

**DRAFT SCOPING  
REPORT  
COMMENTS**

**VAN DER MERWE,**  
**B**  
**PART 2**

We repeat our question: What is the hopeful outcome of this proposed meeting, given above facts and the identical match of the land use to the area of Adv Sandile Nogxina's pronouncements? We are not unwilling to meet with people if there is a realistic expectation of an outcome. On the face of this there is none. Please explain.

Further the Minister of the DMR Mrs Susan Shabangu, recently announced a moratorium on further PR and MR applications. Among the reasons for this moratorium she listed high levels of suspected corruption and other irregularities as reasons. All applications dating back to 2004 would be investigated for irregularities.(Some 26 000 applications).

Whilst it is true that this PR application had already been accepted by the DMR prior to the declaration of the moratorium, it was merely an extension of the four preceding applications dating back to 2005. This application is so blatantly inappropriate as can be seen from its history (Media coverage, Coalitions, Judicial Reviews etc.), that it must therefore be subjected to the moratorium and be investigated. An application that is so inappropriate and has so many objectors and so little merit could only have gotten this far as a result of irregularities.

The four preceding applications are:

The first PR in 2005: **WC 30/5/1/1/2/155 PR** (rejected 3/9/2005 on grounds of pollution),

The second PR in 2006: **WC 30/5/1/1/2/238 PR** (granted, opposed by Judicial Review)

The first MR 25/3/2009 in: **WC 30/5/1/2/2/328 MR** (abandoned)

The second MR in 28/9/2009: **WC 30/5/1/2/2/385 MR** (withdrew)

And now this 3rd PR on 26/3/2010, **WC 30/5/1/1/2/434 PR**

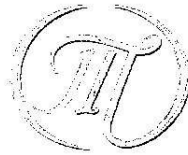
as a direct extension of above applications.

We hereby insist that all five these applications are investigated and that all relevant documentation, decision making processes, recommendations etc be forwarded to us (according to PAIA regulations).

Kind regards



Dr Bennie van der Merwe  
Moutonshoek Investments



## MOUTONSHOEK

PO Box 67 Piketberg 7320 • Tel: 022 942 1255 • Tel/Fax: 022 942 1782

28 September 2010

**Mr. Sivuyile Mpakane**

Regional Manager: Western Cape  
Department of Mineral Regulation and Administration  
Private Bag X9  
Rogge Bay 8012

**Objection to application for a Prospecting Right in terms of section 16 of the MPRDA to the DMR on 26 March 2010 for prospecting of tungsten ore, molybdenum ore, rare earths, copper ore, zinc ore, gold ore and silver ore on Portion 1 of the Farm Namaquasfontein No. 76; Portion 13 of the Farm Namaquasfontein No. 76; Remaining Extent of Portion 6 (a portion of Portion 2) of the Farm Namaquasfontein No. 76; Portion 1 of Farm No 297 ("the affected properties"), ref. WC30/5/1/1/2/434PR**

Ms Joyce Mcha from the DMR phoned me to inform me that she and two officials from DAFF were coming to do a site visit at the application area. She duly arrived on 3 August 2010 with Messer's Smit and Pienaar from Agriculture.

When questioned about the purpose of her visit she stated that it was to ascertain the level of intensive agriculture in the application area. (This was a feasible explanation, given that the DMR's DG Adv. Sandile Nogxina had already with the recent Wine lands Tin Prospecting application stated that: "Intensively farmed land would never be allocated for prospecting or mining, as we are a responsible Government after all")

We assisted her and plotted the areas on a map. She then asked me and the other three landowners to plot the areas of least agricultural activity (less intensive) on the same map which was left with us.

As it turned out the ENTIRE area where the bulk of the proposed prospecting was to be done is under intensive agriculture. A small area where very little proposed prospecting is envisaged, is not.

Thus this application is in an area that is IDENTICAL to the one that the DMR's DG made his pronouncement on recently. This application must thus be rejected accordingly.

Even before we assisted Ms Joyce Mcha, we make it quite clear to her that this was an entirely academic exercise as we are on record as objecting to this PR application in the strongest possible terms and this resolve has not, and will not, change. The application is inappropriate given the intensive farming and land use and it has no merit. The rest of our objections are also on record.

MOUTONSHOEK INVESTMENTS (PTY) LTD.

Reg. No. 2004/002322/07

Directors: Dr. B. van der Merwe & M.C. Gerber

**OBJECTION AGAINST APPLICATION FOR PROSPECTING RIGHT AND COMMENTS ON ENVIRONMENTAL MANAGEMENT PLAN SUBMITTED IN TERMS OF THE PROVISIONS OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, ACT 28 OF 2008**

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<b>LITTLE SWIFT INVESTMENTS 56 (PTY) LTD NAMAQUASFONTEIN BOERDERY TRUST</b>	<b>OBJECTORS</b>
<b>BONGANI MINERALS (PTY) LTD</b>	<b>APPLICANT</b>
<b>APPLICATION REFERENCE NUMBER</b>	<b>WC 30/5/1/1/2/434 PR</b>
<b>PROPERTY</b>	<b>FARM 297/1 PIKETBERG</b>

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This submission is submitted on behalf of Moutonshoek Investments (Pty) Ltd (ex Little Swift Investments 56 (Pty) Ltd) and the Namaquasfontein Boerdery Trust and it constitutes a formal objection against the application for a prospecting right on, amongst others, the property known as Farm 297/1, Piketberg.

**Fact – an unknown entity with virtually no technical or financial abilities for the umpteenth time attempts to obtain prospecting rights in respect of active food-producing agricultural farms located in an environmentally sensitive area and providing a source of income for more than 195 individuals and their families. The submitted application and environmental management plan are generic in nature, fails to properly address material issues and in certain aspects is misleading.**

The purpose of this submission therefore is to indicate to the relevant authority why this application should be summarily rejected.

## **INTRODUCTION**

1. Bongani Minerals (Pty) Ltd (hereinafter referred to as the “**Applicant**” ) applied for a prospecting right in terms of section 16 of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002), (hereinafter referred to as the “**Act**”) to prospect for tungsten ore, molybdenum ore, copper ore, zinc ore, gold ore, silver ore and rare earths over the remaining extent of portion 6 (a portion of portion 2) and portions 1 and 13 of the Farm Namaquasfontein No 76 and portion 1 of Farm No 297 in the magisterial district of Piketberg (hereinafter referred to as the “**Prospecting Area**”). This application was provisionally accepted by the Department of Mineral

Resources: Western Cape Region (hereinafter referred to as the “**DMR**”) on 31 March 2010.

2. Following the acceptance letter of 31 March 2010 the Applicant was instructed by the DMR to –
  - (i) To notify in writing and consult with the landowners or lawful occupiers or any other affected party and to submit the result of such consultation to the DMR before or on 30 April 2010; and
  - (ii) To submit an environmental management plan to the DMR on or before 30 May 2010 (hereinafter referred to as the “**EMP**”).
3. Following the notification process initiated by Withers Environmental Consultants (hereinafter referred to as “**WEC**”) on or about 12 April 2010 (12 days after the provisional acceptance of the application) Moutonshoek Investments (Pty) Ltd (kindly note the name change from Little Swift Investments (Pty) Ltd) the owner of Farm 297/1 and Namaquasfontein Boerdery Trust the owner of portions 4 and 5 of Farm 76, immediately registered as Interested and Affected Parties and by 30 April 2010 submitted their initial objections against the application. (hereinafter referred to as the “**Objectors**”)
4. It is not the intention of the Objectors to deal with the consultation process in detail, but may refer to aspects thereof during the course of this submission if and when regarded as relevant.
5. For the purposes of this submission it is recorded that WEC has requested that all comments on the EMP must be submitted by 18 May 2010. It is not understood in terms of which provision of the Act or Regulations this timeframe was set and the opinion is held that the Objectors were not bound by this timeframe and WEC was informed accordingly. The Objectors have however undertaken to submit their submission to the DMR on or before 30 May 2010.
6. This submission is aimed at –

- (i) Supplementing the Objectors' submissions submitted to WEC on or about 30 April 2010; and
  - (ii) Providing comments on the draft EMP compiled by the Applicant.
7. It is also submitted that this submission should be read in conjunction with all other submissions, comments and objections submitted by other landowners in the Prospecting Area, Interested and Affected Parties and the Verlorenvlei Coalition representing in excess of 1500 members.

## HISTORY

8. It is the Objectors' submission that before dealing with the application and the EMP the events preceding this application should be recorded.
9. Although the Applicant and WEC wish to downplay the history and would argue that this application is a "new" application and should be considered afresh, it is the Objectors' submission that this application can not be seen in isolation, but should be dealt with, with due cognisance of two previous prospecting right applications and two previous unsuccessful mining right applications submitted by the Applicant in respect of the same properties to which this application relates.
10. These applications were as follows:
- (i) A prospecting right application submitted by the Applicant during September 2005. This application was rejected on grounds of pollution concerns;
  - (ii) The second prospecting right application submitted by the Applicant on or about September 2006. This application was granted on 3 April 2007 but was taken on judicial review by the objectors. The right lapsed before the review could be finalised;
  - (iii) The first mining right application WC 30/5/1/2/2/328 MR submitted by the Applicant on 25 March 2009. After vigorous objections clearly indicating deficiencies in the application and related documentation and the apparent

inability to complete a proper environmental impact assessment, this application was withdrawn by the Applicant; and

- (iv) The second mining right application WC 30/5/1/2/2/385 MR submitted by the Applicant on 28 September 2009. After vigorous objections clearly indicating deficiencies in the application and related documentation, this application was also withdrawn by the Applicant.

11. All four the above applications were poorly presented, based upon faulty studies and were not supported by any substantial specialist reports that actually could serve to support the application. These applications were not only objected to by the affected owners and other interested parties, but also by all relevant state departments who have expressed serious concerns. None of these applications received a single shred of support from any of the relevant role players.
12. In its draft EMP the Applicant referred to these applications, but forwarded as reason for these abortive attempts the fact that it apparently was not allowed access to the properties to complete an Environmental Impact Assessment and Environmental Management Programme. The Applicant however remains silent on the fact that the DMR, in respect of the scoping report of MRA 328, specifically on 24 June 2009 recorded that *"it was difficult to comment on the document because the information provided to explain the project was mostly general, and not specific to make constructive and specific comment possible."* The opinion is held that this was the true reason for the failure of the applications and not because landowners did not want to cooperate with the Applicant.
13. After reading the current application and EMP it is the Objectors' submission that the then concern expressed by the DMR should equally apply today.
14. As justification for its decision to once again apply for a prospecting right, the Applicant refers to *"research undertaken by the University of Stellenbosch on stored core samples drilled during the 1970's .....has revealed the presence of additional minerals in the project area."* As a result the Applicant then decided to apply for a prospecting right *"in order to obtain information on these additional minerals."* (Page 7 of the EMP). Is it then the contention of the Applicant that this research was done after September 2009 (when MRA 385 was lodged)? If not, then it should be abundantly

clear that this information should have been available during 2005 already (when the first PRA was lodged).

15. All previous applications related to prospecting/mining of tungsten and molybdenum ore and now all of a sudden 6 additional minerals are added and this apparently as a result of the “discovery” of these additional minerals through research! Ironically enough, apart from listing these additional minerals, neither the application, the prospecting work program nor the draft EMP make any further reference to the quantities or actual occurrence of these minerals in the Prospecting Area. One would have at least expected some kind of reference to a desktop study or respectable geological survey dealing with these material issues to justify the application!
16. It is a fact that the Objectors and all other interested and affected parties for more than 5 years now have been inconvenienced, frustrated and harassed by the Applicant’s attempts to acquire a prospecting or mining right and it is trusted that the DMR will once and for all put a stop to these attempts.
17. Based upon the Applicant’s statement that the ultimate purpose of the application is to *“develop a mine based on information gathered from the prospecting programme”*, it is the Objectors’ submission that the DMR in considering this application must then also consider the feasibility of mining for a mineral of a marginal grade in an active agricultural area located in an environmentally sensitive area. If that is the case then it is submitted that all the concerns expressed during the previous mining right applications remain relevant and will not be addressed by the envisaged prospecting operations.

## **THE APPLICATION**

18. The Application does not meet the requirements of the Act.

18.1 At the outset it is the Objector’s contention that the acceptance by the DMR of the Applicant’s application is *ultra vires* since it does not meet with the requirements contemplated in section 16(1) of the Act for the following reasons.

18.2 Section 16(1)(b) states that any person lodging an application for a prospecting right must lodge the application” *in the prescribed manner*”. In



terms of section 16(2) the Regional Manager can only accept the application “*if the requirements contemplated in subsection (1) are met*”. If not, the application then must be dealt with in terms of the provisions of section 16(3).

- 18.3 Regulation 5(1)(b) of the Regulations published in terms of the Act stipulates that an application must be completed in the form of Form B contained in Annexure I and must contain “*in the case of a company....., documentary proof that the applicant has obtained the necessary authority to make the application in a representative capacity on behalf of the company....*”
- 18.4 Bongani Minerals (Pty) Ltd is the Applicant and it follows that its application should contain the necessary proof contemplated in regulation 5(1)(b). In other words a resolution by the company authorising a natural person to make the application in a representative capacity on its behalf.
- 18.5 From the application it would appear that one Johannes van der Walt is the authorised representative of the Applicant. This is confirmed by the undertaking (Part L of the Application) signed by the said Johannes van der Walt “*authorised thereto by Bongani Minerals*”
- 18.6 As proof of its compliance with this requirement the Applicant then refers to a copy of a resolution contained in appendix 10 to the application. This resolution however was passed by the Directors of **El Nino Mining (Pty) Ltd** on 23 March 2010 and it reads that “*Johannes Hendrik van der Walt is authorised to sign all documents pertaining to the said prospecting right on behalf of the Company.*”
- 18.7 El Nino Mining (Pty) Ltd is not the applicant company. It rather is the 100% shareholder in Riviera Tungsten (Pty) Ltd, the 49% shareholder in Bongani Minerals (Pty) Ltd, the Applicant.
- 18.8 El Nino Mining (Pty) Ltd has no jurisdiction to authorise one of its directors to sign all documents pertaining to the prospecting right on behalf of the independent Bongani Minerals (Pty) Ltd.
- 18.9 Van der Walt was therefore not authorised by the Applicant and has not “*obtained the necessary authority to make the application in a representative capacity on behalf of the company*”.

18.10 The Application does not contain the documentary proof as contemplated in regulation 5(1)(b), and does not comply with section 16(1)(b) and the acceptance of the application by the Regional Manager consequently was *ultra vires*.

18.11 In the Objectors' opinion this is a material deficiency with respect to the formal requirements in terms of the Act and it renders the application null and void *ab initio*.

19. Should the DMR however for some or other reason decide to condone the deficiency or allow the Applicant to *ex post facto* ratify Van der Walt's actions, the Objectors' rights in this regard remain fully reserved.
20. Bearing the aforementioned in mind the Objectors will now continue in dealing with the rest of the application and the EMP.
21. Ownership of Participation by Historically Disadvantaged South Africans

20.1 The Applicant takes pain in emphasising the fact that it is a "*BEE owned company*".

20.2 Apart from providing generic information on two of the "BEE" shareholders, Trevor da Silva Pikwane (37.74%) and Phemelo Ohentse Robert Sehunelo (10.20%), the application is silent on the other two shareholders, namely Dikgosi Diamonds CC (2.55%) and Latiefa Natasha Kau (0.51%)

20.3 It also does not provide any further information on Riviera Tungsten (Pty) Ltd, the 49% shareholder.

20.4 The application is also silent on –

- (i) Whether a shareholders' agreement is in existence regulating the relationship between the 5 shareholders of the Applicant;
- (ii) Whether a share pooling agreement between the minority shareholders is in place that will ensure that the Applicant will indeed remain a proper "*BEE owned company*" in all instances; and

- (iii) What the shareholders' responsibilities are as far as managing the applicant are concerned.

20.5 In light of the fact that Riviera Tungsten holds the largest percentage of shares and no documentary evidence is provided with regard to the matters referred to in par 20.4 above, serious reservations must exist with regard to the statement by the Applicant that it is a HDSA controlled company.

20.6 The fact that the sole shareholder of Riviera Tungsten (Pty) Ltd, El Nino Mining (Pty) Ltd (par 17.6 above) has authorised Van der Walt to sign all documents pertaining to the application, should also serve as proof that the HDSA shareholders do not actively participate in the management of the Applicant.

22. Prospecting work program: Geological description of the land

21.1 The Applicant devotes a full page to the geological description of the land stating that the "deposit" represents one of the "most significant exploration successes of recent years". It is not clear whether this refers to the 1970's exploration or the research done on core samples. Apparently during 2009 this was enough to justify applying for a mining licence when the Applicant submitted an application "*based on advice that adequate historical information was available and that additional prospecting activities were not required.*"

21.2 The Applicant then refers to mining activities occurring 50 km to 180 km from the proposed Prospecting Area in respect of lime, heavy minerals (?), previous diamond mining, previous prospecting, current diamond mining, and gypsum. No reference is however made to zinc, gold, silver, copper or rare earths.

21.3 According to the Applicant a desktop analysis has already been initiated through a literature review of geological articles and previous prospecting. No information regarding the outcome of such desktop analysis is however provided by the Applicant.

21.4 In the Applicant's opinion this description is of such a generalised nature that it is impossible to make any constructive and specific comment possible.

23. Prospecting method:

22.1 When discussing the envisaged prospecting methods the Applicant states that the samples obtained through drilling will be “*transported to the University of Stellenbosch for full analysis*”. According to the EMP however these samples “*will be removed from site to Piketberg for further analysis*”. Where will analysis then actually take place?

22.2 The Objectors have serious reservations with regard to the drilling to be conducted and are of the opinion that the information provided is misleading. For instance.

- (i) It is stated that it is proposed to drill at approximately 150 drill sites. Would this mean one hole per site or could there be more than one hole?
- (ii) In the Objectors opinion is clear that more than one hole will be drilled per site. This actually is confirmed by the Applicant when it is stated that it may be required to “*drill a series of fanned holes*”.
- (iii) Reference to approximately “160 holes” therefore is misleading. In the same vein reference to the total drilling depth is also misleading and could the anticipated total drilling depth of 23 250m increase significantly taking into account the additional series of fanned holes to be drilled. This in turn would increase the cost estimate and place a further burden on the Applicant’s doubtful financial ability.

24. The Applicant’s technical and financial ability – will be dealt with under separate headings below.

25. Cost estimate of the expenditure for each phase

25.1 In part K of the application provision is made for R60,000 during Phase 1 for rehabilitation & environment. (According to the EMP however this amount is R80,000)

25.2 No further specific provision is made for rehabilitation and environment during Phase 2 (drilling). According to the Applicant R23,500,000 is however estimated for direct prospecting "*incl rehab*". In the Objectors' opinion this is extremely vague and provide no indication whatsoever of what financial provision has been made for rehabilitation during this invasive phase.

25.3 The Applicant in response to the various objections and concerns raised by interested and affected parties in the Comments and Response Table (Appendix 1A to the Public Consultation Report) on no less than 7 occasions undertook to pay compensation towards interested and affected parties in respect of, amongst others –

- (i) Rehabilitation for agricultural areas;
- (ii) Water used during prospecting operations;
- (iii) Inconvenience to landowners;
- (iv) Mitigation of potential impacts of prospecting; and
- (v) Loss in production caused by drilling operations

25.4 The Objectors could however find no indication that provision for such compensation has been made in the cost estimate submitted by the Applicant. Serious doubts also exist with regard to the Applicant's ability to provide for such compensation and rehabilitation in a very modest budget of R23,545,000 for the entire prospecting operation.

## **THE ENVIRONMENTAL MANAGEMENT PLAN**

26. With regard to the nature of the EMP as a whole it is the Objectors' submission that it is generic and provides no substantial information that would enable the DMR to make an informed decision. As a matter of fact the opinion is held that this document amounts to nothing more than a verbatim copying of the DMR's standard prescribed

EMP document. The project specific information provided seems to follow the trend set by the Applicant in its previous applications and it is “ *difficult to comment on the document because the information provided to explain the project was mostly general, and not specific to make constructive and specific comment possible.*”

27. The Applicant relies heavily on “*Walker (1994)*” when the latter apparently regarded “*the combination of greisen, skarn, and extensive hydrothermal alteration and mineralisation at Riviera as unique*”. The Applicant however fails to refer to or are not aware of its own Prof A Rozendaal’s statement made on Monday, 25 May 2009 during the Poster Session V13B, Metro Toronto Convention Centre, Toronto, Canada which reads as follows:

*“The blind Riviera deposit is located in the Western Cape Province and was discovered by stream sediment sampling in the mid 1970’s. Resources total 46 million metric tons assaying 0,216 per cent tungsten and 200 parts per million molybdenum, a marginal grade that has prohibited development into an open cast mine.”.*

This very same Prof Rozendaal is also on record for stating during, as far as could be established, the 27<sup>th</sup> Earth Science Congress of the Geological Congress of the Geological Society of South Africa, Stellenbosch, 2000, as follows: “*Despite suitability for open-cast mining, well established infrastructure and relative simple metallurgy, the grade of the deposit remains marginal.*” and “ *A halo of exo-skarn associated subeconomic mineralization envelopes the Riviera Pluton and is hosted by metasomitted calcareous rocks of supracrustal sequence. It is however of limited extent and rarely contributes to the total resources.*”.

It is the Objectors’ opinion that these statements made by its own Prof Rozendaal during 2000 and 2009 are certainly in direct contradiction with is apparent justification for applying for a prospecting right based on Walker’s 1994 comments.

28. The Applicant then continues and states that it has decided to apply for a prospecting right because of the “revelation” of the presence of additional minerals in the project area. The Applicant however fails to submit any information on the quality, occurrence, grade and quantities of these additional minerals it is looking for. In respect of the rare earth elements the Applicant also conveniently fails to refer to or is unaware of pronouncements made by Prof Rozendaal which are in the public domain, to wit: ‘*Accessory minerals include pyrite, pyrrhotite, chalcopyrite, sphalerite and the LREE*

*enriched mineral allanite. Scheelite and molybdenite occurs as fine disseminations, but also as coarse grains within cross-cutting, late stage quartz and calcite veins in the granite and the wall rocks.*' (Rozendaal, 25 May 2009).

29. In addition the prospecting information is required to *"refine the current mine model and to investigate the feasibility of potential underground, instead of open cast mining."* No information is however provided on this so-called "current mine model" that needs refining.
30. It is the Objectors' submission that the Applicant has provided absolutely no substantial justification for applying for a prospecting right. On its own submission the purpose of the prospecting right is not to establish the quantity and location of the minerals applied for but to *"develop a mine based on information gathered from the prospecting programme"*. The Objectors vehemently oppose the development of any mine and regard this application as another futile attempt to obtain mining rights over agricultural land located in an environmentally sensitive area.
31. In the Objectors' opinion the rest of the EMP is completed in general terms and does not provide any substantial information that would enable the DMR to make a well-informed decision. The Objectors also wish to refer to a few inconsistencies and/or misinformation contained in the EMP:
  - (i) It is stated that the area of each drill site that will be disturbed will be approximately 60m<sup>2</sup> in extent. Taking into account that the two water pits alone would be 12.5m<sup>2</sup> in extent it is questionable if the boreholes, drilling rig, metres of 20 mm class 3 plastic pipe, a generator, mono pumps and personnel could be accommodated in the remaining area of 6m X 8m.
  - (ii) The Applicant indicates that 8 drilling sites will be situated within 1km from farm houses. Based on the diagram for drill sites provided it is the Objectors submission that 81 drill sites will actually be situated within 1 km from 7 farm houses and another 35 drill sites within 1 km from a further 4 farm houses.
  - (iii) The statement by the Applicant that the impact upon agricultural land and the disruption of agricultural activities

during prospecting will be low (negative) is rejected. On the circular area alone where lucerne is grown that provides fodder for the breeding horses no less than 18 drill sites are envisaged! The impact upon agricultural land and agricultural activities in the opinion of the Objectors will therefore be high.

32. In the Objectors opinion the most glaring omission from the EMP is a reference to the area and its environmental importance. The envisaged Prospecting Area is located north of the slopes of the Piketberg and is surrounded on its southern, eastern and western boundaries by the mountains. These mountains form a natural catchment area for the Krom Antonies River and the subterranean aquifers that provide water and life for the entire area right up to Elandsbay. To argue that the envisaged prospecting activities and the ultimate mining objectives would not negatively affect this invaluable eco-system constitutes, in the Objectors' opinion, a complete disregard of the value of this catchment area. It is submitted that the drilling of 160 plus holes 250 m deep and traversing this area and the eventual developing of an open cast mine over an area of 55 ha shall lead to the ravaging of this life-giving eco-system, with irreversible consequences . To even suggest that complete rehabilitation would be possible clearly portrays a total ignorance of the devastating effect the envisaged prospecting and the ultimate objective will have on this area. The Applicant however deems it not necessary to address this material issue.
33. Other aspects emanating from the EMP will be dealt with under separate headings elsewhere in the submission.

### **THE APPLICANT'S STRUCTURE**

34. The Applicant, Bongani Minerals (Pty) Ltd, that was initiated with the exclusive intention to prospect and mine the mineral deposit in the Moutonshoek Area, is described as a 51% BEE owned company. Its shareholders are as follows:
- |   |                            |   |        |
|---|----------------------------|---|--------|
| ➤ | Riviera Tungsten (Pty) Ltd | – | 49%    |
| ➤ | T da Silva Pikwane         | - | 37.74% |
| ➤ | POR Sehunelo               | - | 10.20% |
| ➤ | Dikgosi Diamonds CC        | - | 2.55%  |
| ➤ | LN Kau                     | - | 0.51%  |



35. Riviera Tungsten (Pty) Ltd, described as the “minority” shareholder with its 49%, is owned by El Nino Mining (Pty) Ltd who in turn is a wholly owned subsidiary of Batla Minerals South Africa (Pty) Ltd.
36. Apart from general information about Pikwane and Sehunelo no information is provided with regard to any of the other three shareholders. For instance the shareholding in Riviera Tungsten (Pty) Ltd and its activities.
37. No shareholders’ agreement has been provided nor is any information available regarding the management of the Applicant, especially to determine if the BEE components indeed actively participate in its management and decision-making.
38. Whilst a description is provided of the staff compliment of El Nino Mining (Pty) Ltd no details are provided in respect of that of the Applicant.
39. No information is provided by the Applicant of legal agreements between it and El Nino Mining (Pty) Ltd providing for technical and financial assistance to the Applicant by El Nino Mining as alleged.
40. No information is provided regarding El Nino’s mining activities other than a brief reference to its single prospecting and mining activity involving diamonds in the Maluti mountains and the conclusion that it is efficient in the field of mining weathered Kimberlite and gravel with a high clay content.
41. Regarding the ultimate holder, Batla Minerals SA it is stated that it is a mining investment company conducting its activities in South Africa through El Nino Mining.
42. In the Objectors’ opinion the above information does not allow anyone to make an informed decision on the status and abilities of either the Applicant, its shareholders or the latter’s shareholders. As a matter of fact it is the Objectors’ submission that the Applicant is nothing more than a shell and a front company for El Nino Mining (Pty) Ltd.

#### **THE APPLICANT’S TECHNICAL ABILITY**

43. In terms of regulation 5(1)(h) the application must contain documentary proof of the Applicant’s technical ability or access thereto.
44. In this regard the Applicant in its application and EMP merely states as follows:

- (i) *“The Applicant and the respective geologist, have been involved in the mining and prospecting industry for a number of years and in that time gained sufficient knowledge in the safe and optimal methodologies in prospecting and rehabilitation practices for prospecting operations and mines.” ; and furthermore*
- (ii) *“the Applicant has at his disposal the applicable capacity in terms of machinery, equipment and infrastructure required.”*

45. Neither of the above statements is supported by any documentary proof whatsoever. In a letter dated 23 March 2010 the Applicant merely states that *“apart from its in house expertise, Bongani will be assisted by various experts and consultants to ensure that the environmental management plan and prospecting work program are completed in an efficient and correct manner.”* Whilst the CV's of the consultants the Applicant wishes to engage in the process are noteworthy in certain aspects, the Objectors remain to be convinced that they have the required experience to manage and oversee the prospecting operations as envisaged by the Applicant.
46. The Applicant's track record is well known and unless the unsuccessful submission of two prospecting right and two mining right applications should be regarded as *“involvement in the mining and prospecting industry”* and evidence of *“gaining sufficient knowledge”*, then it is submitted that the Applicant has no technical ability of any kind. The Applicant has no resumé of any previous prospecting or mining operations conducted by it.
47. No record is provided of the machinery, equipment and infrastructure the Applicant has at its disposal. It is the Objectors' submission that the Applicant does not have any of these at its disposal.
48. If technical ability and machinery etc. will however be put at the disposal of the Applicant by another company etc., then surely these statements should at least have been backed up with documentary proof of the existence of legal and binding agreements to this effect.

49. It is the Objectors' submission that the Applicant does not have the required technical ability to carry out the envisaged prospecting operations in accordance with the provisions of the Act or in compliance with its own EMP.

#### **THE APPLICANT'S FINANCIAL ABILITY**

50. In terms of regulation 5(1)(j) the application must contain "*a budget and documentary proof of the applicant's financial ability or access thereto*"
51. In an effort to comply with this requirement the Applicant merely attaches a letter by El Nino Mining (Pty) Ltd (the apparent sole shareholder in the Applicant's 49% shareholder, Riviera Tungsten (Pty) Ltd) which states that El Nino has the financial ability to fund the prospecting work programme and the EMP over the period envisaged. The latter company then attached a letter from Rand Merchant Bank stating its current available funds for this project as being more than R10 million. El Nino also stated that it will make the balance of the funds available during the course of the program.
52. In the Applicant's opinion the aforementioned then apparently constitutes a budget and documentary proof of its financial ability. This is rejected with the contempt that it deserves.
53. If the letter by RMB is properly read it should be clear that what is stated on behalf of the Relationship Manager concerned is that El Nino at 24 March 2010 has had R10 million available in a current account. Contrary to what El Nino in its letter alleges, it does not state that the R10 million is available for this project. From other evidence provided it is clear that El Nino is engaged in the mining of diamonds in the Maluti Mountains and also employs 180 people. In the Objectors' opinion one can safely assume that the amount in the current account should also be available to fund the diamond mining activity, other liabilities and matters incidental thereto. The Objectors are therefore for not one moment convinced that the entire R10 million, or more, will be made available to the Applicant.
54. It is clear that the Applicant on its own does not have any funds available for the envisaged prospecting operations and will have to obtain funding from elsewhere.
55. No documentary proof of such financing agreements is however provided. One would at least assume that both the companies should require some security in this regard,

either by way of a loan agreement or a joint venture agreement. A mere resolution by El Nino Mining that it is committed to “underwrite” the approved budget of the Applicant in the Objectors’ opinion is not a binding and secure agreement by a long chance.

56. In light of the fact that El Nino apparently would be prepared to fund the envisaged operation, then it would only be reasonable to expect that documentary proof of the sound financial ability of El Nino should be made available by way of audited financial statements as well as bank statements.
57. Should it appear that El Nino also does not have the financial ability to fund the envisaged project to the unrealistic low budgeted amount of R23 million, one would assume that El Nino’s holding Company, Batla Minerals A (Pty) Ltd should then provide documentary proof of its financial ability to fund the Applicant through its subsidiary, El Nino Mining (Pty) Ltd. However, according to research done by the Objectors’ it would appear that Batla Minerals SA is experiencing financial difficulties in that it (according to its own website) during the 2009 financial year and 2010 financial year has suffered substantial operational losses.
58. In the Objectors’ opinion and based upon the absence of any substantial documentary proof to this effect neither the Applicant nor El Nino has the required financial abilities.
59. It therefore is the Objectors’ submission that the Applicant has not and can not provide any documentary proof of its financial ability and that the DMR in terms of the provisions of section 17(2) of the Act, must refuse the application for a prospecting right on this ground alone.
60. It is also the Objectors’ submission that the above should serve as a clear indication that the application is actually made by El Nino Mining (Pty) Ltd and not by the Applicant and that the latter should be regarded as nothing more than a front for El Nino.

## **THE SUBJECT PROPERTY**

61. Farm 297/1, 175,3848 hectares in extent, constitutes the farm, Moutonshoek, in existence since 1917.

62. The Property holds significant and well-documented socio-economical, cultural, ecological and historical value for the Piketberg Region. Most importantly it forms part of the catchment area for the Krom Antonies River.
63. Active and self-sustained farming activities have been in existence for decades.
64. The Property together with the neighbouring Portions 4 & 5 of Farm 76 hosts one of the best known and acclaimed horse breeding herd's in South Africa comprising 121 horses accommodated in 46 camps. The Objectors produce much sought after world class yearlings for racing in South Africa and abroad. The Property is at full capacity in terms of the number of horses that can be accommodated on the farm. Every horse camp is full and there is no alternative lodging available for mares and foals should prospecting be commenced with for a period of two years.
65. In addition a total of 101 hectares on the Property is under lucerne, teff, oats and wine grapes.
66. The Objectors also jointly own a cattle herd producing 28 tons of meat per year.
67. The farming activities provide work and a source of income to 55 permanent and 140 seasonal workers and their families.
68. No less than 7 residences can be found on the Property providing permanent accommodation to the Objector and their employees and another 16 residences on the property of the other Objector, Namaquasfontein Boerdery Trust.
69. The natural vegetation, amongst others, found on the property is Swartland Shale Renosterveld, which is regarded as one of the three most threatened vegetation types in the country. Only 9% of this vegetation type remains, and it is thus regarded as Critically Endangered in terms of the new National Spatial Biodiversity Assessment (Rouget et al 2004). Any mining or prospecting activity on the Property will seriously jeopardise the conservation status of this critically endangered habitat to the detriment of not only the Western Cape, but the country and the world.
70. Based upon the aforementioned it is the opinion of the Objectors that any prospecting activities would not only have a detrimental effect on the farming activities, and the lives of all associated with the Property, but it also would be in direct conflict with the nature and character of the property. As a result the application should not even be considered.

## ZONING OF THE PROPERTY

71. Farm 297/1 is zoned as rural.
72. This zoning promotes and protects agriculture on farms as an important economic, environmental and cultural resource. Limited provision is made for non-agricultural uses to provide owners with an opportunity to increase the economic potential of their properties, without causing a significant negative impact on the primary agricultural resource
73. In terms of the Scheme Regulations in terms of the Land Use Planning Ordinance 15 of 1985 (LUPO) the following restrictions apply to this land use –
- (i) Primary uses are: agriculture, intensive horticulture, dwelling house, riding stables, environmental conservation use, environmental facilities, rooftop base station, and additional use rights.
  - (ii) Additional use rights, which may be used by the occupant of a property as a primary use are: second dwelling, or home occupation, or bed and breakfast establishment, or home child care, subject to certain requirements
  - (iii) Consent uses are: guest-house, hotel, tourist accommodation, tourist facilities, intensive animal farming, harvesting of natural resources, mine, utility service, transmission tower, aquaculture, animal care centre, farm shop, agricultural industry.
74. Based on the provisions of the Scheme Regulations it is quite clear that prospecting activities are neither a primary nor an additional use. At most and if the definition of a “mine” could be extended to also include “prospecting”, the latter could possibly qualify at least as a consent use. Whether this would be possible may be a discussion for another time.
75. So and for the sake of this submission alone it could be argued that prospecting might be regarded as a “consent use”. The latter is defined as “*The use of property for any purpose specified as a consent use is permitted only if the Council concerned grants its prior written approval for such consent use.*”

76. Based upon the aforementioned it is the Objectors' submission that Farm 297/1's current land use zoning does not permit prospecting activities and application therefore must be made to the local authority to obtain a consent use approval. Such an application in terms of section 15 of LUPO may only be lodged by an owner of land. It is recorded that the owner of Farm 297/1 has not and will not submit such an application.
77. The Objectors are also well aware of the DMR's opinion regarding the applicability of LUPO vis-a-vis the provisions of the MPRDA. It is a well-known fact that the DMR does not consider land use restrictions to be restrictive in so far as it relates to prospecting and mining rights and does not require authorisations in this regard.
78. It is however the Objectors' opinion that this point of view was dealt a blow when a ruling was made against it in the case of Swartland Municipality v Louw N.O and Others, Case No 13703/09
79. The facts relating to the decision that was handed down on 21 December 2009 briefly were that the Swartland Municipality sought an interdict to prevent the holder of a mining right from commencing mining activities on a farm, which had not properly been rezoned to a use, which permits mining in terms of LUPO. The holder of the mining right and the Department of Mineral Resources argued that the Constitution did not give municipalities executive authority to deal with mining and minerals. As a result they argued that the Minerals and Petroleum Resources Development Act (MPRDA) impliedly repealed all provisions of LUPO, which are in conflict with the MPRDA. The Court however held that
- (i) in terms of Schedule 4 of the Constitution, "municipal planning", which includes land use zoning, is reserved for regulation by municipal authorities only, and the regulation of regional planning and development may be extended to municipal authorities.
  - (ii) LUPO is not directed at the control of mining and it does not attempt to directly regulate mining.
  - (iii) Zoning is not connected with the issuing of mineral rights to the extent that it should be regulated by the MPRDA.

- (iv) LUPO is 'relevant law' for the purposes of the MPRDA and as such the holder of a mining right must ensure that his or her land is appropriately zoned before commencing any mining activities.

80. This case represents the current legal situation in the Western Cape and must find application in the present case – namely that no prospecting activities are permitted on Farm 297/1 (and for that matter on all the other subject properties) unless the landowner Objectors apply for and obtain permission from the Council concerned for at least permitting prospecting as a consent use. It is recorded that the landowners concerned have no intention to submit such applications.

### **MINERALS ON THE PROPERTY**

81. It is a well documented fact that the minerals tungsten ore and molybdenum ore can be found on the Property.

82. It is also a fact that the resources are of a marginal grade that has prohibited development into an open cast mine. (Rozendaal *op cit.*)

83. The Applicant has submitted no evidence of any other minerals that could be found on the property and even if the minerals zinc, copper, gold, silver or rare earth elements are found on the property or the other subject properties, the opinion is held that the grade and the quantities would be of such an extent that would not render any viable mining thereof remotely possible.

84. As previously mentioned it is the Objectors' opinion that the Applicant's statement that its interests in the additional minerals has prompted it to submit this application is regarded as simply a smokescreen.

85. The Objectors, in the absence of supporting evidence in this regard by the Applicant, could not find any authority since 1980 that would conclude that anything else than a very low possibility of discovering an economically viable mineral deposit of the additional kinds referred to by the Applicant would be applicable to the Property. It therefore is submitted by the Objectors that -



- (i) Some of the “additional” minerals might be present on Farm 297/1 albeit in ignorable quantities.
  - (ii) There is only a slim chance of finding any other additional minerals on Farm 297/1.
  - (iii) These “additional” minerals predominantly occur in other provinces.
  - (iv) Information regarding the presence of these additional minerals is readily available in reports and geological maps published by the Geological Survey and the Council for Geoscience.
  - (v) All that is required would be to do more than simply a “desktop study”.
  - (vi) Embarking on extensive prospecting activities such as drilling deep holes all over Farm 297/1 in search of some elusive “additional” minerals shall be a waste of money which the Applicant in any case evidently does not have.
86. Returning to the real reason for this prospecting right application, namely the mining of the tungsten deposit it is recorded that all the objectors’ opposition in this regard are well documented.
87. Since the Applicant’s ultimate goal for prospecting is to develop a tungsten mine the opinion is held that the DMR, when considering this application, must do this against the background of the stated ultimate goal. No purpose would be served to grant a prospecting right if a mining right application would not be successful. In this regard the Applicant’s record then speaks for itself – its total inability to respond to material concerns raised by the DMR as well as other relevant state departments.
88. It is the Objectors’ respectful submission that the DMR must take into consideration the financial viability of an envisaged mine, particularly when considering the extremely low grade of the tungsten ore – lower than anywhere else in the world where tungsten is profitably mined. According to figures provided in Table 10 of the 1998 USGS International Strategic Summary Report for Tungsten, (Page 50) the

Riviera Deposit ranked 140<sup>th</sup> out of 154 identified tungsten resources sites world wide with its estimated 46 metric tons.

89. Finally it is trusted that sanity will prevail when the DMR has to balance the interests of the exploitation of marginal mineral deposits with that of active agricultural production and food security.

## **ENVIRONMENTAL MATTERS**

90. The envisaged Prospecting Area is located north of the slopes of the Piketberg and is surrounded on its southern, eastern and western boundaries by the mountains. These mountains form a natural catchment area for the Krom Antonies River and the subterranean aquifers that provide water and life for the entire area right up to Elandsbay. To argue that the envisaged prospecting activities and the ultimate mining objectives would not negatively affect this invaluable eco-system constitutes, in the Objectors' opinion, a complete disregard of the value of this catchment area. It is submitted that the drilling of 160 plus holes 250 m deep and traversing this area and the eventual developing of an open cast mine over an area of 55 ha shall lead to the ravaging of this life-giving eco-system, with irreversible consequences . To even suggest that complete rehabilitation would be possible clearly portrays a total ignorance of the devastating effect the envisaged prospecting and the ultimate objective will have on the environment. The Applicant however deems it not necessary to address this material issue.
91. According to Cape Nature the prospecting area will have an effect on important fragments of indigenous vegetation, including Leipoldville and Fynbos (classified as endangered); Swartland Shale Renosterveld (classified as critically endangered); Piketberg Quartz Succulent Shrubland (classified as endangered); Piketberg Sandstone Fynbos, Cape Lowland Alluvial Vegetation (classified as critically endangered) and Cape Lowland Freshwater Wetlands.
92. The impacts of the proposed activities will extend beyond the prospecting area which is located at the source of the Verlorenvlei (Recognised as one of 19 wetlands in South Africa of international importance) one of the largest natural wetlands along the West Coast of South Africa. Rather than being subjected to the negative impacts prospecting/mining shall have on the system, the activities in the Krom Antonies

River valley should be directed at active upgrading and rehabilitation of the riverine ecosystems.

93. The prospecting area falls within the Greater Cederberg Biodiversity Corridor which aims to conserve and restore the unique biodiversity of this region and encourage sustainable land use practices.
94. It is believed that the envisaged prospecting/mining shall pose a high level of risk to the terrestrial and aquatic ecosystems in the area and their functioning. Any prospecting/mining should be regarded as entirely inappropriate for the area and could have significant and irreversible impacts on the environment – for instance: the continued existence of the very scarce Verlorenvlei Redfin Fish, a species only to be found in this 14 km piece of river on earth.
95. In the Objectors' further opinion a proper investigation, assessment and evaluation of the proposed prospecting operations on Farm 297/1 will reveal that such activities inevitably shall have a detrimental effect upon the environment as well as the socio-economic conditions of everyone that in some or other way is associated with Farm 297/1 and the application should not be granted for the following reasons:
  - (i) The farm's biodiversity importance of national significance,
  - (ii) The farm's agricultural importance,
  - (iii) The socio-economic impact upon the farm's employees;
  - (iv) The incompatibility and cumulative negative impact of a prospecting/mining activity on the nature, scale and grain of the existing rural land.
96. It is also submitted by the Objectors that both the principles of the National Environmental Management Act 1998 (Act 107 of 1998) and, potentially, some of the listed activities under the Act would be relevant to the application. In addition there are probably other environmental legal requirements which must be complied with such as- the granting of a waste management licence under the Waste Act, 2000 (Act 59 of 2000) and the undertaking of a Heritage Impact Assessment under the National Heritage Resources Act, 1999 (Act 25 of 1999).

## PUBLIC RESPONSE

97. It can be unequivocally stated by the Objectors that this application has received no positive response from the public. This is confirmed by the negative publicity it has received in the printed and electronic media.
98. The Objectors are not aware of any public support for the application. As a matter of fact the reaction overwhelmingly was condemning the application; calling for the rejection thereof and questioning the “real” reason behind the bringing of this application.
99. It is also submitted by the Objectors that it is extremely unlikely that any other government department would even consider conditionally supporting the application.
100. It is submitted that the DMR will have no other option but to take note of the vehement and vigorous public and departmental opposition when considering the application.

## CONCLUSION

101. In light of what has been stated in paragraphs 1 to 98 above the Objectors are of the opinion that the prospecting right application submitted by Bongani Minerals (Pty) Ltd should be rejected by the Department of Minerals Resources.
102. For the sake of convenience the reasons for rejecting the application are summarised as follows:
  - 100.1 First and foremost the application does not comply with section 16(1)(b) of the Act and it is submitted that the acceptance of the application by the Regional Manager was *ultra vires*.
  - 100.2 No proof is in existence that the Applicant’s HDSA shareholders share in the management of the Applicant which should constitute non-compliance with section 2(d) of the Act.
  - 100.3 The generic nature of the application and EMP and the absence of required substantive evidentiary proof.

- 100.4 The Applicant's total lack of technical and financial abilities to initiate, conduct and complete the envisaged prospecting operations;
- 100.5 The subject property is an active agricultural farm providing residence and employment to a number of persons. The factual nature of the property renders a harmonious co-existence with prospecting activities impossible.
- 100.6 The property's zoning does not permit any prospecting activities and the landowner will not submit any application for a consent use.
- 100.7 There is only a slight possibility that minute quantities of the so-called "additional" minerals may be found.
- 100.8 Any prospecting activity would have a serious and detrimental effect on constitutionally entrenched environmental matters.
- 100.9 The application would not be supported by any other government department. The application also has no public support and as a matter of fact is widely condemned. Serious concerns also exist in respect of the real reason for bringing this application.
- 100.10 The interests of active agricultural production and food security outweigh the exploitation of marginal mineral deposits.
- 100.11 The Applicant fails to address the impact that the envisaged activities will have on the natural water catchment area formed by the mountains surrounding the area. It portrays a complete disregard of the importance of this ecosystem and by doing that the Applicant intentionally renders the livelihood of all those entirely dependent upon this important life-giving environment – man, animal and plant alike – subservient to pure economical considerations that ultimately could only benefit the Applicant and its puppet masters.

Finally it is submitted that –

- In light of the documented history and the ultimate objective of the Applicant any attempt to downplay the effect of this application by stating that it is merely a prospecting right application should be rejected with the contempt it deserves;

- this application should be considered against the background of previous unsuccessful applications in this regard, especially in light of the fact that the Applicant unequivocally states that the ultimate goal is to develop a mine;
- this submission should be read in conjunction with the submissions made by other interested and affected persons.
- Serious reservations should exist with regard to who actually is behind and driving this application.

The Objectors also respectfully request the opportunity to address RMDEC to amplify this submission when the Committee performs its functions under section 10 of the Act..

Signed on behalf of the Objectors at Cape Town on this 30<sup>th</sup> day of May 2010.



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17<sup>th</sup> August 2009

Dear Kerry

Re: VERLORENVLEI COALITION

I enclose copies of my letters which I have sent to Aubrey Withers and the Honourable Minister of Water & Environmental Affairs (3<sup>rd</sup> August 2009) for your interest.

The reason I have sent these Registered letters is that my previous letters I sent to Aubrey Withers Environmental were only partly incorporated on Page 94 of his summary document (July 2009 Public meeting). The most important part relating to the safety of the drinking water and the possibility of causing health hazards to the local population were left out for some reason or other??

You will see in my letter there is a direct link between environmental hazards and Health & Safety and the consequences of possible contamination to the local population/crops via the water system is a real possibility.

I am also enclosing an article I read over the weekend regarding water pollution. This is the aftermath of the Bhopal India Disaster that took place ± 25 years ago, and Union Carbide (USA Company) killed thousands of people by a gas explosion and now the population (± 25 years later) are suffering from illnesses etc due to water pollution from the same industrial site.

When a situation like this occurs, the companies directors, shareholders, Government departments all suddenly distance themselves from the problem. This is the reason why we must hold everyone concerned with the Tungsten mine personally responsible in Terms of the Health & Safety Act if the mine goes ahead. We must make all individuals aware of the possible situation that could arise including individuals in the Piketberg Municipality as they would also have to agree for the mine to go ahead (e.g. roads, etc).

Regards



**EARL KRAUSE**

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18<sup>th</sup> August 2009

TO: AUBREY WITHERS ENVIRONMENT

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Dear Sirs

Re: **BPOPAL DISASTER – INDIA**

I enclose an article that appeared in the British Telegraph newspaper on 12<sup>th</sup> August 2009.

Now 25 years later after the above disaster, the local population are still suffering from contaminated water (water pollution) from the same Union Carbide industrial site which is causing serious illnesses and skin problems.

I believe placing a Tungsten mine at the water source (basin) is going to have serious consequences for the population and all parties contemplating the mine must be made aware of the consequences.

Yours faithfully



**EARL KRAUSE**

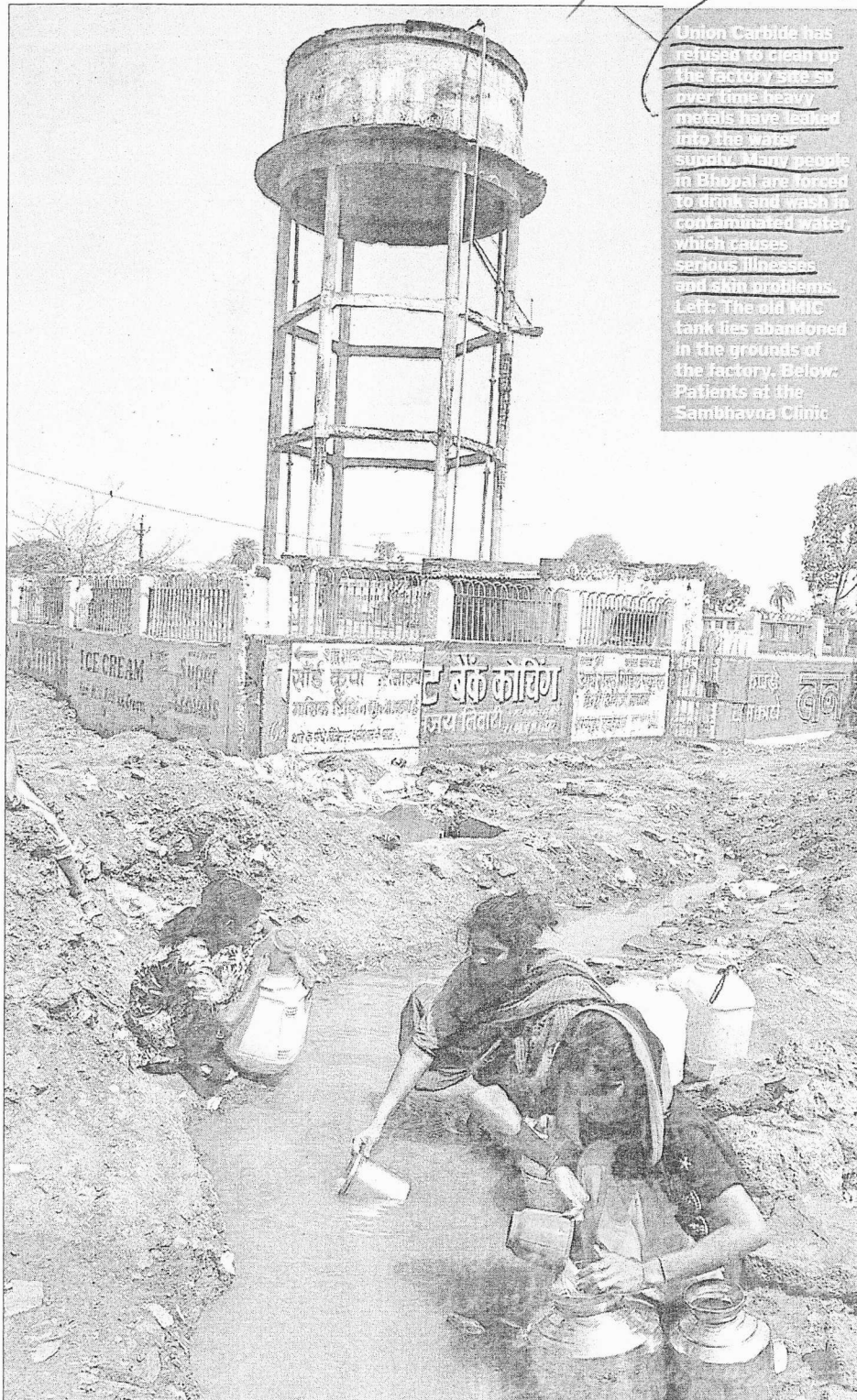


## BHOPAL DISASTER (1984)

~~Water~~ Water pollution

Union Carbide has refused to clean up the factory site so over time heavy metals have leaked into the water supply. Many people in Bhopal are forced to drink and wash in contaminated water which causes serious illnesses and skin problems.

Left: The old MIC tank lies abandoned in the grounds of the factory. Below: Patients at the Sambhavna Clinic



The Indian government health minister reported that 36 women who had been pregnant at the time had spontaneously aborted, 21 babies had been born with deformities, and there had been 27 stillbirths, all believed to have been caused by the gas. Over the years, children have been born with cleft lips and palates, and foreshortened limbs. As well as incidences of long-term respiratory problems and chronic lung diseases, myriad other illnesses have manifested, which Sarangi believes are directly attributable to the long-term effects of the gas. "We see so many people coming in with diabetes, hypertension, women reporting gynaecological diseases and menstrual irregularities. These are problems of the endocrine system, but we had no idea at the time that the gas affected this. There are still no studies to confirm that it causes cancers, but we have found an alarming rise of cancers and a lot of TB."

The doctors at Sambhavna argue that, for many gas-affected patients, ayurveda and other holistic treatments are often more effective than treatment with conventional medicines, which simply contribute to the "toxic load" already in the system. "Other hospitals treat symptomatically," Mrithunjay Mali, one of the clinic's ayurvedic doctors, told me. "When the patient complains of pain, they are given an analgesic; when they have an infection, they are given an antibiotic; with a severe infection, they are given steroids. It is very common that after a few days of conventional treatment they say they feel relief. But, when they come off the medicine, the symptoms recur. When they are taking ayurvedic medicine or yoga, after three months the symptoms never recur. Ayurveda and panchakarma [a "purging" of the body through the use of oils and massage] have a capacity to detoxify their bodies." The clinic claims remarkable results in the treatment of rheumatic arthritis, lumbar backache, joint pains, abdominal problems, loss of appetite, menstrual problems and respiratory conditions.

Dr Mali says the clinic has also been successful in the treatment of skin complaints such as eczema and psoriasis with the use of leeches, which are taken from a nearby lake. In a treatment room, he scooped one from a jar and carefully placed it on a patient's infected leg. The leech got to work, swelling as it sucked up the infected blood. "The patient feels no pain," Dr Mali explained. "Only when the leech begins to suck pure blood. Then we remove it." He picked off the leech, placed it on a piece of paper and sprinkled it with turmeric powder, which causes the leech to purge the blood. The leech is then put back in water for eight days, until it is ready to be used again. At length, it will be returned to the lake. "This way," Dr Mali said with a smile, "we cure the patient, and we save the leech."

In the clinic's reception area, new arrivals waited patiently, each one clutching their health record book, printed with the legend for people poisoned by Union Carbide chemicals. People queued at the dispensary for prescriptions - in some cases, packets of pills; in others, bunches of medicinal plants.

"I eat five flowers every morning," Rafat Sayed, a bookseller, told me. He was living two and a half miles from the factory in 1984, and for a week afterwards, he said, his eyes were burning and he had difficulty breathing. Some years later, he contracted diabetes and hypertension - both, he believed, because of the gas. He is now being treated with a combination of ayurvedic medicine and yoga.

that what was required was a clinic that provided community care and that would be the catalyst for proper research into the ongoing effects of the gas. "When we studied what medicines people were taking," he said, "we found that the chemical disaster had actually produced a windfall for the pharmaceutical companies - which are part of the chemical companies. So one part of the chemical companies poisons people and produces the market for the other part of the chemical companies..." He became convinced that a combination of modern medicine and traditional ayurvedic and related holistic treatments offered a particularly effective treatment to gas-affected survivors.

In 1994, along with the novelist Indra Sinha, Sarangi launched the Bhopal Medical Appeal, which led to the opening of the first Sambhavna Clinic, in two rooms in a building

near the plant. Five years ago, with the help of donations from Greenpeace and a trust established by Dominique Lapiere, the French author of a bestselling book about the tragedy, *Five Past Midnight in Bhopal*, the clinic moved to its present premises - a purpose-built two-storey building in a pagoda style in the heart of one of the areas worst affected by the disaster. The clinic is a model of environmental principles - even the medical waste is treated by solar disinfection. In the garden, more than 100 species of plants are grown for use in the preparation of herbal medicines (the clinic grows enough for 65 per cent of all the medicines it uses). About 24,000 people are now registered at Sambhavna, all receiving free treatment.

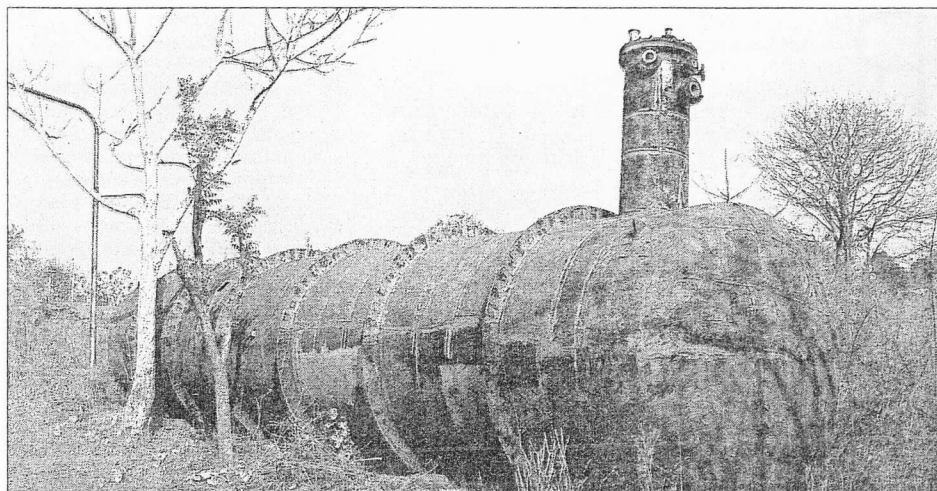
The effects of the gas on the people of Bhopal have been nothing short of catastrophic. Seven months after the explosion,

ALL PICTURES BY DAVID GRAHAM

This is an extract from an article published in the Telegraph Magazine, 08/08/09. The full version can be found online at [telegraph.co.uk](http://telegraph.co.uk). For more information about the Sambhavna Clinic and the Bhopal Medical Appeal visit [bhopal.org](http://bhopal.org)

2 India

Twenty-five years since lethal gas escaped from the Union Carbide pesticide plant in **Bhopal**, killing thousands and injuring hundreds of thousands, the poison still lingers. **Mick Brown** travelled to India to visit the clinic that's been set up to help the people still suffering, and seeking justice, today



The gas disaster at Bhopal was the world's worst ever industrial accident. Exact numbers are unknown, but most estimates agree that about 8,000 people died from poisoning within 72 hours of the gas leaking into the air. An Amnesty International report published in 2004 concluded that a further 15,000 people had died in the years afterwards as a direct result of long-term gas-related effects, and that 100,000 people continued to suffer from "chronic and debilitating illnesses for which treatment is largely ineffective".

The compensation tribunal set up in the aftermath concluded that more than 500,000 people in Bhopal suffered some damage, injury or trauma as a consequence. (By comparison, Chernobyl is estimated to have caused 57 direct deaths, with some 4,000 additional deaths from cancer among the approximately 600,000 most highly exposed people.)

Today, the casual visitor to Bhopal would have little inkling of the magnitude of the disaster that befell the city 25 years ago. The state capital of Madhya Pradesh in the geographical centre of India, with a population of about 1.8 million, Bhopal is a vibrant and noisy city, its streets choked with buses and motorcycles, its people seemingly too busy getting on with their lives to look over their shoulders at the past. Only in the immediate vicinity of the factory is its legacy visibly apparent. On the high factory walls along what is still known as Union Carbide Road, fresh graffiti defies attempts by the local authorities to obliterate the memory of the past: "Justice for Bhopal" and "Union Carbide you can't hide. We charge you with genocide." Across the road stands a small memorial, a statue of a woman, one hand over her eyes as if to shut out the horror before her, the other clutching a baby to her chest. A plaque reads: "No Hiroshima, no Bhopal, we want to live."

When the Union Carbide plant was established in Bhopal in 1969, it was regarded as an integral part of India's "Green Revolution", a government scheme to feed the masses by boosting grain production using high-yield seeds that demanded a heavy use of fertilisers and pesticides. The plant was built to manufacture the pesticide carbyaryl, under the trademark Sevin, which had been developed in 1957 as a "safe" alternative to the controversial dichlorodiphenyltrichloroethane (DDT). "Science helps build a new India." ran the Union Carbide slogan.

Union Carbide Corporation (UCC) was an American company, but the plant was run by a local subsidiary, Union Carbide India Limited (UCIL), in which UCC had a 51 per cent share. Bhopal had been chosen as the location because of its geographical position, and because of the ready supply of cheap labour. The plant was built in a former army parade

ground close to the heart of the old city, and surrounded by densely populated slums or *bustis*. This location, it seems, was not considered to be a problem.

A key element in the production of Sevin is the highly toxic chemical MIC, which is twice as heavy as air, meaning that when it escapes into the atmosphere it remains close to the ground. The Bhopal plant initially imported MIC from Union Carbide's factory in West Virginia. But, from 1980, the plant began manufacturing MIC itself. By then, the market for Sevin in India was already beginning to decline; by December 1984, production at the factory had all but stopped and Union Carbide

wind was blowing, which carried the gas towards the densely packed slums hard by the plant. Thousands died as they slept. Thousands more ran panic-stricken through the narrow alleyways and streets in a desperate attempt to escape, trampling others underfoot, their eyes and lungs seared by the toxic fumes. Those who ran fastest to escape the gas likely signed their own death warrants by inhaling the poison more quickly.

*A strong wind carried the gas towards the densely packed slums hard by the plant. Thousands died as they slept.*

In 1984, Satinath Sarangi – or Sathyu as he is known to everybody in Bhopal – was in the third year of a university course in metallurgical engineering in Varanasi when he heard the news of the explosion on the radio. "It was very vague," he told me. "It said there were fewer than 100 dead." He decided to travel to Bhopal to volunteer for relief work. "I thought I would come for a week. And then the week just kept getting longer. What struck me was the magnitude and the helplessness of it all. You came out of the train station and there were hundreds of injured all around, thousands in utter agony. And nobody knew what to do."

There were no precedents for treating victims of MIC poisoning before Bhopal, simply because nobody had suffered from it until then. Union Carbide moved quickly to dampen any suggestion that the gas could be harmful or have any long-term effects. Days after the disaster, Jackson B Browning, the company's director of health and safety and environmental affairs, was still insisting it was "nothing more than a potent tear gas".

To this day, Sarangi said, Union Carbide has refused to release details of the exact constituents of the gas or the results of tests that he claimed the company had conducted into MIC's toxicity on living systems. "They said it was a trade secret."

Frustrated at what he regarded as the inadequate treatment being given to gas victims, Sarangi set up a relief and campaigning group, Zahareeli Gas Kand Sangharsh Morcha – the "Poisonous Gas Episode Struggle Front" – and worked as the manager of a health clinic that was administering injections of the drug sodium thiosulphate, the medical grade of which acts as a detoxicant. According to Sarangi, Union Carbide's own medical director, Dr Vipin Avashia, had originally telexed confirmation that sodium thiosulphate could work as a detoxicant, but later sent another telex advising against its use. The company, Sarangi alleges, did not want the drug to be used, because its effectiveness would demonstrate that the poison had gone into the bloodstream. The clinic was quickly closed down by the police. Three more attempts to open similar clinics were also stopped, he says.

Steeping himself in studies of environmental health and industrial diseases, Sarangi decided

was exploring the possibilities of dismantling it altogether. But 60 tons of MIC was still stored in three tanks. Tank number 610 was almost full, containing 40 tons of MIC – well above the recommended safety levels.

At midnight on December 2, shortly after workers had carried out a routine cleaning of pipes, large amounts of water entered tank 610. MIC is highly combustible when it reacts with many other substances: water, acids, metals and the small deposits of corrosive materials that accumulate in pipes, tanks and valves. The combination of the water and the MIC, and the presence of an iron catalyst resulting from corrosion of the tank wall, caused a violent chemical reaction that spewed a cloud of fatally poisonous gas into the air. A strong



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TEL. 021 4655575. FAX 021 4616832  
EMAIL: [ashabason@gvk.co.za](mailto:ashabason@gvk.co.za)

3<sup>rd</sup> August 2009

REGISTERED

The Honourable Minister of Water & Environmental  
Affairs  
Private Bag X313  
Pretoria  
0001

Attention: **MS BUYELWA SONJICA**

Dear Madam

Re: **YOUR SPEECH REGARDING ENVIRONMENTAL CRIMES IN SOUTH AFRICA  
ADDRESSED TO THE NATIONAL ASSEMBLY ON 18<sup>TH</sup> JUNE 2009**

I enclose a copy of my latest letter to a company (Bongani Minerals/Balta Minerals) /environmental agent regarding an Open cast Tungston mine that they want to position on the water source (basin) of the Verlorenvlei valley situated on the West Coast of South Africa, just South of Lamberts Bay.

The water source (basin) supplies fresh drinking water/and water for the farms in the valley. The valley stretches for approx. 35km from the water catchment area to the sea via the Verlorenvlei (vlei) which is a world recognized Ramsar site.

I include an extract from your speech on the 18<sup>th</sup> June 2009:

*" We will ensure that we strengthen our capacity to investigate and prosecute environmental crimes, enforcing a zero tolerance approach to illegal and unsustainable exploitation of resources. We have consulted with the Minister of Justice with the aim to strengthen our capacity to tackle the environmental crime activities and to this end; we will re-open the environmental courts".*

Your help with this matter will be greatly appreciated and we would be grateful if you could send this letter together with the attachment to the D.M.E. If your read in my letter attached, health hazards that could be inflicted on the local population – it is vital that you investigate the situation immediately before the mine is given the go ahead.

I am at all times readily available to meet you if so required.

Yours faithfully



**E.A. KRAUSE**

6<sup>th</sup> August 2009

Page 1

Dear Sirs

Re: **PROPOSED BONGANI MINERALS/BALTA MINERALS/TUNGSTON MINE IN RAMSAR CONSERVATION AREA**

I read with interest the selected section of my letter dated 25<sup>th</sup> May 2009, which you included in page 94 (July 2009 Public Meeting). Comments and responses on the scoping report. However you have left out the most important part relating to the possibility of the open cast Tungsten mine polluting the entire underground/surface water system which stretches from the proposed mine to the sea approximately 35km downstream.

You might well say what has Health & Safety to do with the environment. If you read through the book "Environmental Law" written by Michael Kidd – B. Com LLB LLM – Senior Lecturer of Law in the Faculty of Law (University of Natal), you will see that he correlates the two in one sentence. He says "The hazards created by a working activity are not insignificant in their possible impacts on the "general public" as is evident in the disasters at Bhopal and Seso and in South Africa, Merriespruit",

The above sentence correlates the situation that we have in the Verlorenvlei water catchment area. The mining activity that is going to take place is directly in the source of the water catchment area that feeds the rivers to the Verlorenvlei and the natural underground water which supplies the Verlorenvlei community.

The ailments and sicknesses that could be inflicted on the community relying on this water could be as follows: Reproductive abnormalities, diseases of the digestive tract, respiratory system, blood circulation system, kidney and liver problems, a variety of cancers, damage to the nervous system, developmental problems and birth defects.

The Occupational Health & Safety Act (No 85 of 1993) and the Mines Act stipulates that every (Employer/entity) shall conduct his/its undertaking in such a manner as to ensure as far as is reasonably practical, that persons other than those in his employment who may be directly affected by his/its activities are not thereby exposed to hazards to their Health & Safety. If the water becomes toxic and polluted this will be a great health hazard to the community living on this strip of land.

In my letter dated 21<sup>st</sup> May 2009, I requested a list of the chemicals which would be used to the extract the tungsten, so that I can assess the possible toxic substances that might leak into the water system. To date I have had no reply. Remember I personally and my family and friends drink water from this water system.

The situation relating to the proposed Tungsten mine is not a normal mining operation as it will be situated on top of the Verlorenvlei water catchment area which feeds the valley with its drinking water and water for growing potatoes, fruit, grapes etc. The biggest problem is that if the water is toxic and it travels down the underground waterways at a speed of say 2km per year it could take between 0/17 years to completely saturate the system. During this period many peoples' lives could be ruined or even taken from them through sicknesses relating to this pollution. According to the authorities it could then take up to 100 years to clean itself after the mining has stopped.

Further all the crops that are sold out of the valley could also contain toxic minerals which are dangerous for human consumption.

6<sup>th</sup> August 2009  
Page 2

My family, myself and many other people in the Verlorenvlei valley rely on underground borehole water as drinking water. I would say that 100% of the population of the valley rely on the water. You would be putting all our lives in danger if the water becomes polluted and toxic.

Responsibilities relating to the Health & Safety Act & Mines Act are extremely onerous:

- A. As an example, when a hazardous situation occurs in a city, the area is immediately cordoned off by the relevant authorities to protect the public. Signboards are erected and flashing lights are erected to make sure no member of the public gets hurt, injured or contaminated.
- B. Now take this Tungsten mine which could pollute the entire Verlorenvlei water system and there is no way of detecting the pollution before it is too late. Should signboards and flashing lights not be erected throughout the 35km valley to warn the public of the possible hazard.

There is no difference between A & B, other than a time lag, as we are already aware of all the possible sicknesses/deaths that could arise.

I believe it is vitally important that you (Aubrey Withers) as an agent of Bongani/Balta Minerals brings this matter up immediately with the directors of the mining company and they in turn must bring it to the attention of the shareholders. I watched the "Carte Blanche" (M-Net TV programme) about the proposed Tungsten mine in the Verlorenvlei valley and they mentioned that Mr Johannes van der Walt is the MD. Can you please advise him regarding my letter and send him a registered copy. Please advise us in writing that this has in fact been done.

The matter is serious as we are talking about human life being threatened and that the initial environmental assessments/scoping reports/operational /environmental procedural standards and mine closure standards are met correctly.

Could you also please send a registered copy of this letter to the D.M.E., so that they are also made aware of the dangerous situation that might occur, in which case they will be liable as well. Please advise in writing that this has in fact been done.

The safety of human life is not only guarded by the Health & Safety Act & the Mines Act but also under common law. If persons are aware that they are putting human life in danger through a profit making entity or in fact any people that are responsible, are liable for the consequences of their actions. In this case the agents employed by the entity, the Directors, the shareholders and the D.M.E., if they have been made aware of the dangers, which I am doing in this letter and I am expecting you to do on our behalf, as you are acting as an Agent responsible for the proposed mining operation. We cannot divorce environmental reports from Health & Safety as the one impacts on the other.

6<sup>th</sup> August 2009  
Page 3

I enclose:

1. A copy of the Corporate homicide notes Document date 24<sup>th</sup> November 2005.
2. A Manslaughter case which is taking place in the United Kingdom, where if found guilty the Company Director/or any other persons liable can be sentenced to life imprisonment.

Now that I have made all accountable parties aware of the possible dangerous situation that could occur, I believe that should anyone die from toxic water pollution related to the mine, then Corporate Homicide and civil charges could be sought.

Please treat this letter as "Urgent" and circulate it to the appropriate responsible persons especially the Directors and Shareholders of the Proposed Tungsten mine as well as the D.M.E.

Your urgent help regarding this matter would be appreciated.

Yours faithfully



**EARL KRAUSE.**

N.B. Please note that the abovementioned laws are those applicable to the Republic of South Africa as of this letter's date and any future laws/codes and best practice that could be promulgated by and in the Republic of South Africa.

CHAPTER 7

OFFENCE AND PENALTIES

PART ONE

Criminal Offences

*Does not meet requirements of the Rest of the Bill*

121. Corporate homicide

*R 1 000 000*

*10 years*

(1) A corporate body which is under a duty to ensure the health and safety of any person in terms of any provision of Chapter 2 of this Act commits the offence of corporate homicide if a person dies and the death was due to the failure of the corporate body –

- (a) to comply with a duty in terms of Chapter 2; or
- (b) to take the necessary steps to control the risk that caused the death; or
- (c) to implement a safety management system.

(2) It is not a defence to a charge in terms of this section that the person died as a result of an act or omission of any individual.

(3) Sections 124 and 125 do not apply to a prosecution in terms of this section.

(4) This section does not exclude the prosecution of any person for the offence of culpable homicide and a charge in terms of this section is a competent alternative charge in a prosecution for culpable homicide.

# Lindsey project '£100m over budget'

French oil giant total says strikes have left project 'on thin ice' as union hits back over contractors

**NEWS SECTOR**

BY RHIANNON HOYLE

Mass protests by construction workers at the Lindsey oil refinery have pushed the project six months behind schedule and £100 million over budget, French oil giant Total has revealed, claiming the expansion scheme is now "on thin ice".

The company, owner of the North Lincolnshire site that has been the centre of a series of unofficial strikes this year, has admitted that any further cost overruns could "jeopardise the future viability of this important inward investment into the UK".

Workers took action a fortnight ago after a fresh row erupted over jobs, with claims that a new subcontractor on the site - R Blackett and Charlton - had planned to hire 61 new workers even though it allegedly knew the original contractor Shaw was about to make 51 workers, doing the same jobs, redundant three days later.

The dispute turned ugly late last week when almost 650 protesting contractors were handed dismissal letters and told they had only until Monday to reapply for their positions.

The move has sparked wildcat action throughout the UK and fol-



Unions and oil company Total are at loggerheads over contract workers

lows strikes earlier this year over a decision by main contractor Jacobs to award work to Italian company Irem, which decided to use its own foreign workforce.

But Total has claimed that, despite workers receiving dismissal letters - which were burnt by workers outside the plant gates on Monday - it was "actively encouraging talks" between its contractors and the unions.

It has also expressed anger over the disruptions to the scheme.

Total spokesman Iain Hutchison said: "We have been

disappointed by the poor execution of this project.

"It is on thin ice. We are faced with £100m in increased costs and significant delays.

"We want all issues resolved to get the project back on track and completed as soon as possible.

"If we want to secure the long-term future of the refinery and employment in the local area we need to complete this project."

Jacobs was unavailable for comment as *Construction News* went to press.

In an address to hundreds of

**"This project is on thin ice. We face £100m in increased costs and significant delays"**

TOTAL SPOKESMAN

protesting workers on Tuesday, GMB union general secretary Peter Kenny announced that the union had set up a £100,000 hardship fund so that "nobody is starved back into work".

In response to Total's complaints of delays and cost overruns, he said: "Total started on this argument about sacking the workforce but, frankly, complaining now about how far the job is behind, and the difficulties that they have... well, I have got suggestion for them.

"Why don't they sack the contractors and employ the workforce and then we will get the job done."

Thousands of workers showed their support through sympathy strikes, including contract workers at Longannet power station, Fife, Aberthaw power station in South Wales and Cockerzie power station in East Lothian.

(United Kingdom)



# Manslaughter case adjourned until August

**LEGAL**

The first corporate manslaughter case to go to court in the UK has been adjourned until August, when pleas will be heard.

Cotswold Geotechnical Holdings is facing a charge of gross negligence manslaughter under the Corporate Manslaughter and Corporate Homicide Act 2007 after a geotechnical engineer was killed at a building site in Gloucestershire last September.

Company director Peter Eaton is also facing manslaughter



The incident site in Gloucestershire

charges under common law, which carries a maximum sentence of life imprisonment.

A preliminary hearing was held at Bristol Crown Court on Tuesday, where a date of 19 August was set for a plea management hearing.

If the company or Mr Eaton pleads guilty, a trial is not expected to be held until at least late autumn.

The case was sent to Crown Court last week after a judge at Stroud Magistrates ruled it should be heard by a higher court.

Alexander Wright was taking soil

samples from a development site near Stroud when the pit he was working in collapsed, killing him.

The landmark charge was recorded against the company, court heard, because the way in which the organisation's activities were managed or organised "caused the death of [Alexander James Wright] by gross negligence which amounted to a gross breach of a relevant duty of care owed to the deceased, contrary to section 1 of the Corporate Manslaughter and Corporate Homicide Act 20



**OBJECTION IN TERMS OF THE PROVISIONS OF THE LAND USE PLANNING ORDINANCE, 1985, AGAINST AN APPLICATION FOR DEPARTURE (PROSPECTING OF MINERALS): REMAINDER OF PORTION 6 (A PORTION OF PORTION 2) OF FARM NAMAQUASFONTEIN NO. 76, PIKETBERG AND PORTION 21 (A PORTION OF PORTION 1) OF FARM NAMAQUASFONTEIN NO. 76, PIKETBERG**

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**MOUTONSHOEK INVESTMENTS (PTY) LTD**

**AND THE VERLORENVLEI COALITION**

**OBJECTORS**

**BONGANI MINERALS (PTY) LTD**

**APPLICANT**

**APPLICATION REFERENCE NUMBER**

**MN 127/2012**

**PROPERTY**

**PORTION 1 OF FARM 297,  
NAMAQUASFONTEIN,  
PIKETBERG**

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**1 IDENTITY OF THE OBJECTORS AND BASIS OF THE OBJECTION**

- 1.1 This Objection is submitted by Moutonshoek Investments (Pty) Ltd ("**Moutonshoek**"), the registered owner of Portion 1 of Farm 297, Namaquasfontein, Piketberg, held under Deed of Transfer T000113120/2004 ("**Moutonshoek Property**") and the Verlorenvlei Coalition ("**Coalition**") and it constitutes a formal objection by Moutonshoek and the Coalition (collectively, "**Objectors**") against the application by Bongani Minerals (Pty) Ltd ("**Applicant**") for a temporary land use departure ("**Temporary Departure Application**") under the provisions of the Land Use Planning Ordinance, 1985 (Ordinance 15 of 1985) (hereinafter referred to as "**LUPO**") in respect of the Remainder of Portion 6 (a Portion of Portion 2) of Farm Namaquasfontein No. 76, Piketberg and Portion 21 (a Portion of Portion 1) of Farm Namaquasfontein No. 76, Piketberg (hereinafter collectively referred to as the "**Properties**").

- 1.2 Moutonshoek's objection to the Temporary Departure Application is based on the fact that the Moutonshoek Property is located immediately adjacent to the Properties where "**Prospecting**" (as defined in section 1 of the Mineral and Petroleum Resources Development Act 28 of 2002 ("**MPRD Act**")) is envisaged by the Applicant in accordance with the terms of a Prospecting Right (Department of Mineral Resources ("**DMR**") reference WC 30/5/1/1/2/434 PR) granted to the Applicant by the Minister of Mineral Resources pursuant to section 17 of the MPRD Act (being the **Bongani Prospecting Right** as defined in 3.4 below) and Moutonshoek will accordingly be detrimentally affected by that Prospecting, as will be apparent from the contents of this Objection.
- 1.3 The Coalition's (of which Moutonshoek, its shareholders and directors are also members) objection is based on the pursuit by the Coalition of its fundamental objectives, which include the following objectives, namely -
- 1.3.1 to engage in the conservation and protection of the natural environment and specifically to protect and maintain the environmental integrity of the Verlorenvlei Area, which includes the Properties and the Moutonshoek Property, a designated RAMSAR site, and all the rivers which feed the Verlorenvlei wetland;
- 1.3.2 to identify environmental issues and threats that may be detrimental to the Verlorenvlei;
- 1.3.3 to protect the Verlorenvlei and its surroundings against degradation and non-environmentally sustainable development;
- 1.3.4 to take steps to prevent and/or reduce negative environmental impacts on the Verlorenvlei and its environs;
- 1.3.5 to initiate, support and promote activities that conserve the Verlorenvlei's natural environment;
- 1.3.6 to conserve the natural environment of the catchment areas of the Kruismans river and the Krom Antonies river, stretching from Eendekuil to

Elands Bay, including the broader Moutonshoek area and all other catchment areas along the Verlorenvlei;

- 1.3.7 to protect and promote the prehistoric heritage within the Verlorenvlei area, extending from Elands Bay to Moutonshoek for the purposes of preserving sites for archaeological and paleontological purposes; and
- 1.3.8 to protect and promote the sustainable livelihoods of communities residing in the area from Eendekuil to Elands Bay, including the catchment areas of the Verlorenvlei.
- 1.4 The Coalition has 1,596 individuals and 49 organisations as subscribed members<sup>1</sup> and these numbers are clearly indicative of the extent of the resolve that exists within the Coalition to preserve the integrity of the Verlorenvlei natural environment, which the **Applicant** intends to damage by prospecting if the Temporary Departure Application is successful.
- 1.5 Pursuant to the basis of objection to the Temporary Departure Application by the Objectors as recorded in 1.2 and 1.3 above, the purpose of this Objection is to stipulate the grounds upon which the Temporary Departure Application submitted by the Applicant, should be rejected by the relevant adjudicating authority, being the Bergrivier Municipality.

## 2 INTRODUCTION

- 2.1 During August 2012, the Applicant submitted a departure application plus appendices pursuant to the terms of LUPO (being the Temporary Departure Application) to the Municipal Manager of the Bergrivier Municipality<sup>2</sup> ("**Municipal Manager**").
- 2.2 On or about 22 September 2012 Dr Bennie van der Merwe, a director of Moutonshoek and a member of the Coalition, was served with a notice informing the Objectors of the Temporary Departure Application. The closing date for

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<sup>1</sup> A complete list of all Verlorenvlei Coalition members is attached as **Annexure "A"**

<sup>2</sup> It is accepted that the Municipal Manager has a copy of this application and it is not again attached to this submission. Reference will however from time to time be made in this submission to the relevant sections of the Application.

submissions in response to the Temporary Departure Application was stated as 22 October 2012.

- 2.3 On 18 October 2012 the Objectors applied for an extension of this deadline<sup>3</sup>, which request was granted by the Bergrivier Municipality on 22 October 2012<sup>4</sup>. In terms of this extension granted by the Municipal Manager, the revised closing date for submissions of this Objection is 16:30 on 21 November 2012.
- 2.4 It is recorded that this Objection is delivered to the office of the Municipal Manager within the extended period stipulated in the Bergrivier Municipality's 22 October 2012 letter.
- 2.5 According to the Temporary Departure Application, the Applicant applies for a temporary land use departure from the zoning scheme regulations in terms of the provisions of LUPO in respect of the Properties. It is apparent that the purpose of the Temporary Departure Application is to obtain permission in terms of LUPO to Prospect for minerals on the Properties in order to establish whether sufficient mineral deposits exist on the Properties which are capable of being mined optimally.
- 2.6 The intention of the Objectors is not to deal with each and every issue raised by the Applicant in the Temporary Departure Application but to focus on the requirements under LUPO and to respond to the material and salient points raised by the Applicants in the Temporary Departure Application and to ventilate matters incidental thereto.

### 3 **FAILED APPLICATIONS BY THE APPLICANTS FOR PROSPECTING AND MINING RIGHTS AND INTERDICTIONARY RELIEF AGAINST THE APPLICANTS**

- 3.1 It is important to note that the Objectors and other third parties have vehemently and successfully resisted prior attempts by the Applicant to obtain Prospecting and Mining Rights under the MPRD Act in the Verlorenvlei area and the following history is relevant -

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<sup>3</sup> Letter attached as **Annexure "B"**

<sup>4</sup> Letter attached as **Annexure "C"**

- 3.1.1 during 2005, the Applicant submitted its first Prospecting Right application (DMR reference WC 30/5/1/1/2/155 PR) to the DMR for the purposes of Prospecting over certain farms in the Moutonshoek area. This application was refused by the DMR on 3 September 2005;
- 3.1.2 a second Prospecting Right application (DMR reference WC 30/5/1/1/2/238 PR) over the same areas was submitted by the Applicant on 3 September 2006. Although a Prospecting Right was granted to the Applicant pursuant to this application, it lapsed due to a pending judicial action and no Prospecting took place;
- 3.1.3 on or about 25 March 2009 the Applicant submitted an initial Mining Right application (DMR reference WC 30/5/1/2/2/328 MR) pursuant to section 22 of the MPRD Act over inter alia, the Properties. Pursuant to comprehensive objections submitted by interested and affected parties, including the Objectors ("I and APs") clearly indicating deficiencies in the application and related documentation and the apparent inability of the Applicant to compile a proper environmental impact assessment, this Mining Right application was abandoned by the Applicant;
- 3.1.4 a second Mining Right application (DMR reference WC 30/5/1/2/2/385 MR) over inter alia, the Properties was submitted to the DMR by the Applicant on or about 28 September 2009. This Mining Right application was withdrawn on 26 March 2012 following further objections raised by I and APs against this application.
- 3.2 All four of the above applications were poorly presented, were based on defective geological studies and were not supported by any substantial specialist reports in support of those applications. These applications were not only objected to by the **Objectors** and other I and APs. but also by all relevant State Departments which expressed serious reservations about applications over, inter alia, the Properties inclusive of the Moutonshoek Property. None of these Mining Right or Prospecting Right applications received any support from any of the relevant role players and I and APs.
- 3.3 In a final attempt to obtain the right to Prospect on the Properties and the Moutonshoek Property, the Applicant submitted a third Prospecting Right

application (DMR reference WC 30/5/1/1/2/434 PR) to the DMR on 31 March 2010.

- 3.4 This Prospecting Right application was successful despite renewed and comprehensive objections by the Objectors and on 1 July 2011, the Minister granted to the Applicant a Prospecting Right in terms of section 17 of the MPRD Act ("**Bongani Prospecting Right**") to Prospect for tungsten ore, molybdenum ore, copper ore, zinc ore, gold ore, silver ore and rare earths over the remaining extent of portion 6 (a portion of portion 2) and portions 1 and 13 of the Farm Namaquasfontein No 76 and portion 1 of Farm No 297 in the magisterial district of Piketberg ("**Prospecting Area**"). The Prospecting Area overlaps with the Properties and includes the Moutonshoek Property.
- 3.5 On 26 August 2011, the Objectors lodged an appeal in terms of section 96 of the MPRD Act with the DMR<sup>5</sup> against the granting of the Bongani Prospecting Right to the Applicant. This Appeal was supplemented by the Objectors<sup>6</sup> on 11 May 2012 by the Objectors responding to a reply by the Applicant to the Appeal. At the time of submitting this Objection the Minister's determination of the Appeal, is pending and the Appeal has not yet been finalised.
- 3.6 During February 2012 the Applicant, in contravention of the provisions of LUPO, attempted to commence with Prospecting activities on the Properties. As a consequence of this unlawful attempt by the Applicant to Prospect -
- 3.6.1 the Bergrivier Municipality successfully interdicted the relevant landowners and the Applicant from conducting Prospecting activities or permitting the Applicant to conduct Prospecting on the Properties concerned.<sup>7</sup> This interdict was granted to the Bergrivier Municipality on or about 23 May 2012;
- 3.6.2 the Objectors launched their own interdict proceedings against the Applicant and the Objectors have applied for a Court date for the hearing of the interdict application. It is noteworthy that the Applicant has, to date, not filed any Affidavits in opposition to this interdict application by the Objectors and

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<sup>5</sup> Attached as **Annexure "D"**

<sup>6</sup> Attached as **Annexure "E"**

<sup>7</sup> Attached as **Annexure "F"**

the Applicant would need to formally apply to the Court for condonation if the Applicant should wish to oppose the interdict at any time in the future. The Objectors will resist such an application for condonation at the instance of the Applicant.

- 3.7 It is evident that the Applicant has for the past 7 years been trying its utmost to enter onto the Moutonshoek Property and the Properties which are zoned for agricultural use, to pursue a project that is not sustainable and must be subordinated to the progressive and comprehensive use of the Moutonshoek Property and the Properties, for environmentally sustainable and intensive agricultural use. There is no apparent evidence over this period that any person, including the West Coast District Municipality or the Bergrivier Municipality, assisted or supported the Applicant in pursuing this Prospecting endeavour, nor shared its objectives in this regard and the Objectors vehemently object to the Temporary Departure Application and will continue to resist the use of the Properties and the Moutonshoek Property, for any purpose other than the current environmentally sustainable agricultural use.

#### 4 ANALYSIS OF THE SALIENT PROVISIONS OF THE APPLICATION

- 4.1 It is noteworthy that the Application is brought, not by the owners of the Properties concerned, but by a Prospecting company, being the Applicant, under a power of attorney given to the Applicant in terms of an apparent agreement concluded between those owners and the Applicant. In a letter<sup>8</sup> dated 24 February 2012 the legal representative of the land owners of the Properties, a certain Advocate Van Niekerk, informed the Objectors that “ *Beide my twee kliente het reeds kontraktuele toestemming aan Bongani verleen om onderhewig aan streng gemoniteerde bepalinge voort te gaan met die uitoefening van hul prospekter regte*”.
- 4.2 It is apparent therefore from the contents of the abovementioned letter, that it is not the wish of the relevant land owners to depart from agricultural land use, but a third party, being the Applicant's, desire to Prospect which resulted in the Temporary Departure Application being lodged with the Bergrivier Municipality. The terms and conditions of the contractual agreement between the Applicant and

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<sup>8</sup> Letter from Adv G van Niekerk attached as **Annexure “G”**

the land owners of the Properties are not known, but one can safely assume that in turn for the permission to Prospect, the Applicant had to give some quid pro quo that would benefit the land owners concerned. These benefits can never however outweigh the damage to the Verlorenvlei area which would be caused by the conduct of Prospecting by the Applicant if the Temporary Departure Application, is successful. Stated differently, a benefit paid by the Applicant to certain owners of the Properties, can never outweigh the need to protect the integrity of the Verlorenvlei area, which includes the Properties, as an environmentally sensitive agricultural zone.

- 4.3 It is noteworthy that the Temporary Departure Application only relates to Prospecting, but not to any envisaged mining activities. Adv van Niekerk in his letter unequivocally states “*Die kontraktuele toestemming tot uitvoering van prospekterwerk beteken hoegenaamd nie dat my kliente ook ten gunste van enige verdere mynbou aktiwiteite van watter aard ook al is nie*” and he continues “*en is dit in die stadium my uitdruklike opdrag om enige verdere mynbou aktiwiteite ten sterkste teen te staan* (own emphasis). On this basis alone, the Temporary Departure Application must fail as although Prospecting is intended, any further Mining activities will be strongly opposed by the relevant landowners. If that is indeed the case why then permit Prospecting, the obvious forerunner to Mining which will be opposed?
- 4.4 From an analysis of the Application, it is evident that the Application is -
- 4.4.1 drafted in generic terms;
- 4.4.2 mostly repetitive;
- 4.4.3 in material instances misleading;
- 4.4.4 selective in use of references; and
- 4.4.5 does not contain any factual information to support the statements made.
- 4.5 Although the Temporary Departure Application is for a temporary land departure use, the Applicant goes to great lengths to try and indicate to the adjudicating authority what benefits Mining will have for the Verlorenvlei region and the



community. Accordingly, these arguments (regarding Mining) are misplaced and cannot be taken into account by the adjudicating authority when considering the Temporary Departure Application as the Applicant is merely the holder of a Prospecting Right in the form of the Bongani Prospecting Right and not a Mining Right for the Properties and the Moutonshoek Property.

- 4.6 It therefore abundantly clear from the contents of the Temporary Departure Application that although the Applicant wishes to stress the temporary nature of the change in land use applied for, its ultimate objective actually is to establish a tungsten mine that will permanently change the agricultural nature of the Moutonshoek area and in particular the Moutonshoek Property and the Properties and have profound and irreversible effects on the Verlorenvlei and contributory catchment area.

## 5 MINERALISATION OF THE VERLORENVLEI AREA

- 5.1 According to the Applicant and as stated in the Temporary Departure Application, Prospecting is required to determine “*whether sufficient mineral deposits exist which are capable of being mined optimally.*” This statement is however contradicted by the Applicant confirming that “*a potentially significant mineralised deposit is located at the subject properties*”.
- 5.2 It is further alleged by the Applicant that “*approximately 99 000 tons of tungsten exist on the properties....., making it potentially the eleventh largest deposit in the world*”.
- 5.3 This statement is incorrect and misleading. P.W.A.Walker<sup>9</sup>, states that “*The Riviera tungsten occurrence in the Cape Province of South Africa was discovered in October 1979 as a result of stream-sediment panned concentrate sampling. ... The ore reserve is estimated to be 46 million tonnes at an average grade of 0.216% WO<sub>3</sub> and 0.020% Mo. (1993)*”. (own emphasis)
- 5.4 According to figures provided in Table 10 of the 1998 USGS International Strategic Summary Report for Tungsten, (Page 50) the Riviera Deposit ranked

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<sup>9</sup> Anglo American Corporation of South Africa Limited in Explor.Mining Geol., Vol.3, No.4, pp 349-356, 1994. Canadian Institute of Mining, Metallurgy and Petroleum

140<sup>th</sup> out of 154 identified tungsten resources sites world-wide with its estimated 46 metric tons.

- 5.5 The Applicant fails to refer to or is not aware of Prof A Rozendaal's statement made on Monday, 25 May 2009 during the Poster Session V13B, Metro Toronto Convention Centre, Toronto, Canada. Prof Rozendaal states that -

*"The blind Riviera deposit is located in the Western Cape Province and was discovered by stream sediment sampling in the mid 1970's. Resources total 46 million metric tons assaying 0,216 per cent tungsten and 200 parts per million molybdenum, a marginal grade that has prohibited development into an open cast mine."* (own emphasis)

- 5.6 Furthermore, Prof Rozendaal stated during the 27<sup>th</sup> Earth Science Congress of the Geological Congress of the Geological Society of South Africa, Stellenbosch, 2000, that: *"Despite suitability for open-cast mining, well established infrastructure and relative simple metallurgy, the grade of the deposit remains marginal."* and *"A halo of exo-skarn associated subeconomic mineralization envelopes the Riviera Pluton and is hosted by metasomitted calcareous rocks of supracrustal sequence. It is however of limited extent and rarely contributes to the total resources."* (own emphasis)

- 5.7 Again, as recently as 2011 at the 10<sup>th</sup> International Congress for Applied Mineralogy, Prof Rozendaal stated that the tungsten resources found in the Riviera Area, amounted to approximately 46 million tonnes. He also confirmed the presence of REE (Rare Earth Elements) and highlighted the fact that *"If alunitic and related minerals cannot be recovered as a separate product during the scheelite and molybdenite beneficiation process, it could incur a penalty if it reports to the scheelite concentrate. In addition, if it reports to the tailings, it could be considered an environmental hazard."*<sup>10</sup>

- 5.8 Ironically during 2009 when the Applicant submitted its application for a mining right in terms of section 22 of the MPRD Act, it was *"based on advice that*

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<sup>10</sup> Proceedings of the 10<sup>th</sup> International Congress for Applied Mineralogy (ICAM), Edited by Maarten ATM Broekmans P 605

*adequate historical information was available and that additional prospecting activities were not required.”*

- 5.9 It is the Objectors’ submission based on the above that the Applicant’s intention is not to establish the quantity and location of the minerals but rather to “*develop a mine based on information gathered from the prospecting programme*”. The Objectors vehemently oppose the development of any Mine and regard the Temporary Departure Application as another futile attempt to obtain a Mining Right over agricultural land located in an environmentally sensitive area.
- 5.10 This estimated reserve of 46 000 tons comprises barely 4% of the proven reserve of 1 060 000 tons of the largest tungsten ore mine found in 2011 in the Jiangxi Province, China. In addition the Riviera reserve comprises a meagre 0.65% of the world tungsten resources.<sup>11</sup>
- 5.11 According to IndexMundi<sup>12</sup>, South Africa’s imports by commodity in US Dollars - Tungsten (wolfram) and articles thereof, including waste and scrap, for the year 2011 totalled \$15 397 359. At the current price of \$430 per tonne, it means that in 2011 South Africa has imported almost 35 000 tonnes. Effectively, if the Riviera deposit is optimally mined, it should be able to provide South Africa with tungsten for a period of 15 months where after it will have to be imported again.
- 5.12 It is clear from the above, that the mineralisation in the Verlorenvlei area will never give rise to viable Mining and there can be no justification for the carrying out of Prospecting by the Applicant pursuant to a successful rezoning of the Properties pursuant to the Temporary Departure Application as any such Prospecting, will not confirm any viability of the mineralisation on the Properties.

## **6 ENVIRONMENTAL SENSITIVITY OF THE PROPERTIES AND THE BROADER VERLORENVLEI AREA**

- 6.1 The envisaged Prospecting Area is located north of the slopes of the Piketberg and is surrounded on its southern, eastern and western boundaries by the mountains. These mountains form a natural catchment area for the Krom

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<sup>11</sup> British Geological Survey Tungsten Resources Reserves, 2011

<sup>12</sup> <http://www.indexmundi.com/trade/imports/?country=za&subchapter=8101>

Antonies River and the subterranean aquifers that provide water and life for the entire area right up to Elands Bay. To argue that the envisaged Prospecting activities and the ultimate Mining objectives would not negatively affect this invaluable eco-system constitutes, in the Objectors' opinion, a complete disregard of the value of this catchment area. It is submitted that the drilling of 30 plus holes 250 m deep and traversing this area and the eventual developing of an open cast Mine over an area of 55 ha (as evidently envisaged by the **Applicant**) shall lead to the ravaging of this life-giving eco-system, with irreversible consequences. To even suggest that complete rehabilitation would be possible clearly portrays a total ignorance of the devastating effect the envisaged Prospecting and the ultimate objective of Mining will have on this area.

- 6.2 The Moutonshoek area holds significant and well-documented socio-economical, cultural, ecological and historical value for the Piketberg Region. Most importantly it forms part of the catchment area for the Krom Antonies River.
- 6.3 Active and self-sustaining farming activities have been in existence for decades in the Verlorenvlei area and there can be no justification whatsoever, to substitute those activities for Prospecting and Mining which will, as clearly indicated in 5 above, be non-viable in any event.
- 6.4 The Moutonshoek valley alone houses 3 large export fruit farms (table grapes and citrus), 2 large racehorse breeding farms (127 and 87 broodmares) and 3 wine farms. All of these farms earn millions of Rand each year in exports. Ten farms produce mutton and beef, one farm produces lavender for export and all the farms produce small grains of some description. Three farms produce hundreds of tonnes of potatoes every year. The turnover in the valley exceeds R100 million per year on a sustainable basis. Farmers have been farming here since 1728 and if left alone, will farm successfully for hundreds of years to come.
- 6.5 The farming activities in the area provide work and a source of income to hundreds of permanent and seasonal workers and their families.
- 6.6 The natural vegetation, amongst others, found on the Moutonshoek Property and the proposed Prospecting Area in general, is Swartland Shale Renosterveld, which is regarded as one of the three most threatened vegetation types in the country. Only 9% of this vegetation type remains, and it is thus regarded as

Critically Endangered in terms of the new National Spatial Biodiversity Assessment. Any mining or prospecting activity on the Properties will seriously jeopardise the conservation status of this critically endangered habitat to the detriment of the Bergrivier Municipality.

- 6.7 Based upon the aforementioned it is clear that any Prospecting activities would not only have a detrimental effect on the farming activities and the lives of all associated with the Properties, but it also would be in direct conflict with the nature and character of all the Properties affected. As a result, the Temporary Departure Application should be refused.

## **7 EXTENDED NEGATIVE IMPACTS OF PROSPECTING**

- 7.1 The impacts of the proposed Prospecting activities will extend beyond the Prospecting Area which is located at the source of the Verlorenvlei one of the largest natural wetlands along the West Coast of South Africa (recognised as one of 19 wetlands in South Africa of international importance). Rather than being subjected to the negative impacts Prospecting/Mining shall have on the system, the activities in the Krom Antonies River valley should be directed at active upgrading and rehabilitation of the riverine ecosystems.
- 7.2 The Prospecting Area falls within the Greater Cederberg Biodiversity Corridor which aims to conserve and restore the unique biodiversity of this region and encourage sustainable land use practices.
- 7.3 It is believed that the envisaged Prospecting/Mining shall pose a high level of risk to the terrestrial and aquatic ecosystems in the area and their functioning. Any prospecting/mining should be regarded as entirely inappropriate for the area and could have significant and irreversible impacts on the environment – for instance: the continued existence of the rare Verlorenvlei Redfin Fish, a species only found in this 14 km long river.
- 7.4 According to Cape Nature, the Prospecting Area will have an effect on important fragments of indigenous vegetation, including Leipoldville and Fynbos (classified as endangered); Swartland Shale Renosterveld (classified as critically endangered); Piketberg Quartz Succulent Shrubland (classified as endangered);

Piketberg Sandstone Fynbos, Cape Lowland Alluvial Vegetation (classified as critically endangered) and Cape Lowland Freshwater Wetlands.

- 7.5 In an article entitled “*A new endemic Diascia (Scrophulariaceae) threatened by proposed tungsten mining in the Western Cape*”<sup>13</sup>, KE Steiner reports that the flower *Diascia Caitliniae* is known only on two farms, Moutonshoek and Kromvlei in the Krom Antonies River Valley (which fall within the Prospecting Area). The Objectors are of the view that “*the potential for habitat destruction and localised extinction seems especially high for the population on the farm Kromvlei if the proposed mining development is proposed.*”
- 7.6 Furthermore, a proper investigation, assessment and evaluation of the proposed Prospecting operations on the area will reveal that such activities and any envisaged Mining activities inevitably shall have a detrimental effect upon the environment as well as the socio-economic conditions of everyone associated with the area and the Temporary Departure Application should fail for those reasons.
- 7.7 In response to a question in Parliament on 21 April 2011 regarding whether her department is implementing measures to protect the Verlorenvlei estuary, the responsible Minister replied as follows:

*“Yes, both the Department of Environmental Affairs and the Department of Water Affairs together with other stakeholders have developed measures to protect the Verlorenvlei estuary. A draft estuarine management plan (EMP) for the Verlorenvlei estuary has been developed. Following a Situation Assessment a number of strategic objectives and management actions have been identified as part of the EMP in order to achieve the proposed vision. An estuary zonation plan that demarcates zones of ecological value (RAMSAR boundaries, sensitive areas); heritage value (archaeological, historical and cultural sites) and socio-economic value (fisheries, general recreation areas, and eco-tourism activities like birdwatching) has also been produced. An estuarine management forum has also been established to ensure the implementation of the plan through co-operation amongst sectoral government agencies as per their respective mandates”*

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<sup>13</sup> South African Journal of Botany 77 (2011) 777-781

- 7.8 In the Estuarine Management Plan for Verlorenvlei<sup>14</sup> referred to by the above Minister , was prepared in March 2010 by CSIR, Natural Resources and the Environment, Stellenbosch, mining has been identified as an activity threatening or potentially threatening the ecosystem services provided by Verlorenvlei. According to this plan the potential environmental problems to be caused by envisaged mining activities include siltation, physical habitat alteration/destruction, toxic chemical pollution and suspended solids. The negative impact severities of mining as a proposed activity on the ecological and social economic areas are both described as high.
- 7.9 On 2 February 2011 the responsible Deputy Minister at the World Wetlands Day 2011 Celebration at Verlorenvlei Elands Bay, had amongst others, the following to say about the Verlorenvlei Ramsar Site.

*“This wetland was designated a Wetland of International Importance in 1991. As you have heard and seen in the field it is one of the largest wetlands on the west coast of South Africa, making it important and unique. This wetland hosts 75 resident and migratory bird species as well as other wetland dependent species such as rare minnow and barbus to mention but a few. The 1,500 ha vlei is the centre-point of the Sandveld which plays a very important role in The Greater Cederberg Biodiversity Corridor Conservation Initiative implemented by C.A.P.E. (Cape Action for People and Environment) and Cape Nature. The catchment is 198,000 ha but although three rivers feed the vlei, it is mainly groundwater driven which makes it a very slow moving system.*

*Wetlands are able to improve water quality, reduce flood impacts, control erosion and sustain river flows. Of special importance is the role wetlands play in ensuring a steady supply of clean water for communities and help government save hundreds of millions that would be required to set up purification plants and the labour cost. Therefore, careful consideration should be given to the continued destruction of wetlands.*

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<sup>14</sup> Attached as Annexure “H”

*We need to respect that wetlands are life-supporting systems and use our rivers and wetlands in ways that protect them and ensure they continue to provide goods and services that we depend on. If nurtured to their natural conditions, wetlands could resume their original role to feed the poor and to avert water crises.*

*They also have significant worth as warehouses of biodiversity and as sites for tourism, subsistence farming, grazing, education, recreation and spiritual activities. Although their contribution to the GDP of the economy is not quantified, they do account for a significant figure". (own emphasis)*

- 7.10 Attention should also be drawn to current research into potential tungsten contamination in groundwater and aquifers. Two world renowned academics in earth and environmental sciences at Tulane University, New Orleans, have commenced with a three-year project funded by the Hydrology Division of the USA National Science Foundation. This followed after scientists and health officials began connecting tungsten to clusters of childhood leukaemia in the Western U.S. after finding high concentrations of the element in residents' bodies. People examined lived in towns near tungsten-bearing ore deposits. Drinking water in these areas had an elevated concentration of tungsten. When tungsten is exposed to oxygen, a process called oxidation, it often seeps into the ground and even into groundwater-bearing aquifers. During this process the tungsten can also mix with organic matter present in natural soils. In the presence of sulphur rich solutions, it forms thiotungstate complexes, which are also toxic. Tulane biogeochemist Professor Karen Johannesson is quoted as saying "*so there is metal out there that people thought was perfectly harmless and non-mobile, but it turns out that we are probably wrong on both counts — we don't know anything about how tungsten behaves in the environment.*"<sup>15</sup>

## **8 LOCATION OF PROPOSED PROSPECTING DRILLING HOLES**

- 8.1 As a further example of misleading or conflicting information provided by the Applicant, it is necessary to pay some attention to the location of the proposed

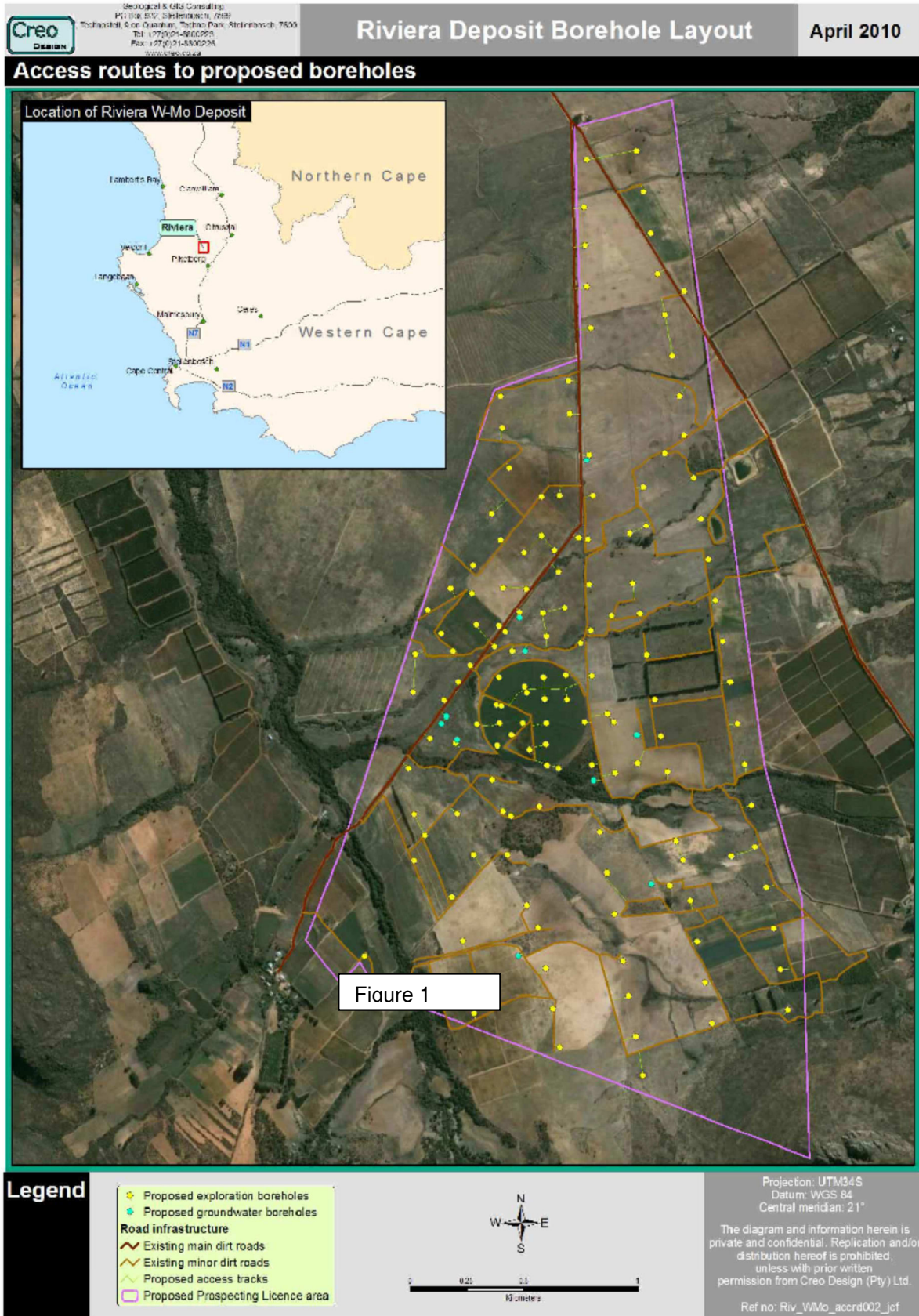
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<sup>15</sup> <http://tulane.edu/sse/eens/news/tungsten-toxic.cfm>

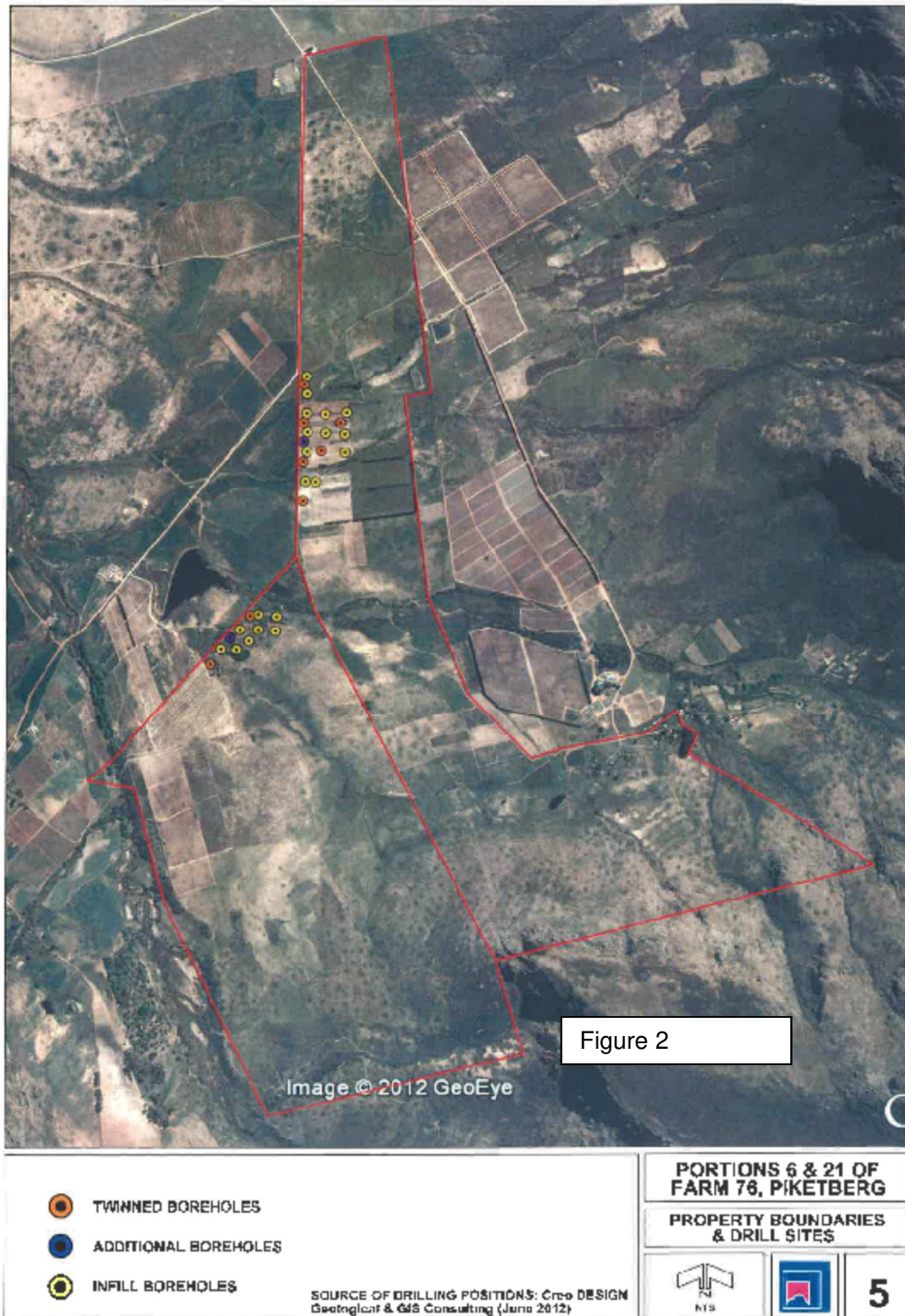


Prospecting drilling holes with reference to its location as per the approved Bongani Prospecting Right.

- 8.2 Figure 1 reflects the borehole layout forming part of the approved Prospecting Right environmental management plan and Prospecting Works Plan. These documents are attached as appendices to the Temporary Departure Application.



8.3 Figure 2 (Attached as Figure 5 to the Application) on the other hand reflects the positions of the boreholes where it will be located on the area in respect of which the temporary land departure use is applied for. (This excludes the areas from where the Applicant is interdicted from carrying out Prospecting activities)



8.4 When the DMR approved Prospecting borehole locations in Figure 1 are compared with the locations as per Figure 2 of the Application, it is evident that the Applicant plans to drill boreholes contrary to the authorisations under the Prospecting Right. It is trusted that the Applicant will be requested to provide an explanation for this unlawful contemplated action.

## 9 GEOHYDROLOGICAL ASPECTS

9.1 The Applicant only devotes two very short paragraphs to this important aspect.

9.2 It is stated in essence by the Applicant that the groundwater levels vary from 21m to 1m, the yield of the groundwater boreholes in the Prospecting Area is approximately 8 litres per second; and none of the rock formations that are to be drilled into are inclined to yield water.

9.3 If the Applicant goes to lengths to try and indicate why a mine should be beneficial to the area, one would have expected that an equal amount of time be spent on addressing the impacts of any mine on the geohydrology.

9.4 GEOSS in a report<sup>16</sup> states that any proposed mining activity will most likely have a far reaching impact on the geohydrology of the area. *"It is likely that impacts will initially be very subtle; however there will most likely be long term, and essentially irreversible, negative impacts on the geohydrology of the area and to associated socio-economic and ecological systems."*

9.5 Although the entire report is attached, attention must be drawn to the following statements in the executive summary to the report:

- (i) *"The Sandveld in itself is a beautiful and unique setting, ranging from a mountainous interior to a tranquil and cold coastline. One of the main characteristics of the Sandveld is that of diversity in many aspects. The proposed mining area is in the upper Krom-Antonies River valley (quaternary catchment G30D) and the linked catchments include that of the Verlorenvlei inland lake in catchment G30E."*

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<sup>16</sup> Geohydrological Assessment of the Moutonshoek Area and environs-Sandveld, 31 August 2012 by Geohydrological and spatial Solutions International (Pty) Ltd. Attached as **Annexure "I"**.

- (ii) *There is extensive agricultural activity in the Sandveld, mainly potato production and the irrigation requirement is sourced from both primary unconfined aquifers and the underlying fractured (and in places confined) aquifers.*
  
- (iii) *The Sandveld contains significant volumes of groundwater and the storage capacity of these aquifers is large. However, an important aspect is the inter-connectivity of the aquifers from the recharge areas in the mountainous interior (i.e. Piket-Bo-Berg), through to the discharge areas near the coast (with a number of significant springs in-between). This inter-connectivity occurs not only over large distances, but also between the primary and underlying secondary bedrock aquifers. The high recharge areas include the Piket-Bo-Berg area and results in both aquifers being replenished at these higher elevations. The groundwater then flows to lower gradients through the primary porosity aquifers and in the secondary aquifers (via fractures and joint systems) in a north-westerly direction toward the coast. The main aquifer that supplies Elands Bay with water is a primary aquifer, yet it is recharged from below due to an extensive fault system in the bedrock. The Elands Bay aquifer has a very similar chemistry and stable isotopic composition to the groundwater being recharged in the Piket-Bo-Berg. Midway on the mountain to the coast flow path, in the Redelinghuis area, the groundwater emanates as spring flow (providing Redelinghuis with its drinking water) and the water chemistry is similar to that of the recharge area.*
  
- (iv) *Groundwater within the two interconnected quaternary catchments G30D and G30F plays an important role in sustaining ecosystem functioning.*
  
- (v) *In the proposed mining area there is possibly a thin unconfined primary aquifer overlaying an aquitard with a relatively high yielding confined fractured aquifer beneath. The direct vertical groundwater recharge will be limited in the proposed mining area due to the presence of the aquitard, however the lateral recharge to the fractured aquifer is significant. The confined fractured aquifer also results in a shallow water level, thus significant dewatering will be required during the*

*proposed mining. This dewatering will result in lower hydraulic gradients and lower pressure gradients, thus reducing the rate of recharge to the down gradient aquifers of catchment G30D and G30E. This in turn will result in reduced spring flow, reduced contribution to river base flows and reduced inflow into Verlorenvlei. In addition borehole water levels are likely to decline over time, and will be at normal levels only during times of exceptionally high rainfall.*

- (vi) *With the reduction in groundwater recharge to the aquifers of the region through mine dewatering, it is probable that the overall groundwater quality of the region will reduce, as a source of freshwater with good water quality is being reduced. This report does not address the possible impacts the proposed mining activity will have on groundwater quality through the presence of slimes dams, tailings dams, acidification of the proposed mine water etc. These latter activities may all have a potential impact on the groundwater quality of the region.*
  
- (vii) *In closing, the proposed mining activity will most likely have a far reaching impact on the geohydrology of the area, particularly within quaternary catchments G30D and G30E. The Sandveld is geohydrologically resilient due to the large storage capacity of the aquifers. It is likely that impacts will initially be very subtle; however there will most likely be long term, and essentially irreversible, negative impacts on the geohydrology of the area and to associated socio-economic and ecological systems. In addition climate change models for the Sandveld indicate warmer and drier conditions also resulting in reduced groundwater recharge."*

## 10 DESIRABILITY

### 10.1 Introduction

- 10.1.1 The desirability or otherwise of the Temporary Departure Application must be the most important matter the Bergvriër Municipality will have to consider when deciding whether to grant or refuse the Temporary Departure Application.

10.1.2 Ultimately the Municipality will have to decide whether it would be desirable to allow the use of land which is currently zoned for agricultural use to be changed to allow for Prospecting activities to take place on the Properties (and by implication mining activities) that will irreversibly change the nature and character of the entire Prospecting Area and the extended impact from Moutonshoek to Elands Bay, while in the process destroying the Verlorenvlei. A change that would benefit no-one except the Applicant.

## 10.2 Consideration of the Application

10.2.1 At the outset, it is recorded that this is an application for approval of a temporary land use departure for the purposes of conducting Prospecting activities in and on the Prospecting Area. Prospecting activities in general are not sustainable activities but merely a forerunner to a more permanent and sustainable activity, namely mining. It is evident that the Applicant's intention is to justify the Temporary Departure Application by attempting to indicate what "positive advantages" eventual mining activities will have and that it will be in the best interest of the community if mining activities in the Moutonshoek area. The Bergrivier Municipality should not confine the assessment of the Application to prospecting activities alone, but should include mining activities as this seems to be the ultimate objective of the Applicant as is apparent from the Application.

10.2.2 As previously indicated the Properties fall within the municipal area of the Bergrivier Municipality ("**Bergrivier Municipality**") and the following laws, administrative guidelines and controls have an impact on the Temporary Departure Application:

### 10.2.2.1 **-LUPO -**

- (i) The General Structure Plan approved in terms of Section 4(6) of the LUPO read together with Sections 5(2) and 42(1) has authorised Councils to grant or refuse applications in terms of Sections 14(4) and 16(1) or 18.
- (ii) The Bergrivier Municipal Council ("**Council**") is therefore authorised to decide on the application provided that inter alia:

- ✓ the procedures prescribed in LUPO and relevant regulations are followed; and
  - ✓ the preservation of the natural and developed environment shall be taken into account and shall include the general requirement that all development must try to achieve the maximum environmental quality, whether aesthetic, natural or cultural historic.
- (iii) Section 36 of LUPO sets out the conditions under which an application must be refused. This section reads as follows:

*"(1) Any application under Chapter II or III shall be refused solely on the basis of a lack of desirability of the contemplated utilisation of land concerned including the guideline proposals included in a relevant structure plan in so far as it relates to desirability, or on the basis of its effect on existing rights concerned (except any alleged right to protection against trade competition)".*

In addition to the above stipulation, LUPO sets out the matters the Council shall take into account in deciding to approve the **Application**. These matters are set out as follows:

*"(2) Where an application under Chapter II or III is not refused by virtue of the matters referred to in subsection (1) of this section, regard shall be had, in considering relevant particulars, to only the safety and welfare of the members of the community concerned, the preservation of the natural and developed environment concerned or the effect of the application on existing rights concerned (with the exception of any alleged right to protection against trade competition)." (Section 36(2))*

- 10.2.2.2 The standard application form provided for applications of this nature requires that the Council, in assessing an application, should take the following into account:



- (i) The evaluation of the application in relation to the DFA principles, Spatial Planning Objectives encapsulated in the applicable Integrated Development Plans through the relevant Spatial Development Frameworks, desirability, precedents, the Council's policies etc;
- (ii) In the case of land zoned for agricultural purposes, the reasons why such land is no longer required for that use;
- (iii) Desirability is usually considered in terms of the following:
  - Physical characteristics of the area;
  - Potential of the site;
  - Character of the surrounding area;
  - Planning proposals for the area;
  - Location and accessibility of the site;
  - Provision of services; and
  - Environmental impact of the proposal.

10.2.3 It is the Objector's submission that the Application, when duly considered, does not meet with any of the above and should as a result be rejected by the Council.

10.2.4 The Applicant refers to guidelines contained in the decision by Acting Judge HJ Erasmus in *Hayes and Another v Minister of Finance and Development Planning, Western Cape, and Others* 2003 (4) Sa 598 (C).

10.2.5 On closer scrutiny it is evident that the "guidelines" provided by the Court is actually a confirmation of the requirements of Section 36(1) of LUPO, namely–

- desirability of the contemplated utilisation;
- the guidelines for a structure plan insofar as it relates to desirability; and
- its effect on existing rights.

- 10.2.6 The Court, as indicated by the Applicant, held that *“the test of desirability is conclusive - in terms of s 36(1) a departure application 'shall be refused solely on the basis of a lack of desirability'. Though the test is phrased in the negative, it lays down a positive test: the test is the presence of a positive advantage which will be served by granting the application.”*
- 10.2.7 The Applicant neglected to also draw Council’s attention to a further and most relevant remark by the Court, namely, that in an evaluation of desirability, consideration has to be given to the following relevant circumstance - *“that there was very strong public opposition to the development from a large number of residents of the area concerned”*.
- 10.2.8 It is evident that since 2005 the Applicant’s attempts to obtain Prospecting or Mining Rights on the Properties, were met with vehement and vigorous opposition by affected land owners, various I & APs and the public alike. Such opposition and objection has been well documented. As far as the Temporary Departure Application in question is concerned, this submission represents the opposition of no less than 1,647 individuals and organisations. In the words of their own legal representative, not even the land owners of the Properties are prepared to support any Mining activities on their properties<sup>17</sup>.
- 10.2.9 Based upon opposition against the envisaged activities, the Application should be found to be non-desirable and should be rejected by the Bergrivier Municipality.
- 10.3 The guideline proposals included in a relevant structure plan in so far as it relates to desirability
- 10.3.1 When considering the Application, consideration must be paid to the following structure plans and frameworks -
- 10.3.1.1 *The National Framework for Sustainable Development (hereinafter referred to as “**NFSD**”)*

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<sup>17</sup> Par 11 supra

- (i) In the NFSD<sup>18</sup> it is stated that “[T]he achievement of sustainable development is not a once-off occurrence and its objectives cannot be achieved by a single action or decision. It is an on-going process that requires a particular set of values and attitudes in which economic, social and environmental assets that society has at its disposal, are managed in a manner that sustains human well-being without compromising the ability of future generations to meet their own need.” (own emphasis)
- (ii) The NFSD further continues to emphasise that South Africa’s current development path in certain instances reflects signs of being unsustainable in the long-term. It highlights that a large percentage of growth in economic activity (measured in terms of its contribution to the GDP) is achieved by “consuming natural resources and degrading our habitat at accelerating rates with the inevitable consequence that future economic growth and development objectives will be prejudiced. (own emphasis)
- (iii) The strategic context for informing need and desirability is best addressed and determined with the formulation of the sustainable development vision, goals and objectives of Integrated Development Plans (“IDPs”) and Spatial Development Frameworks (“SDFs”). In this regard the SDF, that forms an integral part of each Municipality’s IDP, must in terms of the Municipal Planning and Performance Management Regulations specifically “set out objectives that reflect the desired spatial form of the municipality (...) contain strategies and policies regarding the manner in which to achieve the objectives (...) which strategies and policies must (...) indicate desired patterns of land use within the municipality (...) provide strategic guidance in respect of the location and nature of development within the municipality (...) provide a visual representation of the desired spatial form of the municipality, which representation (...) must

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<sup>18</sup> Republic of South Africa (2008) *People – Planet – Prosperity: A National Framework for Sustainable Development in South Africa*. Pretoria: Department of Environmental Affairs and Tourism (DEAT), Republic of South Africa [Internet]. Available from:<<http://www.environment.gov.za>>

*indicate desired or undesired utilisation of space in a particular area.”*

- (iv) In terms of these *guidelines* it is clear that any development (in this instance Prospecting and ultimately Mining activities) should –
- ✓ not compromise the ability of future generations to meet their own need;
  - ✓ not jeopardise future economic growth and development through consuming natural resources at an accelerating rate and degrading the habitat; and
  - ✓ adjudicate desirability and need in accordance with approved IDP's and IDFs.

#### 10.3.1.2

*The Western Cape Provincial Spatial Development Framework, 2009* (hereinafter referred to as “**WCPSDF**”)

- (i) The purpose of the WCPSDF is, inter alia, to “*guide (metropolitan, district and local) municipal integrated development plans (IDPs) and spatial development frameworks (SDFs) and provincial and municipal framework plans (i.e. sub-SDF spatial plans).*”
- (ii) Development is only acceptable and in the public interest if it is ecologically justifiable, socially equitable and economically viable, i.e. environmentally sustainable. This means that *the development needs of present generations should be met without the ability of future generations to meet their own needs, being compromised<sup>19</sup>.*

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<sup>19</sup> WCPSDF, Introduction Par 1.5: Guiding Principle: Sustainability in Development

- (iii) A concern is expressed on the “*falling underground water levels in the Sandveld*”<sup>20</sup>(the envisaged Prospecting Area is located in the Sandveld).
- (iv) With reference to Objective 1 of the WCPSDF, the Applicant interprets reference to the word “settlement” as meaning those apparently in need of economic development to be brought about by its envisaged mining activities. This is however incorrect – this objective deals with provincial urbanisation strategy and optimising a settlement pattern with regard to availability of resources, particularly water, land and future economic potential. Specific reference is then made to corridors not including the Bergrivier Municipality. The Applicant’s reliance on this objective therefore is misplaced.
- (v) Objective 1 actually deals, amongst others, with identification of potential development locations, such as “*agriculture and food processing in intensive agricultural areas*”. An “intensive agricultural area” is defined as “*land with crop farming or forestry potential or with existing agricultural activity, or that has been ploughed or cultivated within the previous 10 years*”. Allowing any Prospecting or Mining activities affecting farms in the Moutonshoek area will be contradictory to this Objective.
- (vi) The Applicant, by referring to the strategy under Objective 2, is again guilty of trying to assign a different meaning to it than that conveyed, namely, not injecting alternative resources (to be provided by its mine), but rather “*Settlements with high levels of human need which include settlements with high as well as low economic growth potential should be prioritised from state funds for the delivery of human resource development and minimum basic services programs*”<sup>21</sup>

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<sup>20</sup> WCPSDF, Introduction Par 2.3

<sup>21</sup> WCPSDF, Objective 2. Par 2.3.5 Policy HR7

- (vii) The strategy under Objective 3 requires prioritisation of settlements with high economic growth potential and high populations as locations for fixed infrastructure investment. This policy is explained by stating that such settlements should receive priority over those with a "low human need" and low economic growth potential. Piketberg is already identified as a "needy settlement" and allowing prospecting or mining activities to commence on such land will not improve its status as an identified priority fixed investment urban settlement.
- (viii) Objective 5 deals with conservation and strengthening the sense of place of, amongst other, productive landscapes. Allowing Prospecting or Mining activities to commence in the Moutonshoek area will *have a* negative impact upon the conservation and "sense of place" of the area. The Applicant's statement that prospecting will have a minimum impact must be rejected in light of its ultimate objective, which is to establish a Mine on the Prospecting Area.
- (ix) Objective 8 deals with protecting biodiversity and agricultural resources and it is unequivocally stated by the Applicant that –
- *"Existing agricultural activity and soils with high grazing and cropping capability should be retained to ensure agriculture's key position in the regional economy."*
  - *Measures are required to ensure that land with agricultural potential is not mined or otherwise damaged, or developed and then presented as a candidate for further urban or non-agricultural development purposes. (own emphasis)*

The relevant strategies under this Objective are to –

- *"Prevent the inappropriate conversion of biodiverse rich rural areas, existing agricultural activity and soil with agricultural potential and important cultural and scenic landscapes to other uses."*

- *Provide the highest protection to rivers and remaining areas of critically endangered biodiversity” (own emphasis)*

The affected area of Moutonshoek, as well as the areas interdependent upon it or its characteristics and resources comprise a combination of areas defined in terms of this Objective as Core Area 1, Core Area 2, Buffer Area 1 and Buffer Area 2. It includes a mountain catchment area, critically endangered areas of biodiversity, river corridors, and/or endangered biodiversity off-set areas.

Based upon the fact that *“Agriculture is one of the main pillars of the Western Cape Economy, especially with respect to employment particularly for those with low levels of formal skills and literacy. Because of these important benefits, Intensive Agriculture is designated as a provincial broad spatial planning category on its own”*, the Provincial Government provide the following policy guidelines: -

- ✓ *All land put under the plough including for orchards, vineyards, forestry plantations, annual crops, pastures, and irrigation lands should be reserved for Intensive Agriculture.*
- ✓ *The approving of applications seeking to convert Intensive Agricultural land to other uses should be a provincial responsibility.*

(own emphasis)

Purely based upon the provisions of Objective 8 alone, it is submitted by the Objectors that the Application must be refused by the Bergrivier Municipality.

- (x) Objective 9 deals with the need to minimise the consumption of scarce environmental resources, particularly water, fuel, building materials, mineral resources, electricity and land – this is borne out of the fact that concerted efforts must be made to reduce the consumption of the aforementioned, particularly in those parts suffering resource shortages.

According to the Applicant Prospecting will only use minimal water. It is however silent on the effect of mining on this scarce resource in the Sandveld, especially the aquifers containing groundwater (see the GEOSS report<sup>22</sup>).

Regarding its further reasoning that tungsten is a scarce environmental resource, it is not comprehended if the Applicant actually would like to make the statement that extensive agriculture (a priority under the WCPSDF) is an inappropriate land use rendering a mineral resource inaccessible – as it is implied on page 15 of the Application.

10.3.1.3 *The West Coast District Municipality Integrated Development Plan 2012 – 2016 (May 2012) (hereinafter referred to as “WCDM-IDP”)*

- (i) The Objectors have opted to peruse and study the more recent 2012-2016 IDP (“**2012 Report**”) and not the replaced 2011-2015 IDP (“**2011 Report**”) used by the Applicant as the basis for certain of the allegations contained in the Application.
- (ii) The WCDM-IDP deals with 5 municipalities of which Bergrivier Municipality is one and its intent is to maintain the unique characteristics of the West Coast District.
- (iii) The WCDM-IDP aligns itself with the WCPSDF and its objectives and strategies.
- (iv) The Applicant states that only 38% of the potential workforce living in the West Coast District is employed. This is clearly incorrect. According to the 2012 Report reviewed by the Objectors 109 769 (84.5%) of the labour force in the West Coast District is employed<sup>23</sup>. Put differently 20 210 (15.5%) of the labour force in the West Coast District is unemployed and not

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<sup>22</sup> Par 15 supra.

<sup>23</sup> WCDM-IDP, Table 30 page 83



38% of such labour force as was submitted to the Municipality by the Applicant.

- (v) The WCDM's objectives in order of priority are<sup>24</sup> –
1. *“Ensuring environmental integrity for the West Coast*
  2. *Pursuing economic growth and facilitation of jobs opportunities*
  3. *Promoting social wellbeing of the community*
  4. *Providing essential bulk services in the region*
  5. *Ensuring good governance and financial viability”*

The Applicant does refer to strategies of the WCDM. It however fails to make any reference to the first strategy and rather focuses on the second.

- (vi) Regarding the first strategy when dealing with control strategies it is stated as follows: *“Mining is not a prominent activity in the WCDM and should not be a major concern”* (own emphasis)
- (vii) It is clear from the Composite Spatial Plan<sup>25</sup> that the envisaged Prospecting Area falls in what is described as a *“Biodiversity Area”*.
- (viii) The Objectors could not find any reference to the statement made by the Applicant that *“The IDP identifies small-scale mining as the one of seven economic themes for the region that will drive economic growth”*. This fact was certainly was not included in the 2012 Report. As a matter of fact the WCDM-IDP list the following economic opportunities –
- ✓ Wind energy
  - ✓ Wave energy
  - ✓ Solar energy
  - ✓ Aquaculture Projects
  - ✓ Oil & gas

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<sup>24</sup> WCDM-IDP, Strategic Planning and alignment, page 12

<sup>25</sup> WCDM-IDP, page 42

Mining or Prospecting activities certainly do not form part of any of the stated economic opportunities in the 2012 Report.

10.3.1.4

*The West Coast District Municipality Spatial Development Framework, 2007* (hereinafter referred to as “**WCDM-SDF**”)

- (i) The WCDM-SDF uses 4 strategic themes to give spatial expression and the first strategy certainly is to ensure appropriate economic growth and development. The Objectors agree with the statement made by the Applicant in the Application that it is the stated objective that future settlement and investment be aligned with places of economic and resource potential. What the Applicant however failed to mention is that the overarching strategy that relates to this objective is ensuring *“that proper spatial planning and land use management are done at all levels”*. It is accepted that such land use management also need to comply with Objective 8 of the WCPSDF.
- (ii) In line with the above the overarching strategy to Objective 4 of Strategic Theme Two is to *“conserve and enhance important natural features, cultural and historic landscapes, artefacts and buildings”*.
- (iii) Another relevant overarching strategy is identified as Objective 5 under Strategic Theme Three, namely – ***“Protect existing productive agricultural land”***
- (iv) Regarding conserving the biodiversity resources it is an overarching strategy to *“minimise pressure on biodiversity resources and ecosystem functioning through careful planning of urban, mining and agricultural developments.”* Any mining activity that could put pressure on the Verlorenvlei Ramsar site in whatever way, should, therefore be prohibited.
- (v) It is stated in the WCDM-SDF that mining operations have a very real impact on the environment and the landscape generally, on

biodiversity in particular, as well as on infrastructure and water resources. Mining operations therefore need to be managed in order to limit their impact<sup>26</sup>.

- (vi) Regarding job creation it is acknowledged by the WCDM-SDF that agriculture, fishing and tourism are the most important job creating sectors and are required in order “*to determine the optimum use of land in relation to biodiversity protection and agricultural development.*”<sup>27</sup>

10.3.1.5 *The Bergrivier Municipality Integrated Development Plan 2012/13 – 2016/17 (24 May 2012) (hereinafter referred to as “BM-IDP”)*

- (i) The BM-IDP is both a plan and a process that is undertaken “*in terms of legislation and within the parameters of National, Provincial and District planning frameworks.*” It clearly is the principal planning document of the Municipality and is aligned with the terms of the WCPSDF, the WCDM-IDP, and the WCDP-SDF.
- (ii) The BM-IDP acknowledges that there are “*a number of cross cutting priorities which are not our core functions per se but which we need to address in cooperation with other spheres of government and other partners to deliver on our constitutional mandate. These priorities include local economic development, conservation of our environment (biodiversity) and social development*”. It follows that where the BM-IDP does not specifically make provision for dealing with a certain matter, it will seek guidance from and will align with the provisions of the Provincial and District frameworks.
- (iii) It is acknowledged that the community “*are becoming increasingly aware of the environment and the need to conserve it*”.

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<sup>26</sup> WCDM-SDF Executive summary, page 5.

<sup>27</sup> WCDM-SDF, Chapter 3, page 30

- (iv) More than 30% of the labour force within the Bergrivier Municipality District are employed in the agriculture, and fishing sector as compared to the 0.3% in the mining and quarrying sector.
- (v) Notwithstanding that agriculture has been adversely affected by droughts, lower profitability and rationalization of production techniques, *“it remains the largest employment sector in the Bergrivier Municipality, providing work for more than half the total labour force. This sector is also responsible for secondary employment opportunities such as packaging, bottling (eg milk processing) and agro-processing jobs. Primary agricultural activities within this sector include livestock farming (sheep, cattle, pig) and grain and fruit farming (cultivated crops such as grapes, water melons, flowers, water lilies and assorted vegetables). Rooibos tea is also grown in this area.”*
- (vi) The town of Piketberg (which forms part of the Bergrivier Municipality) has significant potential for development, if the Municipality can provide adequate bulk services. Its primary *“economic base is agriculture and it serves as a commercial and service centre for the surrounding agricultural area”*
- (vii) There are various challenges to local economic development in the Municipality, *“one of the most critical being that the Municipality has insufficient water and sanitation bulk and service infrastructure capacity to accommodate significant developments at this stage.”*
- (viii) It is acknowledged that there are significant development opportunities such as – *“the growth potential of the West Coast, tourism potential (especially agri, eco and adventure tourism) and our natural resources. There are also a number of role players who are already contributing to the development of our economy who we need to support and work together with such*

*as the tourism associations whom the Municipality supports through an annual grant, the agriculture sector”.*

10.3.1.6 *The Bergrivier Spatial Development Framework, 2008* (hereinafter referred to as “**B-SDF**”)

- (i) The B-SDF focusses on the urban environment. It should thus follow logically that the Municipality will seek guidance from the other SDF’s when a matter of development in rural areas needs to be considered.
- (ii) It is acknowledged that the municipal area is a low-growth area, with the decline in agriculture productivity being one of the contributory factors to such regression. The Objectors disagree with the statement made by the Applicant in the Application that the *“major reason”* for the decline of productivity is solely due to the decrease in agriculture and fishery activities.
- (iii) It is stated that *“an interesting phenomenon is that the natural resources have limited capacity to uphold further development opportunities similar to the present. The region, however, has various natural attributes that possess a value that can be of regional significance for specific development opportunities i.e. eco-tourism”*.
- (iv) It is worth noting that the Piketberg's predominant economic resource is agriculture.
- (v) Reasonable growth is foreseen in Piketberg *“because of the town’s nodal location, its supportive region and status as the administrative centre of the municipal area”*
- (vi) Contrary to what the Applicant alleges in the Application, there is a diversity of growth factors that has been one of the strengths of the area because of the small population. Such economic development is based upon –

- ❖ *agriculture and agri-tourism as well as limited agri-processing*
- ❖ *fishing along the coast and the Berg River as well as some fish-processing*
- ❖ *the saltpans along the Berg River*
- ❖ *residential developments for retirees as well as holiday and weekend visitors*
- ❖ *tourism activities (attractive to foreign, national and regional visitors),*
- ❖ *local and provincial administration and infrastructure services*
- ❖ *education, church and social-welfare-related activities*
- ❖ *regular trade, financial and other business services*

(vii) The Municipality's Local Economic Development Plan stipulates that it possesses "a diversified economic deposit". Sector specific opportunities customised as activities primarily are –

❖ *Agriculture*

- *Investigate settlement of small farmers (associated with capacity building and mentoring)(identification of commonage);*
- *Development of entrepreneurial skills;*
- *Facilitation and support of markets for farmers and fishermen;*
- *Investigate use of infrastructure during "off season";*
- *Initiate an inter-sectoral information programme*

❖ *Tourism*

- *Conserve environmental integrity;*
- *Control urban sprawl;*
- *Conserve and expand unique settlement and rural characteristics*

10.4 The safety and welfare of the members of the community concerned

10.4.1 The Applicant takes a minimalistic approach to this important consideration by merely stating that it will make provision for the safety of the community, including strict security guidelines and the confinement of working hours to times that are socially acceptable.

10.4.2 It is the submission of the Objectors that “safety” and “welfare” also includes–

- ✓ security of tenure on the farms
- ✓ security regarding sense of place, history and nature
- ✓ protection of the value of their properties
- ✓ security of sustainable income
- ✓ work security, etc.

10.4.3 All of the above factors will be compromised should Prospecting or Mining activities be allowed on the Properties.

10.4.4 As indicated when the BM-IDP and SDF were discussed, the Municipality is not in desperate need of diversification<sup>28</sup>

10.5 The preservation of the natural and developed environment concerned

10.5.1 When discussing this consideration the Applicant merely focusses on investigating the potential mining model that should provide information on -

- which mining method – underground or open cast – will be the most feasible; and
- whether or not REE needs to be extracted during the metallurgical process

10.5.2 In other words the Applicant takes it as a given that it will eventually mine and it is only the above that could have an impact on the natural and developed environment.

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<sup>28</sup> Par 69.F (vi) and (vii) supra

10.5.3 It might be the case that Prospecting will not have adverse effects to the extent that Mining will have, however, such Prospecting will no doubt have some kind of adverse effect, especially upon the aquifers. Prospecting simply remains a forerunner to the ultimate objective – to establish a mine on intensive agricultural land in a biodiversity sensitive area that will be in direct contrast to the provisions of the IDP's and SDF's discussed elsewhere in this Objection.

10.5.4 It is a fact that any eventual Mining operations will have an irreversible negative effect on the preservation of the natural and agricultural developed land.

10.6 The effect of the application on existing rights concerned

10.6.1 When discussing this consideration the Applicant wishes to consider the existing rights of the public as represented by the State, the surrounding land owners and itself.

10.6.2 The Applicant argues in its Application that not allowing Prospecting activities to proceed, will deprive the public at large the right to the mineral deposit at Moutonshoek. The Applicant however loses sight of the fact that this right is not an absolute right or an unlimited right. It at all times is subject to other rights such as the public's -

- ✓ right of protection of the environment,
- ✓ the right to food security provided for through sustainable agricultural activities,
- ✓ the right to the unfettered enjoyment of nature
- ✓ the right of having productive agricultural land protected
- ✓ the right of having biodiversity resources and ecosystems protected
- ✓ the right to uncontaminated or unpolluted water resources

All of the above rights will have to make way simply to allow the Applicant to further its own financial interests.

10.6.3 When dealing with the rights of the surrounding land owners, they are down played by merely arguing that Prospecting will be temporary and will not



affect the rights of, amongst others, the Objectors. It is astounding the way the Applicant repeatedly interchanges between Prospecting and Mining simply to serve its own purposes.

10.6.4 Regarding the Applicant's Prospecting Right, it is emphasised that it is in existence only because the DMR has allowed it to apply for the right before it acquired a right to get access to another person's property or the consent to use the agricultural land for its intended purposes. The Applicant certainly did not give thought to the public's right of land being used only for the purpose, for which it has been zoned.

10.7 The presence of a positive advantage which will be served by granting the application

10.7.1 Dealing with this guideline the Applicant firstly focusses on the positive advantage associated with the Prospecting activities. This approach, with respect, is incorrect. The Court in the Hayes-case<sup>29</sup> decided that "*the test is the presence of a positive advantage which will be served by granting the application*". In other words whether the Application will have a positive advantage for, amongst other the community, the municipality, the land concerned, the environment, the economy, the applicable IDP's and SDF's. Any advantages for the Applicant are subservient to the aforementioned and not the predominant criterion.

10.7.2 The Applicant also attempts to indicate that approval of the Application will be to the advantage of the Bergrivier Municipality in that –

- (i) eventually when a mine is established, provide the local Bergrivier economy with an initial direct capital investment of between R1.2 to R1.5 billion over the first 5 years of operations; and
- (ii) the operational phase of the Mining project will generate approximately 405 direct employment opportunities.

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<sup>29</sup> *Hayes and Another v Minister of Finance and Development Planning, Western Cape, and Others 2003*

- 10.7.3 The Applicant provides absolutely no evidence at on how it arrives at the calculation of the alleged direct investment. It apparently relies upon an unsubstantiated statement by Prof Bloom in the Social and Labour Plan for the Proposed Riviera Tungsten Project<sup>30</sup>. Without any evidence, business plan, or budget forecasts provided, Bloom makes the statement so religiously relied upon by the Applicant. This figure of questionable accuracy is thus blatantly submitted to Council as a fact.
- 10.7.4 The Objectors obtained a report<sup>31</sup> from Prof Alistair Macfarlane<sup>32</sup> on the estimated financial viability of the envisaged Mining project. In his opinion, *the mine cashflow developed by Venmyn shows that the mine is in a loss for the first six years of the cashflow, and that cumulative NPV only becomes positive after 12 years. This represents an extremely risky cashflow, in that returns are reliant on late cashflow periods. Using only the difference in processing costs of R223/ton shown above, these, discounted over the life of the mine represent a discounted additional cost of R798 963 492.00. Additionally, mining and infrastructural capital cost that has not been included will amount to an order of magnitude of R500 million, thus resulting in a reduction of NPV to zero. This does not take account of cost escalations, environmental funding and any other costs mentioned in this report”* (own emphasis)
- 10.7.5 In other words, based upon on Macfarlane’s calculations, the Bergrivier Municipality can only expect some form of financial benefit from the Applicant after 12 years of operation. This places doubt on the Applicant’s promise of a direct investment of R1.5 billion over the first 5 years.
- 10.7.6 Macfarlane concludes as follows on the financial viability of the envisaged Mining project:

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<sup>30</sup> Annex J to the **Application**, par 2,6.8, page 34.

<sup>31</sup> Attached as **Annexure “J”**

<sup>32</sup> Chairperson of South African Mineral Asset Valuation Code (SAMVAL), member of SA Institute of Mining and Metallurgy (SAIMM). Ex senior lecturer, School of mining Engineering, University of Witwatersrand.

*“Given the information that has been made available, it can be demonstrated that the project is not viable, due to capital cost omissions and incorrect operating costs.*

*Furthermore it is an extremely high risk project due to:*

- *Complex geological structure and mineralogy, which is not well understood;*
- *Reliance on historical data, resulting in a non-Samrec compliant Inferred Resource estimate;*
- *Reliance on untried metallurgical processes;*
- *Lack of clarity on environmental and infrastructural requirements;*
- *Closing margins and market uncertainty.*

*Certainly the project cannot justify the development of a Mining Right Application or Mining Works programme.”*

10.7.7 The Applicant again failed to present any evidence of how it arrived at the figure of approximately 405 direct employment opportunities. Apparently reliance is again made upon information contained in the Social and Labour Plan referred to. Bloom however is of the opinion that an additional 407 (as opposed to the 405 of the Applicant) direct new jobs could be added to the workforce of the Bergrivier economy. On 5 March 2009 the employment statistics provide for the project (Bloom report) indicated 54 White (27 in top and senior management), 116 African (5 in junior management) and 237 Coloureds (junior management).

10.7.8 Given the bleak prospects of showing a positive cashflow only after 12 years of operation, it is seriously doubted if the mine would be able to employ this number of employees.

10.7.9 Also when compared with labour force figures at similar mine projects, the figure submitted to Council appears to be unrealistic. According to an assessment report<sup>33</sup> for Mar-Tungsten, Yukon, Canada, compiled by SRK Consulting *“the total labor staffing for the processing plant is estimated at 74,*

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<sup>33</sup> NI 43-101 Preliminary Assessment Dublin Gulch Property, 2008 – Mar-Tungsten Zone, Mayo District, Yukon Territory, Canada. SRK Consulting Engineers and Scientists, 7175 W. Jefferson Ave, Suite 3000, Lakewood, CO 80235

*being comprised of 43 in operations for management, supervision, and plant workers, 8 in the metallurgy and chemical laboratories, and 23 in plant maintenance”*

## **11 LACK OF DESIRABILITY OF THE CONTEMPLATED UTILISATION OF LAND**

- 11.1 The Objectors wish to conclude this submission by considering whether the contemplated use of the use of the land as applied for by the Applicant is desirable.
- 11.2 When considering desirability it is imperative that the Council must be satisfied that the subject Properties is the right place for locating the departure use to allow Prospecting activities. Put differently – will the change in land use be a wise use of the land and will it be the most sustainable use of the Properties?
- 11.3 Based upon what has been recorded in the preceding paragraphs of this Objection, the opinion is held that -
- (i) The land use (associated with Prospecting activities) applied for does not conform to nor is it in line with the objectives, strategies, projects and programmes identified as priorities within the IDP’s and SDF’s referred to. Neither prospecting nor mining is catered for in any of the current planning frameworks of the Province, the District or the Municipality.
  - (ii) The existence and estimated extent of the Riviera tungsten deposit has been in the public domain for a number of decades. Notwithstanding no mention is made of it in any of the IDP’s or SDF’s applicable to the application area. The Applicant’s contention that the mineral resource could be strategically important is therefore not shared at all by the Western Cape Province, the West Coast District Municipality or the Bergvrievier Municipality.
  - (iii) There is simply no justification for the envisaged activities to occur at the Properties at this point in time. The promised “benefits” that would allegedly accrue to the community (direct investment and job creation) appear to be nothing but false promises. All indications are that the mine project will take more than 12 years to show a positive net present value.

Given that the expected lifespan of the mine will be 17 years it follows that benefits, if any at all, would only manifest for 5 years.

The establishment of the mine would result in undesirable impact upon agricultural activities that are the major contributors to the local economy (R100 million per annum from the farms in the Moutonshoek valley), hundreds of farmworkers and their families would lose their only source of income, the scarce and of utmost importance resource of groundwater will be irreparably damaged, and the biodiversity of the area will be permanently destroyed.

- (iv) By its own admission in its SDF the Bergrivier Municipality does not have the capacity to provide essential services in the urban areas, let alone those required to service a mining development as envisaged.
- (v) The proposed development is not provided for in the infrastructure planning of the Bergrivier Municipality.
- (vi) The proposed development most certainly is a practicable environmental option for the land in question. When compared to the past and current use of the land and the specific endangered biodiverse characteristics of the area surrounding the Properties, this option would cause the most damage and will have the least benefits to the environment as a whole, at a cost unacceptable to society, in the short term as well as in the long term.
- (vii) Approval of this Application most definitely would compromise the integrity of the existing approved and credible IDP's and SDF's as agreed to by the relevant authorities.
- (viii) It is a fact that the activities contemplated or the land use associated with the activities applied for, would impact negatively on the sensitive natural and cultural areas.
- (ix) The proposed land use applied for (especially that envisaged for the long term) would result in unacceptable cumulative impacts. The later would comprise irreversible negative impacts upon the agricultural activities, economy of the municipality, tourism, the sense of place, sense of history,

sense of nature, safety and welfare and the already endangered ecosystems and biodiversity.

- 11.4 It is submitted that the Application is totally undesirable in light of the fact that –
- (i) The contemplated activities (both short and long term) are in conflict with the natural and historic characteristics of the area.
  - (ii) The potential of the land is, was and will always be to provide food security and to host a sustainable ecosystem. The contemplated activities will have a limited lifespan (17 years at most) and thereafter the land will have no further potential at all.
  - (iii) The contemplated activities will not complement or further the unique characteristics of the surrounding area at all. As a matter of fact, it will damage and degrade it beyond the point of no-return.
  - (iv) The contemplated activities do not form part of the Western Cape Province Spatial Development Framework; or the West Coast District Integrated Development Plan or its Spatial Development Framework; or the Bergrivier Municipality Integrated Development Plan or its Spatial Development Framework. Although the existence of the tungsten deposit is and was known to the authorities referred to, further exploration of it never formed part of any policies, objectives, strategies or priorities.
  - (v) The Bergrivier Municipality does not have the capacity to provide the essential services (insufficient water and sanitation bulk and service infrastructure) for a project of this nature.
  - (vi) The Environmental impacts of the contemplated activities will be disastrous.
  - (vii) There are no positive advantages associated with or incidental to the contemplated activities. The two “benefits” indicated by the Applicant constitute nothing more than lip service and upon closer scrutiny prove to be totally unattainable.

- (viii) There is a very strong public opposition to the envisaged activities development from a large number of residents of the area concerned, as well as interested and affected parties.
- (ix) The Application and its objectives in all instances are in direct contrast with the following officially adopted policies-
- Retaining existing agricultural activity and soils to ensure agriculture's key position.
  - Ensuring that land with agricultural potential is not mined or otherwise damaged, or unsuitably developed and then presented as a candidate for further urban or non-agricultural development purposes.
  - Prevention of the inappropriate conversion of biodiverse rich rural areas, existing agricultural activity and soil with agricultural potential and important cultural and scenic landscapes, to other uses.
  - Reserving all land put under the plough including orchards, vineyards, forestry plantations, annual crops, pastures, and irrigation lands reserved for Intensive Agriculture
- (x) It is recorded that the so-called epicentre of the tungsten deposit is located on Portion 1 of Farm 297, Namaquasfontein. It is further recorded that Moutonshoek Investments (Pty) Ltd, the owner of this property, will not apply for a change in the agricultural use of this farm that would allow prospecting or mining.

## 12 CONCLUSION

It is respectfully submitted that the Temporary Departure Application lacks desirability; it does not meet with the requirements of section 36 of LUPO and consequently should not be approved.

*The Earth provides enough for everyone's needs, but not for everyone's greed (Ghandi)*

### 13 RESERVATION OF RIGHTS

All the rights of the Objectors are reserved, including the right to supplement this Objection and to respond to any reply to this Objection which the Applicant may deliver to the Bergrivier Municipality.

Signed on behalf of the Objectors at Cape Town on this 21<sup>st</sup> day of November 2012.

A handwritten signature in black ink, appearing to read 'Adv Martin Coetzee', written in a cursive style.

**ADV MARTIN COETZEE**

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# **PROBABLE AND POSSIBLE INSTANCES OF BOTH HEALTH AND SAFETY AS WELL AS ENVIRONMENTAL ISSUES WHICH COULD BE ASSOCIATED WITH THE TUNGSTEN MINE AT MOUTONSHOEK**

## **1. INTRODUCTION**

“Health, safety and environmental issues have been significant in the production and use of tungsten in recent years...” US Geological Survey (USGS). From the above statement made from the standards applied at US mining operations, involved with the extraction of Tungsten ores which mostly mine deposits considerably of better grades than those published for Moutonshoek, there is immediately concern that for the local deposit to be viable, there needs to be a major cost trade off. If we also view the fact that in order to meet the very existing conditions associated with discharges of water or in fact leachate into the local aquifers, which depending on the actual characteristic, will eventually make its way into the Verlorenvlei RAMSAR site, the cost of water treatment before discharge will be considerable, making any profit margins even more unlikely.

## **2. OVERBURDEN STRIPPING – DUST GENERATION**

This initial process will undoubtedly cover an area approximately 6 km in diameter if the extent of 220 m depth is to be attained and a repose of 39° to 40° is to be achieved. The mathematics differ considerably from the extent declared in the scoping report. We further contend that the upper reaches below the lofsals?/ ridges/massifs, consisting essentially of Table Mountain sandstone would be unstable at a repose of over 35°, making the footprint even larger than a diameter of 6 km.

During the initial overburden stripping, there will be considerable earth moving vehicle generated dust of a pulverised nature. This is likely to affect areas surrounding the operation considerably during the initial overburden stripping, with the precipitant distributing throughout the valley and affecting pollination of any vineyards, fruit and several varieties of crops adversely. In areas surrounding an overburden stripping operation, distribution of the dust up to 10 km has been documented in areas relatively sheltered from winds, while wind patterns will either limit the extent to which the dust is distributed during high winds, when dust is carried further without precipitating out, or does so closer to the source during still conditions. Similarly, the winter rains may result in dust not being distributed as far from source, as will be the case in summertime. One should bear in mind that because the mining area may be thoroughly wet in winter, this will do little to prevent dust created by blasting operations. Once the mine has reached depth, the dust created from the operation will be more limited, and to an extent retained in the pit.

## **3. PROCESS AND HANDLING – DUST GENERATION**

In addition to dust generated by the mining activities, we need to view that created by the tramming and haulage activities. This will remain a continuous source of dust regardless of the weather.

A further dust generation area will be the ore tip and any conveying system transfer points as well as the primary crushing facilities. All of the transfer points will need to have dust extraction facilities with either bag or cartridge filter or scrubbing systems.

All dry handling installations will require dust control measures and depending on the desirability of moisture within the sized material, some could consist of fine high pressure spray systems combined with retention hoods and cowlings at transfer and handling installations.

While the Occupational Exposure Limits (OEL) for workers and operators will be defined for the run-of-mine ore dust at a figure of 3 mg/m<sup>3</sup>, we note that the limits with regard to the general public are at a concentration of 40 µg/m<sup>3</sup> (micrograms), with the international trend towards a reduction in this value even further. This value will be required at any of the mine boundaries. Dust emanating from the secondary processes and more specifically from Tungsten soluble compounds, will attract an OEL of 1,0 mg/ m<sup>2</sup>, and Quartz an OEL of 0,1 mg/ m<sup>2</sup>.

#### **4. PROCESS – IN BROAD TERMS**

With the process, the ores are generally crushed (Primary Crushing down to sizes of the order of 150 – 200 mm), with secondary crushing down to 30 mm or so, and milling with waste fumes kept generally to a minimum. Dust from extraction systems can be reintroduced as a mill grinding lubricant. Concentration is then usually accomplished by both frothing, supplemented by leaching, roasting or magnetic or high tension separation. The tailings from the froth is usually sent through a reprocessing and scavenged froth flotation circuit to maximise tungsten recovery.

Beneficiation processes vary with the type of ore being mined with most established technologies related to grades higher than that declared in the Moutonshoek deposit.

The concentrate thus recovered may be retreated by kiln roasting to remove impurities like sulphur, arsenic and phosphorous, associated with scheelite deposits found in the presence of contact metamorphism intrusion. It is also associated with veins in quartzite. The concentrate is then processed to Ammonium Para Tungstate (APT) via an intermediate insoluble tungstic acid.

Lower grade scheelites are processed by high pressure soda process.

In this process the concentrate is ground and digested in an autoclave with sodium carbonate to produce a sodium tungstate solution, that is then filtered to remove the sodium carbonate, as well as any silica solids, before further in circuit processing to APT.

Purification of the tungstic acid is achieved by a process involving digestion and crystallisation. The insoluble tungstic acid is digested with aqueous ammonia to solubilize the tungsten as ammonia tungstate. This solution is separated from any remaining solids by filtration before magnesium oxide is added. The precipitant from the process is magnesium ammonium phosphates and arsenate. With the addition of activated carbon, purity is achieved. The carbon is then recovered by filtration. APT is formed by crystallising from the solution. APT crystals are filtered, washed and dried. Ammonia evolved during the process can be recovered and then recycled.

#### **5. WASTE PRODUCTS AND DISPOSAL**

With scheelite ore mining operation utilising leach processes, the scrubber water (acidic) is neutralised with lime with metals precipitated from the waste stream prior to discharge. Any sludges from the waste water treatment are sent to (Subtitle D landfills – USA) or our Vissershok Hazard site locally.

The water could be discharged to a sealed evaporation pond which would be a definite possibility in our summer, but hardly an option in our winter rainfall season. This waste stream is characterised by concentrates of metals and suspended solids.

Leach filter cake residues and impurities from the leaching step contains gangue/ residue ?? and traces of tungsten and other trace elements and in this case is likely to also contain molybdenum and heavy metals lead and possibly even mercury – some in hydrous forms. Those will need to be disposed of in a Subtitle D landfill as indicated above (Vissershok).

Other possible outflow from the processes includes spent mother liquor from purification of intermediate product to APT. – This waste water may be recyclable, but is likely to be discarded. It is high in ammonia, has concentrations of organic acenaphtene, naphthalene (mothballs), phenol and fluorene. Without the specifics of the ore composition and intended final products, we have no way of predicting the outflow quantification or the size of holding ponds which will be necessary and what treatment facilities will be required. The primary captured dust from the initial ore circuit, crushing and milling circuits, which may or may not be re-introduced, will need to be handled as a puddle to enable as much water extraction as possible before being pumped through to a slimes dam. From a typical front end open cast mining operation handling bulk ore tonnages we expect the following dust (bearing in mind the ore characteristics.)

-Primary Tip (15 m <sup>3</sup> /s extr.)	= 6,50 ton/day
-Primary Crush and Transfers (20 m <sup>3</sup> /s extr.)	= 6,90 ton/day
-Secondary Crush and Transfers (20m <sup>3</sup> /s extr.)	= 7,50 ton/day
-Puddling and Handling	= <u>3,00 ton/day</u>
	= 23,90 ton/day
-Probable water content	= 15,00 ton/day

This material will go to slimes with some of the 15,00 m<sup>3</sup> being returned to the circuit as clarified water, which can be used for roadway wetting down. The slimes dam should not be confused with the overburden dump, which will have to have topsoils separated into a second dump for later rehabilitation works (required by law). This makes an effective 2 dumps with the slimes as a separate facility.

The probable initial volume of the overburden dump can be calculated from the extraneous material not forming ore, if one works from the pit cross section diagram. With an increase in depth the overburden dump will grow as material around the orebody is mined to get to the orebody.

No rehabilitation will be possible before the ore body has been completely mined out and provision will have to be made for the cost to do this and deposited with the DME (by law). This also needs to be confirmed by the DME in terms of transparency regulations and thus an exception cannot be made, which may be the case if phased stripping and mining is undertaken, as the rehabilitation can then follow the phased mining as can be noted with the dump at PPC De Hoek operation.

The estimated cost of profiling the pit will be productive and the best option will be to dump the dump back into the pit together with the slimes dam and to then use the topsoils to rehabilitate back to a “previous use” status. One must appreciate that there has been extraction of final

products as well as any discard to a landfill and this will result in the pit never being fully filled even if all dump material is moved including the slimes. The cost in 20 years time could exceed the order of hundreds of million Rand. This does not include any other measures that may be required to mitigate any other effects to the area river systems, the Verlorenvlei and any other costs. Buildings may not be safely re-useable due to leaching of some of the chemical constituents into flow slabs and any masonry work and will thus likely to be demolished at further costs with the resulting masonry and concrete to be disposed of in a high hazard disposal site (again Vissershok or at that stage some other facility at considerable cost).

### **SOME ADDITIONAL COMMENTS AND NOTES**

There are two major points of concern which may or may not bring some light to bear on the largest questions:

1. “Why would someone with limited resources want to mine a sub-grade ore body under dubious circumstances?”
2. “Why would an authority (DM) be so keen to get a project on the go at the expense of proper investigation, probably short-cut EIA processes and the like?”
3. Why would a proverbial bread basket area and a known and well preserved Ramsar sight be put at severe risk on such a limited economic operation?”

If we attempt to find reasons, these could include viewing the second question first:

- A revenge attitude on the part of the authority which had not had a very pleasant run so far with controversial projects.
- Some ulterior motive not fully known or suspected by the partners in the venture.
- An ulterior motive which the Bongani partners are party to, which will result in the final payback being a bonanza and which has something to do with the DM or government.

Possible factors addressing the first question:

- There could be empowerment partners (in reverse) being a major partner and finance source behind Bongani. This, while possible, does not make sense, as the largest and smaller players are all wrapped up in their own financial problems. Diamonds and gold operations are being mothballed and layoffs prevalent in all the major players who are using the situation to lay off unproductive/unwanted staff who will not be able to do this with any other excuse. International mining groups are no better off.
- There is international finance with a political agenda.
- There is an attempt to garner reserves at all costs. Should this option be close to the truth then the DM is complicit for some reason and the mine is then unlikely to be mined for years to come, but with the present “use it or lose it” dames? They would need to show some continuous activity like drawing out the further exploration, drawing out the various process requirements and acquire property so the odd building can be erected.
- Finally, there is a process consideration that can be changed without too much knowledge being evident on what the motives to answer question 3 can be.

To answer question 3 one can only come to the conclusion that whatever the stakes are, the possible rewards are astronomical to Bongani and the spin-off to the government, massive.

### **COMMENT:**

1. World tungsten supplies are dominated by Chinese production and exports – Known Fact.
2. The Chinese government restricted to the amount of tungsten that can be produced and exported – Another Known Fact.
3. To conserve its resources and meet increasing domestic demand, the Chinese government is expected to continue to limit tungsten production and particularly exports and to increase its own imports – I think this could also be proved
4. “The Chinese tungsten industry is investing in mines development projects outside China and developing technologies to increase the use of tungsten scrap and the processing of both low grade ones and mixed scheelite-wolframite concentrates.” US Geological Survey: Mineral Commodity Summary January 2009. This could provide a convenient answer to the first question with regard to funding partners. This could be why the process remains confidential.
5. A further note lifted from the USGS makes the following statement: “Potential substitutes include cemented carbides based on a molybdenum carbide and titanium carbide, ceramics, ceramic-metallic composites (cermets), diamond tools and tool steels for cemented tungsten carbides. Molybdenum for certain tungsten mill products, molybdenum steels for tungsten steels, lighting based on carbon nanotube filaments, induction technology and light emitting diodes (LEDs) for lighting based on tungsten filaments. Depleted uranium can be substituted in tungsten alloys or tungsten unalloyed tungsten in weights and counter weights and depleted uranium alloys for cemented tungsten carbides or armour-piercing shells and projectiles. In some instances substitution will result in increased cost or a lost in product performance.” If our local depository for spent uranium is filling as fast as is suggested, then a use for spent uranium may be an excellent option and one that could be supported by our own government, even if the DME has split with the DM, hiving off from the energy side which now has its own Government Department.  
Extension of the scope of supply from APT to include products utilising spent uranium in tungsten alloys.

**USE THIS INFORMATION SPARINGLY AND TO MAXIMUM EFFECT!**

In further phone discussion:

### **SLIMES DAM**

It is estimated that if Bongani raise an earth berm 100m high to accommodate the slimes dam, the dam will have to be 2km by 2km in size. Obviously if they lower the height of the earth berm they will have to increase the size of the dam. The height of the dam wall is determined by

the volume of liquid that can be contained without the wall being breached by the weight of the liquid.

### **LANDSLIDE**

Depending on how close the lip of the excavation crater is to the steeply inclined foothills of the surrounding Piketber mountains coupled with seismic activity (both natural and artificial) and the extent of rainfall will dictate the possible disaster of a landslide into the hole. The slopes of the mountain consists of soils and fines that have deposited over many years and are loosely compacted to the solid volcanic rock that comprise the mountain massif. After torrential rains, coupled with seismic activity if the hole is too close to mountain there could be a massive landslide of the steep mountain slopes into the hole. Although the chances of this may be somewhat remote, it nevertheless remains a serious contingency. It must be stressed, however, that the position of the hole, relative to the mountain slopes, will dictate the likelihood of such an occurrence.