SCIENTISTS
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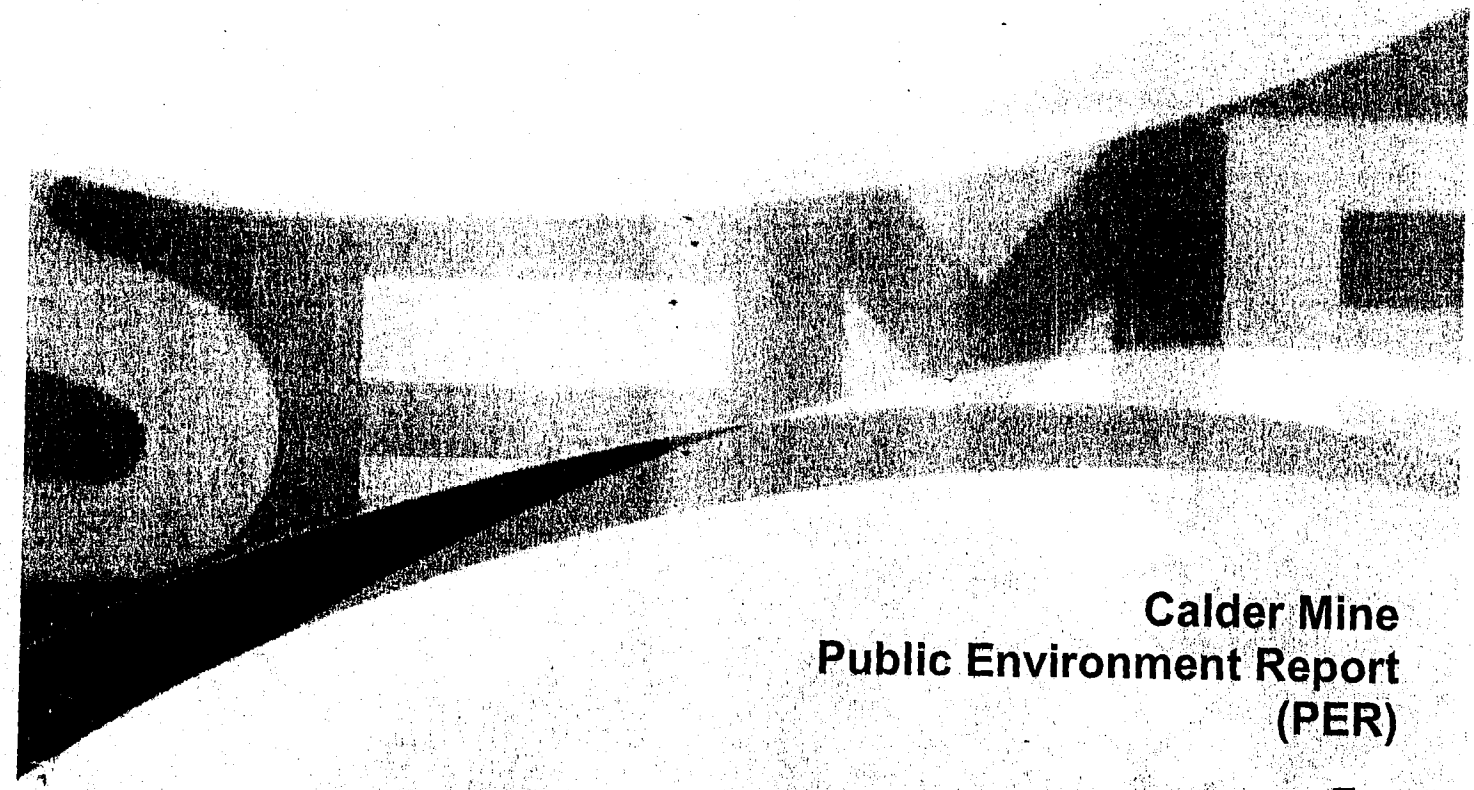
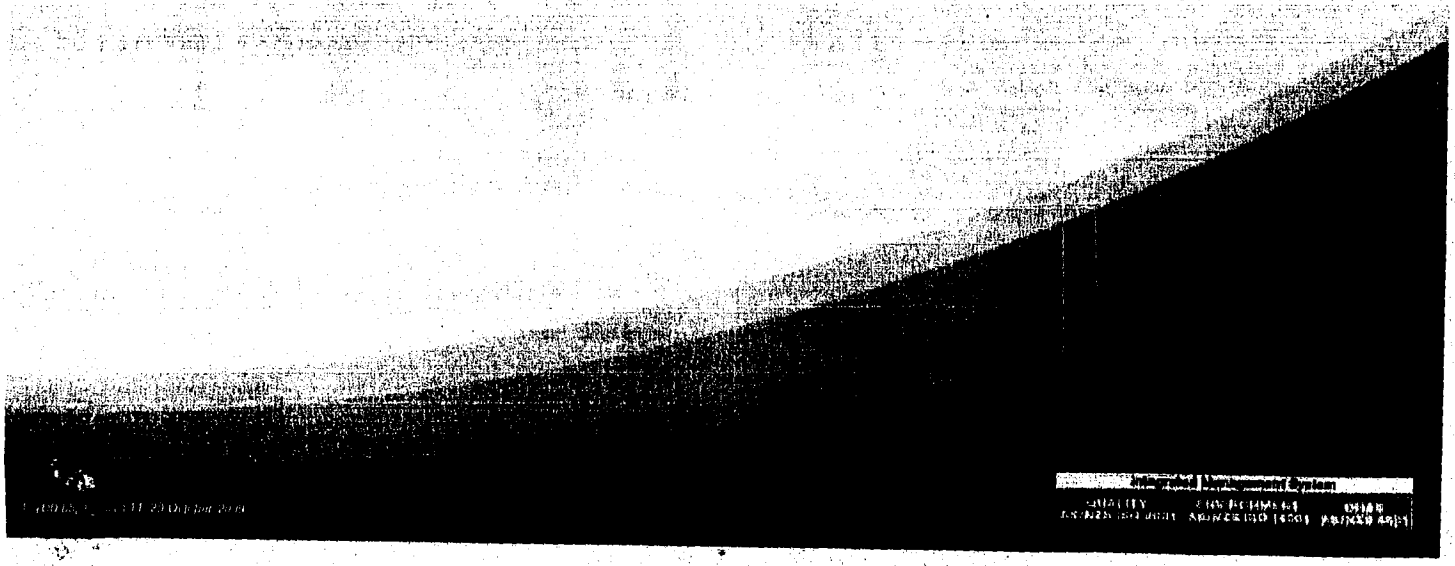


Calder Mine
Public Environment Report (PER)

For
Hanson Construction Materials Pty Ltd

April 2010
Revision 1

Project No: 1233.002



Hanson
HEIDELBERGCEMENT Group

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www.hanson.biz

29 April 2010

I endorse the 2010 Public Environment Report for Hanson Construction Materials Pty Ltd's ("Hanson") Calder Quarry in Tasmania.

Hanson take its environmental obligations seriously and recognise it is an essential part of sustainable business practice.

Kevin Gluskie
Chief Executive

CONTENTS

REPORT ISSUE AUTHORISATION

PROJECT: Calder Public Environmental Report **Project No:** 1233.002

AUTHOR: Dick Shaw
BSc.Hons.Mst.Env.Pln

Date	Purpose of Issue/Nature of Revision	Rev	Reviewed by	Issue Authorised by
25/11/09	Draft for Client Review	0	JA	JA
01/04/10	Amended Report for Client	1	JA	JA

This Report has been prepared in accordance with the scope of services agreed upon between SEMF Pty Ltd (SEMF) and the Client. To the best of SEMF's knowledge, the report presented herein represents the Client's intentions at the time of printing of the report. However, the passage of time, manifestation of latent conditions or impacts of future events may result in the actual contents differing from that described in this report. In preparing this report SEMF has relied upon data, surveys, analysis, designs, plans and other information provided by the client, and other individuals and organisations referenced herein. Except as otherwise stated in this report, SEMF has not verified the accuracy or completeness of such data, surveys, analysis, designs, plans and other information.

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This report does not purport to provide legal advice. Readers should engage professional legal advisers for this purpose.

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Figures

Appendices

1. INTRODUCTION

1.1 Scope of Report

This Public Environmental Report has been produced to inform stakeholders about Hanson's environmental activities at its Calder quarry in northern Tasmania. The production of this report is also intended to support an application for Annual Fee Remission.

1.2 Reporting Period

This PER covers activities between November 2008 and November 2009.

2. COMPANY PROFILE

Hanson Construction Materials is a wholly owner subsidiary of Heidelberg Cement. Heidelberg Cement is a global market leader in aggregates and is a prominent player in the fields of cement, concrete and other downstream activities, making it one of the world's largest manufacturers of building materials. In 2008, Group turnover amounted to approximately EUR 14 billion. The core activities of Heidelberg Cement include the production and distribution of cement and aggregates, the two essential raw materials for concrete.

Hanson itself is one of the world's leading heavy building materials companies with an annual turnover of more than AUD$9 billion. Hanson is one of the Australia's largest producers of aggregates – crusher dust, crushed rock, sand and gravel - and one of the largest producers of concrete products, clay bricks and concrete in the world. Other principal products include asphalt and concrete roof tiles. In Australia, Hanson currently operate 229 ready-mixed concrete plants and 56 aggregate operations.

Hanson meet their own demanding internal quality standards for aggregates for their large premixed concrete and asphalt operations. Hanson also meet the quality needs of our external customers in the building and construction sectors.

Hanson operate a large fleet (more than 1,500 trucks) of company and contractor owned trucks for delivery of aggregates to our customers. Hanson also use ships and rail transport where appropriate.

All Hanson quarries meet Australian Standards for quarry products. Hanson have over 40 years of experience and depth of technical resources to ensure that Hanson stay in the forefront of technological advances in quarrying.

Hanson also produce manufactured sand as a sustainable long-term option to depleting natural sand deposits in Australia.

Hanson pride themselves on the quality of site revegetation and quarry rehabilitation and have won numerous awards for environmental excellence.

2.1 Environmental Policy

Hanson has an Environmental Policy (see **Figure 1**) and this was last reviewed in April 2009. The Environmental Policy is considered to be compliant with ISO140001.

Hanson also has in place an Energy Management Policy and a Water Management Policy (see **Figures 2** and **3**).

Hanson
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ENVIRONMENTAL POLICY

POLICY

Hanson accepts the responsibility for environmental protection which is integral to the conduct of its commercial operations.

Hanson is committed to:

- **Operating practices** which seek to minimise impacts, prevent pollution and minimise the likelihood of environmental harm through work and management practices, continual improvement, training and the use of new technology;
- **Compliance** with all applicable environmental laws and regulations and Codes of Practice in existing operations, new developments and upgrades;
- **Management review** of environmental objectives and targets;
- **Waste management** to minimise wastes, develop viable recycling opportunities, and ensure proper handling and disposal methods;
- **Product development** which seeks to combine commercial viability and efficient use and conservation of resources;
- **Environmental assessment** of new projects, asset purchases, sales and existing operations;
- **Environmental Incident Response** – contingency plans to minimise health, safety and environmental risks;
- **Rehabilitation** of areas affected by business operations;
- **Communication** of the Hanson environmental policy to employees and contractors
- Striving to meet **Community Expectations** through consultation within Hanson and with other relevant bodies, community groups and neighbours about environmental matters of common concern.
- **Water Management** is integral to achieving sustainability, balancing today's needs with those of the future. *(Refer to Water Policy for more information) and:*
- **Energy management** is integral to managing greenhouse gas emissions from our operations and thus abate the impact of our business on the climate. *(Refer to Energy Management Policy for more information)*

Hanson will encourage concern and respect for the environment and will emphasise every employee's responsibility for environmental performance.

Kevin Gluskie
Chief Executive
1 April 2009
Replaces version 1/7/2004

Hanson
HEIDELBERGCEMENTGroup

ENERGY MANAGEMENT POLICY

POLICY

Hanson accepts the responsibility for energy management which is integral to managing greenhouse gas emissions from our operations and thus abate the impact of our business on the climate.

Hanson is committed to:

- Measuring and reporting the carbon dioxide footprint of our business operations through our energy management process;
- Setting sustainable carbon dioxide emission reduction targets for our operations;
- Working with the supply chain (upstream and downstream), where possible, to reduce the carbon dioxide emissions associated with Hanson's business operations;
- Improving employee awareness and encouraging the sharing of experience and expertise between and amongst businesses;
- Operating practices which seek to minimise impacts through work and management practices, continual improvement, training and the use of new technology;
- Compliance with all applicable energy management laws and regulations and Codes of Practice in existing operations, new developments and upgrades;
- Management review of energy objectives and targets;
- Communication of this policy; and
- Consultation within Hanson and with other relevant bodies, community groups and neighbours about energy management matters of common concern.

Kevin Gluskie
Chief Executive
1 April 2009
Replaces version 1/1/2007

Hanson
HEIDELBERGCEMENTGroup

WATER MANAGEMENT POLICY

POLICY

Hanson accepts the responsibility for water management which is integral to achieving sustainability, balancing today's needs with those of the future.

Hanson is committed to:

- Measuring and reporting the water usage of our business operations through our environmental management system;
- Setting sustainable water reduction targets for our operations;
- Identifying water wastage and implementing practices and/or technology to meet our commitment and targets.
- Working with the supply chain (upstream and downstream), where possible, to reduce the water usage associated with Hanson's business operations;
- Improving employee awareness and encouraging the sharing of experience and expertise between and amongst businesses;
- Operating practices which seek to minimise impacts through work and management practices, continual improvement, training and the use of new technology;
- Compliance with all applicable water usage laws and regulations and Codes of Practice in existing operations, new developments and upgrades;
- Management review of water usage objectives and targets;
- Communication of this policy; and
- Consultation within Hanson and with other relevant bodies, community groups and neighbours about water management matters of common concern

Kevin Gluskie
Chief Executive
1 April 2009
Replaces version 1/1/2007

3. PERMIT CONDITIONS

Licence No. 3387 was issued by the Department of Environment and Planning in 1992. A copy of the Licence can be found at appendix A. Permit conditions relate primarily to air emissions, rehabilitation and effluent disposal.

4. ENVIRONMENTAL LEGISLATION

The following is a list of relevant environmental legislation, regulations, statutory policies and guidelines that impose environmental obligations on the project:

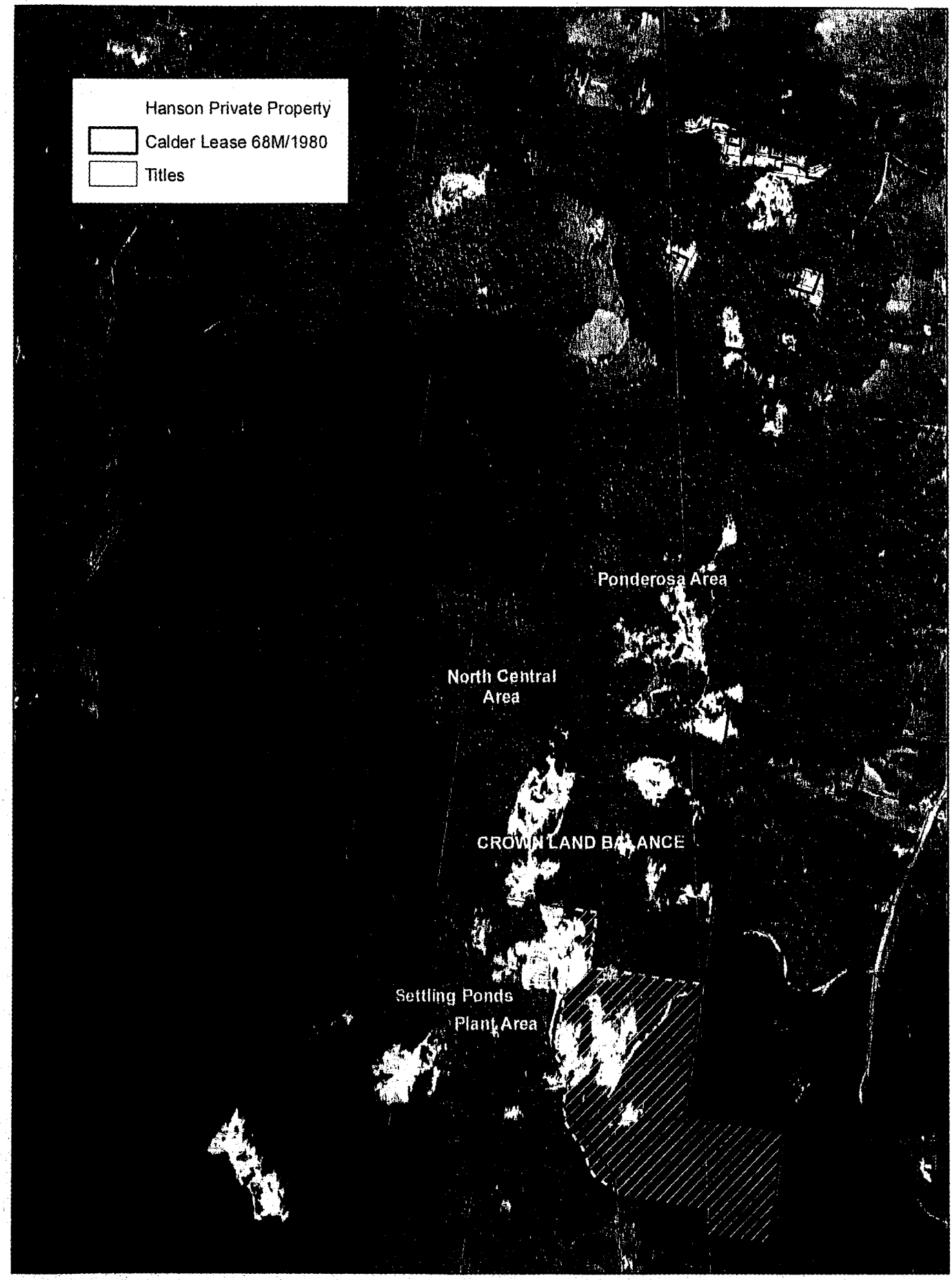
- Environmental Management and Pollution Control (General Fees) Regulations. *Annual Fee Remission Guidelines*. Board of Environmental Management and Pollution Control *2007*.
- *Environmental Management and Pollution Control Act 1994.*
- *Land Use Planning and Approvals Act 1993.*
- Quarry Code of Practice *1999*.
- *Environment Protection Policy (Noise) 2009.*
- *State Policy on Water Quality Management 1997.*
- *Environmental Protection Policy (Air Quality) 2004.*

5. DESCRIPTION OF ACTIVITY

5.1 Location of Calder Quarry

Map Name: Hellyer (Tasmap 1:100,000 Topographic Series)
Map Coordinates: 38444549
File Reference: 037315
Mining Lease: 68M/1980

The quarry is located approximately 15km southwest of Wynyard on the states northwest coast and is accessed via Calder Road (see **Figure 4** for Site Location).



Hanson Construction Materials

Figure 4: Site Location, Lease and Land Tenure

SEMF SCIENTISTS ENGINEERS MANAGERS & FACILITATORS

ENVIROPAC

Website: www.semf.com.au

Datum: GDA94
Grid: MGA Zone 55
Date: 27 November 2009
Prepared by: SEMF Pty Ltd
TasMap: CALDER 3845

Project: 1233.002
Client: Hanson Construction Materials

0 250 500 Meters

5.2 Site Description

The lease covers an area of 360 hectares, of which approximately 43 hectares is owned by Hanson, with the balance titled Crown Land. Access to the site is via a private road off Calder Road. The Hanson private property is located in the southeast corner of the Lease which includes parts of the areas referred to as 'Central Area and the Plant Area'. The remaining areas within the Lease are named the Southwest Pit Areas 1 and 2, the North Central Area, Ponderosa Area and North area. These areas were worked by previous owners who included Brambles and Besser and are now subject to a whole-of-lease Rehabilitation Plan.

The lease area generally sits between 100-150m ASL, however a depression runs north/south through the centre of the lease which drops to approximately 60m ASL and drains towards the north. Much of the Hanson owned lease consists of undisturbed native vegetation.

Calder Road runs roughly north/south along the east of the lease. A thin strip of agricultural land radiates east and west of Calder Road. The area has very low residential density with the closest permanent resident approximately 1km east of the quarry. A large eucalypt plantation directly east of the lease divides the north/south agricultural strip. More isolated agricultural properties are located approximately 1km to the south of the lease. West of the lease is a large expanse of native forest intersected only by Preolenna Road; there are no known residential properties within 2km west of the quarry.

5.3 Production

In 1992, the site was licensed by the then Department of Environment and Planning to produce 66,000 m^3 per annum.

Current production levels at Calder are approximately 22,000m^3 per annum.

5.4 Overview of Operations

The Calder Quarry is a relatively simple operation that involves the extraction and processing of sandy deposits and gravel beds. There have been no significant changes to operations for 4 years.

Since acquiring the Lease, Hanson has continued to work only pre-existing quarry faces and under current projections there is no short-term plan to develop new areas within the Hanson owned lease. The active part of the quarry consists of several small faces each of which produce different types of aggregate.

A single excavator is used to work any one of a number of faces depending on the class of the material required. The excavator loads a 35 tonne six-wheeled articulated truck which transports the material to the feed bin. Extracted material is transported a short distance to the plant area for processing then stockpiled ready for transport. The material is passed through a vibrating screen deck to sort class of materials prior to it entering the washery to remove silt fractions.

Material 25mm or greater is either passed through to the crusher or cast to a stockpile for later use (i.e. to be crushed to smaller size class or used as fill for rehabilitation purposes).

Infrastructure on the site is limited to a small crib/administration building and a hard-stand provided for maintenance activities and storage of fuels.

The mine employs two full-time staff.

5.4.1 *Plant Equipment and Machinery*

The following equipment and machinery are used in the Calder quarry:

- Front-end loader to load transport vehicles
- Face excavator to work the pit and fill Volvo truck
- Volvo truck (35t 6-wheel articulated) to transport excavated material from pits to mill complex
- Hopper (storage/feed bin)
- Series of size class screens (vibrating screen deck)
- Washer
- Crusher

5.5 Product Markets

The Calder Quarry produces two types of products: sand and gravel. Gravel represents approximately 25% of gross product. Sand is available in two size classes (1.6mm & 3mm) and gravel in five size classes (4mm, 8mm, 10mm, 15mm & 21mm). The primary use for sand is as a basal constituent of Hanson concrete and the gravel (often referred to as 'stone') is used as road base, concrete fill and for ornamental purposes (e.g. driveways & paths).

The markets for Calder quarry products are Hanson's own concrete and construction activities, however, the quarry also sells direct to the public, private industry and government departments.

5.6 Raw Materials

No raw materials are required for the operation. Raw materials are extracted, screened and/or crushed, then stockpiled for sale.

5.7 Pollution Discharges and Control Measures

5.7.1 *Air Emissions*

The quarry produces two types of air emissions:

- Exhaust from machinery, equipment and vehicles, and
- Dust as a result of extraction, handling, processing, traffic and windy conditions.

Exhaust emissions are minimised through regular maintenance of all equipment, machinery and onsite vehicles. Dust emissions are managed in a number of ways including:

- Restricting extractive activities during periods of excessive wind;
- Low maximum vehicle speed onsite;
- Use of truck covers when transporting fine/dry materials;
- Minimising the total disturbed area, supported with progressive rehabilitation;
- Wet processing circuit (i.e. water suppresses dust during screening and crushing); and,
- Retention of on-site vegetation.

5.7.2 *Noise Emissions*

Noise emissions are produced by the crusher, mobile equipment and traffic movements. No specific noise management measures are in place. Noise emissions are largely controlled by the local topography combined with significant 'separation distances'.

5.7.3 *Water Emissions*

Water is an essential component of the processing circuit and is used to control dust emissions generated during screening and crushing, plus is used to remove silt fractions post crushing.

The processing plant is linked to a closed-loop water circuit; therefore all process water is recycled preventing release to the external environment. Used process water drains to a large settlement pond located downhill from the processing plant, from which water is pumped (electric) back to the plant as required.

Circuit water losses (e.g. evaporation) do occur and are supplemented by bore water sourced adjacent to the plant; however given the regions high annual rainfall this is a rare occurrence. Rainfall (i.e. stormwater) from disturbed areas including the road network and plant footprint is also diverted to the settlement pond. Stormwater that falls near open quarries is directed in to the quarries themselves via a series of diversion berms and cut-off drains.

Stormwater/surface water management is under constant review. Given the nature of the topography and geology, the area is very dynamic and the pattern of water flow can change rapidly. The aim of stormwater/surface water management is to divert and store sediment laden waters to promote settlement of particulates and to restrict the movement of stormwater offsite.

Water for essential services such as crib and amenities is topped up from the creek via a metered pump.

5.7.4 *Hazardous Materials*

Limited hazardous materials are stored on site. Machinery such as the front-end loader, excavator and articulated truck all run on diesel which is stored on-site in an approved underground storage tank. Motor oil and lubricants are stored in a bunded area and spill kits are provided. All mechanical works are undertaken in

the workshop area to prevent soil/land contamination. Oxy-acetylene is securely stored in a caged area that complies with Workplace Standards Tasmania and Hanson's own OH&S requirements.

To improve safe handling techniques and thus reduce the likelihood of a spill event, the quarry is changing from 44 gallon storage drums to 25 litre storage drums for waste oil.

MSDS are provided with all potentially hazardous products and materials

Strict pollution control measures coupled with practical Standard Operating Procedures (SOP's) and staff training programs in the safe handling, use and storage of hazardous chemicals and products has to date prevented land contamination.

5.7.5 *Solid Waste*

Waste products are limited to general refuse, used oils, lubricants and tyres. Used petro-chemical products are stored in a secure facility and disposed of means to approved facilities.

6. ENVIRONMENTAL IMPACT

6.1 Air Emissions

Dust is produced as a consequence of materials extraction and processing and exhaust an emission of machinery and vehicles. The impact of dust and exhaust emissions is considered minor given the range of measures employed on site (Refer to Section 5.7.1).

6.2 Noise Emissions

Noise is generated as a consequence of materials extraction, processing and traffic movements. There has been no noise complaints recorded since Hanson acquired the operation.

Large distances separate the operational areas of the Calder quarry from nearest neighbours which are approximately 1km away to the east and south. The retention of onsite vegetation also acts to reduce the impact of noise emissions on the surrounding environment.

6.3 Water Usage and Emissions

There is the potential for quarries to contribute to sedimentation of local waterways. However, the Calder Quarry has a closed-loop water circuit which prevents the discharge of turbid water from the site. The sediment pond is periodically cleared of build-up and the material added to previously worked quarry faces to assist rehabilitation activities.

6.4 Land & Soil Contamination

The potential for soil and land contamination is considered low. Very few chemicals and hazardous materials are stored on site and only in small volumes; spill kits and MSDS are readily available, staff are appropriately trained and the necessary facilities are provided and maintained to mitigate the likelihood of contamination. Diesel is stored in an approved underground fuel tank and refuelling undertaken at designated areas. Lubricants and oils are housed in a single location and all waste products stored according to specification and disposed of by approved means.

6.5 Waste Products

The operation generates very few waste products, including used oil, lubricants, tyres and products used to maintain facilities such as paints. Only small amounts of general refuse are generated by the two full-time staff which is regularly removed from site.

6.6 Energy Usage and Greenhouse Gases

The quarry is connected to standard 240 volt power supply; there is no back-up power supply. Annual power consumption is 120MW. Given the nature and scale of the operation there are few cost-effective options for a significant reduction in greenhouse gas emissions.

At the company level, Hanson is committed to managing greenhouse gas emissions and has commenced measuring and reporting the carbon dioxide footprint of their business operations through their internal Energy Management Process. The Calder Quarry will be assessed as part of this process.

6.7 Biodiversity

The majority of the 43 hectares lease is located within a wet eucalypt community (viminalis, obliqua) as mapped by TASVEG. Informal reserves on State Forests or Forestry Tasmania land are located along the nearby Inglis River.

In 2005, John Miedecke & Partners developed a Rehabilitation Plan for ML 68M/1980. The Plan provides for the closure and rehabilitation of the entire lease, not just the 43 hectares owned by Hanson. The Rehabilitation Plan aims to provide for the long-term reinstatement of local biodiversity in areas worked by historical and current operations.

6.8 Cultural and Aboriginal Heritage

There are no known Cultural or Aboriginal Heritage relics or sites within the lease boundary. Should any relics or sites be observed or suspected, quarry management will cease activity in the affected area and contact Aboriginal Heritage Tasmania (AHT) and the Environmental Supervisor.

7. ENVIRONMENTAL COMPLIANCE

The Calder Quarry has complied with the Conditions of ML 68M/1980 and Licence to Operate No. 3387.

A Public Complaints Register is maintained onsite and a copy of the Licence-to-Operate is readily available. Within the reporting period there were no public complaints, no environmental incidents or environment protection notices issued under EMPCA. Nor were there any non-trivial environmental incidents or non compliance with the permit conditions.

There have been no formal complaints made against the quarry in the past four years. The current Site Supervisor lives in close proximity to the Calder Quarry and is a well respected member of the local community. It is expected that any issues or concerns would be bought to his early attention.

8. ENVIRONMENTAL MONITORING

Neither ML 86M/1980 nor Licence No. 3887 require specific environmental monitoring to take place. Personal noise and dust monitoring is undertaken on a regular basis.

9. ENVIRONMENTAL TRAINING

The Calder Quarry employs two full time staff and has a number of sub-contractors registered to site. No new staff joined the Calder operation during the reporting period. In terms of environmental training, all staff and contractors are made aware of their obligations towards the site's environmental performance and obligations.

The site has four focus areas: dust emissions, stormwater management, storage and handling of hazardous substances (e.g. fuel and lubricants) and vehicle hygiene.

Hanson will provide targeted training in response to specific environmental issues if and when they arise.

10. ENVIRONMENTAL MANAGEMENT ACTIVITIES

10.1 Rehabilitation

Since taking ownership of the lease in 2004, Hanson have restricted works to areas disturbed by historical operations, thereby restricting the total area of disturbed land. In 2005, a Rehabilitation Plan was prepared for the 360 hectare lease. Areas exhausted for resource have since undergone progressive rehabilitation. Rehabilitation potential at the site has proven to be high given the seed bank stored in the surrounding vegetation and the use of good quality top-soil stockpiled prior to extractive operations.

Hanson has had discussions with the Department regarding relinquishment of those parts of the lease outside the 43 hectares currently owned by Hanson. The terms and conditions of the hand-over is subject to continuing negotiations and is likely to result in successive relinquishment over a number of years, thereby facilitating the process of rehabilitation.

10.2 Corporate Environmental Management

At the company level, Hanson has initiated a number of measures to improve environmental performance including:

- In 2006, Hanson signed a Cooperative Agreement to become an official member of the Greenhouse Challenge Plus. As a member, Hanson expects to reduce emissions of greenhouse gases from its operations by 5% per unit by the end of 2009.

- Hanson is addressing its water usage responsibility. The company is committed to ensuring new plants are built with maximum water-saving capacity. The star of Hanson's water conservation program is the newly-constructed Maroochydore concrete plant. Through a series of settlement pits, water is recycled and used in the concrete batching process then used to wash out the concrete mixers.

- The Hanson Bass Point Quarry is located on the Bass Point Headland and is bordered by a park, a reserve park and an aquatic reserve. This brings the area's wildlife and community very close to the operational face of the quarry. The Bass Point Quarry adopted an approach to water management that was an award winner at the 2006 CCAA Extractive Industries Environment Awards.

11. ENVIRONMENTAL COMMITMENTS

Hanson commit to:

1. Implementation of the existing environmental policy.
2. Implementation of the Rehabilitation Plan as appropriate.
3. Continue to liaise with the Department regarding relinquishment of portions of the greater lease.

12. SUMMARY

The Calder Quarry is a relatively small operation, owned and operated by one of the worlds largest heavy building materials companies with an annual turnover of more than $9 billion.

The Calder Quarry produces approximately 22,000m^3 of aggregate per annum in a relatively simple operation manned by two full-time staff. The quarry has a sound environmental record with no EIN or EPN issued during the past 24 months and no environmental incidents or public complaints to report in the past four years.

The wet processing circuit is chemical free and effectively controls dust emissions. The circuit is closed-loop with all process water recycled on-site with no release to the external environment. Noise emissions are of little concern, with machinery and equipment well maintained and vegetation retained and/or replanted wherever possible. The site is also very isolated with significant separation distances between the quarry and nearest neighbours.

Given the small scale of the operation, environmental impact is limited. At a company level, Hanson are a strong environmental corporate citizen with many environmental programs and plans in place. The company has an Environmental Policy, Energy Management Policy and Water Policy demonstrating an awareness of environmental matters and a commitment to continual environmental improvement.

The Hanson owned Calder Quarry continues to comply with conditions of their environmental permit and permit to operate.

Appendix A - Licence to Operate Scheduled Premises No: 3387

TASMANIA

Department of Environment & Planning

Environment Protection Act 1973

LICENCE TO OPERATE SCHEDULED PREMISES - CONDITIONS

Schedule of conditions under which the holder of Licence No. 3387 may operate the premises located at CALDER GRAVEL PIT, OFF CALDER ROAD, CALDER 7325.

Map Name: HELLYER (Tasmap 1:100000 Topographic Series)
Map Coordinates: 38444549
File Reference: 037315
Mining Lease(s): 68M/80

Dated this 30 NOV 1992 day of ..... 19....

.....
(Director of Environmental Control)

This premises is scheduled under the Environment Protection Act 1973; Schedule 1, Part 10: Lime,gravel,sand,loam,soil or clay pits.

This Licence is issued to BESSER TASMANIA PTY. LTD. to operate the above premises for the purposes of a gravel pit and washing and screening plant provided the quantities of material dealt with or used on the premises are in accordance with the following maximum quantities:

Limit on Materials Used, Produced or Processed in Respect of Schedule 1 Part 10
66000 Cubic metres per year of raw materials produced or processed. (Annual licence and inspection fees are derived from this figure)

The following conditions and definitions are attached to the Licence:
D1,
G1, G2, G3, G4,
A1, A2,
R1, R2, R3, R4, R5,
E1, E2, E3.

TASMANIA

Department of Environment & Planning

Environment Protection Act 1973

LICENCE TO OPERATE SCHEDULED PREMISES - CONDITIONS

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Map Coordinates: 38444549
File Reference: 037315
Mining Lease(s): 68M/80

Dated this ..... day of ..... 19....

.....
(Director of Environmental Control)

Definitions of Terms

D1 For the purposes of this licence, the premises is defined as the area within Mining Lease 68M/80.

General

G1 The premises shall be operated in accordance with the requirements of the Environment Protection Act 1973 and Regulations thereunder. These conditions shall not be construed as an exemption from any of those requirements.

G2 Except as provided in subsection (2) of Section 29 of the Act, the licensee shall not without the prior approval in writing of the Director of Environmental Control:

(a) change any process used on the premises so as to cause or substantially increase the emission of a pollutant or noise from the premises;

(b) construct, install, alter or remove

(i) any structure in, on or connected with the premises or

(ii) any furnace or other device that produces a pollutant on the premises,

so as to cause or substantially increase the emission of a pollutant or noise from the premises;

Department of Environment & Planning

Environment Protection Act 1973

LICENCE TO OPERATE SCHEDULED PREMISES - CONDITIONS

Schedule of conditions under which the holder of Licence No. 3387 may operate the premises located at CALDER GRAVEL PIT, OFF CALDER ROAD, CALDER 7325.

Map Name: HELLYER (Tasmap 1:100000 Topographic Series)
Map Coordinates: 38444549
File Reference: 037315
Mining Lease(s): 68M/80

Dated this ..... day of ..... 30 NOV 1992 19....

.....
(Director of Environmental Control)

General (continued)

(c) change the nature of the materials dealt with or used on the premises so as to cause or substantially increase the emission of a pollutant or noise from the premises; or

(d) increase the quantity of materials dealt with or used on the premises from the amounts specified in this licence.

G3 When any accident, breakdown or malfunction of equipment may or does result in the unplanned emission of a pollutant or noise from these premises which is different from, or in excess of, normal emissions from the premises, the licensee shall:

(a) IMMEDIATELY contact the Director of Environmental Control by telephone 24 hours, (002) 33 6366 or fax (002) 23 3494

(b) Take all practicable action to contain the emission(s) and to minimise the adverse environmental effects of any pollutant or noise which is unavoidably emitted.

(c) The licensee shall, following any such incident report all events occurring during the unplanned emission episode(s) in writing (or by fax) within 5 working days of the cessation of the episode(s).

G4 A copy of these licence conditions shall be held in a location known and accessible to any person who may at any time be responsible for the operation of the premises or plant or equipment within the boundary of the premises. The licensee shall ensure that all such persons are familiar with the conditions attached to the licence.

TASMANIA

Department of Environment & Planning

Environment Protection Act 1973

LICENCE TO OPERATE SCHEDULED PREMISES - CONDITIONS

Schedule of conditions under which the holder of Licence No. 3387 may operate the premises located at CALDER GRAVEL PIT, OFF CALDER ROAD, CALDER 7325.

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Map Coordinates: 38444549
File Reference: 037315
Mining Lease(s): 68M/80

Dated this ..... day of ..... 19....

.....
(Director of Environmental Control)

Atmospheric

A1 Roads within the boundary of the premises are to be watered when necessary or sealed to minimise dust nuisance.

A2 To control spillage, all trucks leaving the premises and travelling by public roads and carrying loads containing a significant quantity of material which passes a 4 millimetre sieve shall have an effective cover over their load.

Rehabilitation

R1 Prior to commencement of extraction operations in any portion of the premises all surface soils shall be removed and stockpiled for later use in rehabilitation of the site. Topsoil is to be kept separate from other overburden and windrows of topsoil are not to exceed 1m in height.

R2 All tailings from extraction operations and from screening and washing operations shall be disposed of within the premises to the satisfaction of the Director of Environmental Control.

R3 Concurrent with extraction operations, all worked out areas shall be rehabilitated to the satisfaction of the Director of Environmental Control. Rehabilitation upon cessation of operations shall include removal of all equipment, all structures and all waste material and revegetation of all disturbed areas, unless otherwise approved in writing by the Director of Environmental Control.

Department of Environment & Planning

Environment Protection Act 1973

LICENCE TO OPERATE SCHEDULED PREMISES — CONDITIONS

Schedule of conditions under which the holder of Licence No. 3387 may operate the premises located at CALDER GRAVEL PIT, OFF CALDER ROAD, CALDER 7325.

Map Name: HELLYER (Tasmap 1:100000 Topographic Series)
Map Coordinates: 38444549
File Reference: 037315
Mining Lease(s): 68M/80

Dated this ..... day of 30 NOV 1992 ..... 19....

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(Director of Environmental Control)

Rehabilitation (continued)

R4 Unless otherwise approved by the Director of Environmental Control as a variation of these conditions, the rehabilitation specified in condition R3 shall be in accordance with the booklet "Guidelines for the Rehabilitation of Quarries and Extractive Pits", May 1984, (copy attached, and hereinafter called the Guidelines) and in accordance with the following:-

(a) Where operations are to be temporarily ceased for a period of more than 120 days, rehabilitation of all worked-out land as defined by the Director of Environmental Control shall take place within 30 days of cessation of operations.

(b) Where operations are to cease permanently all exposed land not previously rehabilitated shall be rehabilitated and all structures, equipment and waste material shall be removed. This work shall be carried out within 90 days of such cessation.

(c) The surface of the disturbed land shall be graded, levelled and/or contoured in accordance with "Earthworks", section 4.5.1 of the Guidelines.

(d) Topsoil shall be spread and the subsoil ripped on disturbed land in accordance with 'Topsoil Spreading' and 'Ripping', section 4.5.1 of the Guidelines.

(e) In addition to the requirements of other conditions, rainwater or stormwater shall be diverted, collected or stored as necessary to minimise erosion and to settle on land any sediment.

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Department of Environment & Planning

Environment Protection Act 1973

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Rehabilitation (continued)

(f) The natural regrowth of vegetation on the disturbed land shall be permitted and assisted in accordance with 'Revegetation' section 4.5.1 of the Guidelines. If necessary, additional species as may be specified in consultation with the licensee, shall be seeded, planted and maintained for the period specified in Section 20(2) of the Environment Protection Act 1973. The licensee shall contact the Director if there is any uncertainty as to which species to plant.

R5 The Director of Environmental Control shall be notified of permanent cessation of operations within 30 days of such cessation.

Effluent Disposal

E1 All stormwater runoff from areas of the premises disturbed by the extraction of gravel and the stockpiling of raw material and product and the construction of access tracks should be collected and treated as necessary to prevent the pollution of any watercourse by solids or discoloured water.

E2 All water used for washing operations shall be caught in a settling pond system which shall be constructed and maintained to the satisfaction of the Director of Environmental Control. Any water discharged from this settling pond system shall be done in a manner that prevents the pollution of any watercourse by solids or discoloured water.

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Environment Protection Act 1973

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.....
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Effluent Disposal (continued)

E3 Sediment settling dams and settling ponds are to be cleaned out periodically in order to maintain the efficiency of the dams. Sediment removed from the dams during this periodic maintenance is to be deposited such that the sediment will not be transported off the site by surface runoff.