



## FIRST PUBLIC REPORT TEMPLATE

**Controlling Corporation**

Consolidated Minerals Limited

**Period to which this report relates**

Start 1 July 2006

End 31 Dec 2008

### Part 1 - Summary of assessments conducted thus far

**Table 1.1 - Description of the way in which the corporation has carried out its assessments and over what period was each assessment taken. A statement saying that the intent and key requirements of the Energy Efficiency Opportunities legislation have been met must be made.**

In the first half of 2008, Consolidated Minerals (CML) appointed an external consultant (Alberfield, Alan Carmody as the Project Leader) to conduct the company's initial assessment of the Woodie Woodie manganese operation. The assessment was concluded at the end October 2008 during the 2007/2008 Energy Efficiency Opportunities reporting period.

In order to complete the assessment, the consultant participated in site visits to review the operations, gauge the extent of energy data and initiate the collection of preliminary energy data and other necessary information. As part of the audit and detailed investigation that followed, Energy Efficiency Opportunities were identified in accordance with the requirements and recommendations were put to CML. All recommendations were presented in a projects register, thereby allowing CML to review the recommendations based on company criteria of energy efficiencies with the goal to translate these into achievable savings. In addition to the above, a report of the assessment and recommendations was compiled, and a number of high level and detailed Energy Mass Balances were completed. A presentation was made to the CML Executive Committee on the findings of the assessment and recommendations identified.

<b>Table 1.2 - Group member/business unit/key activity/site that have been assessed</b>	<b>Energy use per annum in the year the assessment is completed *</b>	<b>Energy data accuracy (if not within <math>\pm 5\%</math>) **</b>	<b>Reasons for not achieving data accuracy to within <math>\pm 5\%</math> **</b>
Pilbara Manganese Pty Ltd (Woodie Woodie Operation)	565,759 GJ	$\pm 5\%$	N/A
<b>Total</b>	<b>565,759 GJ</b>		
<b>Total as a percentage of total energy use of the group covered by this report</b>	<b>57.7%</b>		

\* Energy Bandwidth may only be used if approved in the Assessment and Reporting Schedule

\*\* Data accuracy not within  $\pm 5\%$  can only be included if approved in the Assessment and Reporting Schedule

## Part 2 - Outcomes of and business response to opportunities that have been identified and evaluated for each group member, business unit, key activity or site assessed

(See paragraphs 3-6 of Schedule 4 and Schedule 6 of the Regulations)

Group member/business unit/key activity/site >0.5 PJ name: Pilbara Manganese Pty Ltd (Woodie Woodie Operation)

Table 1.3 Status of Opportunities		Number of Opportunities	Estimated energy savings per annum by payback period (GJ)		Total estimated energy savings per annum (GJ)	*Accuracy range (%)
			0 – < 2 years	2 – ≤ 4 years		
Outcomes of assessment	Identified (accuracy ≤ ±30%)	5	29,135	14,638	43,773	≤ ±30%
	Identified (accuracy > ±30%)	64	33,184	20,852	54,036	> ±30%
	**Total Identified	<b>69</b>	<b>62,319</b>	<b>35,490</b>	<b>97,908</b>	
***Business Response	Under Investigation	61	33,184	20,342	53,526	> ±30%
	To be Implemented	5	29,135	14,638	43,773	≤ ±30%
	Implementation Commenced	-	-	-		
	Implemented	-	-	-		
	Not to be Implemented	3		510	510	> ±30%

\*The accuracy range for projected or actual costs, benefits and energy savings.

\*\*You must ensure that this row is the sum of the two rows above it.

\*\*\* The data contained in each row of the business response area must total to the data contained in the 'Total Identified' row.

**Note:** An opportunity is any potential change to a system, activity or piece of equipment that:

- is identified during an EEO assessment;
- is consistent with legal requirements such as OHS, and
- may result in energy savings projects with payback periods of 4 years or less.

## Details of at least three significant opportunities found through EEO assessments

(See paragraph 7 of Schedule 4 of the Regulations)

Details must include a brief description of the opportunity and may optionally include details of the costs of implementation, energy/dollar savings and any other benefits (such as greenhouse reductions).

**Table 1.4**

**Opportunity 1**

Consider the use of solar boosters for existing hot water heaters, or replacement with solar water heaters upon the failure of existing systems. This opportunity has an energy saving of **\$165,000** annually. There is also an annual energy saving of **5,891 GJ** as well as **412 tCO<sub>2</sub>-e**. The capital cost is approximately **\$660,000** with a payback period of **4.0** years.

**Opportunity 2 \***

Consider the installation of shade roofs over exposed accommodation dongas to reduce heat gain during the day. This has an energy saving of **\$245,000** annually. There is a further annual energy saving of **8,747 GJ** as well as **612 tCO<sub>2</sub>-e**. The capital cost is **\$633,660** with a payback period of **2.6** years.

**Opportunity 3 \*\***

Consider the use of timers to reduce the operating time of the air conditioners servicing the accommodation dongas. This opportunity has an energy saving of **\$788,000** annually. There is also an annual energy saving of **27,698 GJ** as well as **1,937 tCO<sub>2</sub>-e**. The capital cost is approximately **\$48,000** with a payback period of **0.06** years.

\*If there are less than three significant opportunities, provide details of those identified.

\*\*If no significant opportunities have been identified in the assessment, a statement to this effect.

### Part 3 - Voluntary Contextual Information

Reporting corporations may supply additional information that provides more context to the public report. Such information may include:

- **Energy Efficiency initiatives:**

- A new FIFO camp is currently being constructed at Woodie Woodie. In the construction of this camp, a number of the camp accommodation dongas and auxiliary infrastructure buildings will meet the minimum energy rating requirements of the Building Code of Australia.
- The runway at the Woodie Woodie mine site has recently been sealed, thereby allowing jet aircraft to fly to site. The benefit of this is that fewer flights are required to move staff to and from the mine site.
- Consideration is being given to linking all major sources of power generation on site. This offers the potential to link renewable energy sources into an "electrical grid" in future years should these renewable energy sources prove viable.

### Part 4 - Declaration

(See paragraph 8 of Schedule 4 of the Regulations and paragraph 22(4)(c) of the Act)

The information included in this report has been reviewed and noted by the board of directors and is to the best of my knowledge, correct and in accordance with the *Energy Efficiency Opportunities Act 2006* and *Energy Efficiency Opportunities Regulations 2006*.



Chair of the Board of Directors/CEO/Managing Director/equivalent officer (state position)