

ELLIS CONSULTING SERVICES

DE BEERS SNAP LAKE DIAMOND PROJECT

OUTSTANDING ISSUES FROM THE
TECHNICAL SESSIONS ~ Jan 2003

BACKGROUND

There were five issues raised at the technical sessions on socio-economics and cumulative impacts. They were as follows:

1. Apparent inconsistency in amount of estimated tax revenues and value of production and cost estimates
2. Commitment to northern hiring and purchasing targets
3. Incomplete estimate of Gross Domestic Product
4. Lack of quantitative analysis in cumulative impacts section
5. Apparent inconsistency in induced employment and labour income estimates

The purpose of this short paper is to clarify the resolution of these issues at the technical sessions on December 5th and 6th.

ISSUES RESOLVED

1. APPARENT INCONSISTENCY IN AMOUNT OF ESTIMATED TAX REVENUES AND VALUE OF PRODUCTION AND COST ESTIMATES

**ToR Line
Number(s)** 472

**IR Response
Number(s)** 1.26(a), 1.26(b), 1.26(c)

What is the Issue? The estimates provided by the Proponent for federal and territorial corporate taxes do not appear to be consistent with the proponent's estimate of the value of the project and the effective tax rates used in the analysis.

Why is it an Issue? One of the major beneficial impacts of the proposed project will be tax revenues.

How will it add value to the EA? It will clear up confusion over the level of tax benefits predicted in the EA.

Who should provide the response?

DEBEERS

OUTCOME

This issue was resolved by the offer of De Beers to put on the public record revised estimates for corporate tax revenues and royalties that are consistent with the \$3.9 billion dollar value of production contained in the Erratum Sheet

ISSUES UNRESOLVED

2. COMMITMENT TO NORTHERN HIRING AND PURCHASING TARGETS

ToR Line Number(s)	459 to 464 and 488 to 491
IR Response Number(s)	1.28(b), 1.41(a), 2.5.46(b)
<i>What is the Issue?</i>	The Proponent has not committed to “hiring targets” for Aboriginals or Northerners nor has it provided “spending targets” for the purchase of goods and services in the NWT.
<i>Why is it an Issue?</i>	The proponent was asked in the TOR 459 to 464 and 488-491 to provide an estimate of the economic impact of the proposed project on the northern economy and without these targets or estimates it is not possible to access the benefit of the project to the north. The Proponent is undertaking only to “do their best” but not committing to any level of benefit.
<i>How will it add value to the EA?</i>	One of the primary benefits to the NWT will be the economic benefits of the mine through employment and the provision of goods and services to the project. Without “targets” based on the Proponent’s analysis there is in effect no estimate of the benefit of the project to the NWT.
<i>Who should provide the response?</i>	DEBEERS

OUTCOME

De Beers did not agree to commit to specific targets but did reiterate its commitment to hiring and spending in the north to the greatest degree possible.

This issue will be reported to the MVIERB as unresolved.

3. INCOMPLETE ESTIMATE OF GROSS DOMESTIC PRODUCT

ToR Line Number(s)	474
IR Response Number(s)	1.22(a)
<i>What is the Issue?</i>	The Proponent did not provide an estimate of “other operating surplus” in its estimate of direct GDP. This results in an incomplete measure of the impact of the proposed project on territorial and Canadian GDP.

Why is it an Issue? GDP provides the most complete measure of the value of the proposed project to the economies of the NWT and Canada.

How will it add value to the EA? A complete estimate of the impact on the territorial or Canadian GDP will provide a more complete picture of the economic impact of the project and also provide the basis for the estimation of corporate taxes and royalties.

Who should provide the response?

DEBEERS

OUTCOME

De Beers did not agree to provide a complete estimate of Gross Domestic Product (GDP) which it considered propriety as its production would have the result of making its profits public.

There still may be some misunderstanding of this issue because De Beers has already put in the public domain sufficient information to provide a rough estimate of GDP.

Table 1 below gives an estimate of GDP for operations which has been produced by Ellis Consulting Services and it is based on data provided by De Beers in the EA and Errata Sheet. The estimate for GDP presented in Table 1 many still be marginally incomplete because of the lack of specific information on indirect taxes but it should be adequate for the purposes of the EA requirement. Statistics Canada produces GDP by industry at “basic prices” which means that certain indirect taxes on production are considered part of the GDP of that industry. Since detailed information on the types of taxes included, or excluded, in the cost estimates has not been provided it is not possible to produce GDP at basis prices.

Table 1: Estimated GDP for Direct Operations		
(Millions of Dollars)		
	Total	Annual
Total Purchased Inputs	2,656	121
Labour	1,188	54
Other Inputs	1,468	67
Value of Resource Income	3,913	178
Less Other Inputs	1,468	67
Equals GDP	2,445	111

This issue will be reported to the MVIERB as unresolved.

4. LACK OF QUANTITATIVE ANALYSIS IN CUMULATIVE IMPACTS SECTION

ToR Line Number(s) 2.9 III.

IR Response Number(s) This issue was not raised as an IR but emerged during discussion at the Calgary Technical Workshop (October 15 & 16, 2002).

What is the Issue? There is no quantitative analysis presented in the EA with respect to employment predictions. The Proponent has presented a list of projects and labour requirements but has not undertaken any analysis of the aggregate level of labour demand on the NWT labour market.

Why is it an Issue? In order to provide a realistic estimate of northern employment impacts and the level of potential in-migration to the NWT, the proposed project must be analyzed taking into account other major projects which are competing for labour. For example, the Proponent used the winter of 1999 as the base period to represent the labour market in the local and regional study areas. Since the winter of 1999 the operation of the Ekati mine and the construction of Diavik Project have had large impacts on the NWT labour market and substantially reduced unemployment from the winter 1999 levels. By the time the proposed project is in operation Diavik will be in full operation and Ekati will have undergone a significant expansion further changing the NWT labour market. These quantitative changes must be taken into account in the cumulative impact analysis.

How will it add value to the EA? It will provide more evidence of the reasonableness of the expected employment and other economic impacts of the proposed project on the NWT economy.

Who should provide the response?

DEBEERS

OUTCOME

The Proponent did not undertake quantitative analysis

De Beers indicated that they think detailed quantitative analysis was beyond the scope of the work required in the EA.

This issue will be reported to the MVIERB as unresolved.

ISSUES TO BE WORKED ON

5. APPARENT INCONSISTENCY IN INDUCED EMPLOYMENT AND LABOUR INCOME ESTIMATES

ToR Line Number(s) 456 to 495

IR Response Number(s) 1.24(b)

What is the Issue? The amount of labour income and the number of persons employed reported on Table 5.3.-2 for the induced impacts of the proposed project on the NWT economy do not appear to be consistent.

Why is it an Issue? Either the labour income estimate appear to be too large (which could lead to an over estimate of tax revenues) or the employment impacts are too small (which could lead to an underestimate of the socio-economic impacts). This inconsistency should be resolved and one consistent set of labour income and employment estimates should be produced for induced economic activity.

How will it add value to the EA? It will improve the analysis of the economic impact of the mine and the resulting socio-economic impacts.

Who should provide the response? DEBEERS AND/OR THE GNWT BUREAU OF STATISTICS

OUTCOME

De Beers and Ellis Consulting Services agreed to undertake further work to attempt to resolve this issue. To start the process attached is a short description of this issue from the ECS perspective.

INDUCED ISSUE

The concern is that average labour income in the NWT for induced activity exceeds indirect activity by a considerable margin. This in our view suggests that either the employment estimate for induced activity is too low or the labour income is too high. If it is the former, than the estimate for the overall demand for employment (which could have an impact on the in-migration estimate) is too low, or if it is the latter then the estimate of tax revenues for induced could be too high.

In input-output analysis it is normally expected that the average labour income earned by employees of businesses supplying goods and services for induced requirements is generally lower that of those supply goods and services for indirect requirements.

This is because the induced requirements generated by household demand are concentrated in industries such as those in the trade and personal services sector. These are industries where wages are generally lower than the average in the economy.

In contrast indirect requirements normally generate demand for goods and services that drive the goods producing and transportation sectors. These are industries where wages are generally higher than the average in the economy.

Table 1 provides the data that confirms that the average weekly earnings in trade and other services (excluding public administration) are lower than the average. In fact they are the two lowest earning among all industry classifications with trade at 78% and other services at 72% of the industrial aggregate.

In addition it shows that wages in the goods producing industries are 31% higher than average and those in the transportation industries are 99% almost equal to the average.

Table 1: NWT Average Weekly Earnings									
	Industrial Aggregate	Goods Producing Industries	Service Producing Industries	Cons- truction	Transp. & Ware- housing	Trade	Health & Social Assistance	Public Admin.	Other Serv. (excl. Public Admin.)
	(Dollars per Week)								
2001	860	1,124	797	909	848	675	855	1,017	619
	(Percent of the Industrial Aggregate)								
Percent	100	131	93	106	99	78	99	118	72

Table 2 provides information estimated using data from the Snap Lake Environmental Impact Report. This table gives for the NWT and rest of Canada the direct, indirect and induced number of jobs, labour income and average labour income for each of the construction, operations and closure phases of the proposed project.

The average labour income is estimated by dividing total labour income by the number of jobs. The direct employment and labour income have also been adjusted to reflect province of residence (for example 40% of the operating employment and labour income was put in the rest of Canada).

Table 2 shows that for the rest of Canada the average labour income for the induced activity is fairly close to that of indirect activity (although it is not lower in all cases). For example, the average labour income per job for construction activity in the rest of Canada is \$40,172 for induced while for indirect it is \$40,720.

Our concern is that this relationship in the NWT seems to hold for the construction activity but it does not for operations or closure. This is in contrast to the rest of Canada where this relationship holds for all three phases and there are no obvious reasons why it should not be so for the NWT.

Table 2: Data from Table 5.3-1 on Page 5-112 with the Direct adjusted for Province of Residency

	Construction			Operations			Closure		
	Jobs (number)			Jobs (number)			Jobs (number)		
	Total	NWT	ROC	Total	NWT	ROC	Total	NWT	ROC
Direct	220	88	132	500	300	200	110	66	44
Indirect	1,940	560	1,380	640	260	380	140	40	100
Induced	980	220	760	520	170	350	120	30	90
Total	3,140	868	2,272	1,660	730	930	370	136	234
	Labour Income (\$'000)			Labour Income (\$'000)			Labour Income (\$'000)		
	Total	NWT	ROC	Total	NWT	ROC	Total	NWT	ROC
Direct	39,436	15,774	23,662	53,995	32,397	21,598	11,317	6,790	4,527
Indirect	102,260	46,067	56,193	28,239	14,605	13,634	6,103	2,137	3,966
Induced	47,075	16,544	30,531	25,669	12,574	13,095	5,595	2,388	3,207
Total	188,771	78,385	110,386	107,903	59,576	48,327	23,015	11,315	11,700
	Labour Income per Job \$			Labour Income per Job \$			Labour Income per Job \$		
	Total	NWT	ROC	Total	NWT	ROC	Total	NWT	ROC
Direct	179,255	179,255	179,255	107,990	107,990	107,990	102,882	102,882	102,882
Indirect	52,711	82,263	40,720	44,123	56,173	35,879	43,593	53,425	39,660
Induced	48,036	75,200	40,172	49,363	73,965	37,414	46,625	79,600	35,633
Total	60,118	90,306	48,585	65,002	81,611	51,965	62,203	83,200	49,999
	Ratio Induced Labour Income per Job to Indirect Labour Income Per Job								
	Total	NWT	ROC	Total	NWT	ROC	Total	NWT	ROC
	91%	91%	99%	112%	132%	104%	107%	149%	90%

In the NWT the average labour income for construction activity is \$82,263 while for induced activity it is \$75,200. The average labour income for induced activity appears to be higher than what one would expect because over 75% of the jobs fall in the trade and personal services sector where wages are generally low.

But for operations in the NWT the average labour income for indirect activity is \$56,173 while for induced activity it is \$73,965 – 32% higher. For closure the average labour income for indirect activity is \$53,425 while for induced activity it is \$79,600 – 49% higher. The same relationship does not hold for the rest of Canada where for operations the average labour income for indirect activity is \$35,879 while for induced activity it is \$37,414. For operations the indirect and induced averages are \$39,660 and \$35,633 respectively.

The question to be addressed is why the average labour income per job is so high and why, for all phases but construction, is it over 30% higher than average labour income in the indirect activity.