# Süreli Yayınlar 1985

## Mining Magazine

| APRIL 1985  |     | Worid Highlights  | 357 |
|---|-----|---|-----|
| Panorama Bamboo Creek—one of Western Australia's many gold projects; Clogau and Gwynfynydd  | 279 | La Commanderie  A highly mechanized underground mine in  France, La Commanderie is one of Cogema's  sources of uranium.   | 366 |
| mines—a Welsh gold revival; Plans for the development of Red Dog, Cominco's Alaskan lead-zinc project.  |     | Manganese Serious economic problems are facing the producers of this essential industrial commodity. The strategies being applied to deal                             | 374 |
| World Highlights  | 285 | with them are examined.   |     |
| Lokken Gruber This Norvegian copper-zinc mine uses modern methods and equipment underground. Its redesigned mill flowsheet gives improved concentrate grades and recoveries.                  | 288 | Self Reliance A comprehensive scheme for overhauling and rebuilding equipment at an Indian iron ore mine saves foreign exchange and reduces cots.                     |     |
| Cost Control  A costing system is described which helps management achieve better results through improved information flow.  | 295 | XVth IMPC, France A preview including papers to be presented and exhibitors at this important Mineral Processing Congress in Cannes.                                  | 387 |
| Pumps  Many types of pumps are employed in the mining and mineral processing industries.  Some of the most important are described together with design trends reported by the manufacturers. | 299 | Computer-based Mining Design Present applications of computers to mine design are reviewed, and future trends discussed. A modular-based system is proposed.          |     |
| Beryllium The geology, production and uses of this space-age element.   | 317 | JUNE 1985   |     |
| MAY 1985  | 348 | Panorama Vaal Reefs tries trackless equipment; Alluvial gold in the Solomon Islands; Hungary finds non-fuel uses for oil shales; Unong coal project, the Philippines. |     |
| A new nickel mine in Finland; The major   |     | World Highlights  | 463 |
| Cerrejon coal project in Colombia, S. America begins shipments; A giant new granite quarry in Scotland; Flash smelting at Bulgarian Cu smelter; Outlook for S. African coal.                  |     | Thoresby Colliery  The geology, mining and preparation of coal at one of the UK's leading underground coal mines.   |     |

| Kingswood Opencast coal mining is an efficient industry in U.K. A typical operation is described. | 490 | Mining'85<br>Preview of some of the equipment on show<br>at this important mining event taking place<br>in Birmingham, England this month.  |     |
|---|-----|---|-----|
| Ruhr Coal   | 493 | and 2 mining states, 2 mining states and a mining states and a mining states are a mining states and a mining states are a mining states and a mining states are a mining state are a |     |
| Mining developments are moving northwards from the Ruhr Valley.                                   |     | Tin Usage<br>Through the ages, new applications have hel-   | 557 |
| Coal in Iran An overview of a small but essential national industry.                              | 498 | ped maintain demand for this adaptable metal.   |     |
| Eaglet Fluorspar<br>Geological investigations at a British Colum-<br>bia CaFi deposit.            | 506 | Barite in Turkey Resources, qualities and recent production are reviewed.   | 562 |
|   |     |   |     |

#### **Mining Engineering**

MAY 1985

**APRIL 1985** 

| Shutdown and restart at Pinto Valley - a maintenance viewpoint  | 305 | SPECIAL ISSUE: ANNUAL REVIEW 1984   |     |
|---|-----|---|-----|
| Roberts. Shank  |     | Precious metals exploration fails to make up for declines in other metals                       | 395 |
| Lysimeters allow quicker monitoring of heap leaching and tailing sites  William R. Bond and Jim V. Rouse      | 314 | Strong dollar and imports steal momentum from US mining recovery                                | 415 |
| New method allows for anchorage check on rock bolts  Gene Mattila and Ron Boyd                                | 320 | Minerals processing researchers continue efforts to streamline US mining                        | 427 |
| Causes and mechanisms of massive pillar failure in a southern West Virginia coal mine A. W. KhairandS.S. Peng | 323 | Banner year for coal production shadowed by year-end oversupply                                 | 445 |
|   |     | All in all, industrial minerals industry is alive and well                                      | 459 |
| Modeling fluid flow in selective placement of toxic mine spoil L.B. Phelps, J.C. Mills, and L.W. Saperstein   | 328 | JUNE 1985   |     |
| TECHNICAL NOTE: In-seam seismic surveys using controlled-waveform source transducers  J.J. Snodgrass          |     | Proper management during prosperous times will lessen impact of tough times William A. Griffith | 535 |
| DISCUSSION: Impacts of land use planning on mineral resources   |     | Strong reserve bases are key to oil companies surviving over the long-term  Wilfred P. Schmoe   | 537 |

| American steelmaking is becoming a market-<br>oriented enterprise<br>Frank W. Luerssen                                      | 542            | Recoverable reserves estimation — the geostatistical approach <i>A.G. Journel</i>  | 563  |
|---|----------------|--|------|
| Resource companies must preserve capital while gaining operational efficiency <i>Adam H. Zimmerman</i>                      | 546            | Multigaussian and probability krigings — application to the Jerrit Canyon deposit <i>G. Verly and J. Sullivan</i>                          | 568  |
| Engineering Fundamentals Series: Computeraidet mapping and design - their potential for mining use <i>Kim W. Wright</i>     | 550            | Land use and aggregate development — a Colorado experience <i>M.J. Hart and E.C. McDowell</i>  | 574  |
| Gaudin Lecture: Sulfide and metal leaching reactions  M.E. Wadsworth  | 557            | Technical Note: Mobile in-pit crushing •*-product of evolutionary change <i>E.M. Frizzell</i>  | 578  |
| Industri  | ial M          | inerals  |      |
| APRIL 1985  |                | Manipulation of mineral properties by reagents & solid additives in relation to beneficiation processes                                    |      |
| Chromite — the non-metallurgical markets  | 17             | A proposal to rejuvenate the heavy mineral   | 53   |
| Bromine — exploring the market alternatives   | 53             | industry of The Gambia   |      |
| Iodine — tight supplies, price to rise  | 63             | Prospecting for clay   | 57   |
| From mineral flotation to mineral foams   | 67             | JUNE 1985  |      |
| Advanced ceramics — a plea to know more   | 75             | Sodium sulphate - markets shift, as produ-   |      |
| UK Mineral Statistics   | 83             | cers re-shuffle  | 23   |
| MAY 1985  |                | Beryllium minerals - demand strong for miniaturisation   | 41   |
| IVIAT 1900  |                | The bentonite industry in China  | 53   |
| Mineral processing (4) — Magnetic separation  | 21             | Developments in lime production in Turkey  | 61   |
| Processing minerals   | 43             | Sou t African industrial mineral statistics 1984   | 4 65 |
| Institution of M  | in <b>in</b> ç | g and Metallurgy   |      |
| MARCH 1985  |                | Effects of tannin-fatty acid interactions on selectivity of adsorption on calcite and fluorite surfaces <i>N.K. Khosla and A.K. Biswas</i> | C4   |
| Studies in sulphation: 3-Kinetics and mechanism of sulphation of cupric oxides <i>P.K. Sahoo, S.C. Sircar and S.K. Bose</i> | CI             | Current and energy efficiencies in silver refining with the Thum cell <i>B.K. Chadwick and Y.K. Rao</i>                                    | CI 1 |

| Analysis of mineral separation systems by means of recovery functions <i>A.B. Holland-Batt</i>                                    | CI7 | Policy analysis model for underground mining enterprises <i>R.G. Coy le and D.H. Montaldo-Cancela</i>  | A90 |  |
|---|-----|--|-----|--|
| Quantitative microstructural characterization of coal slag by linear X-ray image analysis <i>M.P. Jones et al.</i>                | C30 | Technical note New method for direct tensile testing of rocks P. Townhill-Rewston  | A96 |  |
| Enhancement of magnetic susceptibility of pyrite by oxidative pressure leaching <i>S.T. Hall, J. A. Finch and N.Rowlands</i>      | C35 | Discussions Report of discussion at the Third international mine ventilation congress  | A99 |  |
| Simultaneous grinding of two materials in a batch ball-mill $\hat{i}$ HE. Rose and S. Matsumura                                   | C40 | MAY 1985   |     |  |
| Use of density tracers for determination of the Tromp curve for gravity separation processes <i>T.J. Napier - Munn</i>            | C47 | Geology of Tunstead quarry, Derbyshire, England <i>P.R. Ineson and P.F. Dagger</i>   | B49 |  |
| Discussion The secondary copper blast-furnace W.S. Nelmes   | C54 | Investigation of phosphate (apatite) potential of Loch Borralan igneous complex, northwest Highlands, Scotland  A. J. G. Notholt, D. E. Highley and R.R. Harding | ""  |  |
| APRIL 1985  |     | -  |     |  |
| From theory to practice in rock engineering <i>E.T. Brown</i>   | A67 | Regional setting, geology and metal distribution patterns of Navan orebody, Ireland <i>C. J. Andrew and J. H. Ashton</i>   | B66 |  |
| Enhancing oil recovery - making the most of what we've got<br>Sir Peter Baxendell   | A84 | Reappraisal of geological setting and potential of Kilembe copper mine, Uganda A. J. Warden  |     |  |
| International Journal of lineral Processing   |     |  |     |  |
| JUNE 1985   |     | solution interfacial tension S.Kelebek and G. W. Smith   | 275 |  |
| Selective flotation of phosphatic ores having a siliceous and/or a carbonated gangue <i>R. Houot, R. Joussemet, J. Tracez and</i> | 245 | Coal-cleaning distribution curve simulation: fitting six different models by microcomputer <i>K.J. Reid, Lu Maixi and Zhang Shenggui</i>                         | 291 |  |
| R. Brouard  On the separation of fine particles by centrifugation  K. N. Han and W. C. Say.                                       | 265 | Computer reliability analysis of coal-cleaning distribution curves <i>K.J. Reid, Lu Maixi and Zhang Shenggui</i>   | 301 |  |
| K.N. Han and W.C. Say  Selective flotation of inherently hydrophobic minerals by controlling the air/                             |     | Experimental proofs: residence time distribution in cascadography <i>T.E. Durney and T.P. Meloy</i>  | 311 |  |
|   |     |  |     |  |

#### CİM Bulletin

| APRIL 1985   |    | Technological innovation and Canadian coal mining TS. Cochrane   | 58  |
|--|----|--|-----|
| Relation of fluid inclusion geochemistry to wallrock alteration and lidiogeochemical zonation at the Hollinger-Mcfntyre gold deposit, Timmins, Ontario, Canada Ted J. Smith, and Stephen E. Keşler |    | A commercial coal-oil-water mixture processing facility  D.C. Fuller   | 64  |
|  | 35 | Spontaneous combustion of Canadian coals <i>K.K. Feng</i>  | 71  |
| Case histories in die use of Pulse EM from surface and boreholes as an aid in die detection and definition of deep ore deposits <i>J. Duncan Crone</i>   | 47 | Warrants and SPTCs add zest to new share issues Robert B Parsons   | 76  |
| Geology of the Gondor volcanogenic massive sulphide deposit, Slave Province, N.W.T. D.S. Buhar and J.B. Heslop   | 52 | Pilot plant study on improved electrostatic precipitation of copper converter dust C.H. Teh, and L. Lamothe  | 94  |
| The Hishikari gold deposit: an airborne EM   |    | JUNE 1985  |     |
| discovery  | 61 | An avample of geological modelling and   |     |
| Ian M. Johnson, and Minoru Fujita.  A feasibility study on the reclamation of coal waste dumps by bacterial leaching R.G.L. McCready and Marcos Zentilli   | 67 | An example of geological modelling and data manipulation with a microcomputer. Bulimoose Coal Mine northeastern British Columbia  Ward E. Kilby, and Bruce I. McClymont. | 37  |
| Cominco's Trail zinc pressure leach operation  M.T. Martin and W.A. Jankola  | 77 | Planning and operational cutoff grades based on computerized net present value and net cash flow.  Arnold R. Pasleka, and George V. Sotirow.                             | 47  |
| MAY 1985   |    | On-line computer applications in mineral processing  Michel Garon,   | 55  |
| Consolidation of mine fill by freezing  Michael L. Jeremic, and Rachel S. Prudhom- me  | 35 | The computerization of the engineering office  Graham E. Brown   | 59  |
| Mining demonstrations and longwall mining systems  G. Zahary, and I.R. Muirhead,   | 41 | Two procedures for development of exploration tactics in British Columbia <i>J.H. Shillabeer</i> .   | 63  |
| A total system concept for the reclamation and hydraulic transportation of dense solids from tailings and sattling pends   | 50 | Applications of fracture mechanics in failure analysis case studies W. W. Tennese, and M.N. Bassim   | 107 |
| lids from tailings and settling ponds  Peter Van-de-Velde  | 50 | Impurities in die lead concentrate of Bruns-   |     |
| Old principle: new concept  Derek Harvey   | 53 | wick Mining and Smelting and their behaviour in the lead blast furnace W. Petruk, and D.R. Morris  | 113 |

### **Geophysical Prospecting**

| MAY 1985   |     | Boundary Element Approach" M. Okabe, U.C. Dos   | 45g |
|--|-----|---|-----|
| Inversion from Finite Offset Data and the  |     | Reply to Comment by U.C. Das. <i>M. Okabe</i>   | 472 |
| Simultaneous Reconstruction of the Velocity and Density Profiles  R. Eiges and S. Raz  | 339 | JUNE 1985   |     |
| On the Improvement in Penetration Achieved by using Extended Marine Soruce Arrays <i>M.H. Sa far</i>   | 359 | Comparison of Methods to Determine Q in Shallow Marine Sediments from Vertical Reflection Seismograms <i>D. Jannsen, J. Voss and F. Theilen</i> | 479 |
| Effect of Inclined Anisotropic Substratum on Magnetotelluric Response Ramesh P. Singh  | 369 | On direct Recovery of the Impulse Response  E. Szaraniec  | 498 |
| A Method to Determine the Velocities of the Seafloor and Near-Surface Sediments A.M. Berge and B. Beskow.  | 377 | Possibilities of Using Vertical Geophone<br>Arrays (CVA) in Reflection Seismology<br>H. Ritter, K. Köhler and H. Arnetzl                        | 503 |
| An Investigation of the Spectral Properties of Primary Reflection Coefficients A. T. Waiden and J. W. J. Hoşken  | 400 | The Influence of an Asymmetry in the Sequence Rock/Coal/Rock on the Propagation of Rayleigh Seam Waves  | 519 |
| DC Geoelectric Sounding to Determine<br>Water Content in the Salt Mine ASSE<br>(FRG)<br>W. Kessels, I. Flentge and H. Kolditz  | 436 | L. Dresen, C. Kerner and B. Kiihbach  Normal-Incidence Wavefield Computation Using Vector-Arithmetic RG. Ferber                                 | 540 |
| Combined Sounding-Profiling Resistivity Measurements with the Three-Electrode Arrays M. Karous and T.K. Pernu  | 447 | A Regional Gravity Study of the Northern<br>North Sea (56 - 62°N)<br>J. Hospers, E.G. Finnstrom and J.S. Rathore                                | 543 |
| Self Potential and Current Channelling <i>J.P. Cull</i>  | 460 | The Gravimetric Detection of Mining Subsidence D. Lyness  | 567 |
| Comments on "Boundary Element Method<br>for the Arbitrary Inhomogeneities Problem<br>in Electrical Prospecting" and "Reciprocal<br>Averaging Techniques in the Geoelectrical |     | A Systematic Approach for Evaluating Airborne Electromagnetic Systems <i>M.E. Best</i>  | 577 |