assessment plan required by condition 4-1 and shall make those reports available when requested by the CEO of the Department of Environment and Conservation.
- 4-5 The proponent shall advise the CEO of the Department of Environment and Conservation of any potential non-compliance within two business days of that non-compliance being known to the proponent.
- 4-6 The proponent shall submit a compliance assessment report annually from the date of issue of this Implementation Statement addressing the previous twelve month period or other period as agreed by the CEO of the Department of Environment and Conservation. The compliance assessment report shall:
1. be endorsed by the proponent's Managing Director or a person, approved in writing by the Department of Environment and Conservation, delegated to sign on the Managing Director's behalf;
 2. include a statement as to whether the proponent has complied with the conditions;
 3. identify all potential non-compliances and describe corrective and preventative actions taken;
 4. be made publicly available in accordance with the approved compliance assessment plan; and
 5. indicate any proposed changes to the compliance assessment plan required by condition 4-1.

5 Performance Review and Reporting

- 5-1 The proponent shall submit to the CEO of the Department of Environment and Conservation Performance Review Reports at the conclusion of the second, fourth, sixth and eighth years after the commencement of mining and then, at such intervals as the CEO of the Department of Environment and Conservation may regard as reasonable, which address:
1. the major environmental risks and impacts; the performance objectives, standards and criteria related to these; the success of risk reduction/impact mitigation measures and results of monitoring related to the management of the major risks and impacts;
 2. the level of progress in the achievement of best practice environmental performance, including industry benchmarking, and the use of best available technology where practicable; and
 3. improvements gained in environmental management which could be applied to this and other similar projects.

6 Flora, Vegetation and Aquatic Ecosystems

6-1 At all times, the proponent shall ensure that:

1. water availability is actively managed for the protection of groundwater dependent ecosystems within Vegetation Areas 6 and 7 as delineated in Figure 23 of the Public Environmental Review document (Iluka, 2008 - refer to Schedule 1);
2. dewatering does not adversely affect aquatic ecosystems in Woddidup Creek and the Abba River; and
3. mining operations including dewatering and excavation, are managed to minimise adverse affects on vegetation outside the approved clearing footprint including groundwater dependent ecosystems within Vegetation Areas 19a, 34a, 46a, 46b, 47, 51 and 26 as delineated in Figure 23 of the Public Environmental Review document (Iluka, 2008).

6-2 The proponent shall establish a monitoring programme for the following parameters:

1. visual indications of vegetation health in the State Forest No.33 and Reserve 22455 within 50 metres of mining operations, in areas containing groundwater dependent ecosystems as delineated in Figure 23 of the Public Environmental Review document (Iluka, 2008), and along creek lines;
2. soil moisture in areas containing groundwater dependent ecosystems as delineated in Figure 23 of the Public Environmental Review document (Iluka, 2008); and
3. the seasonal existence of pools suitable as refugia for aquatic fauna in nearby seasonal creeks.

This monitoring shall be carried out before, during and for at least 12 months after dewatering and mining has ceased, on at least a fortnightly basis or at a monitoring frequency that is to the satisfaction of the Department of Environment and Conservation.

6-3 The proponent shall submit annually the results of the monitoring required by condition 6-2 to the CEO of the Department of Environment and Conservation.

6-3 In the event that the requirements of condition 6-1 are not met or are not likely to be met, the proponent shall provide artificial recharge with water of similar quality, or immediately provide alternate proposed management measures to the CEO of the Department of Environment and Conservation.

7 Groundwater

7-1 At all times, the proponent shall limit groundwater drawdown from the proposal so that the underlying potential acid sulfate soils remain saturated.

7-2 The proponent shall monitor acidity on a daily basis for a period of three months after the groundwater level is within three metres of the potentially acid sulfate soils, as measured at any monitoring point, to demonstrate acidic waters are not generated, and thereafter monitor to the requirements of the CEO of the Department of Environment and Conservation.

7-3 At all times the proponent shall ensure that groundwater drawdown from the proposal does not adversely impact on yield of landowner bores.

Notwithstanding this, should the yield decline such that existing uses cannot be maintained, the proponent shall immediately provide suitable make-up water to landowners to maintain these services.

7-4 At all times the proponent shall ensure that the proposal does not adversely impact on the quality of landowner bore water supply.

Notwithstanding this, should the quality decline such that existing uses cannot be maintained, the proponent shall immediately provide suitable make-up water to landowners to maintain these services.

7-5 At all times, the proponent shall ensure that any groundwater contaminated as a consequence of mining operations does not impact on:

1. the health of surface water ecosystems; and
2. the beneficial use of surface water streams and landowner bores down-gradient of the source of contamination.

by monitoring:

- i) dewater prior to discharge to ensure that the receiving water does not change its compliance status with the Australian and New Zealand Environment and Conservation Council and Agriculture and Resource Management Council of Australia and New Zealand (2000) *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (ANZECC & ARMCANZ,2000) relevant to the receiving water beneficial use(s);
- ii) bores located near the mine-site boundary, on a monthly basis, to provide early warning of migrating contaminated groundwater, with trigger levels for intervention set, in consultation with the Department of Water, at an allowable variation from background levels of 20% alkalinity, acidity, pH and electrical conductivity; and
- iii) bores located near the receptors listed above, on a quarterly basis for the first year and thereafter at a frequency that is to the satisfaction of the Department of Environment and Conservation, to ensure groundwater in the vicinity does not change its compliance status with the appropriate guidelines provided by ANZECC & ARMCANZ(2000).

7-6 The proponent shall submit annually the results of the monitoring of groundwater required by condition 7-2 and 7-5 to the CEO of the Department of Environment and Conservation and the Department of Water.

7-7 The proponent shall, within five business days, provide proposed management measures to the CEO of the Department of Environment and Conservation in the event that the requirements of conditions 7-2 and 7-5 are not met or are not likely to be met.

8 Closure and Rehabilitation

8-1 Prior to commencement of dewatering operations the proponent shall have carried out a comprehensive botanical survey of the lower Whicher slope area adjacent to the mine site to the requirements of the Department of Environment and Conservation, to serve as the basis for rehabilitation.

8-2 Prior to commencement of ground disturbing activities, the proponent shall conduct surveys of the proposal area to collect baseline information, including photographic records, on the following:

1. Pre-mining soil profiles;
2. Groundwater levels;
3. Surface water flows;
4. Vegetation complexes;
5. Landscape and landforms; and
6. Material characterisation.

8-3 The proponent shall submit a Rehabilitation and Mine Closure Plan acceptable to the Director General of the Department of Mines and Petroleum and the Director General of the Department of Environment and Conservation within 12 months of the commencement of ground disturbing activities.

The Rehabilitation and Mine Closure Plan shall provide for specific outcomes for:

1. landform design and material characterisation;
2. re-establishment of the soil profile to ensure wetland repair to emulate the pre-mining hydraulic properties;
3. remediation of acid sulfate soils and contaminated groundwater generated by mining operations;
4. re-establishment of vegetation within the rehabilitation area to be comparable with that of the pre-mining vegetation such that the following criteria are met:
 - i) species diversity not less than 70 percent of the known original species diversity within three years following the cessation of productive mining;
 - ii) priority flora re-established with not less than 50 percent success after three years and 65 percent success after five years following the cessation of productive mining; and
 - iii) weed coverage less than 10 percent within three years following the cessation of productive mining;
5. progressive rehabilitation timelines and monitoring against key performance indicators; and

6. annual reporting procedures.

9 Noise

Construction Phase

- 9-1 The proponent shall establish, in consultation with the Department of Environment and Conservation:
1. the program for each phase of construction work;
 2. the design and justification for construction of noise bunds;
 3. a process to notify the affected community of expected higher noise levels during construction; and
 4. a procedure to minimise the noise impacts during construction.

Construction and Mining Phases

- 9-2 The proponent shall ensure compliance with the *Environmental Protection (Noise) Regulations 1997* by undertaking measures including but not limited to:
1. ensuring that the noise power level of each piece of equipment does not exceed the noise power level assumed for the noise modelling in the submitted Public Environmental Review (Iluka, 2008); and
 2. monitoring noise levels at potentially affected residences using methods acceptable to the Department of Environment and Conservation.
- 9-3 The proponent shall submit annually the results of the noise monitoring required by condition 9-2 to the CEO of the Department of Environment and Conservation.
- 9-4 The proponent shall, within five business days, provide proposed management measures to the CEO of the Department of Environment and Conservation in the event that the requirements of conditions 9-2 are not met or are not likely to be met.

Procedures

1. Where a condition states “on advice of the Environmental Protection Authority”, the Environmental Protection Authority will provide that advice to the Department of Environment and Conservation for the preparation of written notice to the proponent.
2. The Environmental Protection Authority may seek advice from other agencies or organisations, as required, in order to provide its advice to the Department of Environment and Conservation.
3. The Minister for Environment will determine any dispute between the proponent and the Environmental Protection Authority or the Department of Environment and Conservation over the fulfilment of the requirements of the conditions.
4. Where a condition lists advisory bodies, it is expected that the proponent will obtain the advice of those listed as part of its compliance reporting to the Department of Environment and Conservation.

5. 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*.

Hon Donna Faragher JP MLC
MINISTER FOR ENVIRONMENT; YOUTH

Schedule 1

The Proposal (Assessment No. 1660)

General Description

The proposal is to mine the Tutunup South Mineral Sands Project located approximately 15 kilometres southeast of Busselton on Lots 2, 1827 and 1828 and part of Lots 441, 442, 1268, 1813, 1829 and part of Crown Reserve 22455, Hithergreen and part of State Forest 33 Yoganup. Mining is to extend approximately 15 metres below ground level and will require dewatering.

The proposal and potential impacts are described in the document, *Tutunup South Mineral Sands Project*, Public Environmental Review (April, 2008).

The major components of the project include:

- Minesite – progressive mining and rehabilitation, an in-pit hopper, screenplant, concentrator, workshops, fuel storage areas, solar drying dams, a process water dam and ancillary infrastructure including offices and pipelines;
- Processing – ore would be screened and processed through the on-site concentrator at an anticipated throughput of 200 tonnes per hour to produce Heavy Mineral Concentrate (HMC). This HMC would be transported to Capel for further processing.

Summary Description

A summary of the key proposal characteristics is presented in Table 1.

Table 1 – Summary of Key Proposal Characteristics

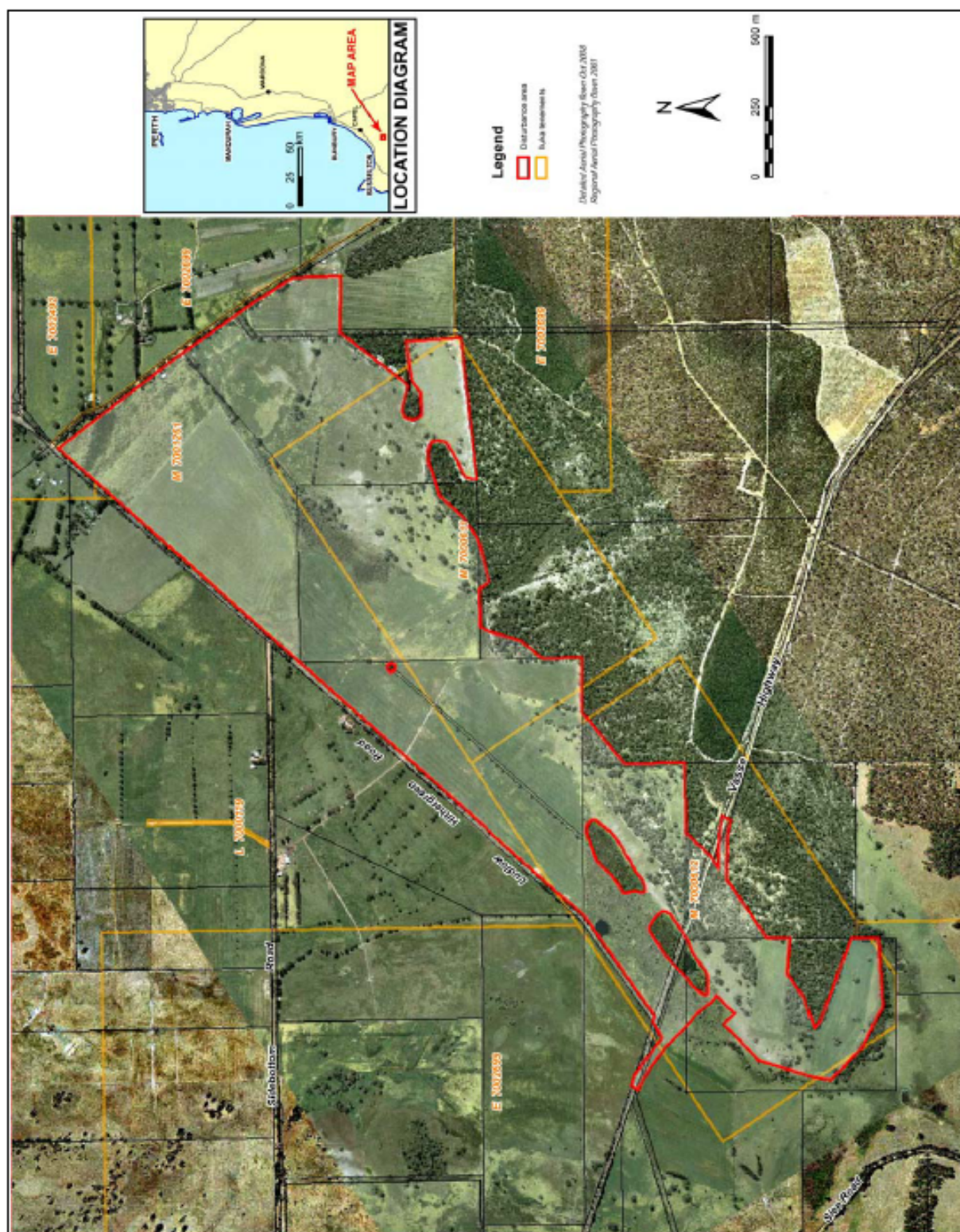
Element	Description
Life of mine (mine production)	5 – 6 years
Depth of mine	Up to approximately 15m below ground level
Mineable Reserve	Approximately 10.4 million tonnes
Area of disturbance	up to 232 hectares
Vegetation Disturbance	up to 31.6 hectares
Hours of Operation	24 hours a day, 7 days a week
Processing equipment	Mining Unit and Concentrator
Anticipated Throughput Rate	200 tonnes per hour
Heavy Mineral Concentrate Production	Approximately 1,200,000 tonnes over the life of the project
Water Supply Sources	
Superficial/Leederville aquifer	approximately 1040 ML per year
Yarragadee aquifer	approximately 1,500 ML per year

Figures (attached)

Figure 1 – Site Location

Figure 2 - Revised Roberts Offset Block

Figure 3 – Groundwater Drawdown



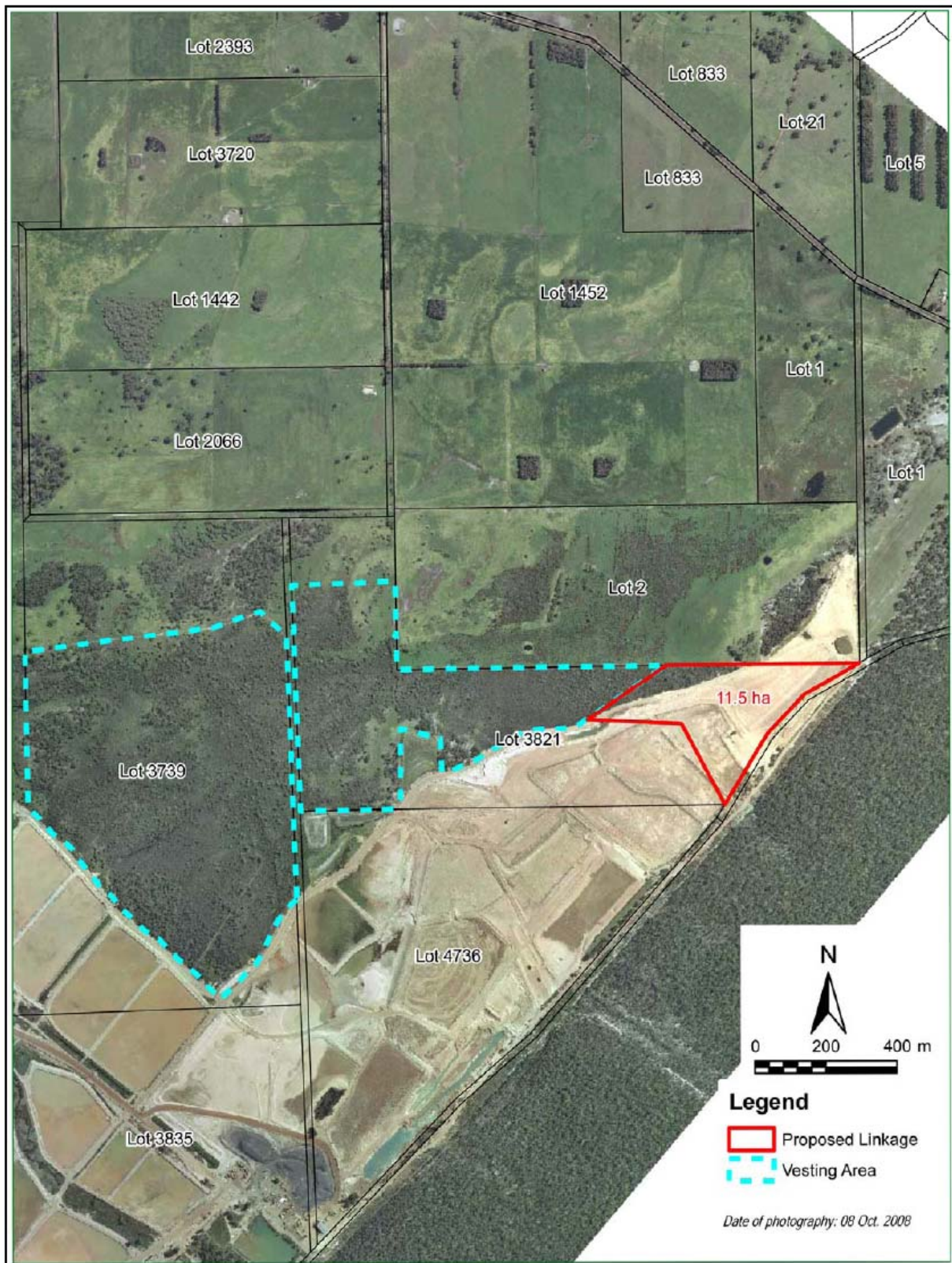
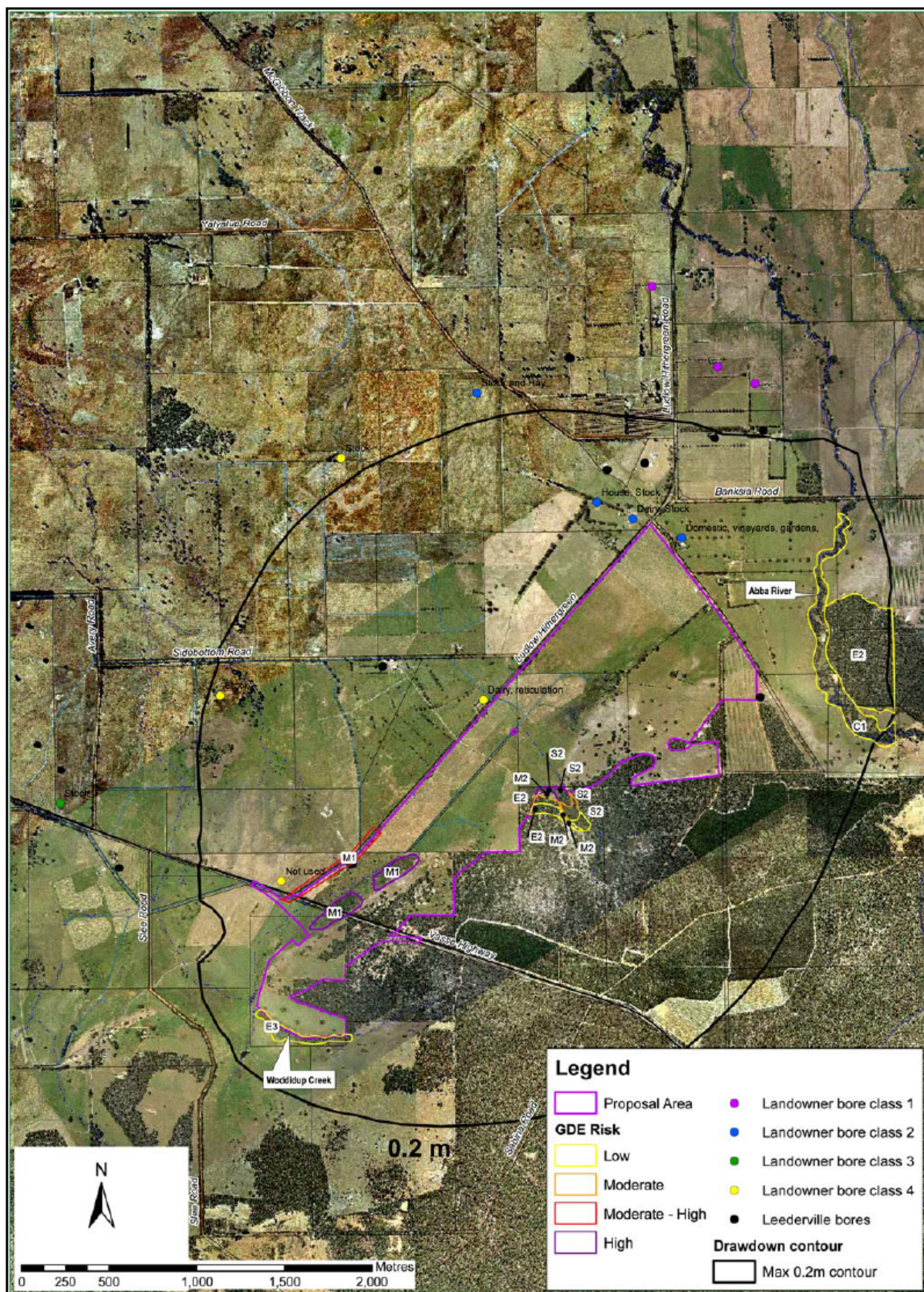


Figure 2: *Revised Roberts Offset Block*



Attachment 1 to Ministerial Statement 799

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

This Attachment replaces Schedule 1 of Ministerial Statement 799

Proposal: Tutunup South Mineral Sands Project

Proponent: Iluka Resources Limited

Changes:

- Amendment to disturbance boundary to remove the deviation of Vasse Highway and correct errors with wetland mapping.
- Reduction in disturbance area by 1.4 ha and removal of various elements not considered environmentally relevant or managed under other legislation.

Table 1: Summary of the Proposal

Proposal Title	Tutunup South Mineral Sands Project
Short Description	The proposal is to mine the Tutunup South Mineral Sands Project located approximately 15 kilometres southeast of Busselton on Lots 2, 1827 and 1828 and part of Lots 441, 442, 1268, 1813, 1829 and part of Crown Reserve 22455, Hithergreen and part of State Forest 33 Yoganup. Mining is to extend approximately 15 metres below ground level and will require dewatering.

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

Element	Location	Previously Authorised Extent	Authorised Extent
Life of Mine (mine production)	N/A	5-6 years	Removed as not a significant key characteristic relevant to the environment.
Depth of Mine	Located within the development envelope as shown in Figure 1.	Up to approximately 15m below ground level	Up to approximately 15m below ground level
Mineable Reserve	N/A	Approximately 10.4 million tonnes	Removed as not a significant key characteristic relevant to the environment.
Area of Disturbance	Located within the development envelope as shown in Figure 1.	Up to 232 ha	Up to 230.6 ha

Element	Location	Previously Authorised Extent	Authorised Extent
Vegetation disturbance	Located within the development envelope as shown in Figure 1.	Up to 31.6 ha	Up to 31.6 ha
Hours of Operation	N/A	24 hours a day, 7 days a week	Removed as not a relevant key characteristic.
Processing equipment	Located within the development envelope as shown in Figure 1.	Mining unit and Concentrator	Removed as not a significant key characteristic relevant to the environment.
Anticipated throughput rate	N/A	200 tonnes per hour	Removed as not a significant key characteristic relevant to the environment.
Heavy Mineral Concentrate Production	N/A	Approximately 1,200,000 tonnes over the life of the project	Removed as not a significant key characteristic relevant to the environment.
Water Supply Sources Superficial/Leederville aquifer Yarragadee aquifer	N/A	Approximately 1,040 ML per year Approximately 1,500 ML per year	Removed as managed under the <i>Rights in Water and Irrigation Act (1914)</i>

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

Table 3: Abbreviations

Abbreviation	Term
ha	hectare
km	kilometre
GL	gigalitre
N/A	Not applicable

Figures (attached)

Figure 1 - Disturbance Area of the Tutunup South Mine Site;

Figure 2 - Revised Roberts Offset Block ; and

Figure 3 - Location and Groundwater Drawdown.

[Signed 27 May 2014]

Dr Paul Vogel

CHAIRMAN

Environmental Protection Authority
under delegated authority

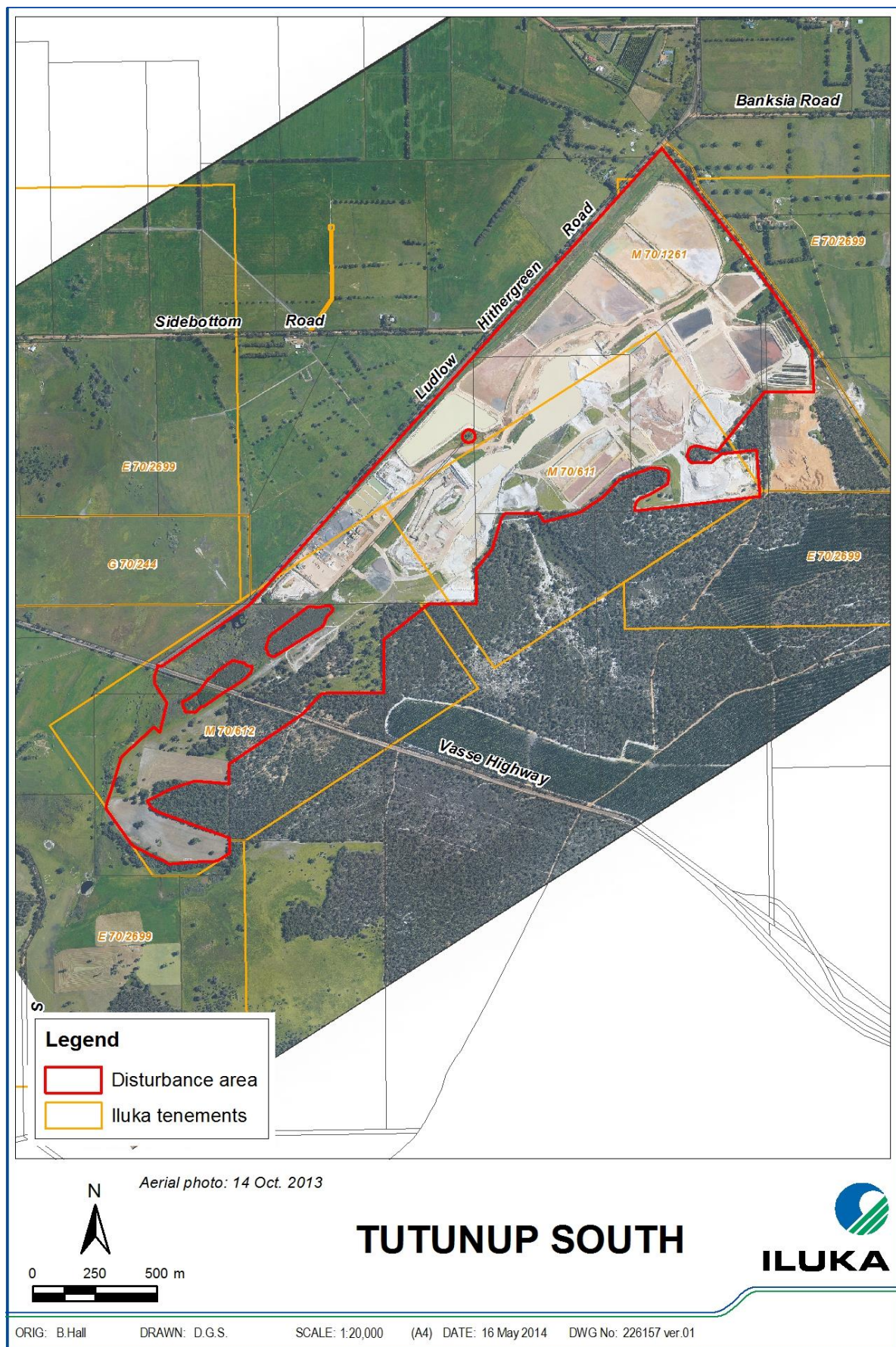


Figure 1: Disturbance Area of the Tutunup South Mine site

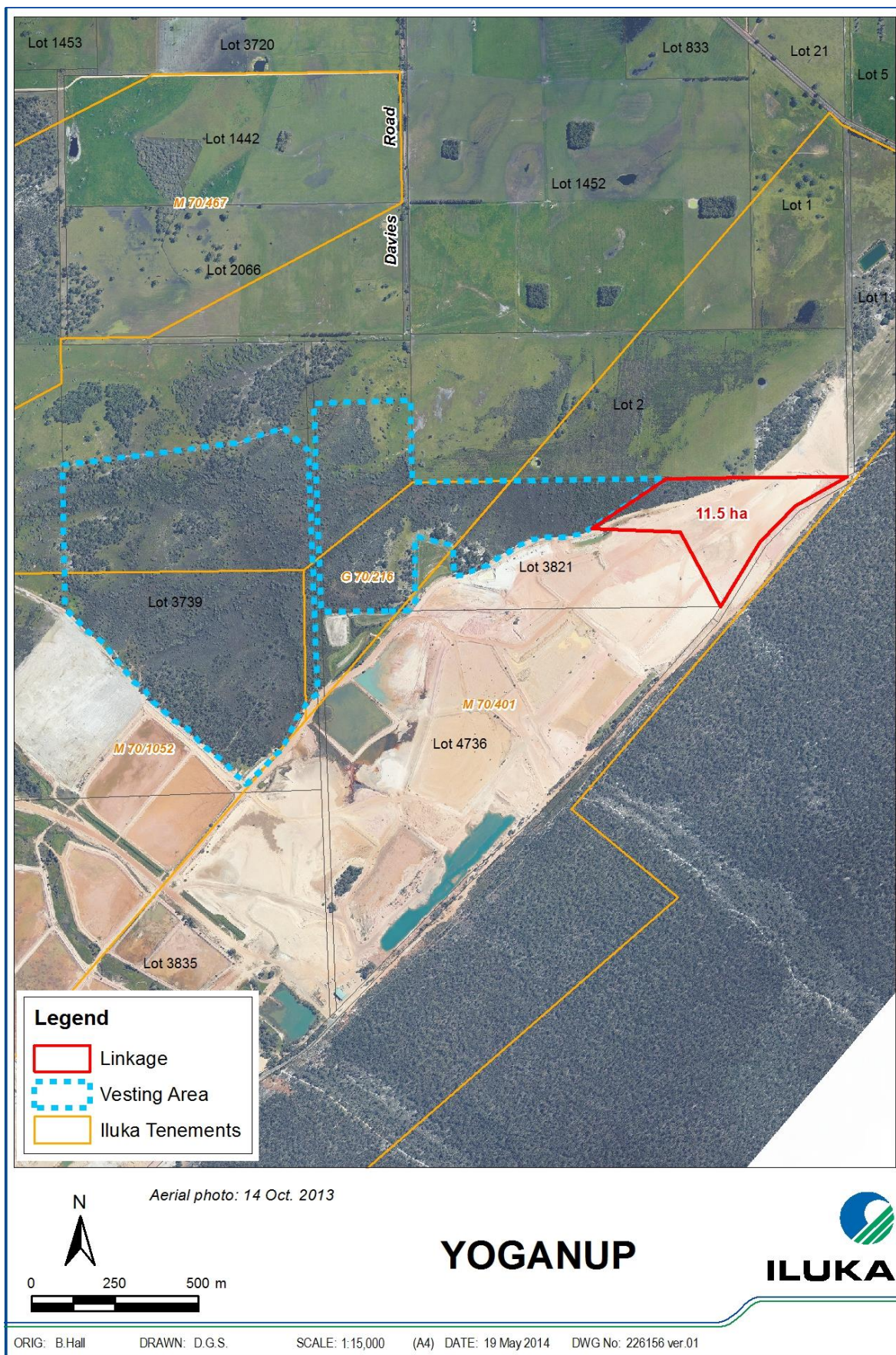


Figure 2: Revised Roberts Offset Block

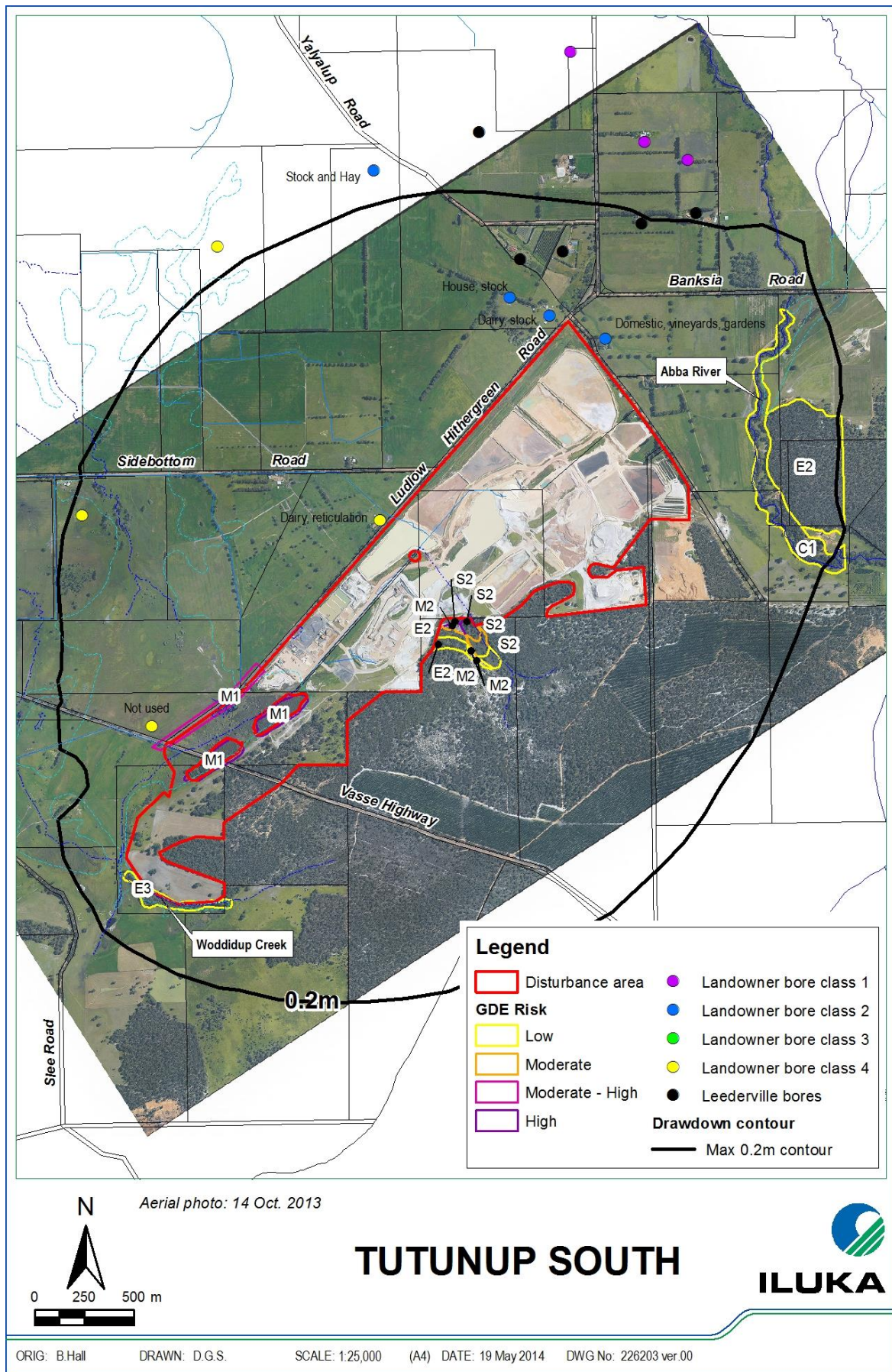


Figure 3: Location and Groundwater Drawdown