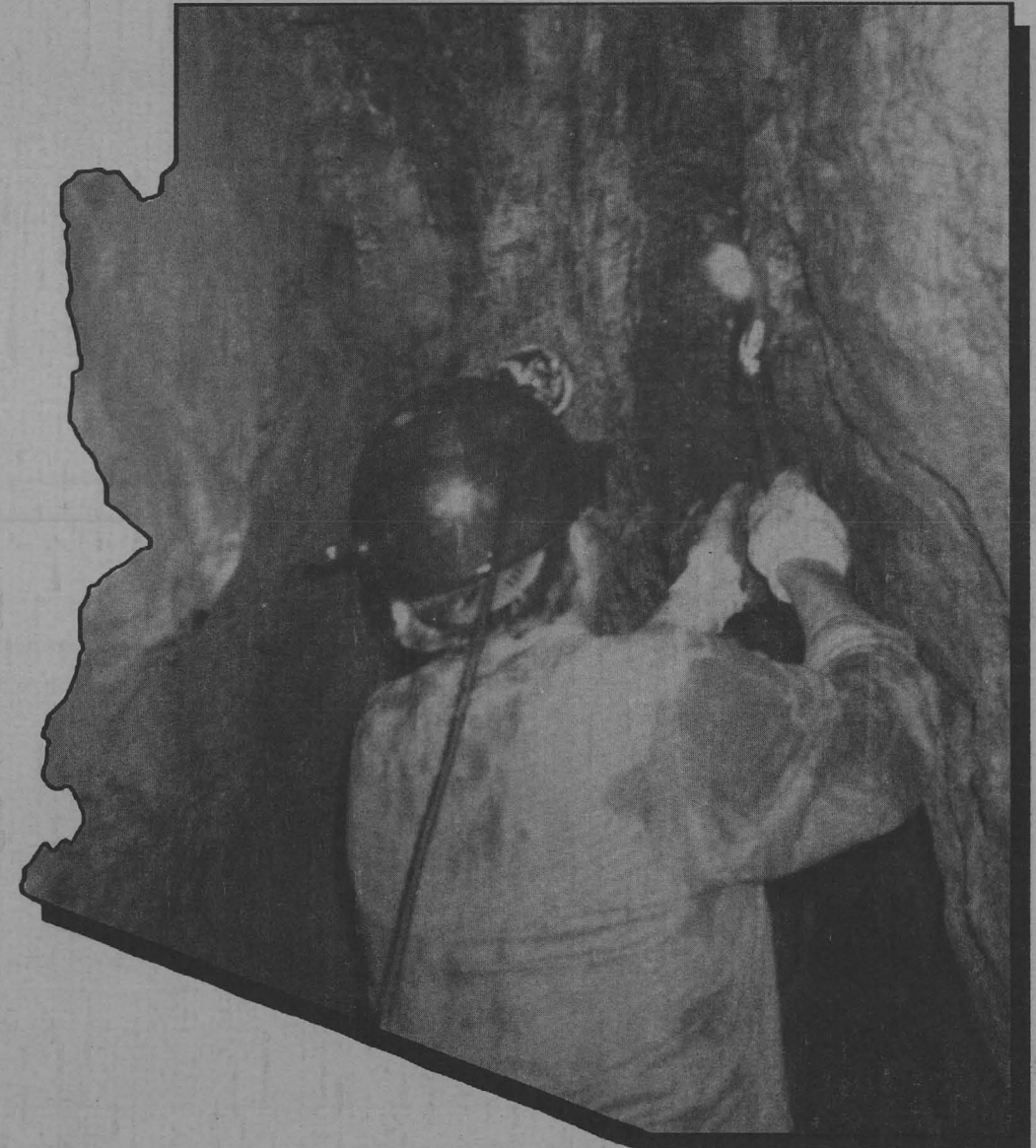




ARIZONA MINING CONSULTANTS

by Nyal J. Niemuth, Mining Engineer

Directory No. 41



Arizona Department of Mines
and Mineral Resources

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

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THE ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

The objective of the Department is to promote the development of Arizona's mineral resources. This is accomplished through technical research, field investigations, compilation of information into a mineral occurrence data base, and disseminating information through publications, personal contacts, and seminars.

The Department's mining engineers and geologists assist mining and exploration companies, prospectors and others interested in Arizona's minerals with mineral processing, mineral land acquisition, exploration, mine development, financing, government regulations, and marketing.

The Department is a service agency and does not regulate, tax, or require any type of registration. The agency provides assistance that is tailored to meet the diverse needs of the public. The following is a partial list of services that the Department offers:

- Maintain a site specific data base of unpublished reports and maps that includes 4,000 mine files and indexes of 10,000 computerized Arizona mineral occurrences.
- Maintain an information bank and library of mineral and mining information including a mine map library (hard copy and microfilm), government publications, periodicals, and unpublished master and doctorate theses.
- Gather and disseminate information on commodities and markets.
- Suggest target areas for exploration activity.
- Suggest properties for acquisition and development.
- Assist individuals and companies in their dealings with State regulatory agencies to facilitate their mining and exploration activity.
- Produce publications in the form of mineral reports, annual directories, technical reports, annual mineral industry surveys and information circulars. These include *Laws and Regulations Governing Mineral Rights in Arizona*, *Directory of Active Mines in Arizona*, *Manual for Determination of Status and Ownership of Arizona Mineral and Water Rights*, and others. A current listing of the Department publications is available upon request.
- Maintain the Arizona Mining and Mineral Museum.

Arizona Mining Consultants

Nyal J. Niemuth
Mining Engineer

ARIZONA DEPARTMENT OF MINES
& MINERAL RESOURCES

Directory 41

1993

21	McLain, Gordon	U.S. Mineral Surveyor
2	McLean, Jr., Claude E.	Assayer
11	Megaw, Peter	Geologist
2	Mellen, Roger S.	Assayer
11	Messer, Andrew A.	Geologist
11	Metz, Robert A.	Geologist
11	Miller, Charles P.	Geologist
11	Miller, Halsey W.	Geologist
11	Mills, Jack B.	Geologist
11	Mock, Peter A.	Geologist
11	Montgomery, Errol L.	Geologist
12	More, Syver W.	Geologist
17	Mulkin, Charles W.	Metallurgical Engineer
12	Noel, Stephen D.	Geologist
4	Pajaczkowski, Milada	Geological Engineer
12	Pawlowski, Michael R.	Geologist
12	Peacock, Edward W.	Geologist
12	Perry, Albert J.	Geologist
12	Peterson, David E.	Geologist
12	Platt, Wallace S.	Geologist
12	Potucek, Tony L.	Geologist
17	Rabb, David D.	Metallurgical Engineer
12	Ragan, Donal M.	Geologist
17	Ramsey, Terry	Metallurgical Engineer
2	Roberts, Wilbert R.	Assayer
12	Roche, Michael E.	Geologist
18	Roman, Ronald J.	Metallurgical Engineer
12	Roripaugh, Ray L.	Geologist
12	Rosko, Michael J.	Geologist
13	Ross, Donald E.	Geologist
13	Ross, Sylvia H.	Geologist
13	Roxlo, Katherine S.	Geologist
13	Rudmann, Joseph E.	Geologist
4	Sampson, Jr., Henry H.	Geological Engineer
13	Sampson, Jr., Henry H.	Geologist
4	Sawyer, Willis D.	Geological Engineer
16	Scheffey, Paul L.	Geophysical Engineer
2	Schloatman, Marvin D.	Assayer
13	Schreiber, Joseph F., Jr.	Geologist
20	Schuler, George K.	Mining Engineer
21	Schurian, R. David	U.S. Mineral Surveyor
13	Sewell, Charles R.	Geologist
2	Shah, D. A.	Assayer
3	Shantz, Robert	Assayer
13	Sharp, James E.	Geologist
13	Shearer, Joseph E.	Geologist
13	Shellhorn, Mark A.	Geologist
13	Shore, Kathryn L.	Geologist
20	Smith, Harvey W.	Mining Engineer
21	Smith, Harvey W.	U.S. Mineral Surveyor
14	Smith, Stephen A.	Geologist
14	Stephenson, David A.	Geologist
14	Stephenson, Gordon R.	Geologist
18	Sudderth, R. Brantley	Metallurgical Engineer
20	Summers, David M.	Mining Engineer
3	Thompson, Charles E.	Assayer
14	Travers, Bruce C.	Geologist
14	Truebe, Henry A.	Geologist
14	Turner, Terry M.	Geologist
14	Tyson, Robert M.	Geologist

4	Vann, Jeff	Geological Engineer
14	Victor, William R.	Geologist
3	Vidal, Manuel J.	Assayer
14	Wahl, Jr., David E.	Geologist
14	Waldner, Jerald	Geologist
18	Walker, Walter W.	Metallurgical Engineer
14	Wallis, C. Mark	Geologist
15	Waters, Georgia L.	Geologist
3	Weatherby, Jim Roy	Assayer
15	Weber, Daniel S.	Geologist
15	Weeks, Ralph E.	Geologist
15	Weiland, Erick F.	Geologist
15	Wellendorf, Bill	Geologist
15	Welty, John W.	Geologist
16	West, Robert E.	Geophysical Engineer
5	White, Daniel	Geological Engineer
15	White, Don C.	Geologist
15	Whitler, Ronald R.	Geologist
21	Wickware, Robert K.	U.S. Mineral Surveyor
16	Wieduwilt, W. Gordon	Geophysical Engineer
5	Winters, Jr., Harry J.	Geological Engineer
15	Young, Michael H.	Geologist
15	Zimmerman, Richard K.	Geologist

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INTRODUCTION

This directory contains a listing of registered consultants for the following mining related disciplines: assayers, geological engineers, geologists, geophysical engineers, metallurgical engineers, and mining engineers. In addition, approved U.S. Mineral Surveyors are also included.

Organized by the above mentioned disciplines, the following information is provided for each consultant:

- Name
- Company Name, if applicable
- Mailing Address
- Telephone and FAX (Arizona's area code is 602)
- Expertise or specialization within discipline

An alphabetic index of all consultants listed herein is provided at the end of this directory.

Compilation of this directory was made possible thanks to the cooperation of the Arizona Board of Technical Registration and the Arizona State office of the Bureau of Land Management. The Arizona Board of Technical Registration supplied a list of registrants in the various disciplines with Arizona residence who were then contacted to determine which were available as consultants and to provide the supplemental information. The Arizona State office of the Bureau of Land Management provided a Department of Interior examined and approved roster of U. S. Mineral Surveyors from which those with Arizona residence were extracted.

If additional information is desired regarding the registration process or to obtain the registration status of any individual please contact directly:

Arizona Board of Technical Registration
1951 West Camelback Road, Suite 250
Phoenix, AZ 85015
Phone: 255-4053 FAX: 255-4501

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6	Anzalone, S. A.	Geologist	9	Greenslade, William M.	Geologist
6	Arnold, L. Clark	Geologist	9	Hall, Dennis G.	Geologist
6	Atherton, Parris	Geologist	4	Hanna, Kevin	Geological Engineer
6	Bain, James S.	Geologist	17	Henderson Jr., Thomas D.	Metallurgical Engineer
6	Ball, Scott	Geologist	19	Himebaugh, Arthur E.	Mining Engineer
6	Bansberg, Richard	Geologist	9	Hix, Gary L.	Geologist
6	Barter, Charles F.	Geologist	9	Huckins, Daniel L.E.	Geologist
6	Bartlett, B. Douglas	Geologist	2	Ingram, Robert E.	Assayer
19	Bazzanella, Frank L.	Mining Engineer	2	Jacobs, Mike	Assayer
6	Bender, Gary A.	Geologist	9	Johnson, Fred M.	Geologist
17	Bhappu, Roshan B.	Metallurgical Engineer	17	Johnson, Ronald	Metallurgical Engineer
6	Bittner, Mark	Geologist	9	Karaba, Kenneth	Geologist
6	Blust, Kurt, J.	Geologist	4	Kay, George B.	Geological Engineer
19	Boggero, Antonio	Mining Engineer	17	Keane, Joseph M.	Metallurgical Engineer
7	Briscoe, James A.	Geologist	19	Kearns, Desmond P.	Mining Engineer
19	Brittain, Richard L.	Mining Engineer	9	Keay, Todd	Geologist
7	Brose, Richard J.	Geologist	21	Kesler, Jack M.	U.S. Mineral Surveyor
19	Brost, Fred B.	Mining Engineer	19	Khunkhun, Kuldip S.	Mining Engineer
7	Burt, Donald M.	Geologist	9	Kilpatrick, Bruce E.	Geologist
7	Carr, David A.	Geologist	20	King, Howard G.	Mining Engineer
7	Caviness, Clyde R.	Geologist	20	Kirby, Joseph L.	Mining Engineer
4	Cicchini, Paul F.	Geological Engineer	9	Kirchner, David L.	Geologist
7	Clement, Gail	Geologist	9	Kissinger, Leroy E.	Geologist
7	Corn, Russell M.	Geologist	21	Kreamer, Jeff G.	U.S. Mineral Surveyor
21	Cristea, James R.	U.S. Mineral Surveyor	9	Kuck, David L.	Geologist
7	Cross, Mark M.	Geologist	20	Kuck, David L.	Mining Engineer
21	Crume, Jimmie D.	U.S. Mineral Surveyor	10	Kuehn, Carl A.	Geologist
7	Cuddy, Alan S.	Geologist	17	Kuhn, Martin C.	Metallurgical Engineer
4	Cummings, Robert A.	Geological Engineer	10	La Fronz, Nicholas	Geologist
7	Davis, James S.	Geologist	10	Lacy, Willard C.	Geologist
7	DeWitt, Ronald H.	Geologist	17	Lagergren, C. F.	Metallurgical Engineer
19	Deming, Dale A.	Mining Engineer	10	Larkin, II, Hugh D.	Geologist
7	Den-Baars, Dirk	Geologist	20	Leech, William D.	Mining Engineer
8	Dickens, Chuck M.	Geologist	2	Lehmbeck, William L.	Assayer
17	Dixon, Jr., Dale C.	Metallurgical Engineer	10	Lepley, Larry K.	Geologist
16	Dortch, W. R.	Geophysical Engineer	10	Light, John G.	Geologist
19	Dowis, John E.	Mining Engineer	10	Linder, Harold	Geologist
8	Dozer, Gregory J.	Geologist	2	Lindroos, Gary	Assayer
19	Drielick, Thomas L.	Mining Engineer	10	Lizanec, Jr., Ted	Geologist
8	Duren, Fred	Geologist	10	Loghry, James D.	Geologist
8	Eady, Charles S.	Geologist	10	Lombard, James P.	Geologist
16	Elliot, Charles L.	Geophysical Engineer	10	Lovvik, Daryl V.	Geologist
4	Estes, Leon	Geological Engineer	11	Lowell, J. David	Geologist
8	Euge, Kenneth M.	Geologist	21	Luckow, Thomas F.	U.S. Mineral Surveyor
8	Eyde, Dan	Geologist	11	Magee, Maurice	Geologist
8	Eyde, Ted H.	Geologist	16	Manera, Paul A.	Geophysical Engineer
8	Eyrich, Henry T.	Geologist	11	Manera, Paul A.	Geologist
21	Fannin, Ronnie L.	U.S. Mineral Surveyor	4	Manera, Paul A.	Geological Engineer
21	Fannin, Velen D.	U.S. Mineral Surveyor	20	Marek, John M.	Mining Engineer
16	Fink, James B.	Geophysical Engineer	2	Martin, James	Assayer
8	Garcia, Dawn H.	Geologist	21	Marum, Willimam B.	U.S. Mineral Surveyor
8	Giardina, Jr., Salvatore	Geologist	16	Matthews, Jr., John P.	Geophysical Engineer
8	Gill, Harold E.	Geologist	11	McCurry, Wilson G.	Geologist
8	Gilmour, Paul	Geologist	2	McGhan, Craig R.	Assayer
4	Glass, Charles E.	Geological Engineer	17	McGrew, Kent J.	Metallurgical Engineer
19	Godfrey, Ralph G.	Mining Engineer	20	McKinstry, Bruce	Mining Engineer

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Assayers

Assaying, analytical chemistry, optical emission spectroscopy, x-ray emission spectroscopy.

Fire assay, precious metal analysis, geochemical analysis base metals, I.C.P. packages, preliminary metallurgical testing.

Analytical services to the mining industries.

Fire assay, AA. Lab is located on Charleston Road west of Tombstone.

Analysis of metals and metallurgical products, limestone, gypsum.

Fire assay, wet chemical analysis, and atomic absorption spectrophotometry of ores, concentrates, and metallics. Purchase of dore, placer gold, fines and concentrates.

Ore analysis.

Exploration, precious metal analysis, corrected/umpire assays of gold, silver, mining and industrial grade Pt and Pd analysis, electronic scrap evaluation, certified hazardous material management, environmental permits and compliance.

Atomic absorption analysis, wet chemical analysis.

Fire assaying, gold, silver and platinum, atomic absorption and ICP analysis for approximately 40 elements, umpire analysis for copper, gold, silver, molybdenum, rhenium, lead, zinc, etc.

Environmental lab testing for organic and inorganic contaminants in soil, potable water, industrial effluent and air.

Assayers

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Jim Roy Weatherby
Mobile Lab Services, Inc.
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Ore dressing, laboratory testing, assaying, plant design.

Analytical methods used in geochemical exploration.

Fire assay, wet and instrumental analysis, ore testing, mineral processing for Au, Ag, Pt group and base metals, photomicrography.

Fire assay, environmental analysis for metals, bullion assays.

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Mining Engineers

Mine plant design and construction, supervision.

Mining and land survey.

Mineral property, valuation and development, mine design and exploration.

Underground construction (mine and civil), engineering and management.

Mine planning, ore reserves, mine equipment requirements, and cost estimates, feasibility studies and strategic planning for new or existing deposits.

Underground mine development, shaft sinking, ramp/level development, exploration/bulk sampling, Latin Amercian projects, tunnel construction.

Mining engineering.

Mining engineering, land surveying, mineral surveying, title abstracting.

Mining engineering.

Mining Engineers

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Peabody Western Coal Company
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Mining engineering, surface coal mine permitting.

Mineral process consulting, plant audits, plant design, construction, management and start up.

Mine operations, mine planning/design and evaluations, low cost underground mining, ore reserves calculations, underground mining methods including stoping by raise and block drop.

Mine examinations, mine feasibility studies, mine planning, ore reserve estimates, mine mechanization studies and plans, operating and capital cost estimates, operation monitoring and mining economics.

Property evaluations, feasibility studies, mine permitting, environmental studies.

Aquifer protection permits, NPDES permits, environmental assessments, closure/reclamation plans, environmental auditing, SARA 313 reports, emergency response plans, spill prevention plans.

Mining engineering, ore reserve calculation, open pit planning, environmental and reclamation services, mine decommissioning. Executive consultant to Earth Technology, Tempe, 894-8482.

Mining engineering, mineral processing.

Engineering services in mine development, feasibility, and permitting, mill design and construction, training and organization of operating crews.

Management.

Mining engineering.

Underground mining, feasibility, evaluation, mine ventilation.

Geological Engineers

Rock mechanics consultant, open pit and underground optimization of ore recovery, artificial support, numerical modeling.

Mining geological engineer, abandoned mine problems (closure, mapping, subsidence, environmental), blasting rock and soil mechanics, field geology, geochemistry, geotechnical testing.

Geological site investigation, drainage studies, highway design, surveying.

Earthquake engineering, remote sensing, site characterization and geophysics.

Hydrogeology, geological engineering.

Exploration and mining geology, underground/surface mine surveying, mine geological engineering.

Soil and rock slope stability analysis and design, excavation and compaction, groundwater resource evaluation, field engineering for subsurface investigations.

Geohydrology.

Geological engineering, engineering geology.

Quality control, quality assurance services on construction projects, tailings dams, leach pads (HDPE), reclamation projects, project management.

Waste disposal, geotechnical engineering, geological engineering.

Rock slope stability, geologic mapping, seismic refraction studies, expansive clay investigations, groundwater studies, exploratory test drilling, geotechnical engineering, environmental site assessments.

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Geological Engineers

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Rock mechanics, geological engineering, soils engineering, groundwater hydrology, civil engineering, mineral surveying, construction quality control, geophysical engineering.

Geological engineering, mine and prospect valuation, ore reserve estimates, open pit and underground mine design, process engineering, metallurgical plant design, capital and operating cost estimates, project management.

Metallurgical Engineer

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Phone: 622-8891 FAX: 624-0912

Walter W. Walker
Andeco
5643 E. 7th Street
Tucson, AZ 85711
Phone: 790-9399

Process design engineering and evaluation of copper and gold heap and dump leaching.

Hydrometallurgy, solvent extraction and related technologies of leaching and electrowinning (SX-EW).

Structural failure analysis, nondestructive testing, manufacturing engineering, welding engineering, prospect property evaluation, fire assay of precious metals.

Metallurgical Engineers

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Phone: 425-8491

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Metallurgical engineering, mineral processing.

Mineral processing and process evaluation, extractive metallurgy, environmental processing, economics and feasibility studies, laboratory and pilot plant facilities.

Mineral processing plant design and construction.

General mineral processing with specialty in flotation and hydrometallurgical operations and research.

Metallurgical engineering, pyro-metallurgy - drying, roasting, smelting, refining, hydro-metallurgy - leaching, solvent extraction, electro-metallurgy - electrowinning, refining.

Mineral beneficiation plant design, pollution abatement (acid mine drainage), all types of mineral processing and metallurgical testing.

Mineral processing, hydrometallurgy, process development, project management.

Grinding circuit optimization, slurry pumping systems, classification, mixing, and agitation.

Gold mining/processing, water treatment.

Physical metallurgy of high temperature metals and alloys, high temperature brazing in vacuum and protective atmospheres.

Dump and heap leaching, also in place and vat, CCD, CIP, gold-silver, leaching and precipitation Merrill Crowe, non-ferrous, hydromet, ore evaluation, testing, flowsheet development, costs, permitting, property and process development.

Process control, design, and optimization of grinding, mineral processing and metals extraction circuits, custom software, equipment sizing and specification, capital and operating cost estimation, economic evaluation, and management.

Geologists

Exploration, evaluation, and development of metallic and non-metallic mineral resources.

Mineral exploration.

Engineering geology, instrumentation, hazardous waste, and dams.

Environmental consulting.

Environmental consulting, groundwater assessments and remediation, exploration, resource estimation, mine development, design and production.

Hydrogeologic investigations and evaluations, BADCT analysis, aquifer protection permit preparation, and groundwater monitoring plans.

Development of groundwater supplies, design and operation of groundwater monitoring programs, design of dewatering programs for open-pit and underground mines, services related to aquifer protection permits, remediation of groundwater and soil.

Hydrogeology, mine dewatering, ground water flow and contaminant transport modeling.

Environmental consulting, UST removals, soil and groundwater assessments and remediation, mineral exploration, reconnaissance and claim staking, mapping and sampling, drilling, ore reserve estimation, pit geology, mine reclamation.

Regulatory licensing/compliance/permitting for NPDES, stormwater, APP, RCRA, CERCLA, UST programs, remedial engineering, design, implementation, toxic/hazardous materials management, pollution control, risk assessment, site selection.

Hydrogeologic consulting including water supply and development, dewatering evaluations, groundwater contamination assessment, environmental monitoring, regulatory compliance and permitting.

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Porphyry copper and precious metal deposits, foreign and domestic. Design and execution of exploration programs.

Geology, engineering geology, environmental.

Minerals exploration, mineralogy, geochemistry, petrology, general geology.

Hydrogeology, groundwater resource evaluation, mathematical groundwater modeling, groundwater contamination investigation, coal geology, coal exploration, coal reserve evaluation, and coal quality assessment.

Mining geology, exploration, property evaluation.

Hydrogeology, environmental investigation and remediation, hazardous and special waste.

Mineral exploration, base and precious metals.

Development of groundwater supplies, design and operation of groundwater monitoring programs, design of dewatering programs for open-pit and underground mines, services related to aquifer protection permits, remediation of groundwater and soil.

Hydrogeologic consulting including water supply and development, dewatering evaluations, groundwater contamination assessment, environmental monitoring, regulatory compliance and permitting.

Development of groundwater supplies, design and operation of groundwater monitoring programs, design of dewatering programs for open-pit and underground mines, services related to aquifer protection permits, remediation of groundwater and soil.

Porphyry copper, limestone.

Development of groundwater supplies, design and operation of groundwater monitoring programs, design of dewatering programs for open-pit and underground mines, services related to aquifer protection permits, remediation of groundwater and soil.

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Mine management service.

Geophysical field consulting, research and development of geophysical exploration field instrumentation, theoretical studies, laboratory studies of rock physical properties, repair, maintenance and calibration of geophysical equipment.

Geophysical engineering for environmental, hydrological, minerals exploration, site evaluations, leak detection for lined and unlined ponds, pipelines and ditches, airphoto interpretations, remediation monitoring, geotechnical engineering.

Electrical resistivity geophysics.

Mineral exploration.

Reflection and refraction seismic, magnetic.

Interpretation of gravity, magnetic, induced polarization, and resistivity data.

Induced polarization and resistivity method, magnetic, gravity, radiometric methods, VLF-EM methods, contract surveys and consulting.

Geologists

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Hydrology/geology, design, installation and testing of monitor wells and water wells, site characterization for aquifer protection permitting, water resource studies, structural modification (rehabilitation) of wells with contamination problems.

Development of groundwater supplies, design and operation of groundwater monitoring programs, design of dewatering programs for open-pit and underground mines, services related to aquifer protection permits, remediation of groundwater and soil.

Environmental geology, hydrogeology, engineering geology, environmental permitting.

Geochemistry - principles, methods, interpretation, statistical analysis of analytical data, quality control and assurance procedures for sampling and analytical phases of projects, computer modeling and applications.

Hydrogeology, aquifer protection permitting, photogeology, water resources development.

Base and precious metals, industrial minerals and rock exploration.

Geological consulting, metals and industrial minerals exploration, evaluation and development.

Environmental geology, engineering geology, environmental impact statements, geohydrology, sedimentary geology.

Movement of acidic PLS from impoundments into soil and groundwater, monitoring of soil and groundwater, APP application review prior to submittal to State, field investigations and installation of monitoring devices.

Environmental compliance, groundwater hydrology, contamination investigations, mineral exploration, ore reserve estimation, subsurface investigations, geologic mapping and interpretation.

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Geologists

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Mining and exploration, environmental.

Hydrogeology, wells.

Mine development and evaluation.

Engineering geology, rock slope stability, hydrogeology, geophysics (seismic refraction, gravity, magnetic, resistivity) air photo interpretation.

Industrial minerals.

Exploration, evaluation, development, mining production, marketing of industrial mineral products, valuation of mergers and acquisitions.

Economic geology, minerals exploration, base and precious metals.

Geology.

Engineering geologist, siting evaluations for large engineered structures.

Soil and groundwater investigation and remediation, project direction/oversight for investigation and remedial programs covering petroleum contamination of soil and groundwater, APP permitting/investigations.

Non-ferrous base and precious metals, exploration, prospect evaluation, reserve estimation.

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Hydrogeology, engineering geology.

Development of groundwater supplies, design and operation of groundwater monitoring programs, design of dewatering programs for open-pit and underground mines, services related to aquifer protection permits, remediation of groundwater and soil.

Hydro-geology, ground water and well water supply, well design and specification, contract management, well rehabilitation and abandonment, licensed driller and contractor, well and pump service.

Mining and exploration geology.

Mining geology, exploration.

Engineering geology, geotechnical engineering, materials testing, environmental consulting.

Development of groundwater supplies, design and operation of groundwater monitoring programs, design of dewatering programs for open-pit and underground mines, services related to aquifer protection permits, remediation of groundwater and soil.

Mineral exploration, base and precious metals.

Hydrogeology, water resources and water quality investigations, environmental site assessments, hazardous waste management, site remediation, RCRA permitting.

Mineral resource evaluation, governmental and environmental affairs, mineral education programs, project management.

Mining property exploration, valuation, development and mine design.

Geologists

Water supply, soil and groundwater remediation, aquifer projection permits.

Contaminant hydrogeology, water quality, water supply, mine dewatering, acid mine drainage, hydrology of tailings disposal, mine closure hydrology, geology, exploration, and mapping.

Groundwater hydrology, water quality, environmental compliance, erosion and sediment transport.

Aquifer protection permits, water supply, dewatering, groundwater modeling, regulatory permits, drilling fluid technology.

Geologic mapping and map analysis for mineral exploration, field work to follow up recommendations.

Hydrogeologic studies, mine water supply, mine permitting, aquifer protection permits, mine dewatering, contamination studies.

Geology, metallic ore deposits.

Development of groundwater supplies, design and operation of groundwater monitoring programs, design of dewatering programs for open-pit and underground mines, services related to aquifer protection permits, remediation of groundwater and soil.

Mineral exploration, environmental assessment of mineral properties, general geologic and environmental evaluation, expert testimony.

Environmental services, hydrogeology services, geotechnical services, abandoned mine reclamation services.

Environmental studies, permitting, ground and surface water monitoring and modeling, regulation liaison, and contamination cleanup.

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Groundwater resources, water quality, environmental permitting.

Soil and groundwater investigations, superfund sites, aquifer protection permits, facility closures.

Petroleum geology, exploration and development of oil and gas deposits, log and core analysis, seismic interpretation, subsurface map work includes structure, isopach and facies maps, water disposal wells, develop budget estimates.

Quality control, quality assurance services on construction projects, tailings dams, leach pads (HDPE), reclamation projects, project management.

Stratigraphy, sedimentology, sedimentary petrography and environmental geology, specializing in Pima and Cochise Counties, AZ, northwest Sonora, and the northern Gulf of California.

Design and execution or evaluation of programs of mineral exploration, domestic and foreign, involved in C.I.S. countries.

Mining service company, management and evaluation.

Mine geology and environmental geology.

Geochemistry, mine acid control, bioreclamation, hydrogeology.

Environmental protection specialist.

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Economic geology and exploration geochemistry specializing in Mexican exploration services through affiliated company CIA Minera Cascabel S.A. de C.V.

Geotechnical engineering, geomembrane liner design, heap leach design and permitting, tailings disposal design and permitting.

Geology, mineral exploration, mine valuation, geotechnical, education.

Geology, geotechnical investigations, environmental/regulatory compliance.

Remote sensing for exploration and engineering, including digital image analysis, special aerial flights and surface measurements.

Geology, exploration, registered land surveyor, mine, construction, and property surveying.

Mineral exploration.

Technical support for real estate development and ownership transfer, characterization and remediation of contaminated soils and groundwater, water supply development, and mining hydrogeology.

Mining and exploration geologist, mineral property evaluation and management, porphyry Cu-Mo, base and precious metals, uranium, phosphate, other non-metallics.

Development of groundwater supplies, design and operation of groundwater monitoring programs, design of dewatering programs for open-pit and underground mines, services related to aquifer protection permits, remediation of groundwater and soil.

Groundwater hydrology and modeling, environmental geology, mining geology and vulcanology.

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Contract exploration for porphyry copper and bulk low grade gold deposits. Offices in Santiago, Chili and Lima, Peru.

Mining geology, ore reserves, economic evaluation, gold, silver, copper, other metallic deposits, domestic and international.

Geohydrology.

Mine and exploration geology, hydrogeology.

Economic geology, skarn and carbonate-hosted Pb, Zn, Ag, Cu, Au deposits, epithermal veins, mineralogy, geology of Mexico.

Development of groundwater supplies, design and operation of groundwater monitoring programs, design of dewatering programs for open-pit and underground mines, services related to aquifer protection permits, remediation of groundwater and soil.

Mining geology and exploration for metals, evaluation, project management, USA and foreign.

Mineral exploration, mining geology, property evaluation, project management.

Geology, stratigraphy and paleontology, especially of Mesozoic rocks.

Oil exploration, basin analyses, stratigraphy and structure clastic and carbonate reservoirs.

Groundwater monitoring and compliance, groundwater resource evaluation, groundwater control, groundwater remediation design.

Development of groundwater supplies, design and operation of groundwater monitoring programs, design of dewatering programs for open-pit and underground mines, services related to aquifer protection permits, remediation of groundwater and soil.

Geologists

Exploration and development of base and precious metal deposits, foreign and domestic, mineral property evaluation, minerals exploration, program design, implementation and management, permitting and reclamation.

Aquifer protection permitting, aquifer characterization, ground-water resource development.

Economic geology, exploration, property evaluation, economic evaluation, feasibility of underground and open-pit mines and prospects, supervise exploration, development and mining personnel.

Development of groundwater supplies, design and operation of groundwater monitoring programs, design of dewatering programs for open-pit and underground mines, services related to aquifer protection permits, remediation of groundwater and soil.

Exploration and mining geology, project planning/management, prospect/mine evaluation (foreign and domestic).

Geotechnical engineering, foundation investigations, disposal facility design, environmental/APP studies, hydrogeologic investigations, slope stability evaluations.

Environmental site assessments, groundwater monitoring/installation, all phases of exploration and mining geology/production.

Hydrogeology, remediation, permitting, economic geology, environmental investigations.

Engineering and environmental geology.

Environmental geology, geology, geological engineering, hydrology, environmental engineering, mineral surveys.

Mine geology, base and precious metal evaluations, project management, geologic mapping.

Development of groundwater supplies, design and operation of groundwater monitoring programs, design of dewatering programs for open-pit and underground mines, services related to aquifer protection permits, remediation of groundwater and soil.