Süreli Yayınlar 1983

World Mining

		•	
JULY 1983		Mining Research World Production Leaders	101 106
What's New in Surface Loading A close look at equipment on the	23	SEPTEMBER 1983	
market is presented here Electric Versus Diesel HyarauJic Shovels	32	Bingham Canyon Boosts Productivity Robert Wunder	32
Reducing Maintenance Costs John Chadwlck	34	Raise Drilling at Kambalda Western Mining Corporation is sol- ving ventilation problem with the	39
Open Pit Energy Consumption	36	world's largest raise drill.	
Dan Nilsson and Nagendra Reddy Super - Deep Drilling	43	Continuous Miners and Roadheaders John Chadwick	41
		AustraliaMineral Sands Leo Lyons	60
AUGUST 1983		United States Mine Tonnages George Argall	65
Mineral Exploration	52	Desert Dragline	74
Mining Trends and Equipment	69	John Chadwick High - Angle Conveyor Prototype	78
Mineral Proccessing	86	Don Pazour	
Minir	ng M	lagazine	
JULY 1983		ting sheets used in electrolytic with re - usable stainless stell blanks	

Rock Bolts

of rock falls by bolting

Australian Iron Ore

A detailed survey of the equipment

and methods available for control of ground movement and prevention

16

29

Mount Pleasant

The ISA Process

molybdenum

A new producer of tungusten and

Replacing the traditional copper star-

49

38

AUGUST 1983

SEPTEMBER 1983

Coal In Southeastern B.C.	81	Promfret Asbestos Mine	153
The geology and mining operation in the Eqst Kootenay region of British Columbia. Filters and Centrifuges	90	Bolivia Small-scale mining of alluvial gold in the Rio Tipuani is described with a discussion of the area's potential	
Chrome Ores The potential for mining and processing of low grade chrome ores	112	Contanflod Continuously cast copper anodes improve refinery results.	169
Gold dumps .Economic methods of working siliceous bearing dumps, as practised in Zimbabwe	116	Pyhasalmi and Ciharti Concentrators Process Control at two of Outo- kumpu's highly automated plants gi- ves better recoveries, cleaner Con- centrates	176
Mining	En	gineering	
JULY 1983		Mining, Benefication, and Tailings Disposal J.C. McHardy	1196
«Who's Who In Mineral Engineering» The 1983 Directory of the Society of Mining Engineers of AIME	755	Improvment of the OPAP Uranium Recovery Process From Phosphoric Acid M.S. Tsai, H.M.Wu and Y.D, Chuang	1201
AUGUST 1983 Comparison of Secondary Fe - Mn Oxides in Fracture Coatings and Mining Region, New Mexico	177	Effects of Stemming Size Distribution on Explosive Charge Confinement: A Laboratory Study F.O. Otuonye, C.J. Konya,, and D.R. Skid more	1205
K.C. Watts, R.H. Carpenter. f.T. Chao, J.R. Hassemer and R.F. Sanzoione	.,,	Discussion: Methods to Reduce Steel Wear in Grinding Mills S.G. Malghan	1208
1. Iwaski, K.J. Reid, H.A. Lex and	184	SEPTEMBER 1983	
K.A. Smith Preplanning of End Land Uses for an Open pit Copper Mine 1 ² S.J. Kirk and T.J. O'Neil Future Trends In Florida Phosphate	191	Platinum - Group Element Ore Forming Process In Mafic Layered instructions : Geochemical Evidence From the Stillwater Complex, Montana D.D. Lambert and E.C. Simmons	1291

Concentrating Process Control at	
Reserve Mining Company	1298
R.N. Schulz	
Multiple Seam Mining at the Glen-	
harold Mine	1304
K.A. Olsson	

Reduction fn Fuel and Power Consumption in a Traveling Grate Pelletizing Furnace Through Computer Control

1309

R.C. Corson

Mine Ventilation Society Of South Africa

JULY 1983

Lighting measurements In Gold Mine Haulages

R. Hemp., P. Deglon and G.S. Sonder

AUGUST 1983

The solar Hall of Fame

Dr. A. Whiller

Controlling dust and gases in the face area; Operating experience with low seam Continuous Miners

C.J. Beukes

Spontaneous Combustion: Its early

detection and the latest Means of combating It in the western Area. Summary and comment

W. Holding

Experiment to Combat hot spots in problem stopes using Fog let Nozzles

J.C. Joubert.

SEPTEMBER 1983

The temp, rise of chilled water flowing through pipes

R. Ramsden

problem stopes using Fog jet Nozz-Meettng held at Kelvin House Johannesburg on Tuesday 14 th June 83

Geophysics

FEBRUARY 1983		Inverse scattering for a layered acoustic medium using the first-order equations of motion	163
The Influence of out-of-plane surface properties on immigrated time sections J.K. Cohen and N. Bleistein	125	M.S. Howard Modeling of self - potential anomalies near vertical dikes D.V. Fitterman	171
Attenuation and anisotropy of chan- nel waves in coal seams D.J. Buchanan, P.J. Jackson, and R. Davis	133	Resistivity/depth mapping with air- borne electromagnetic survey data K.P. Sengpiel Automated Identification of rock boundaries: An application of the	
Seismic reflections from a gas - water contact U.C. Dutta and H. Odé	148	Walsh transform to geophysical well - log analysis E.N. Lanning and D.M. Johnson	197

Analysis of error due to presence of gaps In the measurement of rock samples in a coaxial line F.S.C. Huang and L.C. Shen	206	DC telluric fields In three dimensions: A refined finite - difference simulation using local Integral forms J.F. Hermance	331
Airborne gravity Is here! S. Hammer	213	Rock density from borehole gravity surveys T.R. LaFehr	341
Spectral analysis of gravity and magnetic anomalies due to a vertical circular cylinder A. Soto, S.K. Singh, and C. Flores	224	A least - sqitarse approach to depth determination from gravity data O.P. Gupta	357
DeconvoJution of seismograms by the autoregressive method G.J. Nair	229	Approximate method for direct in- terpretation of gravity anomalies caused by surface three-dimensi-	
Werner deeonvoiutfon of profile po- tential field data K.T. Kilty	234	onal geologic structures J. Svanearq	361
A case for larger offsets P.S. Scluiltz. A.W. Pieprzak, and E.K.L Loh	238	Microwave properties of saturated reservoirs, J.N. Lange	367
Discussion on x «Interpretation of some two-dimensional magnetic bodes		Analysis of aeromagnetic measurements from the Cascade Range In central Oregon	376
using Hubert transforms (N.L. Mo- han, N. Sundararajan, and S.V. Ses- hagiri Rao), by J. Roth with reply by authors MARCH 1983	248	G. Connard, R. Couch, and M. Gemperle the radio wave absorption technique in Maflaram copper mines, India V. Mohan Rao and I. B. Ramapra-	391
Normal incidence layered system state-space models which include absorption effects	259	sada Rao A note on airborne gravity terrain corrections S. Hammer	396
F. Aminzddeh and J.M. Mendel Computer processing of vertical se- ismic profile data M.W. Lee and A.H. Balch	272	Discussion on : «A sum autoregressive formula for the reflection response» (P. Hubral, S. Treitel. and P.R. Gutowskl), with reply by authors	400
Applications of operator separation in reflection seismology D.L. Brown	288	by E. Szaranlec	
Lattice filtering applications to de-		MAY 1983	
convolution of seismic data J.C. Robinson	295	Digital filtering with the second moment norm	505
Electromagnetic soundings In the sedimentary basin of southern Ontario		LR. Unes and Ş. Treitel	
- A case history E. Gomez - TrëvinofInd R.N. Edwards	311	Predictive deconvolution In shot - receiver space	515

Numerical analysis of the 45 - degree finite - difference equation for		JUNE 1983	
migration H. Brysk	532	Reflection of spherical seismic waves In elastic layered media	655
Noise attenuation by Vibrosels whitening (VSW) processing	543	P.M. Krail and H. Brysk	
C. Coruh and J.K. Costain		Generalized linear inversion of ref- lection seismic data DA Cooke and W.A. Schneider	665
Vertical seismic profiling <i>I</i> Separation of upgoing and downgoing acoustic waves in a stratified medium B. Seeman and L, Horowîcz	555	Migration with the full acoustic wave equation D.D. Kosloff and E. Baysal	677
Seismic characteristics of a Pre- cambrian pluton and its adjacent rocks	569	Seismic shear - wave observations in a physical model experiment R.H. Tatham, D.V. Goolsbee, W.F. Massell, and H.R. Nelson	688
Z. Hajnal. M.R. Stauffer, M.S. King, P.F. Wallls, H.F. Wang, and LEA. Jones		Continuously time - variable recursive digital band - pass filters for seismic signal processing	702
Automated analysis of marine refraction data: A computer algorithm C.P. Ervin, LD. McGinnis, R.M. Otis		R.A. Stein and N.R. Bartley Compact gravity Inversion B.J. Last and K.Kubik	713
and M.L. Hall		Composite color Images of aerial gamma-ray spectrometric data	722
Anomalous seismic character - Bering Sea Shelf	590	J.S. Duval	
R.D. Hammond and J.R. Gaither	000	A practical method for the inversion of magnetoteliuric data for a layered	
La Coste and Romberg straight - line gravity meter	606	earth D. Rankin and F. Pascal	736
L. LaCoste		A comparison of adjustment procedures for leveling aeromagnetic sur-	
Ffetd trials with the LaCoste and Romberg straight - line gravlmeter	611	vey data A.A. Green	745
H.D. Vaillant		Werner deconvolution for automated magnetic Interpretation and Its refi-	
Thermal hydrology and heat flow of Beowawe geothermal area. Nevada C. Smith	618	nement using Marquardt's Inverse modeling C.C. Ku and J.A. Sharp	754
Reversed time migration In spatial requency domain D. Loewenthal and I.R. Mufti	627	A model for the high-frequency- electrical response of wet rocks P.C. Lysne	775
The possibility of remote sounding		Comparison of apparent resistivity functions for transient electromag-	
of the earth's resistivity profile M. El - Raey	636	netic methods A. P. Raiche	787

Negative transient voltage and magnetic field responses for a half-space with a Cole - Cole impedance A.P. Raîche Vertical scale and vertical exaggeration in three - dimensional contour	790	Three-dimensional model of the Koyna area of Maharashtra State (India) based on the spectral analysis of aeromagnetic data J.G. Negi, P.K. Agrawal, and K.N.N, Rao	964
maps of physical data S.P. Gay. Jr.	792	Geothermal prospecting with Shatlo- Temp surveys LA. LeSchack and J.E. Lewis	975
COCORP: New York-New England and Kansas areas S. Kaufman	794	The current status of tile IGRF and Its relation to magnetic surveys R.D. Regan	997
JULY 1983 Elliptical anlsotropy — Its significan-		IDB2 — A Fortran program for computing extremal bounds in gravity data Interpretation S.P. Huestis and M.E. Ander	999
ce and meaning K. Helbig	825	The normal vertical gradient of gravity J.H. Karl	1011
Numerical study of Love wave propagation K.R. Kelly	833	Homomorphic deconvolution D.J. Jin and J.R. Rogers	1014
Coherent noise in marine seismic data K. Larner, R. Chambers, M. Yang, W. Lynn, and W. Wai	854	Discussion on : «The deconvolution of phase - shifted wavelets» (S. Levy and D.W. Oldenburg), by S.H. Bickel	1017
Resolution performance of Wiener filters S.H. Bicket and D.R. Martinez	887	AUGUST 1983	
Case history of the exploration of Grand Isle 95 Field in the Gulf of Mexico *	900	Butterworth dip filters D. Hale and J.F. Claerbout	1033
P.H. Pan Compensation of marine seismic data for the effects of highly variable		Structural inversion of salt dome flanks B.T. May and J.D. Covey	1039
water depth using ray-trace mode- ling — A case history B. Dent	910	Computing true amplitude reflections In a laterally inhomogeneous earth	1051
The harmonic and transient electro- magnetic response of a thin dipping dike P. Weldelt	934	P. Hubral Review of elastic and electromagnetic wave propagation in horizontally layered media	1063
Finite - difference calculations of the transient field of an axially symmetric earth for vertical magnetic dipole excitation M.M. Goldman and C.H. Stoyer	953	 Ursin The resonant acoustic puiser — A continuous - frequency marine seismic source H.C. Hardee and R.G. Hills 	1082

Experience with the EM - 60 electro-		D.A. Hastings	
magnetic system for geotnermal exploration In Nevada M. Wilt. N.E. Goldstein, M. Stark, J.R. Haught and H.F. Morrison	1090	A short and straightforward deriva- tion of two equations from Hubral's paper, ^Computing true amplitude reflections In a laterally inhomoge-	
Recent developments in the use of surface electrical methods for oil		neous earth» Th. Krey	1129
and gas exploration In the Soviet Union B.R. Spies	1102	Acoustic reciprocity — A paradox E. Eisner	1132
Electrode configuration Influence on resistivity measurements about a spherical anomaly	1113	The linear quadripole - dipole array in geoelectrical investigations G.S. Yadav and C.L. Singh	1135
R.J. Lytle and J.M. Hanson		Near - surface faulting effects on seismic reflection times	1140
An updated Bouguer anomaly map of south - central West Africa	1120	W. Honeyman	1140
. ,	ical	Prospecting Problems In the Use of Geophysical	
APRIL 1983 High - Resolution Prediction of Acoustic Impedances below Bottom - of - Hole B.B. Tal - Virsky and A.A. Tabakov	225	Information when . Interpreting the Data of Spacecraft Observations V.A. Bogoslovsky, E.B. H'lna, E.N. Kuzmina and A.A. Ogilvy Regional Geotnermal Exploration in Egypt	351 361
On Numerical Methods for Migration in Layered Media, A.A. Dubrulie	237	P. Morgan, F.K. Boulos and C.A. Swanberg	
Reflection of Elastic Waves from Periodically Stratified Media with Interfacial Slip	265	JUNE 1983	
M.Schoenberg A Theory of Acoustic Diffractors Applied to 2 - D' Models	293	Migration by Extrapolation of Time - Dependent Boundary Values G.A. McMechan .	413
S.M. Deregowski and S.M. Brown The Use of Airgun Pressure Pulses		Radiation and Receiver Pattern of Shear and Compressional Waves as	
for Calibrating a Low - Frequency Standard Hydrophone	334	a Function of Poisson's Ratio S. Kahlerand R. Meissner	421
M.H. Safar Test Results of a New Type of Efficient Small Airgun Array M.H. Safar	343	Wavefront Divergence. Multiples, and Converted Waves in Synthetic Seis- mograms F. Hron and J.D. Covey	436

geophone for Seismic Prospecting	457	AUGUST 1983	
K.B, Klaassen and J.C.L. Van Peppe Calculations on the Thermal Condi- tions Around a Salt Diapir P.K. Jensen	n 481	Migration in the Presence of a Rugged Interface with High Velocity Contrast L. Ameely, Th. Krey, F. Muhtadie, H F. Rau and H. Rist	561
Use of the Resistivity Method in Geological Mapping — Case Histories from Raniganj Coalfield, India R.K. Verma and T.K. Bandyopadhyay	490	Theoretical and Experimental Approaches to the Geophone Spurious Frequency Shi Jung Chen and Ch. Dalton	574
Electromagnetic Sounding near a Large Square Loop Source of Cur- rent M. Poddar	508	The Autobalancer — An Automatic System for the Reduction of Power-Line Interference with Seismic Signals L Ensing	591
VLF Survey of the Weathered Layer in Southern India M, Poddar and B.S. Rathor	524	Automatic Three - Layer, Three - Dimensional Deconvolution of the Pays de Bray Anticline E. Alessandrello, M. Bichara and J. Lakshmanan	603
Comment on «Further Thoughts on Popperian Geophysics — The Example of Deconvolution» by A. Ziolkowski	533	Airborne Resistivity Mapping Using a Multffrequency Electromagnetic System A.K. Sin ha	627
E. Szaraniec		Transformation of Resistivity Sounding Measurements Obtained in One	
Reply to Comment by E. Szdraniec A. Ziolkowski Comment on «Curved Raypath Inter-	540	Electrode Configuration to Another Configuration by Means of Digital Linear Filtering AT. Başokur	649
pretation of Seismic Refraction Data» by S.A. Greenhalgh and D.W. King D. Palmer	542	The Integral - Finite - Difference Method for Calculating Transient Electromagnetic Fields in a Horizon- tally Stratified Medium M.M. Goldman	664