

Namibia - Bergbau und Rohstoffpotentiale

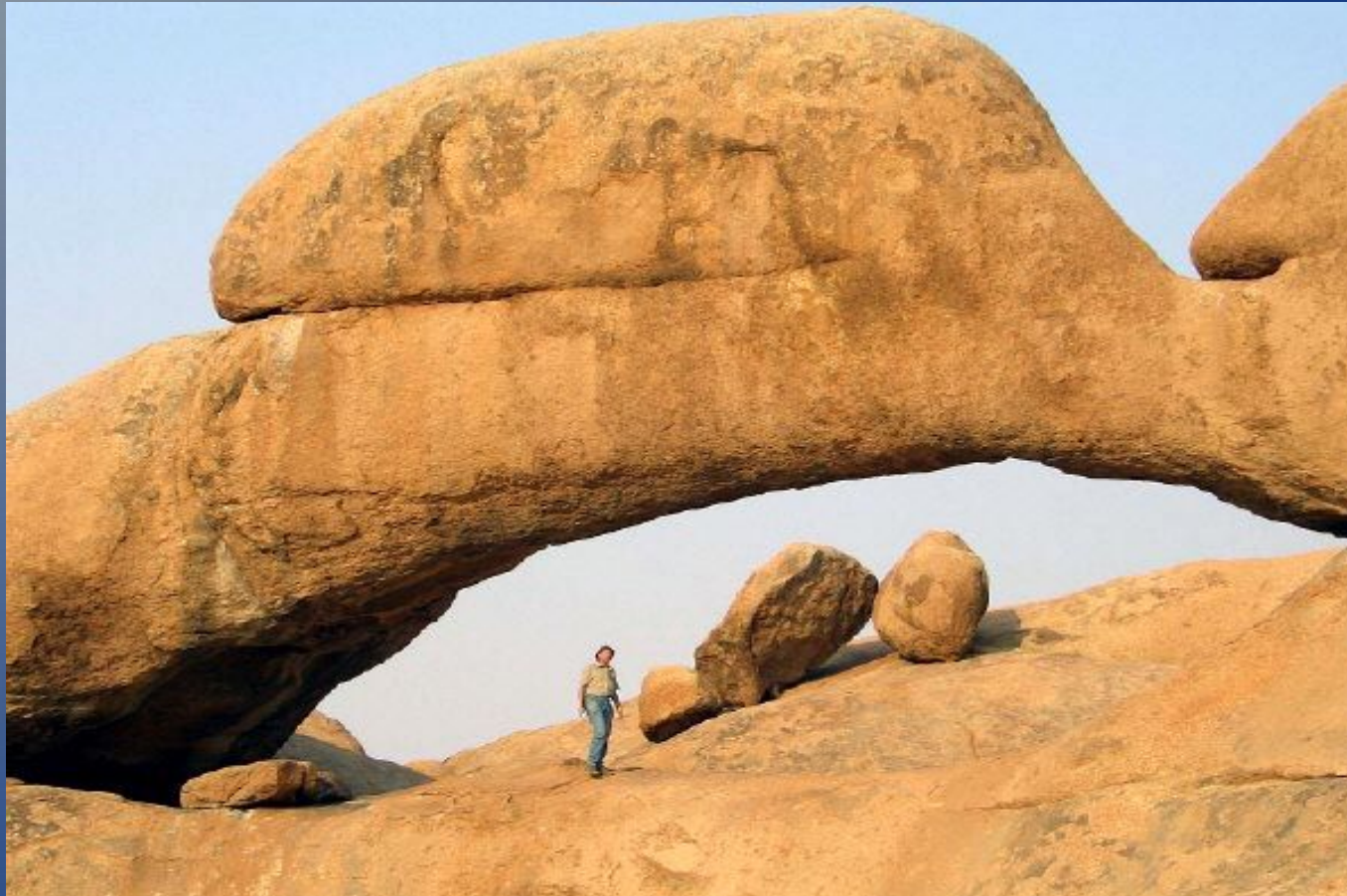
Namibia – Mining and Mineral Potential

2005 - 2007 - 2009 - 2011

Teil 2 - Part 2

Dr. Thomas Krassmann
Bad Windsheim

The following pages are a synopsis of different tours and mine visits in Namibia in 2005 to 2011. If you feel that one of the images used is yours and we do not have permission to use it, please contact us and we will remove it immediately. Thank you !



Die folgenden Seiten sind eine Synopsis mehrerer Reisen und Bergwerksbefahrungen in Namibia von 2005 bis 2011. Sollte eines der verwendeten Bilder Ihnen gehören, so sagen Sie es uns bitte und wir werden dieses unverzüglich entfernen. Danke !

Camping unter Palmen und Dornbüschen

Camping under Palm Trees and Thorn Bushes





**Diopside with
Plancheite**



**Omaue
Diopside
Mine**

Begegnungen am Strassenrand
Encounters on the Road Side

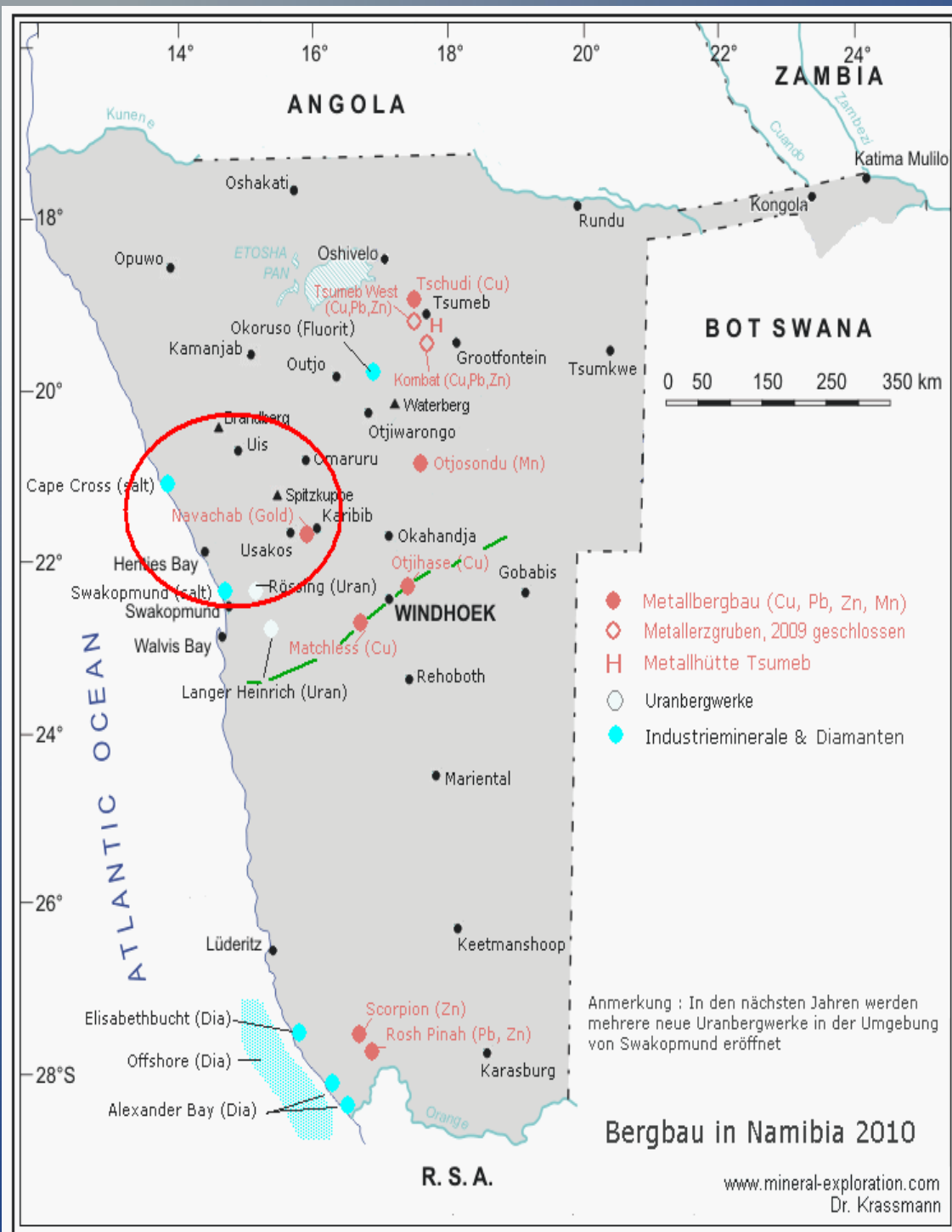




Noch mehr Begegnungen

More Encounters





Bergbau in Zentralnamibia :

Mining in Central Namibia :

Zinn / Tin : Uis, Neineis, Brandberg

Gemstones (Aquamarin, Turmalin) : Spitzkoppe, Erongo

Gold : Navachab

Marmor / Marble : Karibib – Usakos

Blei + Zink / Lead + Zinc : Namib Lead

Uranium : Rössing, Langer Heinrich, Husab, Trekkopje....

Lithium : Karibib

Uis Tin Mine

(1955 – 1990)





Uis Tin Mine

Zinnpegmatit und Mine Pub

Tin Pegmatite and Pub



Spitzkuppe



**Aquamarin - Kleinbergbau
mit geschlägelten Stollen**

Small Miners Gemstone Adit



Photo Source : unknown



Navachab Gold Mine bei Usakos
Goldmineralisationen in Skarnen
Skarn related Gold Mineralisation





Marmorwerke Karibib
Karibib Marble Works



Marmorwerke Karibib
Karibib Marble Works



Deutsche Stadt am Grauen Meer : Swakopmund

German Culture in Africa : Swakopmund





Riesenkörnige Marmore bei Swakopmund

Giant „Marble Crystals“ near Swakopmund

Namib Lead Mine

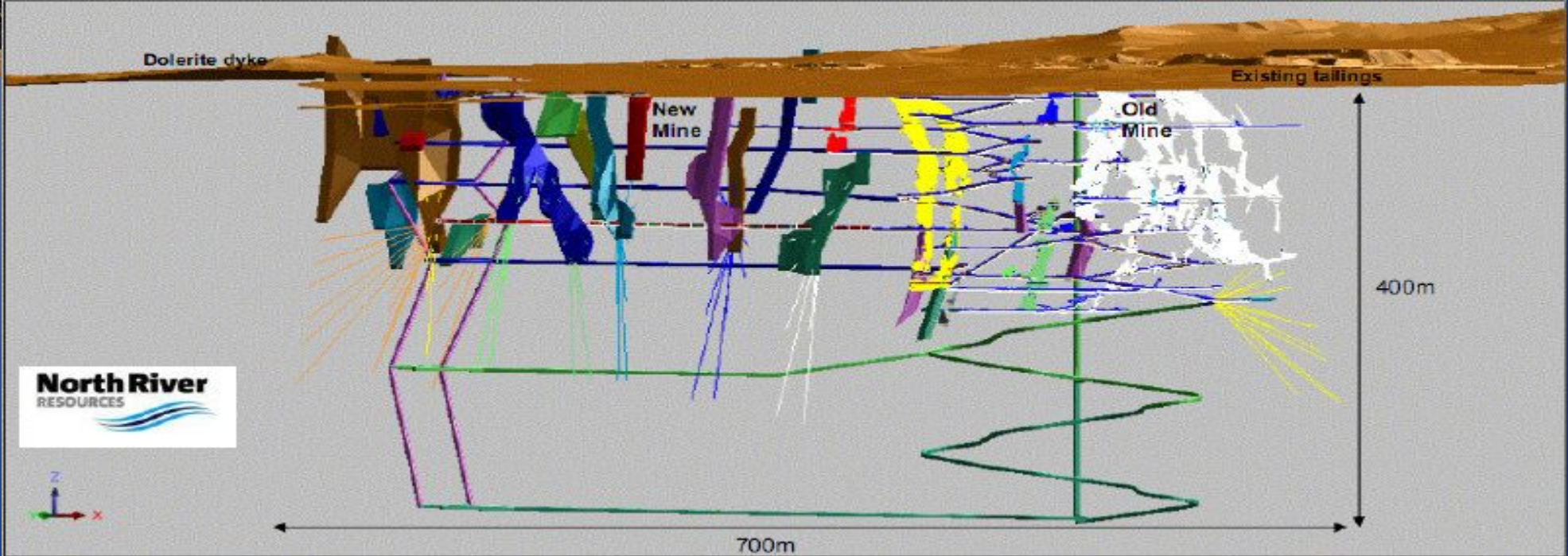


Image Source : North River Resources NI 43 101 Report

Namib Lead Mine : Farbenprächtige Sekundärminerale

Namib Lead Mine : Colourful Oxidation Minerals



Verloren Quarzberg / Hakosberge



**Verloren Quarzberg : Bis 12 Meter große
Megaquarzkristalle**

Giant Quartz Crystals up to 12 Meter !



Der weite Weg nach Süden

The Long Way to the South



Unterwegs : Webervögelnester...

On the Roadside : Social Weaver Bird Nests...





**... und / and Kokerbooms
(Aloe Dichotoma)**

Haus Grasplatz in der Namib, Diamantentdeckung 1908

Grasplatz House in the Namib, where the Namibian Diamond Industry was born in 1908





Diamantenstadt Lüderitzbucht

Lüderitzbucht Diamond Town



Fahrt zur Blei – Zink Mine
Rosh Pinah

Heading for the Rosh Pinah
Lead Zinc Mine



Rosh Pinah Mine : Komplizierte Tektonik

Rosh Pinah Mine : Complex Tectonics



Skorpion Zinc Mine

Modernes Bergwerk auf „Zinc Oxide“ Erzbasis

Modern Mine on „Zinc Oxide“ Ore Base



Photo Source : Scorpion Zinc Minel



Smithsonite



Skorpion Zinc Mine

**Zinkkarbonate & Zink-
Phosphate**

**Zinc Carbonates &
Zinc Phosphates**



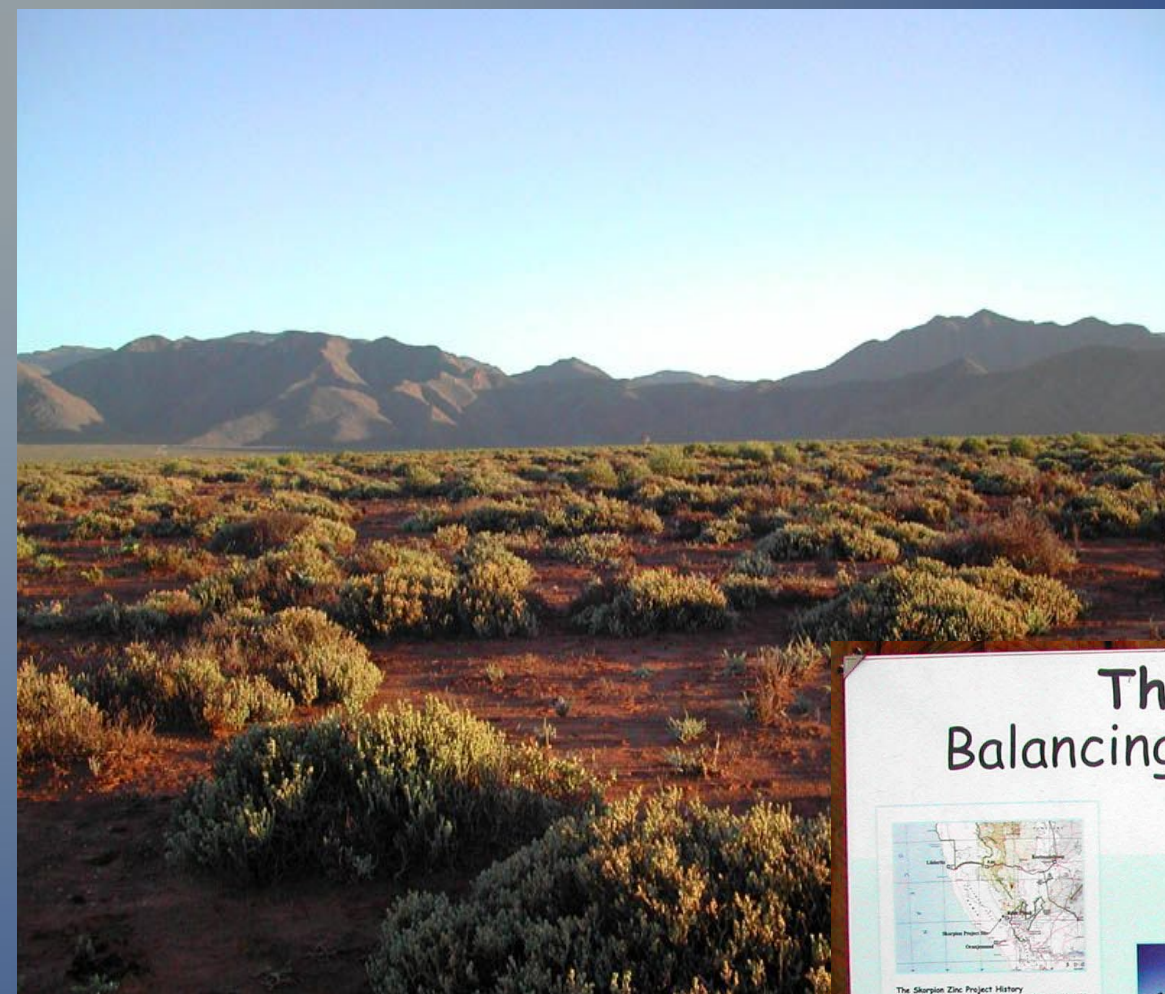
Tarbuttite

Image Source : unknown

Skorpion Zinc Mine

Praktizierter Umweltschutz : Umpflanzung von Sukkulente

Careful Replanting of fragile Succulent Flora



The Skorpion Zinc Project Balancing Conservation & Development...



The Skorpion Zinc Project History
The zinc body at the Skorpion Zinc Project was first discovered in 1976 by an Anglo American subsidiary. At that time, however, no technology was available to extract the zinc from its oxide ore. In 1997, Diamond was awarded the license rights and worked out an innovative way to extract the zinc from the ore. As part of the project, Namibia also commissioned an Environmental Impact Assessment.

The baseline study showed that there were many unique plants in the area and therefore that improved conservation in propagating such plants was of the highest priority. Anglo American and Namibia's Wildlife Conservation Society have been the sole owners of the Skorpion Zinc Project which looks set to become a world class mine. Anglo American will continue to support environmentally friendly development.

DEVELOPMENT ACTIVITIES

Current activities related to the development of the mine focus on establishing the zinc body. An extensive vegetation programme has been completed which will provide information for further site planning.



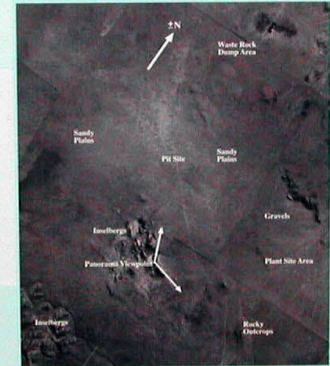
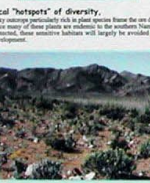
Diamond drilling for zinc
The drilling team is equipped with the latest technology. Geologists then compare what they see and read around of the core for assessing to determine how much zinc is present.



Bulk Sampling...the next stage
The geologists concluded that there is an ore body under the surface and bulk samples in the area of a large quantity of ore. This will be used to determine the best way to extract the zinc from the ore. The bulk site will be prepared to allow the zinc to be extracted from the ore and refined in the South African plant.



THE MAIN HABITATS
Sandy, grassy, rocky outcrops, gravel plains and drainage lines comprise the main habitats in this remote section of the Sperrgebiet.



Local 'hotspots' of diversity.
Rocky outcrops particularly rich in plant species those the are depend from many of these plants are endemic to the western Sperrgebiet and therefore, these sensitive habitats will largely be avoided by the development.



Swept by southerly and sometimes easterly winds,
sandy grasses comprise the major habitat in the area of the proposed mine.



Rejuvenated by soaking rains,
the small succulent *Chromolaena odorata* (in the foreground) comprises the dominant species in the Skorpion Zinc Project area.

CONSERVATION ACTIVITIES

The Skorpion Zinc Project area is of particular conservation importance because of the high number of plants endemic to this part of the world. Many of these are succulents, protected and treasured by collectors. As a contribution to preserving the special flora of the Sperrgebiet, (Diamond Area No. 1), the Skorpion Zinc Project has supported trials undertaken at the National Botanical Research Institute (NBRI) to find out about the possibility of propagating and relocating these special plants from the area to be mined. These could later be used to re-plant disturbed areas during rehabilitation.



Obtaining plants for propagation trials.
In the Skorpion Zinc Project area in October 1998, in a field 'collection mission' to identify the individual plants of some 40 species were 'collected' to 'W' outback, some of which now stock the desert garden of the Skorpion Zinc Project.



Pioneering practical methods at the NBRI.
The study plots proved that many southern Succulent species can be propagated in an area with different climatic conditions. Plants are replanted within the study area without regular irrigation, after three months and seed.



Growing easily from cuttings as well as seeds.
The above succulent *Chromolaena odorata* is a common species which could be propagated and used for re-planting efforts. The plant is a common species in the area as well as present and is of extremely high conservation value.



Enduring acidity and the sun-blasting southerlies,
the open Succulent can be widely distributed in the southern Sperrgebiet. Propagating in a better environment than in the field, but propagation from seedlings would prove difficult.



Growing well in conditions fairly different to its normal 'home'
The small succulent *Chromolaena odorata* (in the foreground) proved a promising candidate for further propagation (LIFE) in the Skorpion Zinc Project area as a green well as well as green plant (LIFE).



Crucial
This will be used by Environmental and other (P) Ltd. Financed by the Skorpion Zinc Project.

Landschaft am Oranje

Oranje Landscape





**Blütenpracht des
Namaqualandes**

Namaqualand Daisies

Diamanten - Bergwerke an der Atlantikküste

Diamond Mining Operations along the Coast



www.mineral-exploration.de

Ende

und

Herzlichen Dank !

Thank you for your Attention !