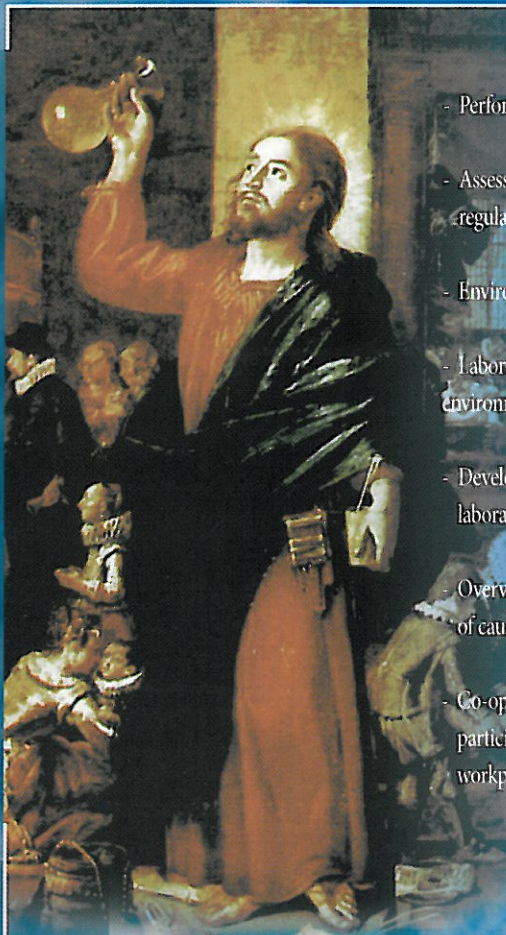


## ACTIVITIES



- Performing accredited sampling and analysis
- Assessment of measurement results according to the rules and regulations, professional advices, remedy solutions,
- Environmental status investigation
- Laboratory performance and on-site implementation of environmental remedy technologies
- Development of drinking water and sewage water technologies, laboratory experiments,
- Overview of erroneous products and technologies, investigation of causes and consequences,
- Co-operation with university and academic research locations, participation in theoretical tuition and providing practicing workplaces.

### BÁLINT ANALITIKA ACCREDITED LABORATORY

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Layout: Varga Gábor György - [www.artpixel.hu](http://www.artpixel.hu)

# BÁLINT ANALITIKA LTD.

ISO/IEC 17025:2005 ACCREDITED LABORATORY



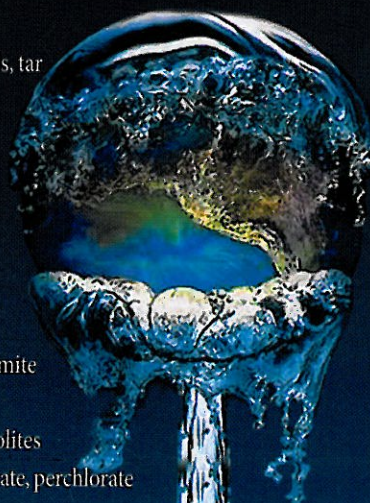
*"As soon as you know what is the question you will understand the answer, too", by Douglas Adams*



## DRINKING WATER, WATER EXTRACTING FACILITIES

pH, conductivity, temperature, dissolved oxygen  
 Turbidity  
 Active chlorine  
 COD,  
 Ammonium, ammonia  
 Sodium equivalent (%)  
 Phosphorus, Chromium (VI)  
 Sulphide, sulphite, sulphate  
 Nitrate, nitrite, fluoride, phosphate  
 Hydrocarbonates, carbonates, alkalinity, hardness  
 Phenols (phenols index)  
 Cyanide, thiocyanate  
 Metals, toxic metals  
 Extractable compounds, tar  
 AOX  
 DOC, TOC  
 As(III), As(V)  
 Fe(II), Fe(III)  
 Selenite, selenate  
 Iodine, iodide, iodite  
 Hormones  
 Bromine, bromide, bromite  
 Pharmaceuticals  
 Pharmaceutical metabolites  
 Chloride, chlorite, chlorate, perchlorate  
 Toxicity tests  
 (Fish, Daphnia, algae, bud plants)  
 Bacteria examinations

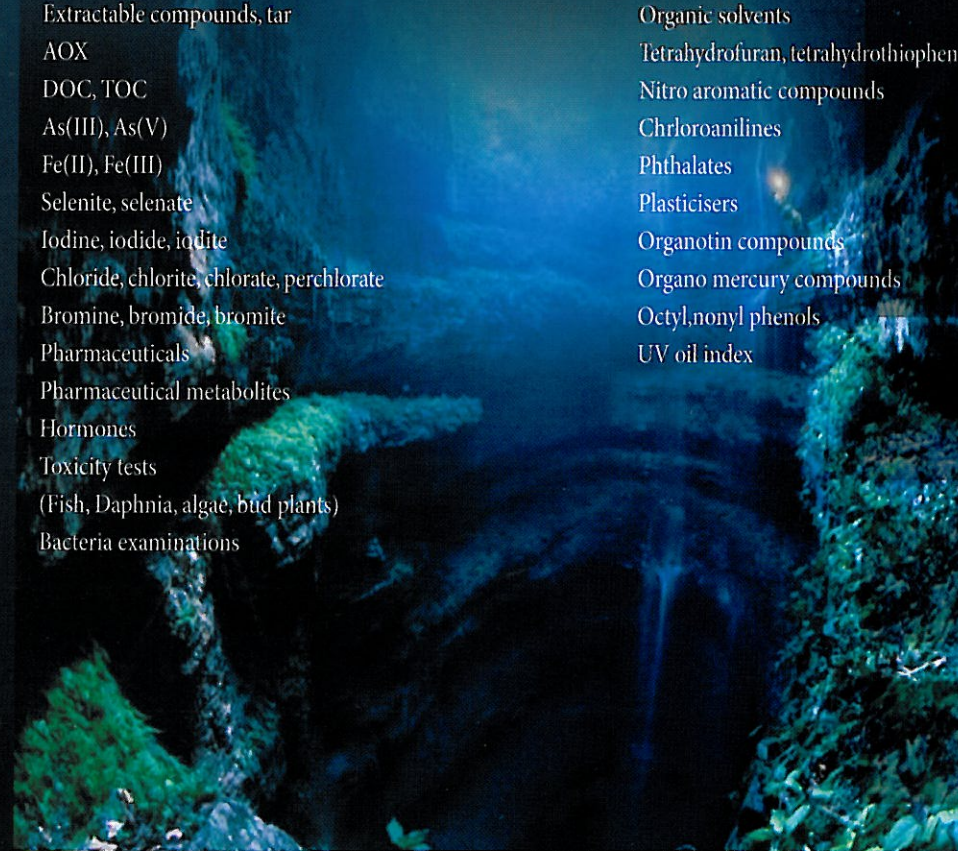
(Fish, Daphnia, algae, bud plants)  
 Bacteria examinations  
 TPH C<sub>5</sub>-C<sub>40</sub>  
 BTEX  
 VOCI  
 Chlorinated aromatic compounds  
 PAH  
 Phenol GC-MS  
 Cholophenols, chloronaphtalines  
 PCB  
 Dioxins and furans  
 Polibrominated biphenyls  
 Polibrominated biphenyl ethers  
 Pesticides  
 Anilin, hydrazine, EDTA  
 Organic solvents  
 Tetrahydrofuran, tetrahydrothiophene  
 Nitroaromatic compounds  
 Chloroanilines  
 Phthalates  
 Plasticisers  
 Organotin compounds  
 Organo mercury compounds  
 Octyl, nonyl phenols  
 UV oil index



## UNDERGROUND WATERS

pH, conductivity, temperature, dissolved oxygen  
 Turbidity  
 Active chlorine  
 COD  
 Ammonium, ammonia  
 Sodium equivalent (%)  
 Phosphorus, Chromium (VI)  
 Sulphide, sulphite, sulphate  
 Nitrate, nitrite, fluoride, phosphate  
 Hydrocarbonates, carbonates, alkalinity, hardness  
 Phenols (phenols index)  
 Cyanide, thiocyanate  
 Metals, toxic metals  
 Extractable compounds, tar  
 AOX  
 DOC, TOC  
 As(III), As(V)  
 Fe(II), Fe(III)  
 Selenite, selenate  
 Iodine, iodide, iodite  
 Chloride, chlorite, chlorate, perchlorate  
 Bromine, bromide, bromite  
 Pharmaceuticals  
 Pharmaceutical metabolites  
 Hormones  
 Toxicity tests  
 (Fish, Daphnia, algae, bud plants)  
 Bacteria examinations

TPH C<sub>5</sub>-C<sub>40</sub>  
 BTEX  
 VOCI  
 Chlorinated aromatic compounds  
 PAH  
 Phenol GC-MS  
 Cholophenols, chloronaphtalines  
 PCB  
 Dioxins and furans  
 Polibrominated biphenyls  
 Polibrominated biphenyl ethers  
 Pesticides  
 Anilin, hydrazine, EDTA  
 Organic solvents  
 Tetrahydrofuran, tetrahydrothiophene  
 Nitro aromatic compounds  
 Chloroanilines  
 Phthalates  
 Plasticisers  
 Organotin compounds  
 Organo mercury compounds  
 Octyl, nonyl phenols  
 UV oil index





## SURFACE WATERS



pH, conductivity, temperature, COD, BOD<sub>5</sub>, N total, 10-minute settling material, total salts, NH<sub>3</sub>, total suspended material, sodium equivalent (%), phosphorus, chromium (VI), sulphide, sulphite, sulphate, nitrate, nitrite, fluoride, phosphate, hydrocarbonate, carbonate, alkalinity, hardness, phenols, cyanide, thiocyanate, turbidity, active chlorine, dissolved oxygen, metals, toxic metals, Extractable compounds, tar, AOX, DOC, TOC, TIC, As(III), As(V), Fe(II), Fe(III), selenite, selenate, iodine, iodate, chloride, chlorite, perchlorate, bromine, bromide, bromate, TPH C<sub>5</sub>-C<sub>40</sub>, BTEX, VOCl, chlorinated aromatic compounds, PAH,

## WASTE WATER AND WASTE WATER SLUDGE



chlorophenols, chloronaphtalines, PCB, PBB, PBE, PCDD/PCDE, pesticides, aniline, hydrazine, EDTA, non water soluble organic solvents, alcohols, phthalates, tetrahydrofuran, tetrahydrothiophene, nitro aromatics, chloroanilines, plasticisers, organotin compounds, organo mercury compounds, octyl, nonyl phenols, UV oil index, pharmaceuticals, pharmaceutical metabolites, hormones, toxicity tests (fish, Daphnia, algae, bud plants), saprobity index, bacteria tests.



## SOIL

pH, conductivity, temperature,  
Total nitrogen  
COD  
Ammonium, ammonia  
Sodium equivalent (%)  
Phosphorus, Chromium (VI)  
Sulphide, sulphite, sulphate  
Nitrate, nitrite, fluoride, phosphate  
Hydrocarbonates, carbonates, basicity, hardness  
Phenols (phenols index)  
Cyanide, thiocyanate  
Metals, toxic metals  
Extractable compounds, tar  
AOX  
DOC, TOC, TC, IC,  
As(III), As(V)  
Fe(II), Fe(III)  
Selenite, selenate  
Iodine, iodide, iodite  
Chloride, chlorite, chlorate, perchlorate  
Bromine, bromide, bromite  
Pharmaceuticals  
Pharmaceutical metabolites  
Hormones  
Asbestos

TPH C<sub>5</sub>-C<sub>40</sub>  
BTEX  
VOC  
Chlorinated aromatic compounds  
PAH  
Phenol GC-MS  
Cholophenols, chloronaphtalines  
PCB  
Dioxins and furans  
Polibrominated biphenyls  
Polibrominated biphenyl ethers  
Pesticides  
Anilin, hydrazine, EDTA  
Alcohols, tetrahydrofuran, tetrahydrothiophene  
Nitro aromatic compounds  
Chloroanilines  
Phthalates  
Plasticisers  
Organotin compounds  
Organo mercury compounds  
Octyl,nonyl phenols  
Explosives' remnants



## COMMUNAL AND HAZARDOUS WASTES



pH, conductivity  
ANC/BNC  
COD  
Ammonium, ammonia  
Sodium equivalent (%)  
Phosphorus, Chromium (VI)  
Sulphide, sulphite, sulphate  
Nitrate, nitrite, fluoride, phosphate  
Phenols (phenols index)  
Cyanide, thiocyanate  
Metals, toxic metals  
Extractable compounds, tar  
AOX  
DOC, TOC  
Iodine, iodide, iodite  
Chloride, chlorite, chlorate, perchlorate  
Bromine, bromide, bromite  
Pharmaceuticals  
Pharmaceutical metabolites  
Hormones  
Toxicity tests  
(Fish, Daphnia, algae, bud plants)  
Bacteria examinations

Asbestos  
TPHC<sub>5</sub>-C<sub>40</sub>  
BTEX  
VOC  
Chlorinated aromatic compounds  
PAH  
Phenol GC-MS  
Cholophenols, chloronaphtalines  
PCB  
Dioxins and furans  
Polibrominated biphenyls  
Polibrominated biphenyl ethers  
Pesticides  
Anilin, hydrazine, EDTA  
Tetrahydrofuran, tetrahydrothiophene  
Nitro aromatic compounds  
Chloroanilines  
Phthalates  
Plasticisers  
Organotin compounds  
Organo mercury compounds  
Octyl,nonyl phenols



## AIR

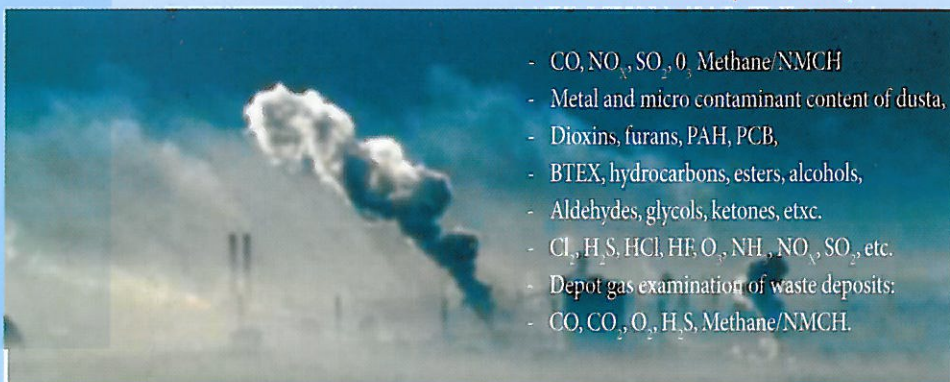
### EMISSION

- Flue gas measurements, (CO, NO<sub>x</sub>, SO<sub>2</sub>, CO<sub>2</sub>, O<sub>2</sub>, TOC, CH<sub>4</sub>, Methane/NMCH)
- Solid materials, PM10, PM2.5, PM1, metals,
- BTEX, hydrocarbons, esters, alcohols, aldehydes, glycols
- Ketons, isocyanates, phthalates, etc.
- Dioxins and furans, PAH, PCB,
- Hydrochloric acid, sulphuric acid, nitric acid,
- Ammonia,
- Chlorine, bromine, freons, fosgene, etc.



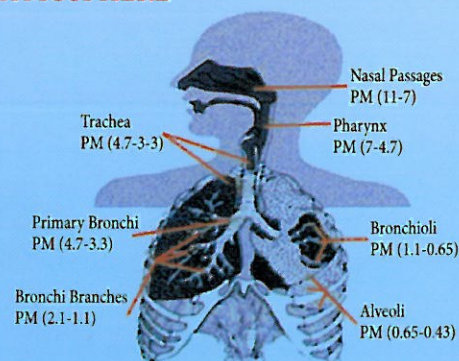
### AIR POLLUTION (immission)

- CO, NO<sub>x</sub>, SO<sub>2</sub>, O<sub>3</sub>, Methane/NMCH
- Metal and micro contaminant content of dusts,
- Dioxins, furans, PAH, PCB,
- BTEX, hydrocarbons, esters, alcohols,
- Aldehydes, glycols, ketones, etc.
- Cl<sub>2</sub>, H<sub>2</sub>S, HCl, HF, O<sub>3</sub>, NH<sub>3</sub>, NO<sub>x</sub>, SO<sub>2</sub>, etc.
- Depot gas examination of waste deposits:
- CO, CO<sub>2</sub>, O<sub>2</sub>, H<sub>2</sub>S, Methane/NMCH.

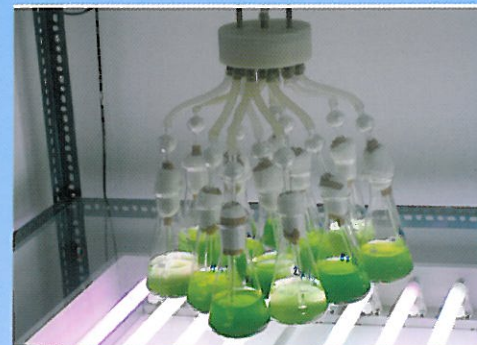


### PERSONAL EXPOSITION / WORKING ATMOSPHERE

- CO, NO<sub>x</sub>, SO<sub>2</sub>, O<sub>3</sub>, Methane/NMCH, H<sub>2</sub>S, CO, O<sub>2</sub>, LEL
- Total and respirable dust and metals,
- BTEX, hydrocarbons, esters, alcohols, aldehydes, glycols, ketones, etc.
- Cl<sub>2</sub>, H<sub>2</sub>S, HCl, HF, O<sub>3</sub>, NH<sub>3</sub>, NO<sub>x</sub>, SO<sub>2</sub>, etc.
- Measurements of working climatic circumstances and lighting characteristics.



## ECOTOXICOLOGY, HYDROBIOLOGY



Ecotoxicology examinations made of surface, underground waters, wastewaters, communal and hazardous wastes. Growing test of green algae from fresh water (*Scenedesmus subspicatus* and *Selenastrum capricornutum*). Bud plant test with white mustard seed (*Sinapis alba*). The determination of immobilization with *Daphnia magna* Strausson (Cladocera, Crustacea). Determination of the lethal exposure of sweet water fish to the acute toxic effects of toxic materials using *Brachidanio rerio* and *Poecilia reticulata*.

Hydro-biological examinations from standstill and flowing waters and wastewaters: determination of the saprobity of surface waters:

- Microscopic biological examinations, by the quantitative and qualitative examination of photo planktons and zoo-planktons (rotary, branching crab, webbed footed crab).
- Microscopic analysis of wastewaters.



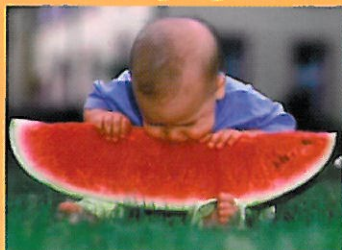


## FOODSTUFF

Foodstuff, food additives, food raw materials (fruits, vegetables, meat, dairy products, egg, bakery raw materials and products, cantered products, preserved – frozen and deep frozen foodstuff – alcoholic and non alcoholic beverages, spices and flavouring agents, tea, coffee, honey, dry pastry, cereals and oily seeds, feedstock. We examine all the materials getting in contact with the above.

### EXAMINATION OF CONTENT:

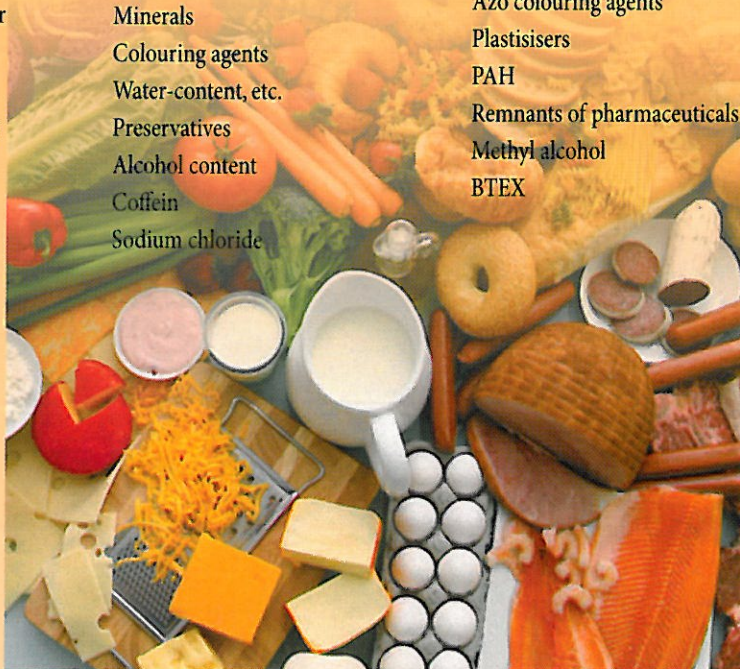
Fat content  
Dry material  
Ash content  
Acid insoluble ash content  
Salt content  
Sugar and sweetener content  
SO<sub>2</sub> content  
Egg content  
Volatile oil content,  
Iodine number  
Peroxide number  
Ethyl alcohol number  
Acid content  
Sorbin acid content  
Benzoic acid content  
Urease activity  
Polyphenol content  
Antocianin  
Flavonoids  
Vitamins  
Raw fibres  
Dextrin  
Formaldehyde  
Iodine content  
Free fatty acids  
Esther number  
Amilose content  
Protein



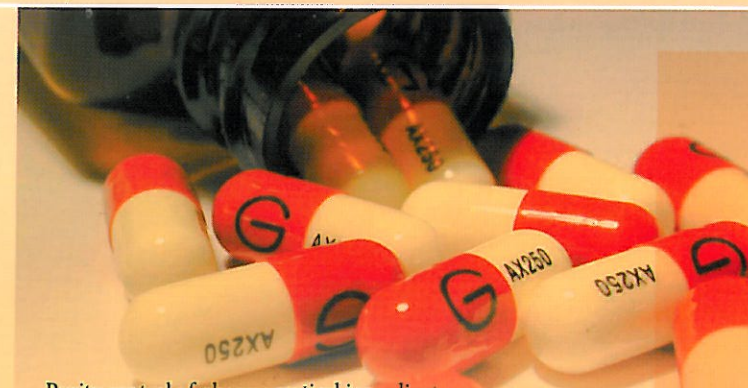
Saturated and unsaturated fatty acids  
Saponation number  
Non saponated part  
Total nitrogen  
Refractive index  
Minerals  
Colouring agents  
Water-content, etc.  
Preservatives  
Alcohol content  
Coffein  
Sodium chloride

### CONTAMINANTS:

Hydrogen cyanide  
Toxic metals  
Nitrite  
Nitrate  
Pesticides  
Dioxin / furan  
PCB  
Cholophenols  
Toxins  
Patulin  
Nitrozamines  
Azo colouring agents  
Plastisiers  
PAH  
Remnants of pharmaceuticals  
Methyl alcohol  
BTEX



## PHARMACEUTICALS AND HERBS



- Purity control of pharmaceutical ingredient
- Determination of active ingredients of pharmaceuticals



- Food additives
- Vitamins
- Herb extracts
- Antioxidants
- Flavonoids
- Examination of polyphenols.

Determinations according to the Hungarian, European and USA Pharmaceutical Books.



## SAMPLE TAKING

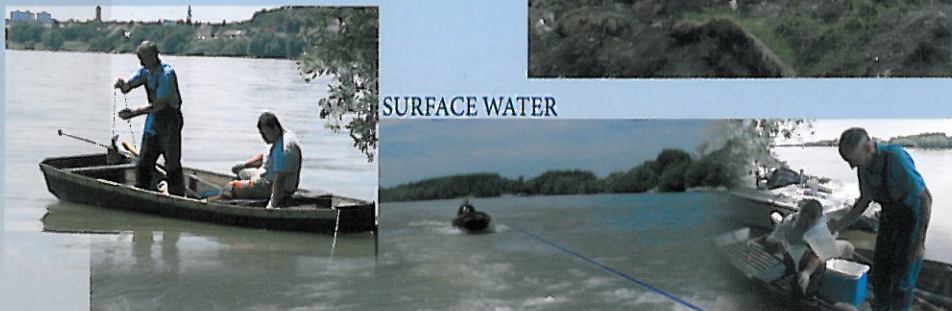
UNDERGROUND WATER



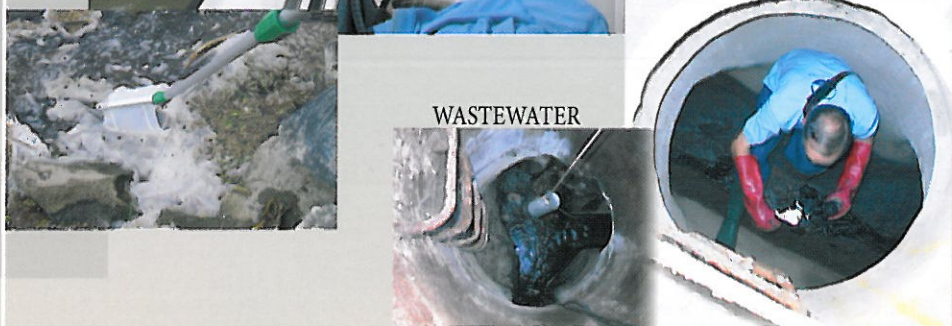
SOIL



SURFACE WATER



WASTEWATER



## SAMPLE TAKING

EMISSION



IMMISSION



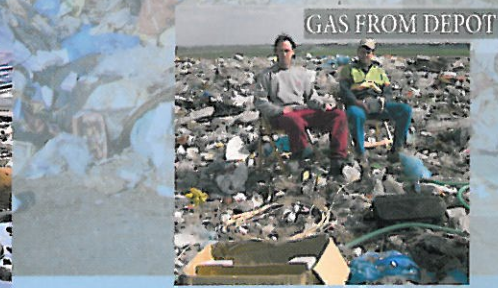
WASTE CLASSIFICATION



EFFECT ASSESSMENT



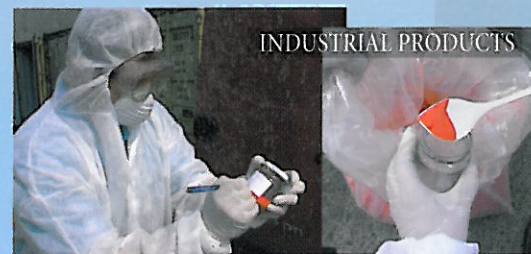
GAS FROM DEPOT



FOODSTUFF



INDUSTRIAL PRODUCTS





## HUMAN

### CLINICAL CHEMISTRY

- Clinical chemistry
- Blood lipids
- Liver
- Heart,
- Pancreas

### HAEMATOLOGY

- Blood coagulation
- Anaemia
- Haematology

### UREA EXAMINATIONS

- Kidney, ions, water household (I), serum components
- Kidney, ions, water household (II), urea components

### BLOOD GROUP SEROLOGY

- Blood group serology

### IMMUNOLOGY

- Hormones
- Protein status
- Rheumatic and anti-immune sicknesses
- Osteoporosis
- Tumor (Cancer) markers
- Pregnancy markers, other chronic deviances

### ALLERGOLOGY TESTS

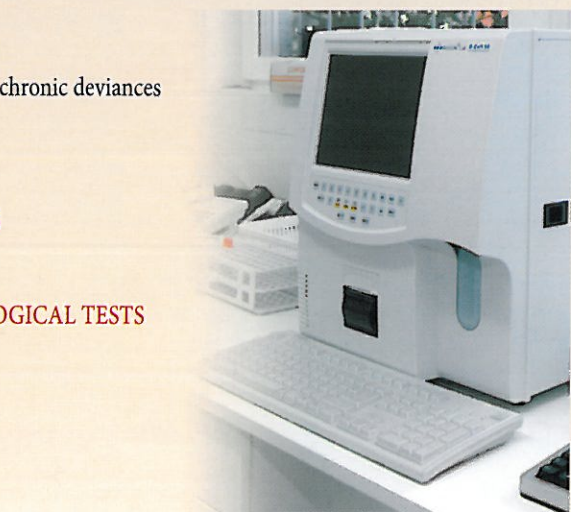
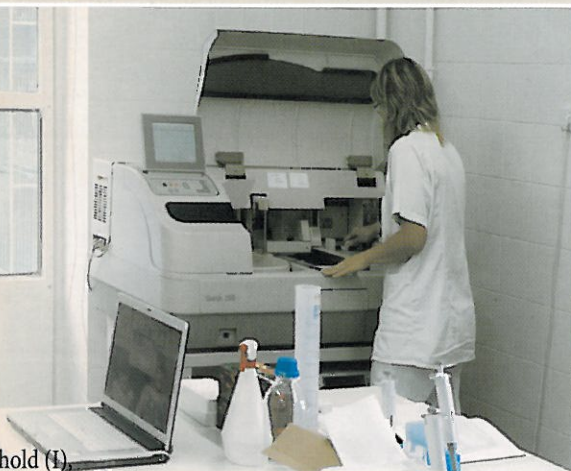
- Allergy tests

### IN VITRO DIAGNOSTICS

### DIABETES

### ENSURING MICROBIOLOGICAL TESTS

- Atypus pneumonia,
- Microbiology I
- Detection of infectants



## INSTRUMENT PARK

### ANALYTICAL INSTRUMENTS:

- GC – 20 units
- GC-MS – 14 units
- GC-MS/MS/MS – 1 unit
- P/T – 2 units
- HPLC – 4 units
- HPLC-MS/MS/MS – 1 unit
- ICP-MS – 2 units
- IC – 3 units
- AOX – 1 unit
- TOC – 1 unit
- IR – 1 unit
- UV-VIS – 4 units

### EMISSION:

- CO, NO<sub>x</sub>, O<sub>2</sub>, CO<sub>2</sub>, SO<sub>2</sub> – 2 units
- Dioxin sampler – 2 units
- Isokinetic dust sampler – 2 units
- Toxic metal sampler – 2 units
- Organic sampler – 6 units
- Total CH measuring unit – 1 unit
- Methane – non-methane measuring unit – 1 unit

### IMMISSION / WORKING ATMOSPHERE:

- CO – 3 units
- NO<sub>x</sub> – 3 units
- O<sub>2</sub> – 1 unit
- O<sub>3</sub> – 3 unit
- CO<sub>2</sub> – 1 unit
- SO<sub>2</sub> – 1 unit
- H<sub>2</sub>S – 1 unit
- CH/LEL – 1 unit
- Dioxin sampler – 1 unit
- Organic sampler – 20 unit
- Automatic organic sampler – 2 unit
- Dust sampler – 5 units

### MOBILE LABORATORIES: – 2 units

