

平成7年度 社調2課プロジェクト研究  
地下水開発案件にかかるマニュアル検討

JAPAN INTERNATIONAL COOPERATION AGENCY

(JICA)

地下水開発計画関連企業リスト (フランス国)  
コンサルタント、コントラクター、サプライヤー

**List of companies involved in groundwater  
development activities in French speaking  
African countries**

**Documentary study**

March 1996  
A 05540

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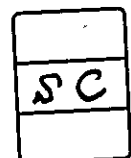
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**ANTEA**

les sciences de la Terre au service de votre projet

Société d'ingénierie et de conseil du groupe BRGM





# RAPPORT ANTEA

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Eau  
Environnement  
Géotechnique

36 17 ANTEA BRGM



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## **SUMMARY**

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  - 3.2 - Drilling
  - 3.3 - Pumps

*List of companies involved in groundwater development activities  
in french speaking African countries*

In order to enhance the implementation and management of its groundwater projects in French speaking Africa. The International Japanese Cooperation Agency (JICA) has commissioned ANTEA Company (BRGM Group) to carry out a documentary study to draw a list of companies from EEC countries, involved in groundwater development activities in French speaking Africa.

To do so, all the major companies in Europe and also local drilling companies have been contacted.

The groundwater projects concern French speaking countries of western and central Africa: Mauritania, Senegal, Guinea, Mali, Niger, Burkina Faso, Ivory Coast, Togo, Benin, Chad, Cameroon, Central African Republic, Gaboon.

The list of all concerned companies is presented in annex 1 of the report.

Suppliers are listed in annex 2 and classified, according to the type of products, in 5 categories:

1. Exploration: satellite image, probes, chemical testing, geophysics,
2. Drilling equipment: tubing, casing, screen, drilling rods, drilling mud,
3. Engine driven pumps.
4. Hand pumps, foot pumps,
5. Solar power driven pumps.

The annex 3 of the report gives the following information on each company:

- company profile and coordinate,
- financial assets,
- number of staff,
- type of activities,
- summary of experience in Africa.

As part of the drilling contractors and suppliers, information is included on the local available facilities, prices (FOB) delivery time duration and after sales services in Africa.

The documentary study is divided in 3 main activities in groundwater exploration:

1. Consultants,
2. Drilling contractors,
3. Suppliers.

Detailed documentation on each company and advertizing brochures are included in appendix 1 (Consultants), appendix 2 (Drilling contractors) and appendix 3 (Suppliers).

For most of the companies the documentation is in English, but for some of them, only French documentation is available and is appended.

## **ANNEX 1**

### **Consulted companies**

## CONSULTED COMPANIES

### Consultants

Country	Compagny name	Collected documentation
Denmark	KRUGER	yes
France	ANTEA	yes
	BCEOM	yes
	L.BERGER	no
	BETURE	no
	BURGEAP	yes
	GEOCONSULT	no
	GEOLAB	no
	HORIZONS	no
	SAFEGE	yes
	SOGREAH	yes
Germany	BELLER	yes
	GFA	no
Holland	EUROCONSULT	yes
	IWACO	yes

### Drilling Contractors

European companies		Collected documentation
Belgium	FORAKY	yes
France	BONIFACE	yes
	COFOR	yes
	FORACO	yes
	SEFI	yes
Germany	GEOMECHANIK	yes
Italy	SAIPEM	no
Sweden	MICRODRILL	no
Locals companies		
Benin	FORAG	no
Niger	OFEDES	yes
Mauritania	SAFOR	yes
	TECHNOFOR	yes
Senegal	SASIF	no
	SEHI	no



## Suppliers

Satellite image		Collected documentation
France	SPOT IMAGE	yes
Italy	EURIMAGE	yes

Field equipment		
France	MERK	no
	PONSELLE	yes
	PROLABO	no

Water level recorder		
France	SEBA	yes

Geophysical tools		
France	IRIS	yes

Drilling rigs		
France	U.I.E(Boniface)	yes
Germany	GEOMECHANIK	yes

Drilling equipment		
France	JOHNSON	no
	SOVEMA	yes
	TUBAFOR	yes
	VALLOUREC	yes
Germany	PREUSSAG	yes
Holland	BOODE	no

Hydro motor pumps		
France	ITT FLYGT	no
	INGERSOLL	no
	GRUNDFOS	yes
	SULZER	yes
	JOHNSON	no
Italy	CAPRARI	yes
Germany	KSB GUINARD	yes

Hand pumps		
France	BROCHOT/PTI	yes
	PASQUIER	yes
	VERGNET	yes
Germany	KARDIA	yes

Solar power driven pumps		
France	PHOTOWATT	yes
	TOTAL	yes
Germany	GEOMECHANIK	yes
	SIEMENS	no

## **ANNEX 2**

**Suppliers companies classified  
according to the type of products**

Suppliers companies classified  
according to the type of products

<b>Probes,chemicals testing, geophysics satellite image</b>
Spot image Eurimage Ponselle Seba Iris

<b>Drilling equipment (Rigs,tubing,casing,screen,rods)</b>
U.I.E (Boniface) Geomechanic Soverna Tubafor Vallourec Preussag

<b>Engine driven pumps</b>
Caprari CCM Sulzer Guinard Grundfos

<b>Hand pumps,foot pumps</b>
Brochot/PTI Pasquier Kardia Vergnet

<b>Solar power driven pumps</b>
Geomechanik Photowatt Total energie

## **ANNEX 3**

### **Companies profile**

## **CONSULTANTS**

**Consultants**

**ANTEA**

Limited-liability company with a share capital of 80.000.000 FF

French company

**Address of Head Office:**

B.P. 6119, 45061 Orléans cedex 02, France

Phone : (33) 38.64.31.73

Fax: (33) 38.64.30.30

**Size of the staff :** 400 employees

**Type of activities and expertise**

ANTEA is a professional and independant engineering company ,which applies Earth and Water Sciences to civil-engineering, development and environmental work.

**# Groundwater exploration and development.**

Explore and exploit water resources.

Management of water resources.

Protect water resources.

**# Environment**

Prevent pollution.

Diagnosis and clean-up of pollution.

Management of the environment.

Management of waste.

Protecting the environment.

**# Geotechnics**

Underground constructions.

Natural construction and other materials

Foundations and other supporting structures.

Natural risks.

**Summary of experience in Africa :**

See references in appendix 1 (file Antea)

## Companies profile

### B.C.E.O.M

French Company

Legal Status: Semi-Public Limited Liability Company

Share capital : 72,270,000 French francs

Turnover in 1995 : 305,294,000 French francs

**Address of Head Office:** Place des Frères Montgolfier  
78286 GUYANCOURT Cedex, FRANCE  
Phone : (33.1) 30 12 48 00  
Fax : (33.1) 30 12 10 95  
Telex: 689993 F - E-Mail

**Size of the staff :** 500 permanent of which 380 engineers,  
economists and technicians.

**Type of activities and expertise:**

Impact studies of road and motorway projects.  
Environmental engineering surveys.  
Management of water resources.  
Water quality  
Drinking water supply  
Water treatment and sewerage.  
Waste management  
Industrial environment

**Summary of experience in Africa :**

see references in appendix 1 (B.C.E.O.M. file)

**Local available facilities; Subsidiary or affiliated companies:**

INFRAMAD IN Madagascar  
BCEOM-IVOIRE in ivory coast  
SNGE in Gabon  
Studi in Tunisia  
Sted in Togo  
ETTP in Chad

### BELLER CONSULT GMBH

Private limited liability company. Turnover in 1994 : 14.5 million DM  
German company

**Address of Head Office:** D-79037 FREIBURG D-79110 FREIBURG  
P.O Box 6180 Linnestrasse 5  
Federal Republic of Germany  
phone : (0) 761-88505-0  
Fax : (0)-761-88 505-22  
Telex : 7 72 551 belfr d

## Companies profile

**Size of the staff :** 85 employees

**Type of activities and expertise**

Rural and urban supply  
Hydrogeological studies and supervision of drilling works.  
Hydraulic structures, such as dams, weirs, pumping stations,  
booster stations, elevated and ground level reservoirs.  
Sewerage and drainage  
flood protection  
Environmental engineering  
Investigations on water pollution

**Summary of experience in Africa :**

see references in appendix 1 (Beller file)

## BURGEAP

*Limited company with capital of 300 000 FF*

French company

**Address of Head Office:** 70, Rue Mademoiselle  
75015 Paris France  
Phone 33(1) 47.34.06.65  
Telex 203 522 F  
Fax 33 (1) 47.34.65.83

**Size of the staff :** 75 full-time including 55 engineers  
highly specialized in water, soil.

**Type of activities and expertise**

Burgeap provides technical studies (preliminary studies,  
project identification, basic and detailed draft studies)  
and acts as prime contractor responsible for project  
monitoring, follow-up and management, technical assist.  
training and service organization.

Burgeap also plays the important role of either expert or  
consultant able to provide highly experienced engineers  
to match the most complex requirements.

**Summary of experience in Africa :**

see main references world wide in appendix 1 (Burgeap file)



## Companies profile

### EUROCONSULT

Limited company with capital of 300 000 FF

Dutch company

**Address of Head Office:** Euroconsult B.V  
Beaulieustraat 22  
6814 DV Arnhem  
The Netherlands  
P.O. Box 441  
6800 AK Arnhem  
The Netherlands  
Phone : +31 -26- 3577111  
Fax : + 31-26- 3577577  
Telex : 45097 euro nl

**Size of the staff :** 300 employees

#### **Type of activities and expertise**

Euroconsult is active in:

- . land and water development
- . civil engineering
- . environmental technology and action programming
- . settlement planning and urban development
- . training and extension

#### **Summary of experience in Africa :**

see main references in appendix 1 (euroconsult file)

### IWACO

Dutch company

Turnover in 1994 : 35 million US \$

Independent dutch consultancy firm

**Address of Head Office:** Hoofdweg 490  
P.O. Box 8520  
3009 am Rotterdam  
the Netherlands  
Phone : ++31-(0)-10-4076543  
Fax : ++31-(0)- 10- 2201005  
Telex : 24069 iwaco nl

**Branch offices in Africa:** P.O. Box 2523  
Ouagadougou  
Burkina Faso  
Phone : 226-307702  
Fax : 226-311108

## Companies profile

**Size of the staff :** 400 Employees

**Type of activities and expertise:**

- # Water resources management
  - \_ Water resources planning
  - \_ Surface and groundwater investigation
  - \_ Groundwater exploitation
  - \_ Computer modelling
  - \_ Geographic Information Systems (GIS)

- # Urban infrastructure
  - \_ Public drinking water supply
  - \_ Industrial water supply
  - \_ Waste water treatment

- # Rural development
  - \_ Regional development planning
  - \_ Rural water supply
  - \_ Small-scale irrigation

**Summary of experience in Africa :**

See references list in appendix 1 (lwaco file)

### KRUGER CONSULT

Danish company

Share capital : 26.0 million DKK

Turnover in 1995 : 64.5 million DKK

**Address of Head Office:** Kruger Consult A/S  
Gladsaxevej 363  
DK - 2860 Soborg  
Phone : 45.39.69.02.22  
Fax : 45.39.66.09.90

**Size of the staff :** About 90 , of whom about 15 are expatriates stationed in West Africa and Asia

**Type of activities and expertise**

- # Water supply engineering
  - Urban water supply
  - Rural water supply
  - Water supply for irrigation and industries

- # Environmental engineering
  - Urban sanitation
  - Urban and industrial wastewater treatment
  - Cleaner technologies and industrial pollution control

## Companies profile

### # Natural resources management

Groundwater assessment , modelling, development and protection.

Surface water monitoring, management ,and protection

Renewable energy, including solar energy and energy recovery

Integrated planning in rural areas.

### Summary of experience in Africa :

Burkina Faso, Benin, Cameroon, Chad, Gabon, Guinea, .  
Niger, Sierra Leone and Togo.

See reference list in appendix 1 (Kruger file)

## SAFEGE

French company Turnover in 1994 : 382 MF

### Postal address:

SAFEGE

Parc de l'île

15/27, rue du port

B.P. 727

92007 Nanterre Cedex

Phone : (1) 46 14 71 00

Fax : (1) 47 24 77 88

Telex : 612611 F

### Size of the staff :

651 Employees

### Type of activities and expertise:

Hydraulics, Waste water treatment,

Drinking and industrial water supply

### Summary of experience in Africa :

Design of decontamination plans in Morocco.

Distribution drinking water of Rabat Salé (Morocco)

Regeneration and extension AEP network in Nouakchott

### Local available facilities :

Representation in Morocco, Mauritania, Senegal.

## SOGREAH INGENIERIE

Partnership ( subsidiary of SOGELERG-SOGREAH SA )

Share capital : 15 Million French francs

French company

Turnover in 1993 : 204 174 000 F

### Postal address:

BP 172

38042 Grenoble Cedex 9 France

## Companies profile

**Geographical address**      **SOGREAH Ingenierie**  
6, rue de Lorraine  
38130 Echirolles France  
Phone : (33) 76 33 40 00  
Fax : (33) 76 33 42 96  
Telex : SOGRE 980 876 F

**Size of the staff :**            280 employees

**Type of activities and expertise:**

Water supply and distribution sewerage  
Water treatment, desalination  
Water resources planning and management  
Protection of the environment and pollution control  
Flood control and natural risk management  
Hydraulic laboratory tests on scale models  
*Agricultural development, irrigation and drainage*  
Dams and water power

**Summary of experience in Africa :**

Sogreah Ingenierie has representatives in many countries  
of Africa.  
See reference list in appendix 1 (Sogreah file).

**Quality assurance:**            Sogreah Ingenierie is currently being qualified  
for ISO 9001 certification (Intellectual services)

## **DRILLING CONTRACTORS**

Companies profile

**DRILLING CONTRACTORS**

**BONIFACE**

Limited Company with capital of 250.000 FF

French company

**Address of Head Office:** Chemin des E.B.P. 173 - 34401 LUNEL Cedex  
Phone : (33) 67 83 51 60  
Fax : (33) 67 83 51 79

**Size of the staff and deployment of personnel :**

Boniface International : 10 employees  
SA Boniface Frères : 35 employees  
Forafrique international : 4 expatriates  
Local labour : # 100 employees

**Type of activities and expertise :**

Large diameter well construction : DTH from 6" to 35".  
Drilling bits from 4"3/4 to 26"

*Boniface include a specialized company  
in design and manufacture of drilling equipment.  
for water well.*

**Summary of experience in Africa :**

# Burkina Faso: 400 boreholes in Sahel Burkinabe (1192)  
Rural hydraulic, 80 boreholes Yatenga north.  
#Mauritania : 148 boreholes in 1975  
# Ivory Coast : 60 boreholes in 1980  
# Togo : Rural hydraulic 600 boreholes (1985-87)  
# Mali Rural hydraulic 222 boreholes (1191-93)

**Local available facilities :**

in France 5 rigs BF800  
1 Foraco SM 70  
1 MIP  
1 RIG BF 250  
Morroco 1 rig BF 82  
3 rigs BF 800  
1 Foraco SM 70  
Spain 1 rig BF 800  
5 Drilling units and workshop for water well  
Forafrique international in Benin, Mali.  
Supply base at Ouagadougou ( Burkina Faso)

## Companies profile

### COFOR

Limited Company with capital of 43.000.000 FF

French company

**Address of Head Office:** 13, rue Le Sueur  
75116 Paris

**Commercial address** 52 , avenue du Maréchal-Joffre  
92000 Nanterre  
Phone : (1) 46.69.61.61  
Fax : (1) 47.21.80.76  
Telex : 611017F

**Type of activities and expertise:**  
in Africa Cofor applies different drilling techniques,  
beating or rotary, air, sludge or foam , direct or inverse  
circulation.

**Summary of experience in Africa :**  
see references in Cofor file.(appendix 2)

### FORACO

Limited Company with capital of 11 200 000 FF

French company

**Address of Head Office:** FORACO S.A  
1, rue de l'industrie  
BP 67  
41300 Salbris (France)  
Phone : 54 96 15 94  
Fax : 54 97 12 69  
Telex : 750 418F

**Type of activities and expertise :**  
Exploration and exploitation drilling for shallow,medium  
and great depths up to 1000m depths  
Core drilling, rotary drilling for geological investigation  
up to 2000 m depths.  
Geotechnical investigation in soils and rocks.  
Borehole instrumentation: borehole logging, deviation.  
Technical assistance.

## Companies profile

### Summary of experience in Africa :

Foraco Mali: 1200 boreholes for hydraulic department  
Foraco Ivory Coast : 2600 boreholes for hydraulic department  
Foraco Cameroun: 15 boreholes 300 m depths  
Foraco Niger : 3100 boreholes Hydraulic department.  
Gabon, Senegal, Burkina Faso, Congo, Centrafrique  
Tchad, Mauritanie.

### Local available facilities :

1 rig SMIT JKS.300 (capacity 150m)  
2 rigs LONGYEAR HC.150 ( coring from 150 to 300m)  
1 rig LONGYEAR 34  
2 RIGS RESKA 30 CDS (capacity 600 meters)  
2 rigs LONGYEAR 38 (500-550m)  
2 rigs LONGYEAR 44 coring from 700 to 1400 meters  
1 rig DIAMANT BOART 1500  
1 rig POLYDRILL 500 and 1 rig SALZGITTER. rb80  
Ivory Coast : 3 rigs SM.70  
Cameroun : 2 rigs SM.70

## FORAKY

Limited Company with capital 200. 000. 000 FB

Belgian company

Address of Head Office: FORAKY  
Nieuwbrugstraat 85  
B- 1830 Machelen  
Phone : +32/2/225 04 51  
Fax : +32/2/253 15 03

### Type of activities :

Reconnaissance and mining of mineral resources.  
# Waterwell drilling  
Rotary drilling, DTH.  
Direct and reverse circulating  
Dual tube.  
# Supervision  
Camera  
Wireline logging  
#Workover wells  
Maintenance and reconditioning  
#Pumping  
Installation, well test, pumps, repairs.

### Summary of experience in Africa:

Representation in Senegal, Burundi, South Africa, Zimbabwe.  
see references in Foraky file (appendix 2)



## Companies profile

### GEOMECHANIK

Limited Company with capital 500.000 DM

German company

**Address of Head Office:** Memminger Str. 42  
D-87789 Woringen  
Federal Republic of Germany  
Phone : 0049 - 8331 - 9548 0  
Fax : 0049 - 8331 - 9548 51

**Size of the staff :** 180 employees

**Type of activities :**

# Exploration drilling, different drilling techniques:  
direct mud circulation, reverse mud circulation,  
DTH drilling, core drilling, rotary percussion drilling

# Hydraulic testing and analysis  
pump tests, borehole logging, hydraulic tests

# Well construction and water supply systems.  
Solar-powered water supply

**Main Products :**

Screens, casing, drill-pipes, bottom hole equipment.  
top head drive rotary drilling, rigs up to 50 t.  
hookload capacity.

**Summary of experience in Africa:**

Ghana : 3700 boreholes rural water supply

Benin: 14 boreholes urban water with final depths up to 400m.

Senegal : 10 boreholes urban water and 5 observation wells  
for Dakar water supply

Guinea-Bissau: construction of water supply systems in the  
regions of Bafata and Gabu.

**Local available facilities :**

In Africa, branch offices and representations are located in  
Ghana, Guinea, Conakry, Guinea-Bissau and Uganda.

### OFEDS

Limited Company with capital 3.562.039.337 FCFA

Nigerian company

**Address of Head Office:** Office des Eaux du Sous-Sol (OFEDS)  
BP 734  
Niamey (Niger)  
Phone : 74.01.14 / 19/ 22  
Fax : (227) 74.16.68

### Companies profile

**Size of the staff:** 368 employees  
**Type of activities :** Drilling, regeneration boreholes,wells.  
Water adduction

**Summary of experience in Africa:**  
Drilling exclusively in Niger.

**Local available facilities :**  
8 Rigs investigation capacity 200 to 1000 m.  
63 vehicules

### SAFOR

Limited Company with capital 40. 500. 000 UM

*Mauritanian company*

**Address of Head Office:** SAFOR  
BP 832 Nouakchott (Mauretania)  
Phone : (2222) 510 72  
Fax : (2222) 537 33

**Size of the staff:** 47 Employees

**Type of activities :** Specialized company in borehole drilling  
water well.

**Summary of experience in Africa:**  
At the end of 1994, Safor has realised 1549 boreholes  
for rural hydraulic an groundwater resources.

**Local available facilities :**  
2 rigs (mixte rotary,dth) Salzgitter RB 30 type  
1 rig Salzgitter RB 225  
14 Atlas copco compressors Generator 15 to 275 KVA

### SEFI

French limited Company with capital 5 000 000 FF CA

**Address of Head Office:** 2 Avenue Général de Gaulle  
B.P. 45  
91170 Viry Chatillon (France)  
Phone : (33) (1) 69 54 22 18  
Fax : (33) (1) 69 96 92 93  
Telex : 602 580 F SEFIVIR

## Companies profile

**Address in Africa:** SEFI  
P.O. Box 1023  
Cape Coast Ghana  
Phone : (233) 42 33 757

**Type of activities :** Drilling equipment for water wells  
Mining investigations  
Particular foundations

**Summary of experience in Africa:**

Mali : 1240 boreholes rural water supply  
Ivory Coast : 299 boreholes rural water supply  
Niger : 667 boreholes rural water supply  
Burkina Faso: 114 boreholes rural water sup  
Ghana : 638 boreholes rural water supply

**Remark:** There is no documentation in english but a french brochure is available at Antea office.

## TECNOFOR

Limited Company 40.000.000 UM (1.400.000. F.F)  
51 % private & 49 % Technosol (TREVI Group Italy)

Mauritanian company

**Address of Head Office:** TECHNOFOR  
BP 2116  
NOUAKCHOTT  
Phone : (2222) 544 59 - 574 92 - 574 93  
Fax : (2222) 544 60

**Size of the staff :** 40 employees  
4 executives, 14 foreman, 22 workers

**Type of activities and expertise :**

Different drilling techniques rotary,air.  
Technofo include a specialized company SOILMEC  
in design and manufacture drilling rigs . Maintenance  
and spare parts servicing.

**Summary of experience in Africa :**

Mauritanie : 100 boreholes rural water supply  
Sénégal : 68 boreholes (depth 100-480m)  
Djibouti : 15 wells (depth 100-200m)

## Companies profile

### Local available facilities :

1 rig G42B (1200 m maxi depth)

1 rig G15 (600 m maxi depth)

2 compressors ,2 mud-pumps, 1 logging unit.

**Remark:** There is no documentation in english but a french brochure is available at Antea office.

## SUPPLIERS

**Suppliers**

**Exploration**

**SATELLITE IMAGE**

**EURIMAGE** Total shareholders' equity of 540 million Lira

**Address of Head Office:** EURIMAGE  
Viale E. D'Onofrio 212  
00155 Roma Italy  
Phone : 39 6 40 69 41  
Fax : 39 6 40 69 42 32

**size of the staff:** 40 employees

**Type of activities :**  
Eurimage provide satellite datas.

**SPOT IMAGE**

Limited company with capital of 34 034 000 FF

**Address of Head Office:** Spot Image  
5 rue des Satellites  
B.P. 4359  
31030 Toulouse Cedex (France)  
Phone : 62 19 40 01

**size of the staff:** 132 employees

**Type of activities :**  
Spot image provide satellite datas and their derivatives  
into various thematic products.

## Companies profile

### FIELD EQUIPMENT FOR BASIC WATER ANALYSIS

#### PONSELLE MESURE

Limited company with capital of 500 000 FF

French company

**Address of Head Office:** Ponselle Mesure  
14, Avenue de la Pépinière  
ZAE - 78220 VIROFLAY  
Phone : (1) 30 24 62 62  
Fax : (1) 30 24 31 85

**size of the staff:** 13 Employees

**Type of activities :**  
PONSELLE MESURE designs, manufactures and sell instruments use for water physico-chemicals measurement.

**Main Products :**  
Equipment to measure: temperature, pH, conductivity, oxidoreduction potential, turbidity, sampler, . hydrocarbon detector.

### WATER LEVEL RECORDER

#### SEBA Hydrometrie

Seba (France) Limited company with capital of 667.500 FF

German company

**Address of Head Office:** Dessestrase 5  
D-8950 Kaufbeuren 2  
Germany  
Phone : (8341) 620 26  
Fax : (8341) 620 29

**Address in France:** Tubafor S.A  
Z.I de la Martinoire  
B.P 96  
59393 Wattrelos cedex (France)  
Phone : 20.26.24.32  
Fax : 20.27.27.92

**size of the staff:** 50 employees (Germany)

## Companies profile

**Type of activities :** SEBA is manufacturing and distributing a large range of measurement sets for Hydrology, Water Quality and Meteorology.

**Main Products :**

- # Water level dippers and recorders, floatting and pressure sensing.
- # Water Quality dippers, interface Hydrocarbon/Water.
- # Datas loggers for 2 piezometers, and multi parameters.
- # Special software for treatment and management for Hydrological datas.
- # Current flowmeters.

## GEOPHYSICAL TOOLS FOR GROUND SURVEYS

### IRIS INSTRUMENTS

BRGM and OYO Joint Venture

Joint Venture between Japanese and french company

**Address of Head Office:** IRIS INSTRUMENTS  
1, avenue Buffon  
B.P. 6007  
45060 Orleans cedex 2, France  
Phone: (33) 38 63 81 00  
Fax : (33) 38 63 81 82

**size of the staff:** 22 employees

**Type of activities :**

*Iris Instruments designs, manufactures and sells geophysical and monitoring field instruments for groundwater Civil Engineering, Environmental and Mining Exploration.*

**Main Products :**

IRIS INSTRUMENTS proposes a set of resistivimeters for groundwater exploration:  
Syscal junior (400V, 50W)  
Syscal R1 Plus (400V, 125W)  
Syscal R2 (800V, 250 to 1200W)  
For groundwater monitoring, Iris Instruments proposes Madosolo, Madoplus and Hydris data loggers for monitoring and recording the variations of the groundwater level with time.



## Companies profile

### **Drilling**

#### DRILLING RIGS

#### GEOMECHANIK

Geomechanik group :limited Company with capital 500.000 DM

German company

**Address of Head Office:** Memminger Str. 42  
D-87789 Woringen  
Federal Republic of germany  
Phone : 0049 - 8331 - 9548 0  
Fax : 0049 - 8331 - 9548 51

**Size of the staff :** 180 employees

**Type of activities :**  
Rigs construction

**Main Products :**  
Rotary Bohranlagen RB 10, 20, 30, 40, 50  
P 0101, P0152, P0511, P 0501, P1011, P1012, P1002, P3002.

#### U.I.E Unite d'Ingenierie et d'équipement (S.A. BONIFACE)

Limited Company with capital of 250.000 FF

French company

**Address of Head Office:** Chemin des EB.P. 173 - 34401 LUNEL Cedex  
Phone : (33) 67 83 51 60  
Fax : (33) 67 83 51 79

**Size of the staff and deployment of personnel :**  
Boniface International : 10 employees  
SA Boniface Frères : 35 employees  
Forafrique international : 4 expatriates  
Local labour : # 100 employees

**Type of activities :**  
U.I.E designs and manufactures drilling equipment  
for water well.

**Main Products :**  
Minidrill, P500, BF 400, BF 800, BF 40, BF 82.  
Derricks

## Companies profile

### DRILLING EQUIPMENT

#### SBF PREUSSAG

Branch of Preussag Anlagenbau GmbH , with Turnover 70 000 000 DM

**Address of Head Office:** SBF Wasser und Umwelt  
B.P 6009  
D 31215 Peine  
Federal Republic of Germany  
Phone : (49) - 5171- 403 131/ 132/133/144  
Fax : (49) - 5171 - 403 221  
Telex : 92670 prkua d

**size of the staff:** 350 employees

**Type of activities :**

Water well construction

PVC - water well casing and screen  
Water monitoring pipes and screens PVC  
Bridge slotted well screens, stainless steel or steel with  
anti-corrosion coating.  
Drilling muds and chemicals

Water production

SBF - KARDIA Technical assistance and after-sales  
Measuring instruments and pumps for 2" piezometer wells.  
WESSOCLEAN-AQUA for well regeneration , maintenance.

**Delivery time duration :**

2 weeks for small quantities  
4 weeks for large quantities

**Local available facilities:**

servicing network in the major part of african nations.

#### SOVEMA

Limited company with capital of 1 500 000 FF

**Address of Head Office:** Rue Ampère  
Zone industrielle  
30600 VAUVERT  
Phone : 66 88 30 79  
Fax : 66 88 29 30  
Telex :490 357

**size of the staff:** 40 employees

**Type of activities :**

Sovema is producing screens and casings for Water wells  
handpumps ,India M2 type, column for handpump,  
stainless steel, pvc .

## Companies profile

**TUBAFOR** Limited company with capital of 1 875 000 FF

**Address of Head Office:** 39, Champs Elysées  
75008 Paris ( France)  
Phone : (1) 42 89 31 96 - 42 25 93 42  
Fax : (1) 42 56 18 59

**Address of Branch office** Km 4 route de Casablanca  
Rabat . Morocco  
Phone: (212) (07) 79 73 33  
Fax : (212) (07) 28 04 05  
Telex : 31694

**Type of activities :**

Tubafor is producing screens and casings for Water wells pipes, drill pipes, drilling tools, drilling fluids and various drilling equipment.

**Main Products :**

- # Wire wound screens made of stainless steel
- # Bridge slotted screens, screens with oblong or round slots, made of black steels, stainless steels.
- # Riser pipes with flanges in carbon steel and stainless steels
- # Riser pipes with Tubafor Morocco is a subsidiary of tubafor designed for steel International and Solmaroc.
- # PVC screens, gravel packed or not, PEHD screens for waste.

**Local available facilities:**

Tubafor Morocco

**VALLOUREC PRECISION ETIRAGE**

Public limited company with capital of 24.433.200 FF

**Address of Head Office:** Zone Industrielle La Saunière  
B.P 38  
89600 SAINT - FLORENTIN  
PHONE: (33) 86 43 50 50  
Fax : 86 43 50 20  
Telex : 801655 VALSFLO

**size of the staff:** Executives 62, staff 263, workers 1097,  
Total = 1422 persons

**Type of activities :**

- # Products Manufactured
- Cylinders tubing
- Hydraulic line tubing
- Drill rods
- Boiler tubes (rifled and smooth)
- Extra long tubes
- Size Range : diameter 6 to 178 mm
- Thickness : 0.8 to 15 mm

## Companies profile

### # Production and Inspection Means

Heat treatment furnaces

Straightning, cutting and bending lines

finishing lines

Ultrasonic, MPI, Eddy Current , Spectrometry inspection units

Test and Analysis Laboratory

### Quality Assurance :

Quality referentials / ISO 9001 - R.A.Q.2 - Automotive Standards

## Pumps

### HYDRO MOTOR PUMPS

#### CAPRARI France

Address of Head Office: CAPRARI FRANCE  
Z.A PARIWEST  
16, rue Claude Bernard  
78130 MAUREPAS  
Phone : (1) 30 13 92 71  
Fax : (1) 30 13 92 76

Size of the staff : 30 employees

#### Type of activities and expertise :

Single and multistage pumps manufacture

Submersible pumps production for water supply  
irrigation, drainage, washdown.

#### Main Products :

*Pumps 4" to 24". A range of different types covering  
flows from 10 to 1200 m<sup>3</sup>/h.*

#### Local available facilities:

In France: 9 branch offices

In Africa: All countries of the West Africa

#### CCM SULZER

Address of Headquarters: SULZER Pumps Ltd  
P.O. Box  
CH-8401 Winterthur  
Switzerland  
Phone : 52-262 11 55  
Fax : 52-262 00 40  
Telex : 896 060 40 szch

## Companies profile

**Head office in France**      SULZER pompes france  
28-30, bd Roger Salengro  
Boîte postale 1217  
F-78202 MANTES-LA-JOLIE CEDEX  
Tél. (1) 34 77 72 00  
Télex 696 922/698 612/699 536  
Fax (1) 34 77 72 23

**Size of the staff :**            3000 employees worldwide

**Type of activities :**           Pumps for water transport and supply  
Pumps for irrigation  
Pumps for sewage and water treatment

**Main Products :**

Horizontal split pumps  
Multi-stage pumps  
Single stage pumps  
Vertical pumps

**Local available facilities:**

Sales offices, representations and service centers  
the world over.  
Local manufacturing facilities in 10 countries

### GUINARD KSB

Limited Company with capital of 66 424 950 F

**Address of Head Office:**    KSB S.A.  
4, allée des Barbanniers  
92635 Gennevilliers Cedex  
Phone : (1) 41 47 75 00  
Fax : (1) 41 47 75 10

**Size of the staff :**            1600 employees

**Type of activities and expertise:**

Water supply : Collection, supply, transfer,  
pumping stations, groundwater lowering.

**Main products :**

commercial mark: Guinard pumps, Alta, Wauquier, KSB

# Vertical, single, and multistage pumps 30.000 USGPM-  
180 ft.

# Submersible pumps 4" to 32" - 3500KW

# Vertical pumps for deep wells 11.000 USGPM-600ft

## Companies profile

### Local available facilities :

In 1986, pompes GUINARD joined the KSB Group, one of the "world leaders" and obtained access to sales, technicals assistance and after-sales servicing network covering the five continents.

**Remark:** There is no documentation in english but a french brochure is available at Antea office.

## GRUNFOS

Limited Company with capital of 16 000 000 F

**Address of Head Office:** Parc d'Activités de Chesnes  
57, rue de Malacombe  
38290 LA VERPILLIERE  
Tél. 74.94.32.99  
Télex 308 296 F  
Fax 74.94.10.51

**Size of the staff :** 8500 employees worldwide

### Type of activities and expertise :

# Single and multistage pumps  
Water supply, boiler feed, boosting, irrigation, drainage, washdown, industrial plants.  
#Submersible pumps for water supply system, water works, irrigation.

Over 4.000.000 units sold each year.  
Products approved all over the world.  
Using CAD/CAM since 1980.  
Computer aid product selection system (C.A.P.S.)

**Main products :** Pumps 4" to 10" . 12 models with a total range of 120 differents types covering flows from 1 up to 280 m<sup>3</sup>/h , 600 m head.

### Local available facilities:

in the world: 25 companies.  
5 production centres.  
in France: 8 Branch offices.  
4 service centres.  
800 sales points.

## Companies profile

### HAND PUMPS

#### BROCHOT / P.T.I

Limited company with capital of 10 000 000 FF

**Address of Head Office:** BROCHOT / P.T.I / S.E.E.E  
52,avenue Marcel Paul  
93297 TREMBLAY -EN- FRANCE Cedex  
phone : (33) 1 49 63 74 00  
Fax : (33) 1 49 63 74 69  
Telex : 230463 / 230876

**Size of the staff :** 150 employees

**Address of central branch in Africa:**  
SEEE-CI  
ZI VRIDI  
15, rue de la Métallurgie  
ABIDJAN 04  
04 BP 342  
IVORY COAST  
Phone : (225) 27 44 87 / 27 46 05 / 27 54 63  
Fax : (225) 27 22 65

**Capital :** 630 000 000 F CFA

**Size of the staff :** 183 permanents  
180 temporary

**Type of activities :**  
# Hydraulics  
Manufacture and maintenance of hand pumps  
Water adduction  
Water treatment  
Irrigation

**Main Products :** handpump Bourga- SEEE  
mini-solar pump

**Local available facilities:** 7 branch offices in 6 countries in Africa  
Benin, Burkina Faso, Ivory Coast, Morocco, Senegal, Togo.

#### PASQUIER SA - UPM

Limited company with capital of 4 700 000 FF

**Address of Head Office:** "La Loue"  
03410 St Victor France  
Phone : (33) 70 28 81 81  
Fax : (33) 70 28 83 83

## Companies profile

**Size of the staff :** 44 employees

**Type of activities :**

Manufactures submersible pumps (UPM) for water supply system, water works.

**Main Products :**

Pumping range from 10 to 102 meters depths

**Local available facilities:**

Current laying out

Mali, Burkina Faso, Togo, Benin, Niger, Tchad

Expected laying out

Ivory coast, Ghana, Gabon, Cameroun.

### SBF KARDIA

Branch of Preussag Anlagenbau GmbH , with Turnover 70 000 000 DM

**Address of Head Office:**

SBF Wasser und Umwelt

B.P 6009

D 31215 Peine

Federal Republic of Germany

Phone : (49) - 5171- 403 131/ 132/133/144

Fax : (49) - 5171 - 403 221

Telex : 92670 prkua d

**Type of activities :**

Water production

SBF - KARDIA and SBF-INKAR handpumps

**Delivery time duration :**

2 weeks for small quantities

4 weeks for large quantities

**Local available facilities:**

servicing network in the major part of african nations.

Technical assistance and after-sales

### VERGNET

Limited company with capital of 2 400 000 FF

**Address of Head Office:**

6, rue Henri Dunant

45140 Ingré (France)

phone : (33) 38 43 36 52

Fax : (33) 38 88 30 50

Telex : 780 980 F



## Companies profile

**Size of the staff :** 34 employees

**Type of activities :**

**# Manufacture of hydropump VERGNET**  
foot and hand pumps.

**# Wind turbines from 1 to 50 kw for:**

Energy supply  
Diesel grid connection  
Pumping  
Desalinisation

**#Range of solar systems for:**

Pre-electrification  
Energy supply  
Pumping

**Main Products : Man power driven pump.**

Pumping range from 10 to 100 meters depths by hydraulic transmission.

Hydropump (HPV30) for shallow and medium depths

Hydropump (HPV60) for medium and great depths

Hydropump (HPV100) for great depths

**Local available facilities:**

Vergnet is present in 25 countries with more than 100 regularly supplied spares warehouses

Vergnet provides maintenance training to local technicians

**Delivery time duration:** Between 4 to 12 weeks depending of the number of ordered pumps.

## SOLAR POWER DRIVEN PUMPS

### GEOMECHANIK SOLAR POWER

Geomechanik group :limited Company with capital 500.000 DM

German company

**Address of Head Office:** Memminger Str. 42  
D-87789 Woringen  
Federal Republic of germany  
Phone : 0049 - 8331 - 9548 0  
Fax : 0049 - 8331 - 9548 51

**Size of the staff :** 180 employees

## Companies profile

### Type of activities :

Water well and water supply system construction.  
Design of the Solar Pumping Systems.  
Supply and installation of all components.  
System maintenance.

### Main Products :

Pumping height up to 150 meters  
Capacity up to app. 5 m<sup>3</sup>/day  
Solar pump : system SOL-1 Modell GSP -1

## PHOTOWATT

Limited company with capital of 65 575 400 FF

**Address of Head Office:** PHOTOWATT INTERNATIONAL SA  
33 rue Saint-Honoré  
ZI Champfleuri  
38300 Bourgoin-Jallieu (France)  
Phone : (33) 74 93 80 20  
Fax : (33) 74 93 80 40

**Foreign branch:** PHOTOWATT SUISSE  
M. REMY Serge  
CP 190 Route de Martigny  
1926 Fully  
SWITZERLAND

**size of the staff:** 116 employees

### Type of activities :

PHOTOWATT is active in the photovoltaic energy market and is devoted to strengthening its capacity as a component manufacturer and a designer of very reliable systems.

**Main Products :** Complete range of solar pumping units  
Photovoltaic systems  
Modules  
Generator components

### Local available facilities:

16 branch offices for technical assistance and after-sales

Companies profile

**TOTAL ENERGIE**

Limited company with capital of 2M.F

**Address of Head Office:** Total Energie  
7, Chemin du plateau  
69570 Dardilly  
Phone : 78 47 44 55  
Fax : 78 64 91 00

**size of the staff:** 42 Employees

**Type of activities :**

Total Energie is involved in designing, installing and maintaining photovoltaic solar power systems especially suited to remote locations.

**Main Products :**

Submersible pump range (TSP) for boreholes or wells.  
Floating pump range (TPF) used for lakes and rivers.  
Photovoltaic modules.

**Local available facilities:**

After sales services in Africa : Mali, Burkina Faso, Senegal.

**Delivery time duration:** 3 to 8 weeks for 1 to 5 units.

**Price (FOB) :**

Pumping system 2000 Wc (30 m<sup>3</sup>/day at 40 m depth) = 145 000F.





LIB