Volume 12 [1986]

Computers & Geosciences Vol. 12

AN: 86-50973
TI: KALTZ; a BASIC program for simulation of the experimental determination of the phase diagram for the system kalsilite-silica.
AU: Amenta-R-V; King-Frazier-C
OS: James Madison Univ., Harrisonburg, VA, United-States
SO: Computers-and-Geosciences. 12. (1). p. 1-11. 5 Refs.
YR: 1986
DE: phase-equilibria; silicates-; kalsilite-silica; data-processing; petrology-; high-temperature; computer-programs; KALTZ-; BASIC-; interactive-techniques; crystallization-; graphic-display; digital-simulation; kalsilite-; nepheline-group; framework-silicates; leucite-; sanidine-; alkali-feldspar; feldspar-group; tridymite-; silica-minerals; cristobalite-; melts-; microcomputers-
CC: 05-Petrology-Igneous-and-metamorphic

AN: 86-50974
TI: PERANORM; a BASIC program to calculate a modal norm for peraluminous granitoids.
AU: Usdansky-S-I
OS: Univ. Ala., Dep. Geol., University, AL, United-States
SO: Computers-and-Geosciences. 12. (1). p. 13-20. 10 Refs.
YR: 1986
DE: igneous-rocks; granites-; composition-; data-processing; petrology-; computer-programs; chemical-composition; peraluminous-composition; PERAMORM-; BASIC-; mineral-composition; quartz-; silica-minerals; framework-silicates; silicates-; plagioclase-; feldspar-group; K-feldspar; alkali-feldspar; muscovite-; mica-group; sheet-silicates; biotite-; garnet-group; nesosilicates-; orthosilicates-; magnetite-; oxides-; ilmenite-; apatite-; phosphates-; cordierite-; ring-silicates; sillimanite-; corundum-
CC: 05-Petrology-Igneous-and-metamorphic

AN: 86-50975
TI: Straightforward GINO-F map digitizing software.
AU: Tipper-J-C
OS: Aust. Natl. Univ., Dep. Geol., Canberra, Australia
SO: Computers-and-Geosciences. 12. (1). p. 21-27. 4 Refs.
YR: 1986
DE: data-processing; maps-; cartography-; automatic-cartography; GINO-F; FORTRAN-; digital-simulation; computer-programs; graphic-display
CC: 14-Areal-geology-Maps-and-charts

AN: 86-50976
TI: HAZAN; a FORTRAN program to evaluate seismic-hazard parameters using Gumbel's theory of extreme value statistics.
AU: Makropoulos-K-C; Burton-P-W
OS: Univ. Athens, Dep. Geophys. and Geothem., Athens, Greece; Br. Geol. Surv., United-Kingdom
SO: Computers-and-Geosciences. 12. (1). p. 29-46. 21 Refs.
YR: 1986
DE: data-processing; engineering-geology; earthquakes-; prediction-; seismic-risk; geologic-hazards; HAZAN-; computer-programs; least-squares-analysis; statistical-analysis; Gumbel-analysis;

Marquardt-analysis; mathematical-models; models-; Fortran-IV
CC: 22-Engineering-and-environmental-geology

AN: 86-50977
TI: SEDCODE; a FORTRAN 77 program for decoding sedimentological field data.
AU: Goldbery-R; Winikoff-K
OS: Ben Gurion Univ. Negev, Beer Sheba, Israel
SO: Computers-and-Geosciences. 12. (1). p. 47-79. 6 Refs.
YR: 1986
DE: sedimentary-rocks; clastic-rocks; lithofacies-; data-processing; sedimentary-petrology; sedimentary-structures; interpretation-; computer-programs; Fortran-77; SEDCODE-; data-files; I/O-
CC: 06-Petrology-Sedimentary

AN: 86-50978
TI: A computer program for the analysis of sieve and hydrometer data.
AU: Stewart-R-A; Gedlinske-B
OS: Iowa State Univ., Dep. Earth Sci., Ames, IA, United-States
SO: Computers-and-Geosciences. 12. (1). p. 81-87. 6 Refs.
YR: 1986
DE: data-processing; sedimentary-petrology; sediments-; textures-; grain-size; computer-programs; Fortran-; granulometry-; size-distribution; till-; clastic-sediments; sample-preparation; interactive-techniques; statistical-analysis; sand-; silt-; clay-
CC: 06-Petrology-Sedimentary

AN: 86-50979
TI: A simple BASIC program for computing terrain correlations on a microcomputer.
AU: Thanassoulas-C; Tsokas-G-N
OS: IGME, Dep. Geophys. Res, Athens, Greece; Aristotelian Univ. Thessaloniki, Dep. Geophys., Salonika, Greece
SO: Computers-and-Geosciences. 12. (1). p. 89-91. 4 Refs.
YR: 1986
DE: data-processing; geophysical-methods; geodesy-; methods-; gravity-methods; topographic-correction; microcomputers-; computer-programs; BASIC-; topography-
CC: 20-Geophysics-Applied

AN: 86-50980
TI: A computerized particle-size analysis system.
AU: Poppe-L-J; Eliason-A-H; Fredericks-J-J
OS: U. S. Geol. Surv., Woods Hole, MA, United-States; Eliason Data Serv., United-States
SO: Computers-and-Geosciences. 12. (1). p. 93-96. 5 Refs.
YR: 1986
DE: data-processing; sedimentary-petrology; sediments-; textures-; grain-size; microcomputers-; statistical-analysis; data-storage; digital-simulation; sand-; clastic-sediments; gravel-; silt-; clay-
CC: 06-Petrology-Sedimentary

AN: 86-50981
TI: Borehole desurvey calculation.
AU: Howson-M; Sides-E-J
OS: RTZ Consult., Bristol, United-Kingdom
SO: Computers-and-Geosciences. 12. (1). p. 97-104. 2 Refs.
YR: 1986

DE: geophysical-methods; methods-; data-processing; downhole-methods; computer-programs; boreholes-; algorithms-; least-squares-analysis; statistical-analysis
CC: 21-Hydrogeology-and-hydrology

AN: 86-50982
TI: The distinction between probabilistic prediction and statistical decision-making.
AU: Watson-D-F; Philip-G-M
OS: Univ. Sydney, Dep. Geol. and Geophys., Sydney, NSW, Australia
SO: Computers-and-Geosciences. 12. (1). p. 105. 4 Refs.
YR: 1986
DE: mathematical-geology; methods-; statistical-analysis; probability-; geostatistics-; regression-analysis; least-squares-analysis
CC: 15-Miscellaneous-and-mathematical-geology

AN: 86-50983
TI: Corrections for Note on fitting quantitative models of magmatic processes to trace-element, Bardsley, W. E., and Briggs, R. M., 1984, Computers & Geosciences, v. 10, no. 4, p. 445-448.
AU: Bardsley-W-E
OS: Univ. Waikato, Dep. Earth Sci., Hamilton, New-Zealand
SO: Computers-and-Geosciences. 12. (1). p. 105
YR: 1986
DE: magmas-; geochemistry-; trace-elements; differentiation-; quantitative-analysis; mathematical-models; models-; equations-
CC: 05-Petrology-Igneous-and-metamorphic; 02-Geochemistry

AN: 86-50984
TI: Comment on ''SPINX-a program to fit the spherical and exponential models to experimental semivariograms,'' Tough, J. G., and Leyshorn, P. R., 1985, Computers & Geosciences, v. 11, no. 1, p. 95-99.
AU: Hawkins-D-M
OS: CSIR, Natl. Res. Inst. Math. Sci., Pretoria, South-Africa
SO: Computers-and-Geosciences. 12. (1). p. 105-106
YR: 1986
DE: data-processing; general-; mathematical-geology; methods-; statistical-analysis; SPHINX-; variance-analysis; least-squares-analysis; variograms-; semivariograms-; Fortran-
CC: 15-Miscellaneous-and-mathematical-geology

AN: 86-56513
TI: A computer program for evaluating risks in constructing choropleth maps by point sampling along transects.
AU: Burgess-T-M; Webster-R
OS: Schlumberger Cambridge Res., Cambridge, United-Kingdom; Rothamsted Exp. Stn., United-Kingdom
SO: Computers-and-Geosciences. 12. (2). p. 107-127. 15 Refs.
YR: 1986
DE: soils-; patterns-; maps-; data-processing; cartography-; automatic-cartography; soils-maps; choropleth-maps; computer-programs; sampling-; GAMMARISK-; Fortran-IV; accuracy-; probability-; statistical-analysis
CC: 25-Surficial-geology-soils

AN: 86-56514
TI: SHALL4; an implicit compact fourth-order FORTRAN program for solving the shallow-water equations in conservation-law form.
AU: Navon-I-M; Riphagen-H-A
OS: CSIR, Natl. Res. Inst. Math. Sci., Pretoria, South-Africa
SO: Computers-and-Geosciences. 12. (2). p. 129-150. 31 Refs.
YR: 1986
DE: hydrology-; methods-; data-processing; oceanography-; computer-programs; algorithms-; finite-difference-analysis; statistical-analysis; depth-; hydrodynamics-; filters-; continental-shelf; channels-; Fortran-IV; viscosity-; compressibility-; SHALL4-
CC: 21-Hydrogeology-and-hydrology; 07-Marine-geology-and-oceanography

AN: 86-56515
TI: GUSTAF; a quasi-Newton nonlinear ADI FORTRAN IV program for solving the shallow-water equations with augmented Lagrangians.
AU: Navon-I-M; de-Villiers-R
OS: CSIR, Natl. Res. Inst. Math. Sci., Pretoria, South-Africa
SO: Computers-and-Geosciences. 12. (2). p. 151-173. 15 Refs.
YR: 1986
DE: hydrology-; methods-; data-processing; oceanography-; computer-programs; GUSTAF-; Fortran-IV; depth-; hydrodynamics-; Lagrange-equation; iterative-methods; algorithms-; atmosphere-
CC: 21-Hydrogeology-and-hydrology; 07-Marine-geology-and-oceanography

AN: 86-56516
TI: DIGMAP; a computer program for accurate acquisition by digitizer of geographical coordinates from conformal projections.
AU: Bortoluzzi-G; Ligi-M
OS: Cons. Naz. Ric., Ist. Geol. Mar., Bologna, Italy
SO: Computers-and-Geosciences. 12. (2). p. 175-197. 16 Refs.
YR: 1986
DE: data-processing; maps-; cartography-; automatic-cartography; digital-simulation; computer-programs; geography-; geodetic-coordinates; algorithms-; inverse-problem; direct-problem; graphic-display; Fortran-; DIGMAP-; map-projections
CC: 14-Areal-geology-Maps-and-charts

AN: 86-56517
TI: Management of the life and death of an earth-science database; some examples from GEOTHERM.
AU: Bliss-J-D
OS: U. S. Geol. Surv., Menlo Park, CA, United-States
SO: Computers-and-Geosciences. 12. (2). p. 199-205. 14 Refs.
YR: 1986
DE: data-processing; hydrogeology-; thermal-waters; models-; maps-; cartography-; automatic-cartography; data-bases; GEOTHERM-; hydrochemistry-; geothermal-systems; geothermal-energy; cartographic-scales; data-storage; geologic-thermometry; hydrogeologic-maps
CC: 21-Hydrogeology-and-hydrology

AN: 86-56518
TI: A program for 2D seismic-ray tracing in Benioff zones.
AU: Nava-F-A
OS: Ciudad Univ., Inst. Geofis., Mexico City, Mexico

SO: Computers-and-Geosciences. 12. (2). p. 207-219. 19 Refs.
YR: 1986
DE: data-processing; geophysical-methods; seismic-methods; Benioff-zone; raypaths-; two-dimensional-models; models-; computer-programs; traveltime-; subduction-zones; velocity-structure; layered-materials; P-waves; body-waves; elastic-waves; S-waves; reflection-methods; interactive-techniques; Fortran-; TRAZ0-
CC: 20-Geophysics-Applied

AN: 86-56519
TI: Automatic mineral deposit assessment using triangular prisms.
AU: Watson-D-F; Philip-G-M
OS: Univ. Sydney, Sydney, N.S.W., Australia
SO: Computers-and-Geosciences. 12. (2). p. 221-224. 9 Refs.
YR: 1986
DE: data-processing; economic-geology; mineral-resources; mineral-exploration; geological-methods; Fortran-; computer-programs; ore-grade; evaluation-; geometry-; Isted-formula; interpolation-
CC: 26-Economic-geology-General-and-mining-geology

AN: 86-56520
TI: The effect of sealevel fluctuations in subsiding basins.
AU: Schwarzacher-W; Schwarzacher-W
OS: Queen's Univ., Dep. Geol., Belfast, United-Kingdom; Univ. Cambridge, Emmanuel Coll., United-Kingdom
SO: Computers-and-Geosciences. 12. (2). p. 225-227. 3 Refs.
YR: 1986
DE: data-processing; sedimentary-petrology; sedimentation-; controls-; tectonic-controls; subsidence-; sedimentary-basins; transgression-; regression-; marine-environment; sedimentation-rates; mathematical-models; models-; cyclic-processes
CC: 06-Petrology-Sedimentary

AN: 86-56521
TI: TETRASEZ; an interactive program in BASIC to perform tetrahedral diagrams.
AU: Armienti-P
OS: Univ. Pisa, Dip. Sci. Terra, Pisa, Italy
SO: Computers-and-Geosciences. 12. (2). p. 229-241. 5 Refs.
YR: 1986
DE: petrology-; data-processing; methods-; sedimentary-rocks; composition-; mineral-composition; algorithms-; canonical-analysis; statistical-analysis; igneous-rocks; metamorphic-rocks; mineral-assemblages; computer-programs; TETRASEZ-; interactive-techniques; phase-diagrams; phase-equilibria; BASIC-
CC: 05-Petrology-Igneous-and-metamorphic; 06-Petrology-Sedimentary

AN: 86-56522
TI: Comment on ''Comparing splines and kriging''.
AU: Philip-G-M; Watson-D-F
OS: Univ. Sydney, Dep. Geol. and Geophys., Sydney, NSW, Australia
SO: Computers-and-Geosciences. 12. (2). p. 243-245. 5 Refs.
YR: 1986
DE: data-processing; general-; mathematical-geology; methods-; splines-; kriging-; statistical-analysis; interpolation-; accuracy-
NT: For original paper by Dubrule, O., see Comput. & Geosci., 10, 2-3, 327-338, 1984.

CC: 15-Miscellaneous-and-mathematical-geology

AN: 87-21533
TI: PTPATH; a Fortran program to calculate pressure-temperature paths from zoned metamorphic garnets.
AU: Spear-Frank-S
OS: Rensselaer Polytech. Inst., Troy, NY, United-States
SO: Computers-and-Geosciences. 12. (3). p. 247-266
YR: 1986
DE: data-processing; petrology-; metamorphism-; P-T-conditions; computer-programs; phase-equilibria; metamorphic-rocks; PTPATH-; Fortran-; pressure-; temperature-; zoning-; garnet-group; nesosilicates-; orthosilicates-; silicates-
CC: 05-Petrology-Igneous-and-metamorphic

AN: 87-21534
TI: Complete subcompositional independence testing of closed arrays.
AU: Woronow-Alex; Butler-John-C
OS: Univ. Houston, Geosci. Dep., Houston, TX, United-States
SO: Computers-and-Geosciences. 12. (3). p. 267-279. 20 Refs.
YR: 1986
DE: data-processing; general-; statistical-analysis; mathematical-geology; methods-; closed-arrays; computer-programs
CC: 15-Miscellaneous-and-mathematical-geology

AN: 87-21535
TI: A disjunctive kriging program for two dimensions.
AU: Yates-S-R; Warrick-A-W; Myers-D-E
OS: R. S. Kerr Environ. Res. Lab., Ada, OK, United-States; Univ. Ariz., Dep. Soils, Water and Eng., United-States
SO: Computers-and-Geosciences. 12. (3). p. 281-313. 15 Refs.
YR: 1986
DE: data-processing; methods-; statistical-analysis; mathematical-geology; kriging-; two-dimensional-models; models-; variance-analysis; Fortran-; computer-programs
CC: 15-Miscellaneous-and-mathematical-geology

AN: 87-21536
TI: A Fortran 77 program for analyzing broad-scale spatial trends of streamline glacial features.
AU: Ridky-Robert-W; Fitzgerald-John-J
OS: Univ. Md., Dep. Geol., College Park, MD, United-States
SO: Computers-and-Geosciences. 12. (3). p. 315-326. 9 Refs.
YR: 1986
DE: Great-Lakes-region; geomorphology-; glacial-geology; data-processing; glacial-features; drumlins-; Fortran-; computer-programs; Laurentide-ice-sheet; Lake-Ontario-Basin; Appalachian-Plateau; North-America
CC: 24-Surficial-geology-Quarternary-geology

AN: 87-21537
TI: A Fortran 77 computer program for the least-squares analysis of chemical data in Pearce variation diagrams.
AU: Russell-J-K
OS: Univ. Calgary, Dep. Geol. and Geophys., Calgary, AB, Canada

SO: Computers-and-Geosciences. 12. (3). p. 327-338. 29 Refs.
YR: 1986
DE: igneous-rocks; composition-; statistical-analysis; data-processing; petrology-; Fortran-; computer-programs; least-squares-analysis; chemical-composition; Pearce-variation-diagrams
CC: 05-Petrology-Igneous-and-metamorphic

AN: 87-21538
TI: RPHIN; a Fortran 77 program for acquiring axial ratios, long axis orientations and centroid positions of elliptical strain markers.
AU: von-Veh-M-W; Hartnady-C-J-H
OS: Univ. Cape Town, Precambrian Res. Unit., Cape Town, South-Africa
SO: Computers-and-Geosciences. 12. (3). p. 339-347. 13 Refs.
YR: 1986
DE: data-processing; structural-geology; structural-analysis; interpretation-; Fortran-; computer-programs; strain-; fabric-; deformation-; RPHIN-
CC: 16-Structural-geology

AN: 87-21539
TI: REFOLD; a Fortran 77 program to construct model block diagrams of multiply folded rocks.
AU: Charlesworth-H-A-K; McLellan-G-C
OS: Univ. Alberta, Dep. Geol., Edmonton, AB, Canada
SO: Computers-and-Geosciences. 12. (3). p. 349-360. 5 Refs.
YR: 1986
DE: data-processing; structural-geology; folds-; orientation-; superposed-folds; structural-analysis; Fortran-; REFOLD-; computer-programs
CC: 16-Structural-geology

AN: 87-38724
TI: Computation of the thermodynamic properties of reactions involving minerals and aqueous solutions with the aid of the personal computer.
AU: Flowers-George-C
OS: Tulane Univ., Dep. Geol., New Orleans, LA, United-States
SO: Computers-and-Geosciences. 12. (4A). p. 361-379. 8 Refs.
YR: 1986
DE: geochemistry-; properties-; thermodynamic-properties; phase-equilibria; theoretical-studies; data-processing; minerals-; aqueous-solutions; reactions-; BASIC-; computer-programs; EQCALC-; microcomputers-; free-energy; equations-
CC: 02-Geochemistry

AN: 87-38725
TI: A program package for major-element data handling and CIPW norm calculation.
AU: Verma-M-P; Aguilar-y-Vargas-V-H; Verma-S-P
OS: Inst. Invest. Elec., Dep. Geotermia, Cuernavaca, Mexico
SO: Computers-and-Geosciences. 12. (4A). p. 381-399. 11 Refs.
YR: 1986
DE: geochemistry-; data-processing; computer-programs; petrology-; igneous-rocks; composition-; chemical-composition; major-elements; whole-rock; CIPW-norms; Fortran-; Fortran-77
CC: 05-Petrology-Igneous-and-metamorphic; 02-Geochemistry

AN: 87-38726
TI: Quadtree; a Fortran program to extract the quadtree structure of a raster format multicolored image.
AU: Walker-P-A; Grant-I-W
OS: CSIRO, Div. Water and Land Resour., Canberra, Australia
SO: Computers-and-Geosciences. 12. (4A). p. 401-410. 11 Refs.
YR: 1986
DE: environmental-geology; data-processing; graphic-methods; techniques-; computer-programs; algorithms-; coordinates-; quadtrees-; color-imagery; Fortran-; Fortran-77; graphic-display; geography-; information-systems
CC: 22-Engineering-and-environmental-geology

AN: 87-38727
TI: Decoding IGBADAT, a world data base for igneous petrology.
AU: Le-Maitre-Roger; Chayes-Felix
OS: Univ. Melbourne, Dep. Geol., Parkville, Victoria, Australia; Carnegie Inst. Washington, United-States
SO: Computers-and-Geosciences. 12. (4A). p. 411-412. 1 Refs. IGCP Project No. 239 IGCP Project No. 163
YR: 1986
DE: petrology-; data-processing; data-handling; igneous-rocks; data-bases; global-; IGBADAT-; IGCP-
CC: 05-Petrology-Igneous-and-metamorphic

AN: 87-38728
TI: Decoding IGBADAT.
AU: Le-Maitre-Roger
OS: Univ. Melbourne, Dep. Geol., Parkville, Victoria, Australia
SO: Computers-and-Geosciences. 12. (4A). p. 413-414. IGCP Project No. 239
YR: 1986
DE: petrology-; data-processing; computer-programs; igneous-rocks; data-bases; IGCP-; IGBADAT-
NT: Letter.
CC: 05-Petrology-Igneous-and-metamorphic

AN: 87-46358
TI: Computer applications in petroleum exploration and development.
AU: Merriam-D-F
OS: Wichita State Univ., Dep. Geol., Wichita, KS, United-States
SO: Computers-and-Geosciences. 12. (4B). Special issue. p. 415-652
YR: 1986
CN: 14th annual geochautauqua, sponsored by Wichita State University Department of Geology, International Association for Mathematical Geology and Mathematical Geologists of the United States ; Computer applications in petroleum exploration and development, Wichita, KS, Oct. 3-5, 1985
DE: data-processing; economic-geology; fuel-resources; symposia-; petroleum-; exploration-; natural-gas; production-; computer-programs
NT: Individual papers are cited separately.
CC: 29-Economic-geology-Energy-sources

AN: 87-46360
TI: On the management organization and procedural standardization of geologic research.
AU: Plansky-L-E

OS: Delmestrasse 136, Bremen, Federal-Republic-of-Germany; Wichita State Univ., Dep. Geol., Wichita, KS, United-States
SO: Merriam, D. F. Computer applications in petroleum exploration and development. Wichita State Univ., Dep. Geol., Wichita, KS, United-States. Computers-and-Geosciences. 12. (4B). Special issue. p. 417-422
YR: 1986
CN: 14th annual geochautauqua, sponsored by Wichita State University Department of Geology, International Association for Mathematical Geology and Mathematical Geologists of the United States ; Computer applications in petroleum exploration and development, Wichita, KS, Oct. 3-5, 1985
DE: geology-; philosophy-; management-; data-processing; general-; research-; data-bases; Continental-Deep-Scientific-Boring
CC: 15-Miscellaneous-and-mathematical-geology

AN: 87-46361
TI: FASP, an analytic resource appraisal program for petroleum play analysis.
AU: Crovelli-Robert-A; Balay-Richard-H
OS: U. S. Geol. Surv., Denver, CO, United-States; Wichita State Univ., Dep. Geol., Wichita, KS, United-States; Metrop. State Coll., Dep. Math. Sci., United-States
SO: Merriam, D. F. Computer applications in petroleum exploration and development. Wichita State Univ., Dep. Geol., Wichita, KS, United-States. Computers-and-Geosciences. 12. (4B). Special issue. p. 423-475. 11 Refs.
YR: 1986
CN: 14th annual geochautauqua, sponsored by Wichita State University Department of Geology, International Association for Mathematical Geology and Mathematical Geologists of the United States ; Computer applications in petroleum exploration and development, Wichita, KS, Oct. 3-5, 1985
DE: petroleum-; exploration-; data-processing; natural-gas; economic-geology; fuel-resources; FASP-; evaluation-; probability-; statistical-analysis; computer-programs; Fortran-; stochastic-processes; geostatistics-; variance-analysis
CC: 29-Economic-geology-Energy-sources

AN: 87-46362
TI: An application of coconditional simulation for petroleum exploration.
AU: Carr-James-R; Prezbindowski-Robert-A
OS: Univ. Mo.-Rolla, Dep. Geol. Eng., Rolla, MO, United-States; Wichita State Univ., Dep. Geol., Wichita, KS, United-States; Woodward-Clyde Consult., United-States
SO: Merriam, D. F. Computer applications in petroleum exploration and development. Wichita State Univ., Dep. Geol., Wichita, KS, United-States. Computers-and-Geosciences. 12. (4B). Special issue. p. 477-483. 12 Refs.
YR: 1986
CN: 14th annual geochautauqua, sponsored by Wichita State University Department of Geology, International Association for Mathematical Geology and Mathematical Geologists of the United States ; Computer applications in petroleum exploration and development, Wichita, KS, Oct. 3-5, 1985
DE: Michigan-; economic-geology; fuel-resources; data-processing; Ingham-County; Clinton-Group; Midwest-; United-States; Onondaga-Township; cokriging-; kriging-; statistical-analysis; reservoir-rocks; reefs-; mathematical-models; models-; exploration-; data-bases; source-rocks; evaporites-; chemically-precipitated-rocks; Niagaran-; Middle-Silurian; Silurian-; porosity-; permeability-; geostatistics-; variance-analysis; variograms-; simulation-; carbonate-rocks; Michigan-Basin
CC: 29-Economic-geology-Energy-sources

AN: 87-46363
TI: Cokriging; multivariable analysis in petroleum exploration.
AU: Freund-Mark-J
OS: Univ. Mo.-Rolla, Dep. Geol./Geophys., Rolla, MO, United-States; Wichita State Univ., Dep. Geol., Wichita, KS, United-States
SO: Merriam, D. F. Computer applications in petroleum exploration and development. Wichita State Univ., Dep. Geol., Wichita, KS, United-States. Computers-and-Geosciences. 12. (4B). Special issue. p. 485-491. 13 Refs.
YR: 1986
CN: 14th annual geochautauqua, sponsored by Wichita State University Department of Geology, International Association for Mathematical Geology and Mathematical Geologists of the United States ; Computer applications in petroleum exploration and development, Wichita, KS, Oct. 3-5, 1985
DE: Kansas-; economic-geology; fuel-resources; data-processing; Cowley-County; Layton-Formation; Midwest-; United-States; exploration-; sampling-; geostatistics-; statistical-analysis; variance-analysis; variograms-; kriging-; cokriging-; digital-simulation; iterative-methods; trend-surface-analysis; reservoir-rocks; sandstone-; clastic-rocks; grain-size
CC: 29-Economic-geology-Energy-sources

AN: 87-46364
TI: Correcting well-log information for computer processing and analysis.
AU: Robinson-Joseph-E
OS: Syracuse Univ., Dep. Geol., Syracuse, NY, United-States; Wichita State Univ., Dep. Geol., Wichita, KS, United-States
SO: Merriam, D. F. Computer applications in petroleum exploration and development. Wichita State Univ., Dep. Geol., Wichita, KS, United-States. Computers-and-Geosciences. 12. (4B). Special issue. p. 493-498. 4 Refs.
YR: 1986
CN: 14th annual geochautauqua, sponsored by Wichita State University Department of Geology, International Association for Mathematical Geology and Mathematical Geologists of the United States ; Computer applications in petroleum exploration and development, Wichita, KS, Oct. 3-5, 1985
DE: New-York; economic-geology; fuel-resources; data-processing; well-logging; applications-; Trenton-Group; Eastern-U.S.; United-States; porosity-; neutron-methods; radioactivity-; digital-simulation; exploration-; limestone-; carbonate-rocks; Ordovician-; reservoir-rocks; gamma-ray-methods; well-logs
CC: 29-Economic-geology-Energy-sources

AN: 87-46365
TI: WSULOG, microcomputer-based well-log evaluation for carbonate reservoirs in Kansas.
AU: Linehan-John-M; Sutterlin-P-G
OS: Wichita State Univ., Dep. Geol., Wichita, KS, United-States; Wichita State Univ., Dep. Geol., Wichita, KS, United-States
SO: Merriam, D. F. Computer applications in petroleum exploration and development. Wichita State Univ., Dep. Geol., Wichita, KS, United-States. Computers-and-Geosciences. 12. (4B). Special issue. p. 499-517. 6 Refs.
YR: 1986
CN: 14th annual geochautauqua, sponsored by Wichita State University Department of Geology, International Association for Mathematical Geology and Mathematical Geologists of the United States ; Computer applications in petroleum exploration and development, Wichita, KS, Oct. 3-5, 1985
DE: Kansas-; economic-geology; fuel-resources; data-processing; well-logging; applications-; Midwest-; United-States; WSULOG-; computer-programs; exploration-; evaluation-; Fortran-; BASIC-; Pascal-; reservoir-rocks; carbonate-rocks; porosity-; density-logging; neutron-methods;

radioactivity-; Archie-equation; microcomputers-; acoustical-logging
CC: 29-Economic-geology-Energy-sources

AN: 87-46366
TI: Color images of Kansas subsurface geology from well logs.
AU: Collins-D-R; Doveton-J-H
OS: Kans. Geol. Surv., Lawrence, KS, United-States; Wichita State Univ., Dep. Geol., Wichita, KS, United-States
SO: Merriam, D. F. Computer applications in petroleum exploration and development. Wichita State Univ., Dep. Geol., Wichita, KS, United-States. Computers-and-Geosciences. 12. (4B). Special issue. p. 519-526. 2 Refs.
YR: 1986
CN: 14th annual geochautauqua, sponsored by Wichita State University Department of Geology, International Association for Mathematical Geology and Mathematical Geologists of the United States ; Computer applications in petroleum exploration and development, Wichita, KS, Oct. 3-5, 1985
DE: Kansas-; economic-geology; fuel-resources; data-processing; well-logging; applications-; Midwest-; United-States; color-imagery; graphic-display; density-logging; porosity-; radioactivity-; neutron-methods; gamma-ray-methods; reservoir-rocks; carbonate-rocks; sandstone-; clastic-rocks; shale-
CC: 29-Economic-geology-Energy-sources

AN: 87-46367
TI: Geological and computer traps in petroleum exploration.
AU: Nordeng-S-C; Ruotsala-A-P; Nordeng-S-H
OS: Mich. Technol. Univ., Dep. Geol. and Geol. Eng., Houghton, MI, United-States; Wichita State Univ., Dep. Geol., Wichita, KS, United-States; Northfield Assoc., United-States
SO: Merriam, D. F. Computer applications in petroleum exploration and development. Wichita State Univ., Dep. Geol., Wichita, KS, United-States. Computers-and-Geosciences. 12. (4B). Special issue. p. 527-536. 3 Refs.
YR: 1986
CN: 14th annual geochautauqua, sponsored by Wichita State University Department of Geology, International Association for Mathematical Geology and Mathematical Geologists of the United States ; Computer applications in petroleum exploration and development, Wichita, KS, Oct. 3-5, 1985
DE: Kansas-; economic-geology; fuel-resources; data-processing; maps-; cartography-; automatic-cartography; Wabaunsee-County; Lyon-County; Morris-County; Viola-Limestone; Trenton-Group; Midwest-; United-States; exploration-; Forest-City-Basin; trend-surface-analysis; statistical-analysis; Middle-Ordovician; Ordovician-; Davis-Ranch-Field; dolostone-; carbonate-rocks; reservoir-rocks; porosity-; Nemaha-Arch; source-rocks; SYMAP-; algorithms-; structural-traps; traps-
CC: 29-Economic-geology-Energy-sources

AN: 87-46368
TI: Trend-surface analysis revisted; a case history.
AU: Sutterlin-P-G; Hastings-J-P
OS: Wichita State Univ., Dep. Geol., Wichita, KS, United-States; Wichita State Univ., Dep. Geol., Wichita, KS, United-States
SO: Merriam, D. F. Computer applications in petroleum exploration and development. Wichita State Univ., Dep. Geol., Wichita, KS, United-States. Computers-and-Geosciences. 12. (4B). Special issue. p. 537-562. 8 Refs.
YR: 1986
CN: 14th annual geochautauqua, sponsored by Wichita State University Department of Geology, International Association for Mathematical Geology and Mathematical Geologists of the United States

; Computer applications in petroleum exploration and development, Wichita, KS, Oct. 3-5, 1985
DE: Kansas-; economic-geology; oil-and-gas-fields; data-processing; maps-; cartography-; automatic-cartography; Kiowa-County; Midwest-; United-States; Nichols-Field; trend-surface-analysis; statistical-analysis; stratigraphic-traps; traps-; structural-traps; anticlines-; folds-; Mississippian-; Carboniferous-; Pennsylvanian-; Stotler-Formation; reservoir-rocks; WSUTREND-; computer-programs; Fortran-; microcomputers-; erosion-surfaces; chert-; chemically-precipitated-rocks; limestone-; carbonate-rocks; exploration-
CC: 29-Economic-geology-Energy-sources

AN: 87-46369
TI: WSU-MAP; a microcomputer-based reconnaissance mapping system for Kansas subsurface data.
AU: Sutterlin-P-G; Sondergard-M-A
OS: Wichita State Univ., Dep. Geol., Wichita, KS, United-States; Wichita State Univ., Dep. Geol., Wichita, KS, United-States
SO: Merriam, D. F. Computer applications in petroleum exploration and development. Wichita State Univ., Dep. Geol., Wichita, KS, United-States. Computers-and-Geosciences. 12. (4B). Special issue. p. 563-595. 5 Refs.
YR: 1986
CN: 14th annual geochautauqua, sponsored by Wichita State University Department of Geology, International Association for Mathematical Geology and Mathematical Geologists of the United States ; Computer applications in petroleum exploration and development, Wichita, KS, Oct. 3-5, 1985
DE: Kansas-; economic-geology; fuel-resources; data-processing; maps-; cartography-; automatic-cartography; Midwest-; United-States; computer-programs; microcomputers-; algorithms-; WSU-MAP; contour-maps; trend-surface-analysis; statistical-analysis; BASIC-; Fortran-; graphic-display; exploration-
CC: 29-Economic-geology-Energy-sources

AN: 87-46370
TI: The applicaton of remote sensing to Canadian petroleum exploration; promising and yet unexploited.
AU: Yatabe-S-M; Fabbri-A-G
OS: Can. Cent. Remote Sensing, Ottawa, ON, Canada; Wichita State Univ., Dep. Geol., Wichita, KS, United-States
SO: Merriam, D. F. Computer applications in petroleum exploration and development. Wichita State Univ., Dep. Geol., Wichita, KS, United-States. Computers-and-Geosciences. 12. (4B). Special issue. p. 597-609. 100 Refs.
YR: 1986
CN: 14th annual geochautauqua, sponsored by Wichita State University Department of Geology, International Association for Mathematical Geology and Mathematical Geologists of the United States ; Computer applications in petroleum exploration and development, Wichita, KS, Oct. 3-5, 1985
DE: Canada-; economic-geology; fuel-resources; geophysical-surveys; remote-sensing; data-processing; Landsat-; satellite-methods; SPOT-; imagery-; oil-seeps; digital-simulation; petroleum-; natural-gas; evaluation-; exploration-
CC: 29-Economic-geology-Energy-sources

AN: 87-46371
TI: Geostatistical analysis of gas potential in Devonian shales of West Virginia.
AU: Hohn-Michael-Edward; Neal-Donald-W
OS: W.Va. Geol. and Econ. Surv., Morgantown, WV, United-States; Wichita State Univ., Dep. Geol., Wichita, KS, United-States; East Carol. Univ., Dep. Geol., United-States
SO: Merriam, D. F. Computer applications in petroleum exploration and development. Wichita State

Univ., Dep. Geol., Wichita, KS, United-States. Computers-and-Geosciences. 12. (4B). Special issue. p. 611-617. 4 Refs.
YR: 1986
CN: 14th annual geochautauqua, sponsored by Wichita State University Department of Geology, International Association for Mathematical Geology and Mathematical Geologists of the United States ; Computer applications in petroleum exploration and development, Wichita, KS, Oct. 3-5, 1985
DE: West-Virginia; economic-geology; natural-gas; data-processing; Mingo-County; Lincoln-County; Logan-County; Wayne-County; Eastern-U.S.; United-States; geostatistics-; statistical-analysis; exploration-; semivariograms-; variance-analysis; reservoir-rocks; Devonian-; fractures-; porosity-; kriging-; shale-; clastic-rocks
CC: 29-Economic-geology-Energy-sources

AN: 87-46372
TI: Computerization of biostratigraphic data collection and analysis.
AU: Wells-B-T
OS: Robertson Res. Int., Lanrhos Llandudno, United-Kingdom; Wichita State Univ., Dep. Geol., Wichita, KS, United-States
SO: Merriam, D. F. Computer applications in petroleum exploration and development. Wichita State Univ., Dep. Geol., Wichita, KS, United-States. Computers-and-Geosciences. 12. (4B). Special issue. p. 619-620. 2 Refs.
YR: 1986
CN: 14th annual geochautauqua, sponsored by Wichita State University Department of Geology, International Association for Mathematical Geology and Mathematical Geologists of the United States ; Computer applications in petroleum exploration and development, Wichita, KS, Oct. 3-5, 1985
DE: stratigraphy-; methods-; data-processing; economic-geology; fuel-resources; petroleum-; exploration-; biostratigraphy-; digital-simulation; microcomputers-; cluster-analysis; statistical-analysis; data-retrieval; data-bases; nannofossils-; algae-; palynomorphs-; microfossils-
CC: 29-Economic-geology-Energy-sources

AN: 87-46373
TI: Distribution of Cenozoic foraminifera from the northwestern Atlantic margin analyzed by correspondence analysis.
AU: Bonham-Carter-G-F; Gradstein-Felix-M; D'-Iorio-Marc-A
OS: Geol. Surv. Can., Ottawa, ON, Canada; Wichita State Univ., Dep. Geol., Wichita, KS, United-States; Bedford Inst. Oceanogr., Canada; Univ. Ottawa, Ottawa-Carleton Cent. Sci. Stud., Canada
SO: Merriam, D. F. Computer applications in petroleum exploration and development. Wichita State Univ., Dep. Geol., Wichita, KS, United-States. Computers-and-Geosciences. 12. (4B). Special issue. p. 621-635. 10 Refs.
YR: 1986
CN: 14th annual geochautauqua, sponsored by Wichita State University Department of Geology, International Association for Mathematical Geology and Mathematical Geologists of the United States ; Computer applications in petroleum exploration and development, Wichita, KS, Oct. 3-5, 1985
DE: Canada-; economic-geology; fuel-resources; Atlantic-Ocean; data-processing; foraminifers-; biostratigraphy-; Cenozoic-; paleoecology-; paleoclimatology-; exploration-; offshore-; microfossils-; North-American-Atlantic; North-Atlantic; Scotian-Shelf; Grand-Banks; Labrador-Sea; RASC-; correspondence-analysis; statistical-analysis; quantitative-analysis; planktonic-taxa; benthonic-taxa; Gulf-Stream; terrigenous-materials; geostatistics-; Labrador-Current; paleocirculation-
CC: 29-Economic-geology-Energy-sources

AN: 87-46374
TI: The isolated effects on porosity of grain sizes in binary mixtures.
AU: Woronow-Alexander
OS: Univ. Houston, Dep. Geosci., Houston, TX, United-States; Wichita State Univ., Dep. Geol., Wichita, KS, United-States
SO: Merriam, D. F. Computer applications in petroleum exploration and development. Wichita State Univ., Dep. Geol., Wichita, KS, United-States. Computers-and-Geosciences. 12. (4B). Special issue. p. 637-641. 12 Refs.
YR: 1986
CN: 14th annual geochautauqua, sponsored by Wichita State University Department of Geology, International Association for Mathematical Geology and Mathematical Geologists of the United States ; Computer applications in petroleum exploration and development, Wichita, KS, Oct. 3-5, 1985
DE: data-processing; economic-geology; fuel-resources; petroleum-; exploration-; sediments-; textures-; grain-size; sedimentary-rocks; reservoir-rocks; size-distribution; porosity-; compaction-; shape-analysis; algorithms-; Pascal-; microcomputers-; simulation-
CC: 29-Economic-geology-Energy-sources

AN: 87-46375
TI: Extracting genetic information from coarse clastic modes.
AU: Butler-John-C; Woronow-Alexander
OS: Univ. Houston, Dep. Geosci., Houston, TX, United-States; Wichita State Univ., Dep. Geol., Wichita, KS, United-States
SO: Merriam, D. F. Computer applications in petroleum exploration and development. Wichita State Univ., Dep. Geol., Wichita, KS, United-States. Computers-and-Geosciences. 12. (4B). Special issue. p. 643-652. 10 Refs.
YR: 1986
CN: 14th annual geochautauqua, sponsored by Wichita State University Department of Geology, International Association for Mathematical Geology and Mathematical Geologists of the United States ; Computer applications in petroleum exploration and development, Wichita, KS, Oct. 3-5, 1985
DE: data-processing; economic-geology; fuel-resources; petroleum-; exploration-; sedimentary-rocks; clastic-rocks; composition-; sedimentation-; provenance-; indicators-; reservoir-rocks; mineral-composition; feldspar-group; framework-silicates; silicates-; variance-analysis; statistical-analysis; principal-components-analysis; eigenvalues-
CC: 29-Economic-geology-Energy-sources

AN: 87-28798
TI: Drainage network simulation.
AU: Yuan-Li-Ping; Vanderpool-N-Luanne
OS: Univ. S.C., Dep. Geol., Columbia, SC, United-States; Univ. Ill., Dep. Geol. Sci., United-States
SO: Computers-and-Geosciences. 12. (5). p. 653-665. 8 Refs.
YR: 1986
DE: data-processing; geomorphology-; fluvial-features; drainage-basins; computer-programs; models-; Horton-analysis; Fortran-; bifurcation-; digital-simulation
CC: 23-Surficial-geology-Geomorphology

AN: 87-28799
TI: A two-phase finite-element program for displacement simulation processes in porous media.
AU: Gottardi-G; Mesini-E
OS: Univ. Bologna, Min. Sci. Inst., Bologna, Italy
SO: Computers-and-Geosciences. 12. (5). p. 667-695. 16 Refs.
YR: 1986

DE: ground-water; movement-; mathematical-models; data-processing; hydrogeology-; two-phase-models; models-; finite-element-analysis; statistical-analysis; porous-materials; Fortran-; immiscibility-; algorithms-; digital-simulation
CC: 21-Hydrogeology-and-hydrology
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AN: 87-28800
TI: Radiative cooling in valleys and hollows.
AU: Kyle-Thomas-G
OS: Los Alamos Natl. Lab., Atmos. Sci. Group, Los Alamos, NM, United-States
SO: Computers-and-Geosciences. 12. (5). p. 697-703. 10 Refs.
YR: 1986
DE: atmosphere-; changes-; data-processing; radiative-cooling; Fortran-; ground-emissivity; computer-programs
CC: 15-Miscellaneous-and-mathematical-geology

AN: 87-28801
TI: FRACT; a FORTRAN subroutine to calculate the variables necessary to determine the fractal dimension of closed forms.
AU: Kennedy-Stephen-K; Lin-Wei-Hsiung
OS: Univ. Pittsburgh, Dep. Geol. and Planet. Sci., Pittsburgh, PA, United-States
SO: Computers-and-Geosciences. 12. (5). p. 705-712. 14 Refs.
YR: 1986
DE: data-processing; sedimentary-petrology; sediments-; textures-; shape-analysis; Fortran-; computer-programs; Fourier-analysis; properties-; FRACT-; fractal-dimension
CC: 06-Petrology-Sedimentary

AN: 87-28802
TI: Computation of the fractal dimension of topographic surfaces using the triangular prism surface area method.
AU: Clarke-Keith-C
OS: Hunter Coll., Dep. Geol. and Geogr., New York, NY, United-States
SO: Computers-and-Geosciences. 12. (5). p. 713-722. 9 Refs.
YR: 1986
DE: geodesy-; geodetic-coordinates; topography-; data-processing; geophysical-methods; fractal-dimension; computer-programs
CC: 20-Geophysics-Applied

AN: 87-28803
TI: To transfer VisiCalc spreadsheet files from Commodore computer across to Lotus worksheets in a Rainbow computer.
AU: Beech-T-A; Wells-C-B
OS: CSIRO, Div. Soils, Osmond, Australia
SO: Computers-and-Geosciences. 12. (5). p. 723-724
YR: 1986
DE: data-processing; general-; computer-programs; VisiCalc-; Lotus-
CC: 15-Miscellaneous-and-mathematical-geology

AN: 87-28804
TI: A FORTRAN program to transform polar coordinates to a new pole for mapping and graphics applications.

AU: Gilmour-A-E; McIntyre-V-J
OS: N.Z. Oceanogr. Inst., Wellington, New-Zealand
SO: Computers-and-Geosciences. 12. (5). p. 725-728. 1 Refs.
YR: 1986
DE: data-processing; maps-; polar-coordinates; Fortran-; computer-programs; graphic-methods
CC: 15-Miscellaneous-and-mathematical-geology

AN: 87-28805
TI: Comment on ''Sphere; a contouring program for spherical data''.
AU: Schaeben-H
OS: Univ. Bonn, Dep. Geol., Bonn, Federal-Republic-of-Germany
SO: Computers-and-Geosciences. 12. (5). p. 729. 3 Refs.
YR: 1986
DE: geodesy-; figure-of-Earth; data-processing; geophysical-methods; spherical-data; computer-programs
NT: For original paper by Diggle, P. J., and Fisher, N. I., see Comput. and Geosci., Vol. 11, No. 6, p. 725-766, 1985.
CC: 20-Geophysics-Applied

AN: 87-28806
TI: Reply; Comparing splines and kriging.
AU: Dubrule-Olivier
OS: Shell, Explor. en Prod. Lab., Rijswijk, Netherlands
SO: Computers-and-Geosciences. 12. (5). p. 729-730
YR: 1986
DE: data-processing; general-; mathematical-geology; splines-; kriging-; statistical-analysis
NT: For original paper by Dubrule, O., see Comput. and Geosci., Vol. 12, No. 2, 1986.
CC: 15-Miscellaneous-and-mathematical-geology

AN: 87-33507
TI: A sorting program for orientation analysis of data on a sphere.
AU: Koenemann-Falk
OS: Univ. N.H., Dep. Earth Sci., Durham, NH, United-States
SO: Computers-and-Geosciences. 12. (6). p. 731-747. 7 Refs.
YR: 1986
DE: data-processing; structural-geology; structural-analysis; methods-; preferred-orientation; petrofabrics-; stereographic-projection; computer-programs; Fortran-77; SCOPDAT-; distribution-; USTAGE-; AVA-
CC: 16-Structural-geology

AN: 87-33508
TI: PT-SYSTEM, TX-SYSTEM, PX-SYSTEM; three programs which calculate pressure-temperature-composition phase diagrams.
AU: Perkins-E-H; Brown-T-H; Berman-R-G
OS: ETH-Zentrum, Inst. Mineral. und Petrogr., Zurich, Switzerland; Univ. B.C., Dep. Geol. Sci., Canada
SO: Computers-and-Geosciences. 12. (6). p. 749-755. 27 Refs.
YR: 1986
DE: phase-equilibria; theoretical-studies; data-processing; petrology-; P-T-conditions; computer-programs; thermodynamic-properties; phase-diagrams; Fortran-77; data-bases; equations-of-state; PT-SYSTEM; PX-SYSTEM; TX-SYSTEM

CC: 05-Petrology-Igneous-and-metamorphic

AN: 87-33509
TI: NPSTAT; a Fortran-77 program to perform nonparametric variable-by-variable comparisons on two or more independent groups of data.
AU: Rock-N-M-S
OS: Univ. West. Aust., Dep. Geol., Perth, West. Aust., Australia
SO: Computers-and-Geosciences. 12. (6). p. 757-777. 25 Refs.
YR: 1986
DE: data-processing; methods-; computer-programs; mathematical-geology; statistical-analysis; NPSTAT-; Fortran-77; variance-analysis; Mann-Whitney-analysis; Smirnov-analysis; Kruskal-Wallis-analysis; Van-der-Waerden-analysis; I/O-
CC: 15-Miscellaneous-and-mathematical-geology
[DOS] 17Kb [UNIX] 58Kb

AN: 87-33510
TI: SOIL PROFILE RECORDER; a program to enable the recording of soil profile descriptions in the field.
AU: Clarke-S-R; Fisher-P-F; Ragg-J-M
OS: Kingston Polytechnic, Kingston upon Thames, United-Kingdom; Soil Surv. Engl. and Wales, United-Kingdom
SO: Computers-and-Geosciences. 12. (6). p. 779-806. 14 Refs.
YR: 1986
DE: data-processing; soils-; morphology-; soil-profiles; data-bases; microcomputers-; BASIC-; data-acquisition; Datalogger-; SOIL-PROFILE-RECORDER; computer-programs
CC: 25-Surficial-geology-soils

AN: 87-33511
TI: REGRES; a Fortran-77 program to calculate the nonparametric and ''structural'' parametric solutions to bivariate regression equations.
AU: Rock-N-M-S; Duffy-T-R
OS: Univ. West. Aust., Dep. Geol., Perth, West. Aust., Australia; NERC Comput. Serv., United-Kingdom
SO: Computers-and-Geosciences. 12. (6). p. 807-817. 21 Refs.
YR: 1986
DE: data-processing; methods-; computer-programs; mathematical-geology; regression-analysis; statistical-analysis; Fortran-77; REGRES-; absolute-age; twinning-; sulfides-; chemical-composition; I/O-; variance-analysis
CC: 15-Miscellaneous-and-mathematical-geology