

References Mining Sites



Contact:

France – Germany – Kosovo / Balkan – Hungary – Africa – South America - Asia

Dr. Frank KARG: +33 6 07 34 69 16

frank.karg@hpc-international.com

Mrs. Lucie ROBIN-VIGNERON

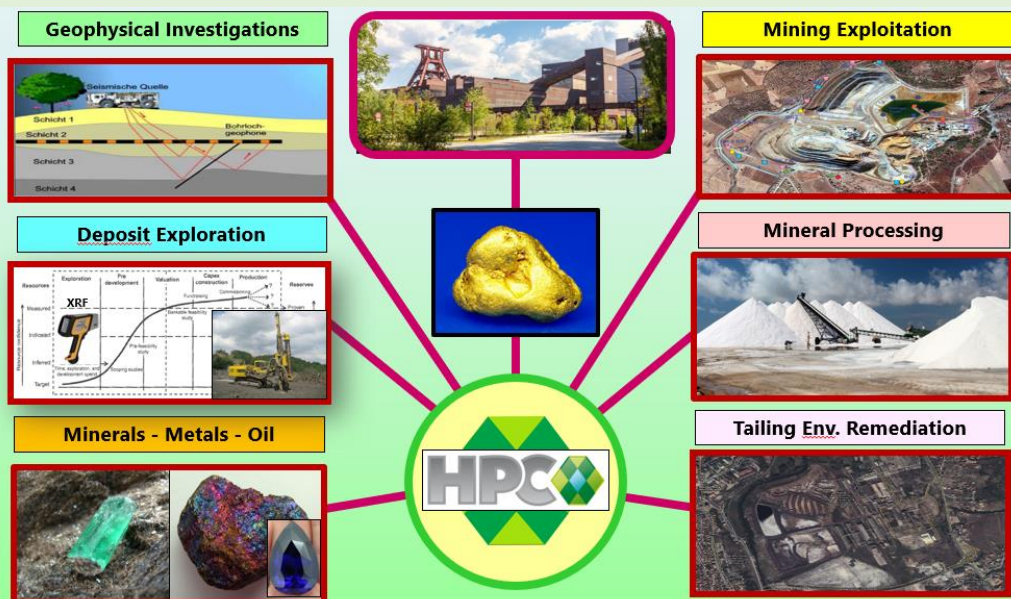
lucie.robin-vigneron@hpc-international.com

Mr. Thomas GRAUF

thomas.grauf@hpc-international.com

Mr. Ali AHMETI

ali.ahmeti@hpc-international.com



References Mining Sites

Experience in mining rehabilitation



- Uranium mining rehabilitation (Eastern Europe, Central Asia, Australia),
- Base metal mine rehabilitation (Eastern Europe, Southern Africa)
- Environmental monitoring (Southern Africa, Central Asia, Germany)
- Mine water management (Eastern Europe, Southern Africa, Central Asia)

Industry



Carbon Steel Treatment Plant
Stainless Steel Production, USA (3 billion USD)



Kosovo: Site Remediation Mining Sites



Reference: Kosovo

Mining sites and Pollution by Mining Waste Heavy Metals Remediation by Waste Recycling



Activities of HPC:

Zinc, Lead, Cadmium etc. Depollution

Reserve quantification for National
Privatization & Investment Project for
Mining Industry

Remediation Treatment Feasibility Study
by Mining Waste Tailing Recycling

Client: Confidentiel

Amount: Confidentiel

Contact: Frank KARG: +33 6 07 34 69 16

frank.karg@hpc-international.com



HPC ENVIROTEC SAS

1 rue Pierre Marzin - CS 83001 - Noyal Châtillon sur Seiche - 35230 SAINT-ERBLON

Tél : + 33 (0)2 99 13 14 50 - Fax : + 33 (0)2 99 13 14 51 - E-mail : hpc.rennes@hpc-envirotec.com

Capital : 204.000 € - RCS RENNES B 383 974 292 - APE 7112 B - N° DE SIRET : 383 974 292 00104 -

N° TVA Intracommunautaire : FR 67383974292

References Mining Sites



Letter of Satisfaction

Reference: Kosovo

Mining sites and Pollution by Mining Waste Heavy Metals Remediation by Waste Recycling



February 22, 2018
Prishtina, Republic of Kosovo

To Whom This May Concern:

is writing this letter to recommend the services of Consortium
"HPC AG - Germany, and Ernst & Young - France".

has contracted HPC and EY Consortium to accomplish the "Feasibility Study for Trepça with Strategic Orientation for its Development". This complex project with a value of € 600,000, and seven month duration period (Sep '16 - Apr '17), was performed to our satisfaction.

Services provided by the consortium involved different fields of expertise, including: assessment of the company status, market studies, current reserves, resources and operations, environmental impacts, upgrading of production and alternative modern technologies, with aim to identify actions needed to improve and develop Trepça Mining Complex, and create new business opportunities.

has been pleased to work with HPC and EY Consortium, and look forward to working with them in the future.

Sincerely,

Ekrem Hajdari

Managing Director



Fatos Meqa

Feasibility Study Contract Manager

References Mining Sites

Turkey

ENVIRONMENTAL MANAGEMENT



- **GOLD MINE**

Mine operates since May 2005 after renewal of all necessary permits.

There are three main ongoing cases in Admin Courts of Izmir and in Supreme Court in Ankara.

These are related to the below permits:

- Environmental Impact Assessment
- Continuous Operation Permit
- Land Zone Permit

- **GOLD PROJECT**

- Environmental Impact Assessment is ongoing/completed?
- Negotiations on land purchases

- **OPEN PIT**

Continuous Operation Permit

Operation completed/closure?

References Mining Sites



Refining/upgrading in Kazakhstan



Project description:

This site was explored already since the 1970ies. A small open cast pit was established at the deposit's part with easy geological and technological conditions. More workable reservoirs were investigated until 1991. The customer will excavate the reservoirs for industrial use of the bitumen-sand. HPC AG is planning the mining activities and is preparing a feasibility study for treatment/refining of the raw materials coming from the pit.

Project name:

Confidential

Country/Location:

Republic of Kazakhstan

Customer:

Confidential, Private client from Republic of Kazakhstan

Cause:

Development project:
Planning of mining of the of the deposit

project value:

2 Billion US \$

Project duration:

2007 – recent

Project Manager:

Mr. Thomas Noack

Service area:

Technological planning of mining activities

Project data:

About 10 Mio. t Bitumen
project area 10 km²
about 300 Mio m³ soil to be excavated

Services:

- Feasibility study mining project,
- Technological planning of the mining activities including recommendations for appropriate technique
- Feasibility study for treatment/refining of the raw materials to achieve qualified final products including requests for the power and water supply
- Environmental impact assessment
- Due diligence (value estimation) for the mining area
- Preliminary and approval planning due to international and Kazakh national legislative regulations

Customer benefits:

Complete service for the planning of a mine including all relevant business under international (world bank) standards

References Mining Sites

Nickel Smelter Plant, Botswana



Services:

- Feasibility study mining project,
- Technological planning of the treatment and emission activities including recommendations for appropriate technique
- Feasibility study for treatment/refining of the SO₂
- Environmental impact assessment
- Due diligence (value estimation)
- Preliminary planning due to international and national legislative regulations

Project description:

Mining operations at Botswana began in 1973 and will continue for many years (> 20 years) as new Ni/Co ore resources were explored. HPC AG is planning the improvement of SO₂ emissions of the smelter and is preparing a feasibility study for treatment/refining of the gas from the Smelter.

Customer benefits:

Complete service for the planning of a Smelter technology including all relevant business under international (world bank) standards

Project name:

Confidential

Country/Location:

Botswana

Customer:

Confidential

Cause:

SO₂ Emission Reduction and Smelter Refurbishment

project value:

37 Mio US \$

Project duration:

2011 – recent

Project Manager:

Mr. Thomas Noack

Service area:

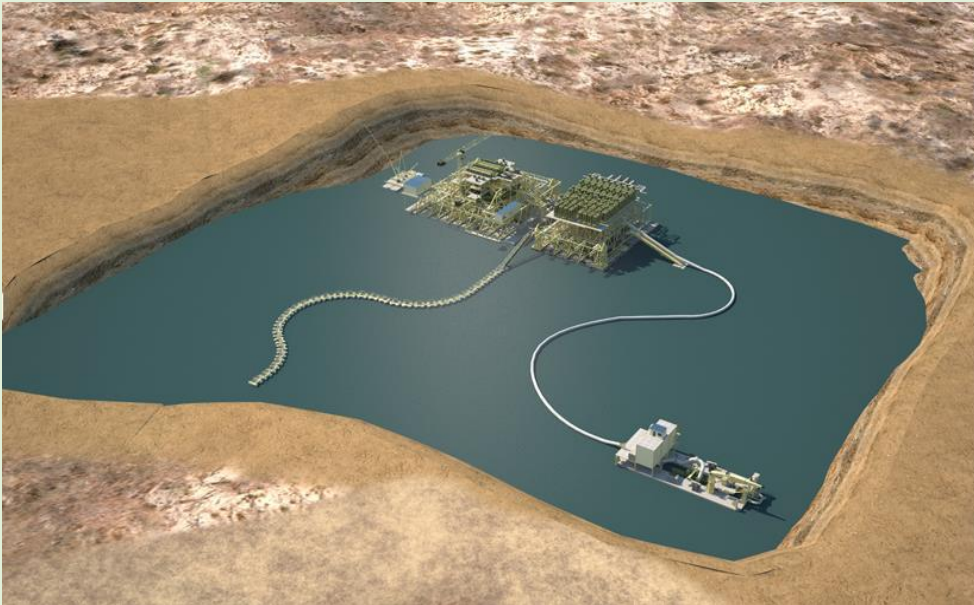
Technological planning of gas treatment

Project data:

About 95 Mio. t ore
440,000 t Nickel/Copper per year

References Mining Sites

Turkey



Project name:

Confidential

Project description:

Mining operations in Turkey
Wheel dredging of about 500.000 t/d

Country/Location:

Aegean Region of Turkey

Customer:

Confidential

Services:

- Environmental and social Due Diligence report
- Pre-ESIA study

Cause:

Compliance with legal requirements

project value:

confidential

Project duration:

2012 – 2013

Customer benefits:

Environmental and social assessment based on Turkish Environmental Legislation, European Commission Directives, EBRD Performance Requirements and International Finance Corporation Performance Standards

Service area:

ESDD

Project data:

About 113 km²
Resources of Ilmenite, Rutil, Zirkon

References Mining Sites



Copper Cobalt Mine, Congo



Project description:

Natural resources project with first exploration and testing program, first calculations from 2008 about measured, indicated and inferred resources. HPC AG was checking the existing studies and updating the FS.

Services:

- Due diligence of existing old DFM
- Update Feasibility study mining project,
- Update resources Model
- JORC certification
- Technological planning of the ore treatment
- Infrastructure planning
- Environmental and Social impact assessment
- Financial calculations
- Due diligence (value estimation)
- Preliminary planning due to international and national legislative regulations

Customer benefits:

Complete service for the planning of a Copper and Cobalt mining and treatment plant for Copper and Cobalt production including all relevant business under international (world bank) standards

Project name:

Due Diligence Environmental

Country/Location:

Democratic Republic of Congo

Customer:

Confidential

Cause:

Update and DD of existing DFS

project value:

>10 Billion US \$

Project duration:

2015

Project Manager:

Mr. Thomas Noack

Service area:

Resource estimation, Feasibility study

Project data:

About 500 Mio. t ore
300,000 t Copper per year
10,000 t Cobalt per year

References Mining Sites



Serbia, Copper Smelter

Project description:

Huge European copper deposit with own smelter, operating since 1904, Production of copper wire and copper bars, this customer was interested to invest in own copper production for automotive. Planning/engineering of the improvement of the old smelter, SO₂ emissions of the smelter and treatment/refining of the gas from the Smelter.

Services:

- Feasibility study processing plant,
- Technological planning of the treatment and emission activities including recommendations for appropriate technique
- Feasibility study for gas cleaning and SO₂ treatment
- Due diligence (value estimation)
- Extended basic engineering

Customer benefits:

Complete service for the planning of a Smelter technology including all relevant business under international (world bank) standards

Project name:

Confidential

Country/Location:

Serbia

Customer:

Confidential

Cause:

Revamp of Smelter, tank-house and gas-cleaning and sulphuric acid plant

project value:

150 Mio €

Project duration:

2002

Project Manager:

Dr. Harald Osthof

Service area:

Technology and process engineering

Project data:

130,000 t Copper per year
0,9% Cu in ore



France

Reference: Mining Site 2016-2017



Mining Contamination by Heavy Metals

Pb, Cd, Hg
Pollutant Impact

Project Description:

- Agricultural Land was contaminated by Mining Heavy Metals (Lead, Cadmium, Mercury)

Site Remediation Planning:

- Realization by Phyto-Remediation & Phyto-Extraction via Pelargonium Plants.
- Extraction of Pelargonium Odorant Oils for Fragrance Production.



- Extraction of Pelargonium Odorant Oils for Fragrance Production.



Project Data:

- Project Value: confidential

Country & Location:

- France

Client:

- Confidential

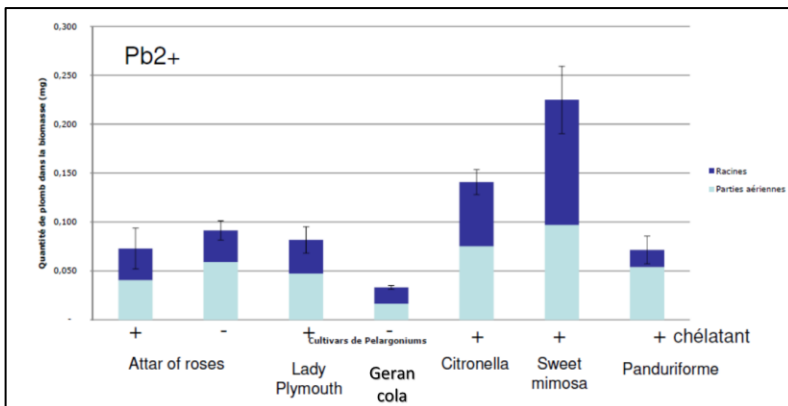
Contact:

- Dr. Frank P.M. KARG

Scientific Director of HPC-Group
CEO of HPC International / France
Member of Bord of Directors
HPC Germany & Court Expert.

- frank.karg@hpc-international.com

- Phone: +33 607 346 916



- Heavy Metal accumulation in Plants (Pb, Cd, Hg)