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MAXIMISING OUR MINERAL POTENTIAL:

STOCKTAKE OF SCHEDULE 4 OF THE CROWN MINERALS ACT AND BEYOND

**SUBMISSION TO THE MINISTRY OF ECONOMIC DEVELOPMENT/DEPARTMENT OF
CONSERVATION**

26 MAY 2010

BACKGROUND

The Institution of Professional Engineers New Zealand (IPENZ) is the lead national professional body representing the engineering profession in New Zealand. It has approximately 11,500 Members; this includes a cross-section from engineering students, practising engineers, and senior Members in positions of responsibility in business. IPENZ is non-aligned and seeks to contribute to the community in matters of national interest giving a learned view on important issues, independent of any commercial interest.

EXECUTIVE SUMMARY

IPENZ believes that the government should be more proactive in developing New Zealand's mineral resources. The Government should do this by providing leadership, reducing regulatory barriers, developing a National Policy Statement, and by providing more information on our mineral potential.

However development of our mineral resources needs to be done in a manner that ensures we protect the environment and maintain areas of cultural value. Current mining legislation, regulation and practice generally ensure that modern mining activities are well designed, managed, rehabilitated and monitored.

A principled decision-making framework is required to balance economic objectives and environmental/cultural objectives. This framework needs to cover decisions on adding to and removing land from Schedule 4, permits, land access and resource consents. IPENZ believes that decisions to include or remove land from Schedule 4 should not be made until there is a sound decision-making framework with transparent criteria.

The current assessments for inclusion and removal of land are unbalanced and inadequate, not only in their consideration of conservation values and mineral potential, but also through minimal assessment of recreation, tourism and cultural values. More information is required for both the government and for investors, and the government should be involved in the direct provision of information including high-quality airborne geophysical data. More information is also needed on environmental and cultural values of the land; this will also enable government to prioritise a comprehensive investigation programme.

IPENZ supports the proposals for the contestable fund including its objectives for the management of natural areas, native species, historic and cultural resources, and the provision of recreational opportunities. However the Minister of Conservation should be the sole Minister responsible for appointing panel members to manage this Conservation Fund.

In relation to who should approve access to Crown land, IPENZ believes the land-holding Minister should approve access. IPENZ recommends that the Crown Minerals Act be amended to require the land-holding Minister to take into account the interests of other Ministers.

There are some significant skills' issues within the mining industry. There is already a shortage of mining engineers and related engineering occupations. Also there are no tertiary education providers for mining engineers in New Zealand. The New Zealand Extractive Industries Industry Training Organisation reports significant demographic issues within the mining industry as it has a high proportion of older workers. The Ministry of Economic Development needs to be actively involved in addressing these issues.

1. GENERAL COMMENTS

1.1 GROWING THE MINING INDUSTRY

IPENZ supports initiatives that make a significant contribution to the economy. Further development of New Zealand's mineral resources has the potential to contribute to lifting our productivity and closing the productivity gap with Australia. The government needs to provide the necessary political and policy leadership to grow this important sector, where appropriate, as part of the overall plan to lift the economic performance of New Zealand.

Although in the public mind, mining activities might be perceived as being damaging to the environment, IPENZ wishes to point out that the industry now uses a range of techniques to minimise these impacts through:

- the use of precision mining techniques
- engineering of excavations and tailings embankments for stability and safety
- recycling and treatment of surface water runoff
- use of slurry pipelines rather than trucking (in some cases)
- liaison with local communities from the initial planning stages and throughout the project
- rehabilitation of the land after mining ceases
- ongoing monitoring of water discharges and groundwater.

There are a number of past poor examples of rehabilitation and, in contrast, more recent best practice examples. The government can be actively involved in encouraging the growth of this industry in the knowledge that current legislation, regulation and practice ensure rehabilitation will be well designed, managed, rehabilitated, and monitored.

Mining activities can often have effects beyond those directly on the site of the mine. For example, supporting infrastructure is needed. In the case of Great Barrier Island, if minerals are to be extracted in a significant quantity then wharves, road upgrades, power supplies, water supply and additional accommodation would be needed. Similar infrastructure needs will be required for other isolated sites.

It is noted that the discussion paper does mention that a significant amount of New Zealand's mineral potential also exists in non-Schedule 4 lands (in both public and private ownership), and that facilitating development of that potential is a priority for the government. IPENZ believes that the government should be more proactive than this and should:

- provide leadership and promote New Zealand's potential mineral resources internationally
- reduce the regulatory barriers for prospecting, exploration and mining
- develop a National Policy Statement on mining. This is discussed in more detail below
- directly provide more information including high quality airborne geophysical data
- expand and prioritise the investigations on non-Schedule 4 land beyond the ten areas identified in the discussion paper
- develop a continuing and comprehensive programme of research on New Zealand's mineral potential.

Recommendation – the government be more proactive in promoting the development of New Zealand’s mineral resources.

1.2 PROTECTING OUR ENVIRONMENT AND CULTURE

Development of our mineral resources needs to be done in a manner that ensures protection of the environment and maintenance of areas of cultural value or significance. Protection of the environment also has an economic perspective. A large part of the economy, including agricultural products’ exporters and the tourism industry, relies on our reputation as a “clean green” country. Maintaining areas of cultural value or significance is also important as these give us an understanding of New Zealand’s past and shape and define our national identity.

IPENZ believes to strike a balance between economic objectives and environmental/cultural objectives a principled framework is required. An important part of that framework is the Resource Management Act 1991 which aims to “promote the sustainable management of natural and physical resources”. The Act also has provision for matters of national significance.

Arguably there is a case for making some “no go” areas, where protection and preservation are critical to the national interest and their protection is paramount. Schedule 4 of the Crown Minerals Act 1991 is presumed to perform this role and protect this type of Crown land. On this land any application for access to explore or mine minerals is not acceptable.

Schedule 4 includes but is not confined to National Parks. Section 4(1) of the National Parks Act 1980 gives some guidance on their importance. This Act states:

“for the purpose of preserving in perpetuity as national parks, for their intrinsic worth and for the benefit, use, and enjoyment of the public, areas of New Zealand that contain scenery of such distinctive quality, ecological systems, or natural features so beautiful, unique, or scientifically important that their preservation is in the national interest”.

However it is clear that the fact that lands are National Parks (and in Schedule 4) does not necessarily mean they are “no go” areas for all time. For example this discussion paper proposes the removal of part of one National Park. This raises some fundamental questions about the absolute prohibition of mining on other Schedule 4 land.

IPENZ believes the provisions in the Crown Minerals Act 1991 are not a principled framework for mineral development decisions. There appears to be no transparent criteria for assessment of the inclusion or removal of land from Schedule 4. Given the national importance of determining which land requires protection, or where mining might be appropriate, IPENZ believe this is a significant omission from the Crown Minerals Act.

IPENZ believes that a principled framework for Crown land should be developed and that this framework should be based on the decision making hierarchy outlined below.

- Determining whether land is in (or out of) Schedule 4. Through legislative amendments, this decision enables the national economic, social, environmental, and cultural interests, as determined by Parliament, to be taken into account. If land is in Schedule 4 it does not preclude prospecting - land access agreements and resource consents are not required, but a permit is required.
- Consideration of a permit to prospect, explore and mine on any Crown land. This decision enables the mineral-owning Minister’s interests (the Minister of Energy and Resources) to be taken into account.

- Consideration of a land access agreement. This decision enables the land-owning Minister's interests to be taken into account. Land must be outside Schedule 4 and land access agreements and resource consents are required for both exploration and mining.
- Consideration of applications for resource consents. This decision enables the national, regional and local interests of local government (working within the Resource Management Act framework) to be taken into account to avoid, remedy or mitigate adverse environmental effects.

Each decision stage needs to be based on high quality information. The framework outlined above could be included in a government Policy Statement.

Recommendation – a principled decision-making framework be developed for prospecting, exploration and mining of minerals on Crown land.

2. RESPONSES TO QUESTIONS ON NEW ZEALAND'S MINERAL POTENTIAL

2.1 QUESTION 1: AREAS PROPOSED FOR REMOVAL

Do you think the proposed areas should be removed from Schedule 4 so that applications for exploration and mining activity can be considered on a case-by-case basis – Yes or No and why?

As stated above, IPENZ supports economic development in New Zealand but considers that currently a case cannot be made for the removal of areas from Schedule 4. This is because IPENZ considers that there is no transparent decision-making framework or criteria in the Crown Minerals Act for removing land from Schedule 4.

It is noted that in Section 61 (2) of the Act there are criteria for the Minister to have regard to in agreeing an access agreement to Crown land. In brief these are:

- the objectives of any Act under which the land is administered
- the purpose for which the land is held
- any policy statement or management plan of the Crown
- the safeguards against any potential adverse effects
- any other matters the Minister considers appropriate.

There appear to be no corresponding criteria for determining whether land should be added to or removed from Schedule 4. It could be assumed that such land would not be able to satisfy these criteria and therefore no access agreement should be contemplated.

In the absence of a decision-making framework for the removal of areas from Schedule 4, IPENZ believes the status quo should remain and these areas should not be removed until there is such a framework and additional assessments are undertaken.

Recommendation – no areas be removed from Schedule 4 until transparent criteria are in place and until further assessments are undertaken.

2.2 QUESTION 2: AREAS PROPOSED FOR ADDITION

Do you agree with the areas proposed for addition to Schedule – Yes or No and why?

IPENZ believes a case cannot be made for the addition of areas to Schedule 4 because there is not a decision-making framework or criteria in the Act for determining whether

to add land to Schedule 4. In the absence of a decision-making framework for the addition of areas, IPENZ believes the status quo should remain and these areas should not be added until there is such a framework and additional assessments are undertaken.

Recommendation – no areas be added to Schedule 4 until there are transparent criteria in place and until further assessments are undertaken.

2.3 QUESTION 3: ASSESSMENT OF AREAS

(a) What are your views on the assessment of the various values (conservation, cultural, tourism and recreation, mineral) of the land areas proposed for removal and addition?

IPENZ considers that the assessments of the areas for removal and addition are inadequate. Adequate assessments of land for removal from Schedule 4 of the Crown Minerals Act are important as there are major national issues at stake.

In the discussion paper under the assessment of each area to be removed from Schedule 4 of the Crown Minerals Act, there appears to only be a very cursory evaluation. For example the assessment of the public conservation land on the Coromandel Peninsula for cultural and tourism/recreation is only a few paragraphs. In this case the only external research reference is a mineral resource assessment. The conclusion in each assessment simply says “Given the outstanding mineral potential...”. There does not appear to be a balanced assessment of the values of the land.

IPENZ thinks the assessment should consider the local policies of areas proposed for removal from Schedule 4. This is done in one case in the discussion paper. The discussion paper notes on page 21 that mining on Great Barrier Island is a prohibited activity under the Auckland City Council District Plan. IPENZ thinks that all the assessments of land to be removed from Schedule 4 should include whether the relevant District Plan restricts activities on the land.

The prohibition of an activity in a particular area can be a sign of the value that the local communities have placed on the area. In relation to Great Barrier Island, the discussion paper notes that “a plan change under the RMA would be required before any future mining operation could proceed”. A plan change would require the support of the local community and is a significant undertaking for the territorial authority. Thus, local policies are an important consideration in assessments.

In relation to the assessment of areas proposed for addition into Schedule 4, IPENZ again thinks the assessments provided are too brief. IPENZ thinks the assessments should consider not only the conservation value and mineral potential of the land but also the recreation, tourism and cultural value of the proposed areas.

There are sufficient access provisions in the Act to be able to undertake these assessments. The Act provides the Minister of Energy and Resources with the powers to undertake or approve significant mineral assessment activities on Schedule 4 land. Under the provisions of Section 49 (minimum impact activity), and Section 61 (1A) (c), he or she is able to approve access to land covered by Schedule 4 for prospecting, and to approve a prospecting permit. Prospecting includes geological, geochemical, geophysical surveys, sampling and aerial surveys.

It should be noted that some mineral resources are “thin”, that is, they may be depleted in a relatively short time-frame and may not make a sustained contribution to the economy. Assessments need to consider the extent of likely contribution.

In summary IPENZ does not believe the assessments provided in the discussion paper for removal or addition of land are adequate and do not meet any minimum standard of evaluation.

Recommendation – the assessments be redone more thoroughly.

(b) Do you have any additional information that may be important for Ministers to make their decisions.

IPENZ has no comment in relation to this question.

2.4 QUESTION 4: FURTHER INVESTIGATION

(a) Do you have any comments on the type of information that would be most useful to mineral investors from the research and investigation that is programmed over the next nine months?

IPENZ fully supports the research and investigation programme of on-shore mineral resources that will provide more detailed information. IPENZ believes the government should be involved in the direct provision of high-quality airborne geophysical data. Provision of data is important for both potential mineral investors and for government decision making.

However information on minerals is necessary, but not sufficient, for potential investors and the government to base their decisions on. Information is also needed on environmental and cultural values of the land to enable investment and balanced public policy decisions to be made.

Recommendation – information for investors include environmental and cultural values of the land.

(b) Are there any particular areas that the government should consider including in its investigation programme?

Due to our belief that assessments of Schedule 4 land to date have been inadequate, IPENZ consider that the areas proposed in the discussion paper for removal from or addition to Schedule 4 should be included in the proposed research and investigation programme. The second step should be the investigation of additional areas beyond Schedule 4 as outlined in Section 2 of the discussion paper including other Crown land.

This is a major task and the government needs to establish a prioritisation process. The priorities need to include an initial evaluation of mineral potential, environmental value and cultural value. This data could be presented in a similar but more detailed form to that used in Table 1 on page 9 of the discussion paper.

The prioritisation should compare relative mineral potential and values of sites and assist in determining which land is investigated. For example, consider the scenario below:

	Mineral potential	Environmental value	Cultural value
Site A	Moderate	High	Moderate
Site B	High	Moderate	Moderate

In this scenario the prioritisation should ensure that Site B is a higher priority for investigation than Site A.

Recommendation – areas for investigation be prioritised based on their mineral potential, and environmental and cultural values.

2.5 QUESTION 5: THE CONTESTABLE CONSERVATION FUND

(a) *A broad objective, to enhance conservation outcomes for New Zealand, is proposed for the fund. Do you agree with the proposed objective?*

This broad objective is supported. The term “conservation outcomes” will need to be expanded to ensure that the use of funds is appropriate to achieve this outcome.

(b) *What do you think the fund should be used for? What should its priorities be?*

IPENZ understands the intention is to use this fund for the management of natural areas and native species, historic and cultural resources, the provision of recreational opportunities and the engagement of communities. IPENZ supports this intention.

It will be important to ensure that the funds are sufficiently focussed and applied so that real results are achieved.

(c) *An independent panel appointed by the Minister of Energy and Resources and the Minister of Conservation is proposed to run the fund. Do you think this is a good idea?*

IPENZ considers that an independent panel would be appropriate to run this fund. However, given the above objectives and priorities for the fund, there does not seem to be a valid reason why the Minister of Energy and Resources should have an involvement in the appointment of panel members. This should be the sole responsibility of the Minister of Conservation.

Recommendation – the Minister of Conservation be responsible for appointing panel members to manage the Conservation Fund.

(d) *It is proposed that half of royalties from public conservation areas are contributed to the fund, with a minimum of \$2 million per year for the first four years, and a maximum of \$10 million per year. Do you think the amounts proposed for the fund are appropriate?*

IPENZ does not have a view on the quantum of funds proposed.

(e) *Do you have any other comments that might help the government to make decisions on a new conservation fund?*

IPENZ notes that clear criteria are needed for the operation of the fund. IPENZ suggests these consist of eligibility to apply as a first step, with a separate prioritisation criteria (with appropriate weightings) for allocation of the fund as a second step.

2.6 QUESTION 6: APPROVAL OF ACCESS

It is proposed that the joint approval of the land-holding Minister and the Minister of Energy and Resources be required for an access arrangement on Crown land for mineral exploration or development. Do you think this is appropriate? Why or why not?

IPENZ considers that the land-holding Minister (the Minister of Conservation) is the appropriate Minister to approve access arrangements on conservation land. IPENZ does not consider that the arrangements should require joint approval from the Minister of Conservation and the Minister of Energy and Resources.

As noted on page 18 of the discussion paper, under Section 61(2) of the Crown Minerals Act, in summary the approving Minister needs to take into account the following points.

- The objectives of any Act under which the land is administered.
- The purpose for which the land is held.
- Any policy statement for management plan of the Crown.
- The safeguards against any potential adverse effects.
- Any other matters the Minister considers appropriate.

The Minister of Conservation, as the Minister accountable for management of the conservation estate is best placed to have this responsibility.

If the approval were to be joint (which IPENZ does not support) then potentially other Ministers with an interest should also be joint approvers. For example, the approval requires consideration of “the safeguards against any potential or adverse effects of carrying out the proposed programme of work”. This could be interpreted to include the protection of the environment (the Minister for the Environment) and the protection of cultural values (the Minister of Maori Affairs).

The mechanism for the interests of the Minister of Energy and Resources and other Ministers to be taken into account is for the Minister of Conservation to consider advice from these Ministers and their officials as part of “such other matters as the Minister considers relevant” (Section 61 (2) (e)). This could be made more explicit by an amendment to this Section of the Act.

The Crown Minerals Act 1991 provides the Minister of Energy and Resources with ample opportunity to encourage and approve mining. Under the provisions of Section 49 (minimum impact activity), and Section 61 (1A) (c), he or she has the ability to approve access to land covered by Schedule 4 for prospecting, and to approve a prospecting permit, without reference to the Minister of Conservation.

For the subsequent stages of exploration and mining the Minister of Energy and Resources approves permits (Section 22), and the land-holding Minister (the Minister of Conservation for conservation land) approves land access – each exercising their appropriate responsibilities. This arrangement requires the Ministers to work together.

The context for this land access approval is outlined in the recommended decision-making framework suggested earlier in this Submission.

Recommendation – the land-holding Minister continue to approve access to Crown land.

Recommendation – Section 61 (2) (e) be amended to require the land-holding Minister to take into account the interests of other Ministers.

3. OTHER ISSUES

Question 7: Do you have any further suggestions or comments on what has been said in this document?

3.1 CONSULTATION MECHANISMS

Public input and consultation is important in some of the approval stages for mining. IPENZ notes that Table 3 on page 13 of the discussion paper states that the Crown Minerals Act “does not explicitly provide for a public process for the Minister of Conservation’s consideration of applications for mining access to public conservation land”. IPENZ considers that such a public process is not necessary. Two of the other approval stages (changes to Schedule 4 and the resource consents process) include a public submission process.

3.2 RESOURCE MANAGEMENT ACT 1991

When a mining company receives approval for access to Crown land and a permit to prospect, explore or mine, the next step is, appropriately, to obtain a resource consent. IPENZ considers that the following should be considered to improve the management of resource consents for mining.

- National economic impact be an additional relevant factor for determining whether a matter is of national significance under Section 142 of the Resource Management Act 1991. In this way applications for major mining activities could be referred to a Board of Inquiry or the Environment Court for consideration. It would not be appropriate for mining activities to be a factor as a fundamental principal of the Resource Management Act is that it does not provide special provisions for discrete activities.
- The development of a National Policy Statement on mining activities. IPENZ considers that a National Policy Statement would help ensure a consistent approach by regional councils and territorial authorities to the consideration of applications for resource consents of mining activities.
- Review the potential overlaps, conflicts, and opportunities for efficiencies in the approval processes of the Resource Management Act 1991 and the Crown Minerals Act 1991.
- Continue the review of the Department of Conservation’s concessions process including consideration as part of the Resource Management Act Phase 2 review work. This is to develop a model for a single process option for nationally significant proposals where both resource consents and concessions are required.

Recommendation – Section 142 of the Resource Management Act be amended to include national economic impact.

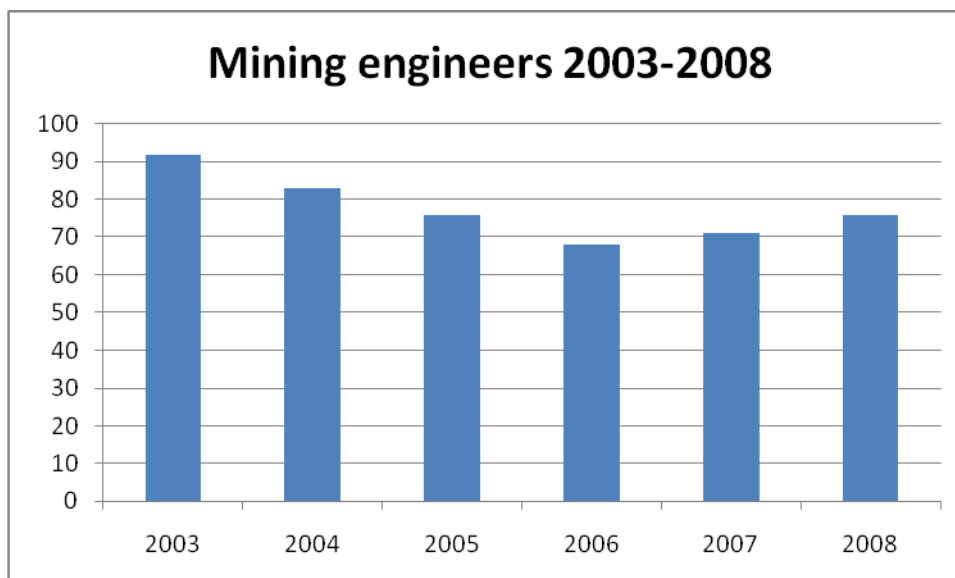
Recommendation – a National Policy Statement for mining should be developed.

3.3 SKILLS SHORTAGES

The world demand for minerals has continued to expand and has created an international market for skills and expertise. IPENZ and the Extractive Industries Industry Training Organisation’s (EXITO) consider that businesses undertaking new exploration, development and production activities will find it increasingly difficult to recruit the skills

they need¹ if the government follows through with the opening up of conservation land for mining.

The Department of Labour produces annual average employment estimates. For mining engineers the figures are as shown below:



These figures show a decrease in the number of mining engineers employed from 2003 to 2006 and a small increase in 2007 and 2008.

Mining engineers are currently listed on the Immediate Skills Shortage List² for the Waikato/Bay of Plenty region, Canterbury/Upper South Island and Otago/Southland. The Department of Labour reviews the skills lists twice a year. IPENZ submitted to the Department of Labour in July 2009 and March 2010 in relation to the Department's review of the Skills Shortage Lists. In those submissions IPENZ noted that New Zealand has shortages for engineers (including mining engineers) and encouraged the Department of Labour to keep engineers, including mining engineers specifically, on the skills shortage lists.

No university-level education in mining or mining engineering is available in New Zealand, and those who need graduate qualifications must study overseas. Significant and sustained growth in the mineral industry may lead to a need to establish and operate education programmes in the tertiary education sector.

In addition to mining engineers, the mineral industry employs a wide range of specialist skills, trades, semi-skilled and unskilled people; according to the 2006 census the total number of employees in extractive industries is 4,100. In research undertaken by the EXITO it has been identified that the precious minerals and mining industry has a high proportion of older workers³ and that 42 per cent of workers will be retiring in the next ten years. This is of serious concern and highlights the need to encourage young people into this field of work.

The minerals industry is also supported by a wide range of highly skilled engineering and technical disciplines including civil, chemical, water, electrical and mechanical engineers

Extractive Sector Industry Training Plan 2009 -2011 - EXITO

² <http://www.immigration.govt.nz/NR/rdonlyres/89185A40-27D3-41F4-84BE-30129920411D/0/ISSL.pdf>

³ EXITO Industry Research Project – Precious Minerals and Mining Industry Report – Performance Matters Ltd, Jan 2010

and metallurgists. IPENZ has been working with the Department of Labour on identifying future demand and supply of engineers across all disciplines. This has resulted in the development of a National Engineering Education Plan⁴. This is a collaborative project working with government agencies, universities, polytechnics and industry training organisations to help ensure an adequate supply of engineers and technicians with the appropriate skill sets.

Further up the engineer supply chain, IPENZ is funded by government to promote science, engineering and technology as careers in secondary schools. This is done through the Futureintech programme⁵.

Recommendation - the Ministry of Economic Development collaborate with the education sector to support initiatives to increase the supply of the mining workforce, as part of the government's overall programme of lifting the economic performance of New Zealand.

4. CONCLUSION

IPENZ appreciates the opportunity to make this submission and is able to provide further clarification if required.

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⁴ IPENZ website - http://www.ipenz.org.nz/ipenz/Education_Career/NEEP.cfm

⁵ Futureintech website - <http://www.futureintech.org.nz/>