

## NOTES OF MEETING HELD AT PORT MORESBY, 13-14 OCTOBER 2003

### Attendees:

#### Komiti Members

- Dr. Philip Gibbs - Acting Chairman, NGO (Melanesian Institute for Pastoral & Socio Economic Service)
- Dr Graeme Batley - CSIRO (PJV/Placer Technical Advisor)
- Brad Gordon - Porgera Joint Venture
- Elizabeth Karava - NGO (National Spiritual Assembly of Baha'i of PNG)
- Michael Kiap - PNG University of Technology (Government Technical Adviser)
- Dr. Peter Siba - NGO (PNG Institute of Medical Research)
- Mel Togolo - Placer Dome Asia Pacific
- Ani Topuru (Alt to Patricia Pepena) - Department of Mining

### Apologies:

- Kay Kalim - PNG Government (Department of Environment & Conservation)
- Lady Hilan Los - NGO (ICRAF)
- Patricia Pepena - Department of Mining
- Dr. Bob Pidgeon - Independent Expert (Environmental Research Institute of the Supervising Scientist)

### Invited Guests:

- Dr. Keith Bentley - PJV Consultant
- Arthur Hood - MD, Placer Niugini Limited
- Tim Omundsen - Manager, PJV Sustainable Development
- Pyare Pain - Foundation for People and Community Development.
- David Yok - PJV Environment

On account of the passing away of the Chairman, Sir Alkan Tololo, the meeting nominated Dr. Philip Gibbs to be the Acting Chairman of the meeting for the time being.

Phil accepted the nomination and thanked the meeting for the confidence shown in him. He then called for a minute silence in remembrance of Sir Alkan.

The meeting also acknowledged the significant contributions Sir Alkan made in the short time he led PEAK. It was also informed that a letter of condolences on behalf of PEAK was sent to the wife, Lady Nerri, and family of the late Sir

Alkan with a small contribution to help with funeral expenses. PEAK was represented at the funeral service by Mel Togolo.

## **Agenda Item 1**

### Introductions & Apologies

Arthur Hood, Managing Director Placer Niugini Limited and Brad Gordon, Porgera Mine General Manager, were formally introduced to members of PEAK.

Apologies were received and acknowledged.

## **Agenda Item 2**

### Notes of Previous Meeting

Notes of the previous meeting were noted and accepted.

## **Agenda Item 3**

### Action Items / Matters Arising

Action items were dealt with and out of the meeting new action items were included as follows:

#### *Action Item 1*

In relation to Porgera Mine Closure Committee, PEAK advised that the socio-economic sub-committee should meet more frequently as social and economic issues are going to be the main focus of mine closure.

**Tim Omundsen to action.**

#### *Action Item 2*

The Annual Environmental Report to be distributed to those who did not receive one e.g. Elizabeth Karava and Michael Kiap

**Tim Omundsen to action.**

#### *Action Item 3*

On safety initiatives, PEAK requested figures on zero tolerance and any fatalities be provided at the next meeting.

**Brad Gordon to action.**

*Action Item 4*

Review all microbiological data that has been analysed for all sites by PJV laboratory in the last 12 months and examine the integrity of the methodology.

Keith Bentley/David Yok to action.

*Action Item 5*

A report on recent work on HIV/AIDS in the Porgera Valley will be submitted to PEAK.

Dr. C Reto to action.

*Action Item 6*

With respect to the presentation by FPCD regarding needs assessment with several villages in the Strickland River region, PEAK advised that a workable proposal be made to PJV to ascertain whether or not a project can be instituted.

Mel Togolo to action.

*Action Item 7*

With respect to presentation by Michael Kiap on correlation of metal values of mine derived sediments, Graeme Batley agreed to examine the data to compare their performance against those proposed by CSIRO.

Graeme Batley to action.

*Action Item 8*

Advise members of PEAK about PMCC meeting in January 26-27, 2004 and see if they wish to attend as observers.

Tim Omundsen to action.

*Action Item 9*

Organise trip/visit to Porgera for Chairman elect, Nigel Agonia.

Tim Omundsen/Mel Togolo to action.

## Agenda Item 4

### Agenda Item 4.1

#### Status Report - Environment and sustainable development.

Tim Omundsen gave status report on environment and sustainable development. Compliance was achieved with government criteria at SG3 and the amount of waste discharged at Anawe was reported to the Komiti. Environmental spills under various categories continue to decline, which is a good thing.

It was reported that the Porgera Mine Closure Consultation document was presented to various stakeholders and a Porgera Mine Closure Committee has been formed. The Annual Environmental Report was completed and distributed to stakeholders. Two water use permits were renewed during the period.

Rehabilitation work continues to be progressed with 129 ha planted with ground cover for the Kogai dump. As soon as ground cover is sufficiently established, mixed local forest species will be planted. In partnership with government, the Forestry Nursery at the Porgera station has been refurbished.

Field work for HRA was completed and the final report will be ready by early 2004. It was noted that PJV supported a National Science Foundation Project in the Lower Strickland, which was carried out by Prof. Bill Dietrich.

The Environment Department of PJV is still waiting for the final report of the studies in co-disposal of mine waste and the Environmental Chemistry Laboratory received verbal accreditation with the PNGLAS.

Application to the Incentive Fund for the Pongema mini hydro-electricity scheme feasibility study was made and PDA is now waiting for the response from AUSAID.

A proposal for alternative economic development in the valley for building of more houses has been put to the parties of FIFO by PJV. Negotiations between the parties are progressing.

With respect to community affairs, a number of projects are progressing well in the area of commercial, infrastructure and agricultural programs as well as the construction of various social facilities.

### Agenda Item 4.2

#### Operational Performance

Brad Gordon, Mine General Manager, presented an operational update to the Komiti and noted that in 2002 Porgera contributed almost 17% to PNG total exports and since commissioning 11.3 million ounces of gold and 2.0 million ounces of silver were produced.

Safety objectives for 2004 were outlined. Porgera will aim for DNV level 6 for safety performance by mid 2004, a 25% reduction in safety metrics, increase in hazard identification, better housekeeping and introduce safety competition. A zero tolerance safety initiative has been instituted as policy and all future safety review data will be based on this initiative.

Surface mine activities were outlined for the Komiti's information and it was noted that mining rate is likely to be reduced from 210,000 tpd to 135,000 tpd in April 2004. Underground development work is continuing and exploration will continue to be encouraged.

The Komiti noted that gold recovery has been steadily improving.

Staff turnover figures were high, 17.9% for expatriates, 13.5% for citizen staff and 15% for award citizen employees. This means that total site turnover year to date was almost 15%. Work on human resources closure plan is in progress. Education issues in Paiam and Porgera remain critical challenges.

Tari District, the main conduit for the power line, remained quiet with the presence of the Mobile Police Squad. It was reported that there was a power line incident on October 6, which resulted in loss of production for 6 days but there were no major problems on the Highway.

The operational challenges remain: -

- 1. the Hides transmission line
- 2. closure strategy agreed with stakeholders
- 3. ordered closure - activities will begin to reduce next year
- 4. ensure that business returns are maintained

### **Agenda Item 4.3**

#### Briefings as required

##### *Agenda Item 4.3.1*

HRA of communities downstream from Porgera mining operations: Introductory materials

This presentation was given by Dr. Keith Bentley and in his introduction outlined the components of health risk assessment (HRA). HRA compares the

baseline environmental conditions for each study group of villages and compares them against groups in specific categories e.g. geographical locations, groups with similar dietary patterns or groups living in mineralised environments. It may give weightings to various exposure pathways as contributors to total exposures. As well scenarios can be developed to allow other comparisons to be made for entire populations or zones and geographical locations.

Dr. Bentley said that the objective of the present work is to come up with a comprehensive health risk assessment for the potential impact of the Porgera mine derived materials on communities downstream of the mine. To do this he looked at cross sectional analysis of the 2000 - 2002 PJV data and supplementing this data where needed for each exposure compartments - air, drinking & recreational waters, soils, sediments and food. The data for each compartment was then compared against international health standards for each exposure compartment. The objective is to develop a most realistic "worst case" scenario for each identified geographical location (zones 1 to 5).

Drinking water bacterial tests were shown in which all faecal coliforms were zero (pure water) strongly suggesting that Dr. Taufu's water samples for another study for PEAK may have been contaminated. Dr. Bentley's study showed that various metal values for drinking water quality were all within WHO guidelines.

With relation to results of water quality being 100% pure, Dr. Siba raised a point that, under PNG conditions, total water purity is rare and wondered whether or not integrity of methodology or data should not be reviewed.

Some discussion took place about integrity of some of the data for cross sectional analysis and while the meeting was assured that the integrity of the data and methodology were maintained, the author undertook to review microbiological data for all sites in Porgera for the last 12 months.

### *Agenda Item 4.3.2*

Dietary Studies in the Porgera-Lagaip-Strickland Rivers and the Lake Murray areas

David Yok gave the presentation. The scope of the study assumed that the dietary uptake of the communities, other than in the highly mineralised zones, represents 80-90% of total weekly metal uptakes for all age and sex classifications.

Food consumption patterns for communities impacted by the mine were investigated against controlled villages. Using data from World Bank Study and other studies unit consumption values were recalculated and target food

products were collected and analysed. Individual unit food consumption for different geographic locations (urban highlands, rural highlands and rural lowlands) was examined for dietary uptakes for different age and sex groups. The study then incorporated the contaminant uptake data in a health risk assessment for riverine communities and Lake Murray.

The consumption of fish, prawns and molluscs by zones (zone1-zone 5) naturally showed high frequencies in zones 4 & 5 (lower Strickland River and Lake Murray).

Interesting data on food frequencies for impact and control communities by geographic locations was presented to the Komiti. The presentation also showed metal data for store foods and it was interesting to note that the mean arsenic concentration in tinned fish was the highest observed in the study.

A member pointed out that data for food consumption from trade stores could be useful as an indicator for mine closure analysis.

### *Agenda Item 4.3.3*

Benthic Macroinvertebrates in the streams around Porgera: Final Update

This report was not given as the presenter sent his apologies for the meeting and will be presented at the next meeting.

### **Agenda Item 5**

#### Community Consultation

### **Agenda Item 5.1**

#### *Strickland River Needs Assessment*

Pain Pyare of Foundation for People and Community Development (FPCD) reported on the social needs assessment that was carried out among four villages in the Upper Strickland River region. The report concentrated mainly on literacy and hygiene. The presentation reported what may have been expected that the needs and requirements were similar in all the villages. Lack of education and health facilities were common as well as lack of personnel with relevant skills to assist the communities.

The report, however, fell short of making practical proposals to address the needs.

Some PEAK members were concerned about what they felt were leading questions being asked of the communities. They felt that the questions could raise community expectations that could not be achieved.

It was recommended that PJV ask FPCD to come up with a practical proposal for PJV to consider.

## Agenda Item 5.2

### *HIV/AIDS and STI intervention Program in the Porgera Valley*

Dr. C Reto presented two papers one on Determination of Patterns of STI and the other on HIV/AIDS and STI Intervention in the Porgera Valley.

#### *Determination of Patterns of STI*

The main objective was to estimate prevalence of STI and HIV/AIDS, patterns of risky sexual behaviour, evaluate knowledge and recognition of symptoms and determine healthcare seeking behaviour.

A cross section survey of a total sample of 511 revealed demographic characteristics of the area in terms of gender distribution, marital status, educational level and occupation. It was interesting to note that less than 30% of the student population of the valley attend primary and secondary schools. Lack of education is likely to affect health condition of the area and is also a great challenge in trying to make people understand public health issues, particularly HIV/AIDS.

A good sign is that people are beginning to come to the clinic for STI treatment. But there is a long way to go yet. The survey noted low usage of condoms and the number of multiple sex partners continues to be a threat in public health with respect to STI (40-50 STI treated per month) and HIV/AIDS.

#### *HIV-1 and Syphilis Serology: Background Information*

The presentation noted that STI has long been a problem in the Porgera valley and the Highlands Highway has facilitated a thriving sex industry. Drug use, unprotected sex and sexual violence are common and approximately 50 to 60 STI cases are treated per month at the clinic.

A three-year collaborative study was instituted starting in November 2002. This study will estimate the prevalence of STI (including HIV) among mine workers, community volunteers both close to the mine as well as away from the mine, women attending antenatal clinics and randomly selected community members.

Peer education started in 2002 and continued in 2003. 66 peer educators were trained in 2002 and 55 in 2003. Representatives came from youth, women, churches and employees.

The outputs to be released by the study are the following: -

- • changes in sexual behaviour
- • increased condom use
- • less sexual violence
- • decline in prevalence of rates of STIs and HIV antibodies.

Dr. Reto concluded that HIV antibody prevalence rate is under 5% in the Porgera valley but the rates of other STIs are high and comparable to rates found in other parts of the country. She pointed out that a worsening HIV epidemic can only be curtailed by encouraging behaviour change in the community. One way to do this is to train peer educators and counselors who would facilitate awareness about STIs and HIV/AIDS.

### **Agenda Item 5.3**

#### *Tracking Porgera Mine Derived Sediments (MDS)*

This item was included on request by Michael Kiap, technical advisor for the Government and it was based on a research paper by one of his students. The report attempted to use existing field data to identify metal values that may be suitable for MDS signatures.

Using Excel software, the report attempted to analyse trends of paired metals and tried to look at statistical correlation at SG1 against Tiumsinawam and compared these against reference sites (OK OM and Upper Lagaip).

The paper concluded that silver and lead might not be suitable signatures for MDS but that Cr-Fe and Pb couples are better for tracing MDS signatures. It also noted that arsenic might also be a good MDS signature element and that in future it should be pursued as a possible tracer.

It was pointed out by Dr. Batley that the real issue is what happens downstream at the Off-River-Water-Bodies (ORWB) where over-bank depositions have occurred and mine derived sediments are mixed with local in-situ sediments. It is here that MDS based on single metals may be identified but the trace ratios of metal couples may not hold. Using metal ratios to track MDS may be scientifically sound so long as they are not confounded by other inputs from the Porgera-Lagaip-Strickland river system.

### **Agenda Item 6**

## Recommendations

There were no recommendations except those listed under Action Items above.

### Agenda Item 7

#### PEAK Reporting

##### Agenda Item 7.1

#### *Annual Report*

At this point in time the draft Annual Report has not been written. When it is completed it will be sent out to members for their comments and later for their approval at the next meeting in March 2004

### Agenda Item 8

#### Any Other Business

- 1. On account of the vacant position of the chairman, the meeting was briefed regarding an approach that was made to Mr. Nigel Agonia for the Chairmanship of PEAK. It was noted that when asked Mr. Agonia was happy to take chairmanship. The Komiti was briefed on his background and a CV was distributed. After some discussion, it was agreed to accept the recommendation to appoint Mr. Nigel Agonia as chairman of PEAK.

It was suggested that some local (PNG resident) should meet Mr. Agonia and brief him on their views of PEAK and if it involves travel into Port Moresby to do that then PJV will arrange that.

It was recommended that Mr. Agonia be encouraged to visit Porgera as soon as possible.

- 2. The komiti also discussed in some detail the ways in which PEAK could become more effective. The committee system was discussed and whether or not it needed to be resuscitated. It was suggested that it might be beneficial for some committee meetings to take place prior to the formal meeting.

Certain questions were asked. How does PJV perceive PEAK and is its current performance acceptable?

PJV would like to see PEAK both as a monitoring and advisory body. Because of the imminence of mine closure, PJV would like PEAK to focus more on socio-

economic issues and provide constructive criticism of some of its socio-economic activities and programs. PJV would also like to use PEAK's expertise in its planning for closure and to add value to the Porgera Mine Closure Committee (a committee of stakeholders). PEAK members were encouraged to make regular visits to Porgera. It was suggested that it could be useful for members to travel to Porgera prior to the meeting in Port Moresby. This could help activate positive discussions at meetings and improve its performance.

## Agenda Item 9

### Future Meetings

- 1. March 1-2, 2004
- 2. October 18-19, 2004