

Arizona Mining Consultants

by Nyal J. Niemuth, Mining Engineer

Arizona Department of Mines & Mineral Resources

Directory 50

October 2004



State of Arizona
Janet Napolitano, Governor

Phoenix, Arizona

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

Willis D. “Doug” Sawyer, Director

1502 West Washington
Phoenix, Arizona 85007
602-255-3795
Toll-free in Arizona 800-446-4259
www.admmr.state.az.us

Board of Governors

James Miller – Sun Lakes
Chairman

David C. Ridinger – Tucson
Vice Chairman

P.K. Rana Medhi – Casa Grande
Member

Ray Grant – Chandler
Member

Samuel O. Aubrey – Scottsdale
Member

Cover: Gold exploration at the Moss Mine, Mohave County.
Photo courtesy of Patriot Gold Corp.

Table of Contents

Introduction

Assayers 3

Geological Engineers 4

Geologists..... 6

Geophysical Engineer 16

Metallurgical Engineers 17

Mining Engineers 18

Index 20

Introduction

This directory contains a listing of Arizona-registered consultants for the following mining related disciplines: assayers, geological engineers, geologists, geophysical engineers, metallurgical engineers, and mining engineers.

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

Name

Company name, if applicable

Mailing address

Telephone and fax

Website if applicable

E-mail address (listed in printed version only)

Expertise or specialization within the discipline

Criteria for listing:

1. Registered in the State of Arizona
2. An Arizona resident
3. Available to do consultant work for the public

An alphabetic index of all listed consultants 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 who supplied a list of registrants in the various disciplines. Those with a residence in Arizona were contacted to determine if they were available to consult and to provide additional information about their practice.

Information regarding the registration process and the registration status of any individual may be obtained by contacting the Board:

Arizona Board of Technical Registration

1110 W. Washington St., Suite 240

Phoenix, Arizona 85007

Phone: (602) 364-4930

Fax: (602) 364-4931

www.btr.state.az.us

E-mail: info@btr.state.az.us

Assayers

D'avela, Canan

Western American Mineral & Chemical Consultants
185 E. 26th Street, #4
Yuma, AZ 85364
928-783-9308

Assaying

Garcia, Robert G.

3411 W. Angelina Place
Tucson, AZ 85745
520-743-8526
Fax 520-743-8526

Assaying; metallurgical work

Jacobs, Michael G.

Jacobs Assay Office
1435 S. 10th Ave.
Tucson, AZ 85713
520-622-0813
Fax 520-622-3845

Fire assay for gold and silver, base metals, electronic scrap, bullion and metallurgical products; sales of used laboratory equipment; bilingual in Spanish with experience in Mexico and South America

Martin, James

Actlabs, Inc.
1775 W. Saguaro Dr.
Tucson, AZ 85745
520-622-4836
Fax 520-622-6065
www.actlabs.com

Assay and umpire analyses for ores, concentrates and metals using classical wet methods or ICP, depending on the sample matrix and concentration levels

Shah, Dnyanendra A.

Copper State Analytical Lab.
710 E. Evans Blvd.
Tucson, AZ 85713
520-241-4920
Fax 520-219-6838

Mining assays, geochemical exploration assays, fire assay, mine water quality, environmental assessment problems of mine water and soil

Geological Engineers

Cicchini, Paul F.

2475 N. Coyote Drive
Tucson, AZ 85745
520-670-9774
Fax 520-670-9251
www.cnitucson.com

Underground and open-pit rock mechanics; field work and pre-feasibility thru final design; slope engineering and monitoring; mining method selection and optimization

Conover, Dale E.

Arizona American Water Co.
19820 N. 7th St., Suite 201
Phoenix, AZ 85024-1694
623-445-2405
Fax 623-445-2454

Groundwater resource protection and development; environmental consulting

Glass, Charles E.

7860 N. Avenida de Carlotta
Tucson, AZ 85704
520-287-3503
Fax 520-531-8047

Earthquake hazard analysis; dynamic slope stability; debris flow analysis; remote sensing; active fault investigation

Greenslade, William M.

Southwest Groundwater Consultants, Inc.
3900 E. Camelback Rd., Suite 200
Phoenix, AZ 85018-2626
602-955-5547
Fax 602-955-7585
www.sgceground-water.com

Water supply; dewatering; contaminant hydrology

Manera, Paul A.

Manera, Inc
8316 N. 53rd St.
Paradise Valley, AZ 85253-2512
480-948-9818
Fax 480-596-8776

Geological and engineering service pertaining to the location and drilling of water wells; testing of wells and projecting longevity of water supplies

Peck, James

Hydro Geo Chem
6340 E. Thomas Rd, Suite 224
Scottsdale, AZ 85251
480-421-1501
Fax 480-425-8794
www.hgcine.com

Environmental, hydrological, and civil engineering services

Pratt, Rob

Call & Nicholas Inc.
2475 N. Coyote Dr.
Tucson, AZ 85745
520-670-9774
Fax 520-670-9251
www.cnitucson.com

Geotechnical engineering; feasibility studies; open-pit slope angle recommendations; underground rock mechanics and mining method selection; cost-benefit analysis; hydrogeologic design and evaluation; waste dump and tailings dam stability evaluations; site investigation and foundation design for waste dumps, leach pads, and water retention dams; engineering geology; geotechnical instrumentation and blast vibration monitoring

Sawyer, Willis D.

Dept. of Mines & Mineral Resources
1502 W. Washington
Phoenix, AZ 85007
602-255-3795 ext. 25
Fax 602-255-3777
www.admmr.state.az.us

Environmental engineering as part of public duties with Arizona Department of Mines and Mineral Resources

Schnormcier, Russell H.

Russ Encorp
510 Cherrywood Dr.
Chandler, AZ 85248
480-802-0571

Soils

Tripp, Gerald A.

Brazos Geotech
15150 W. Ajo Hwy., #488
Tucson, AZ 85735
520-237-0750
Fax 775-854-6127
www.brazosgeotech.com

Geotechnical soil investigations; environmental site assessments; auger drilling and sampling of soil/tailings; ground-penetrating radar surveys

White, Daniel H.

Physical Resource Engineering, Inc.
4655 N. Flowing Wells Rd.
Tucson, AZ 85705
520-690-1669
Fax 520-690-1769
www.prengr.com

Rock engineering for underground and open pit mines; mine surveying and claim staking; civil and closure design; construction quality control for heap leach and other mine facilities; mining feasibility studies

Geological Engineers

Winters, Harry J. Jr.

Winters, Dorsey & Company, LLC
2845 N. Santa Ynez Place
Tucson, AZ 85715
520-722-5600
Fax 520-722-5623

**Mine and prospect valuation; ore reserves; mine planning;
underground and open pit; feasibility studies; mine taxation; mine
finance**

Wythes, Thomas

Golder Associates Inc.
4730 N. Oracle Rd. #210
Tucson, AZ 85705
520-888-8818
Fax 520-888-8817
www.golder.com

**Conceptual through final design for tailings, heap leach, waste rock,
open pit, underground, mine infrastructure, foundation facilities;
characterization and remediation of contaminated soils;
groundwater supply studies; groundwater contamination and
monitoring**

Geologists

Alter, Michael

Clear Creek Associates
221 N. Court Ave., Suite 101
Tucson, AZ 85701
520-622-3222
Fax 520-622-4040
www.clearcreekassociates.com
Environmental permitting; water resources and water supply development

Arnold, L. Clark

L. Clark Arnold Consulting Geologist
201 East Rudasill Road
Tucson, AZ 85704-6024
520 742-0991
Fax 520-742-0991
Mineral exploration and development

Bain, Jim

Bain Geological Services
16647 S. 15th St.,
Phoenix, AZ 85048
480-460-8413
Environmental geology; soil and groundwater impact assessment and remediation; stratigraphic analysis; basin analyses; regulatory coordination

Bartlett, R. Douglas

Clear Creek Associates
2150 E. Highland Ave., Suite 201
Phoenix, AZ 85016
602-294-9601
Fax 602-294-9700
www.clearcreekassociates.com
Environmental regulatory support; water supply investigations; well design and installations; groundwater modeling

Beck, Brian A

Beck Environmental and Remediation, Ltd.
5301 S. Superstition Mountain Dr.
Suite A104-PMB 469
Gold Canyon, AZ 85218
480-671-1365
Fax 480-983-1558
Mineral assessment; geologic mapping; environmental assessments; environmental investigations for permitting; groundwater evaluations and monitoring, and reports for ongoing environmental permit requirements

Bender, Gary

Bender Environmental Consulting, Inc.
1929 E. Myrna Lane
Tempe, AZ 85284
480-345-2448
Fax 480-345-2474
Aquifer Protection Permits; hazardous waste characterization and dispersal; Phase I and Phase II ESA; environmental sampling and analysis; groundwater sampling

Bender, Gary A.

Bender Environmental Consulting, Inc.
1919 E. Myrna Lane
Tempe, AZ 85284
480-345-2448
Fax 480-345-2474
Environmental assessments, permitting, and cleanups; Phase I and Phase II assessments, hazardous waste characterization and disposal; geologic mapping and sampling

Blust, Kurt

Haley & Aldrich, Inc
326 South Wilmot, Suite A200
Tucson, AZ 85711-4090
520.326.1868
Fax: 520.747.3491
haleyaldrich.com
Environmental and geotechnical services, including due diligence, site assessment; remediation including contaminated site redevelopment, regulatory compliance, negotiation and strategy development; develop water supplies including installation of high capacity wellfields, water rights evaluations and permitting

Bowen, Roberta A.

Hydrologic Consultants, LLC
305 E. Minton Drive
Tempe, AZ 85282
480-831-1402
Groundwater hydrology; design and installation of monitor and supply wells; develop groundwater flow and contaminant transport modeling

Brooks, Christopher J.

Haley & Aldrich, Inc
326 S. Wilmot Rd., Suite A200
Tucson, AZ 85711
520-239-3021
Fax 520-747-3491
www.haleyaldrich.com
Aquifer protection permitting; water supply; pit dewatering

Brose, Richard J.

Four Corners Environmental, Inc.
960 N. Sinagua Heights Dr.
Flagstaff, AZ 86004
928-714-9374
www.fourcornersenv.com
Abandoned mine reclamation and site rehabilitation; turnkey exploration, design and construction services

Burt, Donald

Donald M. Burt
518 E. Geneva Dr.,
Tempe, AZ 85282-3733
480-967-6183
Fax 480-965-8102
General geology, mineralogy, crystal chemistry, petrology and geochemistry applied to exploration, mining, and remediation; skarn deposits and deposits of lithophile metals (Li, Be, Sn, W, Ta, Nb, U, Th, REE, etc.).

Geologists

Caddy, Eric

Dominion Environmental Consultants
7330 N. 16th St., Ste B-101
Phoenix, AZ 85020
602-943-0051
Fax 602-943-0553
www.dominionenv.net

Mine permitting; drilling sampling; geologic mapping

Carr, Dave

Clear Creek Associates
6155 E. Indian School Road, Suite 200
Scottsdale, AZ 85251
602-659-7131
Fax 602-659-7143
www.clearcreekassociates.com

Hydrogeology, hydrogeologic investigations of alluvial and fractured bedrock aquifers; well design, installation and testing; groundwater permitting; groundwater modeling; coal geology

Conover, Dale E.

Arizona American Water Co.
19820 N. 7th St., Suite 201
Phoenix, AZ 85024-1694
623-445-2405
Fax 623-445-2454

Groundwater resource protection and development; environmental consulting

Corn, Russell M.

8425 Desert Steppes Dr.
Tucson, AZ 85710
520-298-1770

Exploration; porphyry copper deposits

Courtney, Christopher J.

URS Corporation
7720 N. 16th St, Ste 100
Phoenix, AZ 85020
602-371-1100
Fax 602-371-1615
www.urscorp.com

Well siting studies; well permitting; groundwater modeling and physical availability demonstrations; well design, drilling and construction oversight

Cuddy, Alan S.

Haley & Aldrich, Inc.
326 S. Wilmot Rd., A200
Tucson, AZ 85711
520-326-1898
Fax 520-747-3491
www.haleyaldrich.com

Hydrology services including water supply development, environmental permitting, water rights, groundwater modeling, dewatering and monitoring

Davis, James S.

1645 W. Camino de Maximillian
Tucson, AZ 85704
520-881-4912
Fax 520-881-1609
www.elmontgomery.com

Groundwater investigations including: environmental compliance and Remediation; environmental permitting services; water supply development; groundwater monitoring; wellfield operation and maintenance; soil contamination; artificial groundwater recharge; groundwater modeling.

Dozer, Gregory J.

Four Corners Environmental, Inc.
10030 N. 49th Lane
Glendale, AZ 85302
623-931-2211
Fax 623-931-2202

Environmental consulting; mine closure contracting

Eyde, Daniel T.

GSA Resources, Inc.
7660 N. Business Park Dr.
Tucson, AZ 85743
520-744-8845
Fax 520-744-7770
www.gsaresources.com

Acquisition, development and marketing of specialty industrial mineral products

Eyde, Ted H.

Gadsen Sonora Holdings, LLC
1235 E. Moonridge Rd.
Tucson, AZ 85718
520-572-2471
Fax 520-247-7156

Exploration, production and managing of industrial minerals; specialist in CaCO₃ deposits, zeolites and specialty clays, saponite, hectorite, bentonite (smectites); also gold/silver, platinum scam investigation

Fuller, Jonathan

JE Fuller Hydrology & Geomorphology, Inc.
8400 S. Kyrene Rd, Suite 201
Tempe, AZ 85284
480-752-2124, x17
Fax 480-839-2193
www.jefuller.com

Applied fluvial geomorphology; erosion and sedimentation; flood warning; hydrologic modeling; floodplain delineation; drainage design; litigation support; arid land hydrology

Geologists

Geddis, Alan Michael

Hydro Geo Chem
51 W. Wetmore Rd., Suite 101
Tucson, AZ 85705
520-293-1500 ext. 114
Fax 520-293-1550
www.hgcinc.com

Environmental site investigations; mine reclamation and closure; acid mine drainage; cover design; leaching dynamics; pit lake behavior assessment

Gin, Gary M.

URS Corporation
7720 N. 16th St., Suite 100
Phoenix, AZ 85020
602-371-1100
Fax 602-371-1615

Gold exploration projects; drilling; well installation; site studies and rehabilitation

Greenslade, William M.

Southwest Groundwater Consultants, Inc.
3900 E. Camelback Rd., Suite 200
Phoenix, AZ 85018-2626
602-955-5547
Fax 602-955-7585
www.sgcground-water.com

Water supply; dewatering; contaminant hydrology

Hahman, Dick

Hahman & Associates
3514 E. Elida St.,
Tucson, AZ 85716
520-318-9495
Fax 520-318-9495

Exploration; project manager, base and precious metals, industrial minerals, oil and gas, geothermal energy; expert witness and forensic geology

Hardt, William F.

W.F. Hardt and Associates
7922 E. Presidio Rd.
Tucson, AZ 85750
520-751-9755

Water resources, ground water, water quality, and litigation support

Hartshorne, Patricia M.

SCS Engineers
2410 W. Ruthrauff Rd, ST. 110
Tucson, AZ 85705
520-696-1617
Fax 520-696-1618
www.scsengineers.com

Environmental consulting

Hix, Gary L.

Saguaro Well & Pump Co.
7752 E. Wrightstown Rd., #110
Tucson, AZ 85715
520-290-8775
Fax 520-290-8928
www.saguarowell.com

Water well location, design, drilling, construction pump testing; well rehabilitation; well abandonments; water system design, construction, service and repair

Hoag, Corolla K

SRK Consulting
3275 W. Ina Rd, #115
Tucson, AZ 85741
520-400-4135
Fax 520-544-9853
www.srk.com

Environmental permitting and geological investigations for mine development and closure

Horstman, Kevin C.

620 E. Rimrock Pl.
Tucson, AZ 85704
520-742-1083

Remote sensing for structural geology, lithologic and hydrologic investigations; geological cross sections; report compilations and scientific editing

Karaba, Kenneth

GRC Consultants, Inc.
812 E. Evans Blvd.
Tucson, AZ 85713
520-624-3877
Fax 520-882-3965

Keating, Linus

P.O. Box 16301
Tucson, AZ 85732
520-235-3660

Minerals exploration; property evaluation; precious metals, copper, lead, zinc

Kirchner, David L.

Basin & Range Hydrogeologists, Inc.
6155 East Indian School Road, Suite 100A
Scottsdale, AZ 85251
602-840-3333, ext. 101
Fax 602 840-8011
www.basin-and-range.com

Strategic environmental management, planning and permitting support; groundwater and natural resources assessment; water supply assessment; groundwater sampling and monitoring; well design, supervision of installation and aquifer testing; environmental site assessments; phases I, II, III; risk analysis; site closure; litigation support

Geologists

Knoebl, Emmerich

Talus Earth and Environmental, Inc.
1429 N. Bel Air Dr.
Mesa, AZ 85201
480-464-4444
Fax 480-464-8444
www.talusearth.com

Kopp, Bill

16443 W. Silver Creek Dr.
Surprise, AZ 85374
623-584-5655
Mine hydrology; mineral exploration; mine geology

Langland, Leo

4228 N. 45th St.
Phoenix, AZ 85018
602-840-0468
Geotechnical investigations related to tunnels, roads, hydrology and foundations. Aggregate resource compilations.

Lechner, Michael J.

Resource Modeling, Inc.
1960 W. Muirhead Loop
Tucson, AZ 85737
520-498-4770
Fax 520-219-8190
az-rmi.com
Estimate precious and base metal resources using computerized methods; perform due diligence studies, audit reserves, and perform various mining studies

Leonhart, Leo S.

Hargis and Associates, Inc.
1820 E. River Road, Suite 220
Tucson, AZ 85718
520-881-7300
www.hargis.com
Hydrogeology; engineering, and environmental services, including water resource evaluations, dewatering, water supply, potability and treatment; process engineering; permitting assistance; groundwater modeling; & litigation support/expert witness services.

Lindberg, Paul A.

205 Paramount Dr.
Sedona, AZ 86336
928-282-1247
Detailed structural geology mapping, especially of deformed metallic mineral deposits

Linder, Harold

Harold Linder & Associates, Inc.
1811 W. Dion Dr.
Anthem, AZ 85086
623-551-2593
Property examinations; propose, manage, and carry out exploration programs for precious and base metals

Long, Michael R.

Hargis + Associates, Inc.
1640 S. Stapley Dr., Suite 124
Mesa, AZ 85204
480-345-0888
www.hargis.com
Hydrogeology; engineering, and environmental services, including water resource evaluations, dewatering, water supply, potability and treatment; process engineering; permitting assistance; groundwater modeling; & litigation support/expert witness services.

Lowell, J. David

Lowell Mineral Exploration LLC
789 Av Beatriz
Rio Rico, AZ 85648
520-281-8271
Fax 520-281-7019
Mineral exploration and development of porphyry copper deposits; discovery and first stage development manager

Manera, Paul A.

Manera, Inc.
8316 N. 53rd St.
Paradise Valley, AZ 85253-2512
480-948-9818
Fax 480-596-8776
Geological and engineering service pertaining to the location and drilling of water wells; testing of wells and projecting longevity of water supplies

Maslansky, Steven P.

Maslansky Geoenvironmental, Inc.
8500 Buchanan Dr.
Prescott, AZ 86305
928-776-9680
Fax 928-776-9370
Certified remediation specialist

Means, Eric John

Brown & Caldwell
201 E. Washington, Suite 500
Phoenix, AZ 85004
602-567-3859
Fax 602-567-4001
www.browncaldwall.com
Specializing in construction materials and hard rock mining – feasibility, resource evaluation, permitting; operational assistance, reclamation and closure; experience with of federal, state, and county permitting for new and operating mines in the Southwest

Medhi, P.K. Rana

Minerals Management, International
1002 E. Shadow Ridge Road
Casa Grande, AZ 85222
520-426-3650
Fax 520-426-0406
Mineral economics; mine management; business development; appraisals – mineral projects risk analysis; technical guidance for reporting mineral operations and projects to the U.S. SEC and for Canadian National Instrument NI-43-101 standards

Geologists

Megaw, Peter K. M.

IMDEX, Inc.
5800 N. Camino Escalante
Tucson, AZ 85718
520-529-2231
Fax 520-795-3955
www.imdex.com

All phases of precious and base metals exploration, Mexico and Latin America

Meglioli, Andres

AIG Consultants
2929 N. Central Ave, Suite 1800
Phoenix, AZ 85012
602-515-2116
Fax 602-880-1917

Mining reclamation; financial risk assessment for the mining and environmental industry

Merrifield, George T. Jr.

Fluid Solutions
1121 E. Missouri Ave., #100
Phoenix, AZ 85014
602-274-6725
Fax 602-274-6773

Subsurface mapping and correlation; structural interpretations; geophysical interpretations; groundwater modeling; water rights; well log interpretations and well drilling; coring oversight and interpretations

Messer, Andrew A.

URS Corporation
333 E. Wetmore
Tucson, AZ 85705
520-407-2844
Fax 520-887-8438
www.urscorp.com

Water resources/dewatering; soil and water monitoring, modeling, and remediation; environmental permitting; mine rehabilitation and closure; waste management; air quality; slope stability; hydrology and hydraulics; leach, waste dump, and tailings design

Metz, Robert

1729 S. Desert Vista Dr.
Tucson, AZ 85748-7549
520-885-2877
Fax 520-885-2877

Exploration, evaluation, project design and management

Miller, Charles P.

Miller Resources, Inc.
7300 N. Leonardo Da Vinci Way
Tucson, AZ 85704-3127
520-297-0224
Fax 520-575-8344

Mineral exploration and mining geology; property evaluation; project management; GIS applications to geology; financial analysis of exploration projects

Miller, Rebecca A.

R.A. Miller, R.G.
933 E. Keim Dr.,
Phoenix, AZ 85014
602-391-3015
Fax 602-264-1663
www.ramillerrg.com

Mineral exploration; geologic mapping; remote sensing; global positioning systems (GPS); geologic characterization, and geochemical analyses; define exploration targets, delineate additional reserves, characterize materials, permit minesites, and provide reclamation and mitigation - remediation controls for proposed, active and abandoned minesites

Mock, Peter A.

Peter Mock Groundwater Consulting, Inc.
5337 E. Camelback Manor Dr.
Paradise Valley, AZ 85253
602-522-0884

Advanced simulations of water and solute movement and compaction of porous and fractured media; presentation of same to regulatory agencies, the public, and technical committee; training of client technical staff in advanced simulated codes

Montgomery, Errol

Errol L. Montgomery & Associates, Inc.
1550 East Prince Road
Tucson, AZ 85719
520-881-4912
Fax 520-881-1609
www.elmontgomery.com

Groundwater exploration and development; water control in mines; water contaminant assessment and remediation; artificial recharge; monitoring; modeling; technical support for litigation; compliance programs for regulatory requirements

More, Syver W.

Syver W. More, R.G., C.P.G. Consulting Geologist
11321 E. Calle Vaqueros
Tucson, AZ 85749-9521
520-749-3665
Fax 520-760-9941

Exploration geologist; program design; permitting; drilling; financial monitoring; field mapping

Morris, Lee

Burgess & Niple, Inc.
5025 E. Washington St., Suite 212
Phoenix, AZ 85034
602-244-8100
Fax 602-244-1915
www.burgessniple.com

Technical and regulatory guidance related to water withdrawal and water rights associated with the surface and underground mining industry; hydrologic analysis of groundwater withdrawals to evaluate aquifer impacts; evaluation of surface water and groundwater interaction; development of water supplies; mine and overburden dewatering design; preparation of aquifer protection permits; geophysical assessments of oil and gas production and mine lands; RCRA and CERCLA site characterization and RI/FS investigations

Geologists

Murphy, Barbara

Clear Creek Associates
6155 E. Indian School Road, Suite 200
Scottsdale, AZ 85251
480-659-7131
Fax 480-659-7143

Environmental permitting; hydrogeology

Murray, Keenan

Arizona State Land Department
1616 W. Adams
Phoenix, AZ 85007
602-542-2688
www.land.state.az.us

Arizona State Trust Land mineral exploration and leasing assistance as part of official duties at Arizona State Land Department

Nations, Jack Dale

Nations Geological Consulting
9721 E. Vista Montanas
Tucson, AZ 85749
520-749-2108
Fax 520-760-4868

Geologic mapping; sedimentary facies analysis; paleontological analysis; structural analysis; resource evaluation, including industrial minerals, stratified mineral deposits, and oil and gas; oil and gas prospect development; geologic hazard evaluation

Norris, James R.

Hydro Geo Chem, Inc.
51 W. Wetmore Rd.
Tucson, AZ 85705
520-293-1500
Fax 520-293-1550
www.hgcine.com

Environmental services

Osterberg, Mark

Mine Mappers, LLC
9221 N. Golden Finch Ave.
Tucson, AZ 85742
520-405-8922
Fax 715-389-1671
www.minemappers.com

Economic geology; permitting; resource evaluation; GIS

Palmer, David P.

URS Corporation
7720 N. 16th St., Suite 100
Phoenix, AZ 85020
602-861-7460
Fax 602-371-1615

Soil and groundwater sampling and analysis; site characterization; surface water sampling and analysis; site remediation; well installation and testing; monitor well installation, development and sampling

Parkinson, Craig L.

Parkinson Geologic Services, Inc.
P.O. Box 25701
Scottsdale, AZ 85255-0111
480-538-9229
Fax 480-588-9229
www.parkinsongeologic.com

Mining; geology; hydrogeology; hydrology; mineral property valuation; environmental

Perry, Albert S.

4481 N. Camino Gacela
Tucson, AZ 85718
520-577-8036
Fax 520-577-8120

Mineral deposits, Africa

Phillips, Larry

Innovative Technical Solutions, Inc.
960 W. Elliot Rd., Suite 108
Tempe, AZ 85284
480-706-6488
Fax 480-704-2952
www.itsi.com

Environmental consulting; mining construction; permitting; hydrogeochemical investigations, wastewater; reclamation and closure

Plazak, Dan

Conestoga-Rovers & Associates
4050 E. Cotton Center Blvd., Suite 49
Phoenix, AZ 85040
602-749-9400
Fax 602-749-9500
www.craworld.com

Characterization of potential contaminant releases to surface water and ground water from mining, concentration, smelting, and mining-related wastes; uranium, industrial minerals, aggregate, and base and precious metals; mineral exploration; mining

Polman, George V.

Polman Environmental, Inc.
P.O. Box 93276
Phoenix, AZ 85070
480-283-1958

Removal and installation of above- and underground storage tanks; soil and groundwater sampling investigations; soil remediation; installation of ground-water monitoring wells; installation of vapor extraction wells; environmental site assessments (Phase I); asbestos operations, maintenance plans and sampling investigations; fluorescent mineral expertise

Potucek, Tony L.

Tony L. Potucek
3701 Country Club Dr.
Show Low, AZ 85901
928-532-0984
Fax 928-536-9441

Sampling, drilling, mapping; property evaluation; extraction; environmental compliance and regulatory issues

Geologists

Raugust, Jon Steven

MWH Americas, Inc.
4820 S. Mill
Tempe, AZ 85282
480-755-8201
Fax 480-755-8203
www.mwhglobal.com

Geology and hydrology; MS degree in mining engineering (geotechnical option)

Richards, Alexander Moreno

10432 E. Raintree Dr.
Scottsdale, AZ 85255
480-473-7128 or
602-663-0724

Exploration; drilling; well installations; sampling and analysis; ore/mineral content analysis; surface mapping; geophysical surveys; environmental analysis and engineering

Rogers, Samuel H. III

3832 E. Glenrosa
Phoenix, AZ 85018
602-912-9868

Aquifer protection and solid waste permitting

Roripaugh, Ray L.

1308 W. Thurber Pl.
Tucson, AZ 85705-3117
520-888-2289

Project management; underground mapping and surveying; geochemical programs and topographical surveys; Latin American projects

Rosko, Michael J.

E. L. Montgomery & Associates, Inc.
1550 E. Prince Rd.
Tucson, AZ 85719
520-881-4912
Fax 520-881-1609
www.elmontgomery.com

Hydrological and geological consulting services, including groundwater exploration and development; wellfield management and monitoring; artificial groundwater recharge; contaminant assessment and remediation; water quality compliance; flow and solute transport modeling; litigation support and expert witness testimony; satellite image analysis and GIS support

Ross, Donald E.

Ross Consulting
2226 E. Sunnyside Dr.
Phoenix, AZ 85028
602-992-0758
Fax 602-482-3220
www.mineralappraisal.com

Certified appraisal of mines and quarries; expert testimony for geological, mining, and appraisal issues

Roxlo, Katherine

TRC
7702 E. Doubletree Ranch Rd, Ste 300
Scottsdale, AZ 85258
480-902-3444
Fax 480-902-3445
trcsolutions.com

Mineral exploration; mine development, operation and closure support; environmental permitting; remediation; closure

Sagstad, Steven

Malcolm Pirnie, Inc.
4646 E. Van Buren St., Suite 400
Phoenix, AZ 85008
602-241-1770
Fax 602-231-0131
www.pirnie.com

Site exploration; groundwater development and monitoring; hydrogeologic investigations; air permitting; APP permitting, NPDES permitting; water treatment; water planning

Sanders, Charles M. "Mike"

Higgins and Associates, LLC
537 S. 48th St. Ste 104
Tempe, AZ 85281-2319
480-557-0404
Fax 480-557-9336

Environmental consulting; groundwater/surface water investigation and remediation; stormwater plans; spill containment control and countermeasure plans (SPCC); air quality sampling and consulting services; health and safety services; mine closure and monitoring; abandoned mine closure and hazard abatement

Schwab, Karen

URS Corporation
7720 N. 16th Street, Suite 100
Phoenix, AZ 85282
602-861-7424
Fax 602-371-1615
www.urscorp.com

Groundwater resources investigations; environmental permitting; groundwater sampling and monitoring

Scoular, Keith W.

Archaeological Consulting Services, Ltd.
424 W. Broadway Rd.
Tempe, AZ 85282-1339
480-894-5477
Fax 480-894-5478
www.acstempe.com

Provides complete NEPA, archaeological, biological, GIS and other environmental-related services relative to mining exploration and mine expansion; Access permits, GIS and other database services

Geologists

Small, Gary G.

HydroSystems, Inc.
1220 S. Park Lane, Suite 5
Tempe, AZ 85281
480-517-9050
Fax 480-517-9049
www.hydrosystems-inc.com

Dewatering; water supply evaluation; permitting, water quality analysis, groundwater flow modeling, geophysical logging interpretation; geochemical modeling, soil characterization; well rehabilitation and abandonment; surface water hydrologic studies

Smith, Michael R.

Nazca Engineering & Mining, LLC
51355 N. 295th Ave.
Wickenburg, AZ 85390
928-684-1411
Fax 928-684-1411

Mineral exploration; mine development; mining operations in base and precious metals; industrial minerals; engineering geology; foreign and domestic

Smith, Stephen A.

Smith Consultants
1050 E. Southern Ave., #1
Tempe, AZ 85282
480-829-6861
Fax 480-517-0509

Hydrogeology, groundwater permitting

Strength, Dana

URS Corporation
333 E. Wetmore
Tucson, AZ 85705
520-407-2857
Fax 520-887-8438
www.urscorp.com

Water resources/dewatering; soil and water monitoring, modeling, and remediation; environmental permitting; mine rehabilitation and closure; waste management; air quality; slope stability; hydrology and hydraulics; leach, waste dump, and tailings design

Sutherland, Steven

Burgess & Niple
5025 E. Washington St., Suite 212
Phoenix, AZ 85034
602-244-8100
Fax 602-244-1915
www.burgessniple.com

Thompson, John Robert, Jr.

4319 W. Larkspur
Glendale, AZ 85304
602-938-9550

Titley, Spencer R.

Dept. of Geosciences,
University of Arizona, Gould Simpson Bldg.
Tucson, AZ 85715
W 520-621-6018
H 520-298-8205

Mining and exploration geology education; project geology, development and exploration

Tosline, Deborah J.

2710 E. Florence Dr.
Tucson, AZ 85716
520-906-6492
Fax 520-323-7108

Geologic and hydrogeologic investigations, interpretation of environmental laws and regulations and ensuring regulatory compliance; development and implementation of ISO 14001 Environmental Management System

Travers, Bruce C.

Geomatrix Consultants, Inc.
8777 E. Via de Ventura, Suite 375
Scottsdale, AZ 85258
480-348-1244
Fax 480-348-1245
www.geomatrix.com

Groundwater quality; reclamation plans, reserves, slope stability; dewatering; water balance; geologic/geotechnical studies; mine waste rock; tailings; acid-rock drainage; engineering controls; remedial actions; community relations; regulatory negotiations

Truebe, Henry

Alp Ex, LLC
3113 E. Table Mountain Rd.
Tucson, AZ 85718-1323
520-577-9494
Fax 520-577-9479
www.alpex.info

Geologic mapping from aerial photography and satellite imagery; economic geology; metals exploration

Tuner, Terry M.

953 E. Gila Lane
Chandler, AZ 85225
480-963-7250

Hydrology; water resources investigation, environmental permitting; aquifer protection permits

Uhlman, Kristine

6160 N. Calle Platina
Tucson, AZ 85704
520-219-0840
Fax 520-219-0840

Mine site dewatering; gradient control; model simulations with MODFLOW; acid-rock drainage (ARD); litigation support and expert witness testimony on ARD; fractured flow and contaminant transport

Geologists

Vega, Luis

Del Rayo International, Inc.
P.O. Box 4045
Kingman, AZ 86402-4045
928-753-8324

Base and precious metals exploration including generative exploration using satellite images, field reconnaissance and advanced project supervision, Latin America

Victor, William R.

Errol L. Montgomery & Associates, Inc.
7949 E. Acoma Dr., Suite 100
Scottsdale, AZ 85260
480-948-7747
Fax 480-948-8737
www.elmontgomery.com

Evaluation of groundwater and surface water conditions at mining, industrial and urban sites; development and management of water resources; groundwater recharge; water adequacy and assured water supplies; remedial design and remedial actions; expert testimony

Wahl, David E., Jr.

1756 E. Enrose St.
Mesa, AZ 85203
480-946-0559
Fax 480-949-6615

Mineral exploration and evaluation; permitting

Ward, John J.

John J. Ward, R. G.,
Groundwater Consultant
3307 E. Elida
Tucson, AZ 85716
520-490-2435
www.wardgroundwater.com

Groundwater investigations; qualified court expert; water supply; dewatering; aqueous chemistry

Weber, Daniel S.

Errol L. Montgomery & Associates, Inc.
1550 E. Prince Rd.
Tucson, AZ 85719
520-881-4912
Fax 520-881-1609
www.elmontgomery.com

Mining; hydrology

Weeks, Ralph E.

AMEC Earth & Environment
1405 W. Auto Dr.
Tempe, AZ 85384
480-940-2320
Fax 480-785-0970

Design, operation and closure of mining facilities; site selection studies; hydrogeologic evaluation of tailing, leach pad and waste rock sites' environmental permitting and closure planning of new and expanding mining operations; geotechnical site characterization; sludge retention ponds, sites impacted by heavy metals; in-situ copper leaching projects

Weiland, Erick F.

Terra Technology
5531 East Kelso St.
Tucson, AZ 85712
520-296-5940
Fax 520-546-8001
www.terra-technology.com

Geological and geochemical investigations for mineral exploration, mining development, mine permitting, and mine closure; groundwater supply investigations, surface water protection; environmental permitting, hazardous waste/environmental impact investigations and clean-up; computer applications for mining, mineral exploration

Weitzman, Morley J.

MW Associates, MACTEC Engineering
4901 N. Ava de la Colina
Tucson, AZ 85749
520-760-0777
www.mactec.com

3D groundwater flow predictions of groundwater seepage; simulated water flow

Wellendorf, William

Southwest Ground-water Consultants, Inc.
227 North Cortez St.
Prescott, AZ 86301
928-771-0610
Fax 928-771-0748
www.sgcground-water.com

Hydrogeology

White, Don C.

521 E. Willis St.
Prescott, AZ 85301
928-770-3140
Fax 928-778-3140

Exploration geologist with experience in all metals, some non-metals and industrial minerals

Whitler, Ronald R.

Miller Brooks Environmental, Inc.
202 E. Earll Dr., Suite 470
Phoenix, AZ 85012
602-728-0577
Fax 602-728-0585

Environmental geology; engineering geology; remediation; groundwater investigations

Wickersham, Ginia

Chaparral Consultants Inc.
Scottsdale, AZ 85258
480-860-8938

Hydrologic investigations; geological investigations; geophysical surveying; environmental compliance

Geologists

Wilson, Eric

Errol L. Montgomery & Associates, Inc.
1550 East Prince Road
Tucson, AZ 85719
520-881-4912
Fax 520-881-1609
www.elmontgomery.com

Hydrogeology

Wright, Alan

Alan Wright Consulting
18008 N 53rd Place
Scottsdale, AZ 85254
602 485 9129

Research; field investigations; mapping, sampling, and project management; international experience

Geophysical Engineer

Manera, Paul A.

Manera, Inc

8316 N. 53rd St.

Paradise Valley, AZ 85253-2512

480-948-9818

Fax 480-596-8776

Geological and engineering service pertaining to the location and drilling of water wells; testing of wells and projecting longevity of water supplies

Metallurgical Engineers

Geiger, Gordon

University of Arizona
5340 E. Placita Casa Rio
Tucson, AZ 85718
520-529-6223

Extractive metallurgy and economics; financial analysis of projects

Hanks, Jerry T.

Jerry T. Hanks, P.E.
7307 W. Mesquite River Dr.
Tucson, AZ 85743
520-579-9729
Fax 520-293-8349

Exploration support; due diligence; test programs; feasibility studies; plant and process design; project management

Henderson, Thomas D. Jr.

Henderson Consulting
1145 N. Camino Miraflores
Tucson, AZ 85745-1612
520-743-0916

Metallurgical testing; plant design and process evaluation

Keane, Joseph M.

Metcon Research Inc.
7701 N. Business Park Dr.
Tucson, AZ 85743
520-579-8315
Fax 520-579-7045
www.metconresearch.com

Metallurgical testing; mineral processing; flow sheet development

McGrew, Kent J.

Senate Metallurgical Inc.
26250 S. Ghostown Rd.
Congress, AZ 85332
928-427-3800
Fax 928-427-3900

Process engineering; water treatment; mine closure

Nass, Daniel E.

Arizona Public Service Company
400 N. 5th St.,
Phoenix, AZ 85004
Mail Station 8983
602-250-4517
Fax 602-250-4340

Metallurgical examinations, evaluations, and assessments of condition and failure analyses

Ramachandran, V. "Ram"

Ram Consultants
9650 E. Peregrine Pl.
Scottsdale, AZ 85262
480-575-1352
Fax 480-575-5449

Consulting services in the area of extractive metallurgy – copper, zinc, lead, selenium, tellurium and precious metals; specialization in waste water treatment including design and commissioning

Roman, Ronald J.

Leach, Inc.
4741 N. Placita de Sol
Tucson, AZ 85749
520-749-0474
Fax 520-749-0474
<http://members.aol.com/leachinc>

Design, evaluation of copper heap leaching operations; laboratory testing of copper ores; interpretation and scale-up of column test results; software for heap leach simulation

Mining Engineers

Bissett, Alex

1092 E. Ashbrook Dr
Oro Valley, AZ 85737
520-825-7763
Fax 520-818-6525

Mine management; financial evaluations, expert testimony

Boggero, Antonio

3721 N. Cherry Ave.
Tucson, AZ 85719-1451
520-795-8604
Fax 520-795-1472

Feasibility mine design; underground exploration, development and mine operation, applying innovative mining methods

Brost, Fred B.

Mining & Environmental Consultants, Inc.
9314 W. Willowbrook Dr.,
Sun City, AZ 85373
623-376-6435
Fax 623-376-6435
www.miningengineering.com

Mine evaluation, development and permitting; mineral development reports, plans of operations, reclamation plans, air and water quality, Section 402 and 404 permits, ADOT materials certifications

Deming, Dale A.

7860 N. John Hancock Avenue
Tucson, AZ 85741
520-544-0497
520-544-0747

Environmental permitting; environmental compliance; waste management; environmental audits; reclamation, closure, and decommissioning; business planning

Dowis, John E.

J. E. Dowis & Associates
15238 W. Crocus Dr.
Surprise, AZ 85379
623-584-0125

Project scoping, small or large capacity; cash flow analysis; matching mining methods to ground conditions and cost evaluation, including preliminary metallurgical/mineral processing for exploration target assessment

Drielick, Thomas L.

M3 Engineering & Technology Corp.
2440 W. Ruthrauff Road
Tucson, AZ 85705
520-293-1488
Fax 520-293-8349

Grundstedt, Henry G.

Resource Associates
7569 S. Eliot Ln.
Tucson, AZ 85247
520-647-7088
Fax 520-647-7083

Financial aspects of the discipline; financial evaluations

Himebaugh, Arthur E.

4465 E. Via Los Caballos
Phoenix, AZ 85028-6139
480-991-1146

Mining engineering

Iasillo, Eugenio

KD Engineering Co.
7701 N. Business Park Dr.
Tucson AZ 85743
520-579-8315
Fax 520-579-8686
www.kdnegco.com

Engineering design services for metallurgical, industrial and mineral processing plants; procurement, construction management, operations and process engineering design

Leech, William D.

Underground Plus Construction Services, Inc.
16605 E. Palisades Blvd., Suite 124
Scottsdale, AZ 85268-3716
480-837-2335
Fax 480-837-2527
www.undergroundplus.com

Underground construction; civil and mine engineering and management; hard rock and soft ground tunnels; deep and shallow shafts; mine development

Marek, John M.

Independent Mining Consultants, Inc.
2700 E. Executive Dr., Ste 140
Tucson, AZ 85706
520-294-9861
Fax 520-294-9865
www.imctucson.com

Mine engineering; ore reserves; feasibility studies

Matt, James

1009 W. Wagon Wheel Dr.
Phoenix, AZ 85021
602-216-9844

Permitting; mining engineering

McKinstry, Bruce

3811 E. St. Catherine Ave.
Phoenix, AZ 85042
602-820-5853

Certified MSHA trainer; contracts review; shaft sinking and underground construction; fluent in Spanish; offshore work experience

Milne, Steve L.

Milne & Assoc., Inc.
1651 Calle El Cid
Tucson, AZ 85718
520-297-1291
Fax 520-297-1291

Mine evaluations, equipment, reserves

Mining Engineers

Singh, Madan M.

Engineers International, Inc.
12457 E. Cochise Drive
Scottsdale, AZ 85259-5226
480-451-4295
Fax 480-451-4236

**Mining engineering; rock mechanics, geotechnical engineering;
sustainable development, mine economics; appraisals**

Summers, David M.

Bisbee Engineering
P.O. Box 1555
Bisbee, AZ 85603
520-432-4085

Consulting on mineral property examination and/or exploitation

Tilley, Bill

AMEC
2001 W. Camelback Rd., Ste 300
Phoenix, AZ 85015
602-343-2410
Fax 602-343-2499
www.amec.com

Engineering and economic evaluation for the mining industry

Index

Alter, Michael, Geologist.....	6	Leonhart, Leo S., Geologist.....	9
Arnold, L. Clark, Geologist.....	6	Lindberg, Paul A. , Geologist.....	9
Bain, Jim, Geologist.....	6	Linder, Harold, Geologist.....	9
Bartlett, R. Douglas, Geologist.....	6	Long, Michael R., Geologist.....	9
Beck, Brian A, Geologist.....	6	Lowell, J. David, Geologist.....	9
Bender, Gary A., Geologist.....	6	Manera, Paul A. , Geologist.....	9
Bender, Gary, Geologist.....	6	Manera, Paul A., Geological Engineer.....	4
Bissett, Alex, Mining Engineer.....	18	Manera, Paul A., Geophysical Engineer.....	16
Blust, Kurt, Geologist.....	6	Marek, John M., Mining Engineer.....	18
Boggero, Antonio, Mining Engineer.....	18	Martin, James, Assayer.....	3
Bowen, Roberta A., Geologist.....	6	Maslansky, Steven P., Geologist.....	9
Brooks, Christopher J., Geologist.....	6	Matt, James, Mining Engineer.....	18
Brose, Richard J., Geologist.....	6	McGrew, Kent J., Metallurgical Engineer.....	17
Brost, Fred B., Mining Engineer.....	18	McKinstry, Bruce, Mining Engineer.....	18
Burt, Donald, Geologist.....	6	Means, Eric John, Geologist.....	9
Caddy, Eric , Geologist.....	7	Medhi, P.K. Rana, Geologist.....	9
Carr, Dave, Geologist.....	7	Megaw, Peter K. M., Geologist.....	10
Cicchini, Paul F., Geological Engineer.....	4	Meglioli, Andres, Geologist.....	10
Conover, Dale E. , Geological Engineer.....	4	Merrifield, George T. Jr., Geologist.....	10
Conover, Dale E. , Geologist.....	7	Messer, Andrew A., Geologist.....	10
Corn, Russell M., Geologist.....	7	Metz, Robert, Geologist.....	10
Courtney, Christopher J., Geologist.....	7	Miller, Charles P. , Geologist.....	10
Cuddy, Alan S., Geologist.....	7	Miller, Rebecca A., Geologist.....	10
D'avela, Canan, Assayer.....	3	Milne, Steve L., Mining Engineer.....	18
Davis, James S., Geologist.....	7	Mock, Peter A., Geologist.....	10
Deming, Dale A., Mining Engineer.....	18	Montgomery, Errol, Geologist.....	10
Dowis, John E., Mining Engineer.....	18	More, Syver W., Geologist.....	10
Dozer, Gregory J., Geologist.....	7	Morris, Lee, Geologist.....	10
Drielick, Thomas L., Mining Engineer.....	18	Murphy, Barbara, Geologist.....	11
Eyde, Daniel T., Geologist.....	7	Murray, Keenan, Geologist.....	11
Eyde, Ted H. , Geologist.....	7	Nass, Daniel E. , Metallurgical Engineer.....	17
Fuller, Jonathan, Geologist.....	7	Nations, Jack Dale, Geologist.....	11
Garcia, Robert G. , Assayer.....	3	Norris, James R., Geologist.....	11
Geddis, Alan Michael, Geologist.....	8	Osterberg, Mark, Geologist.....	11
Geiger, Gordon, Metallurgical Engineer.....	17	Palmer, David P., Geologist.....	11
Gin, Gary M., Geologist.....	8	Parkinson, Craig L., Geologist.....	11
Glass, Charles E. , Geological Engineer.....	4	Peck, James, Geological Engineer.....	4
Greenslade, William M. , Geological Engineer.....	4	Perry, Albert S., Geologist.....	11
Greenslade, William M. , Geologist.....	8	Phillips, Larry, Geologist.....	11
Grundstedt, Henry G. , Mining Engineer.....	18	Plazak, Dan , Geologist.....	11
Hahman, Dick, Geologist.....	8	Polman, George V., Geologist.....	11
Hanks, Jerry T., Metallurgical Engineer.....	17	Potucek, Tony L., Geologist.....	11
Hardt, William F., Geologist.....	8	Pratt, Rob, Geological Engineer.....	4
Hartshorne, Patricia M., Geologist.....	8	Ramachandran, V. "Ram", Metallurgical Engineer.....	17
Henderson, Thomas D. Jr., Metallurgical Engineer.....	17	Raugust, Jon Steven, Geologist.....	12
Himebaugh, Arthur E., Mining Engineer.....	18	Richards, Alexander Moreno, Geologist.....	12
Hix, Gary L., Geologist.....	8	Rogers, Samuel H. III, Geologist.....	12
Hoag, Corolla K, Geologist.....	8	Roman, Ronald J., Metallurgical Engineer.....	17
Horstman, Kevin C. , Geologist.....	8	Roripaugh, Ray L., Geologist.....	12
Iasillo, Eugenio, Mining Engineer.....	18	Rosko, Michael J. , Geologist.....	12
Jacobs, Michael G., Assayer.....	3	Ross, Donald E., Geologist.....	12
Karaba, Kenneth, Geologist.....	8	Roxlo, Katherine, Geologist.....	12
Keane, Joseph M., Metallurgical Engineer.....	17	Sagstad, Steven, Geologist.....	12
Keating, Linus, Geologist.....	8	Sanders, Charles M. "Mike", Geologist.....	12
Kirchner, David L., Geologist.....	8	Sawyer, Willis D., Geological Engineer.....	4
Knoebel, Emmerich, Geologist.....	9	Schnormcier, Russell H. , Geological Engineer.....	4
Kopp, Bill, Geologist.....	9	Schwab, Karen, Geologist.....	12
Langland, Leo, Geologist.....	9	Scoular, Keith W., Geologist.....	12
Lechner, Michael J., Geologist.....	9	Shah, Dnyanendra A., Assayer.....	3
Leech, William D., Mining Engineer.....	18	Singh, Madan M., Mining Engineer.....	19

Index

Small, Gary G., Geologist.....	13
Smith, Michael R., Geologist.....	13
Smith, Stephen A., Geologist.....	13
Strength, Dana, Geologist.....	13
Summers, David M., Mining Engineer	19
Sutherland, Steven, Geologist.....	13
Thompson, John Robert, Jr., Geologist.....	13
Tilley, Bill, Mining Engineer.....	19
Titley, Spencer R., Geologist.....	13
Tosline, Deborah J., Geologist.....	13
Travers, Bruce C., Geologist	13
Tripp, Gerald A. , Geological Engineer	4
Truebe, Henry, Geologist.....	13
Tuner, Terry M., Geologist.....	13
Uhlman, Kristine, Geologist.....	13
Vega, Luis, Geologist	14
Victor, William R. , Geologist.....	14
Wahl, David E., Jr., Geologist	14
Ward, John J., Geologist.....	14
Weber, Daniel S., Geologist	14
Weeks, Ralph E. , Geologist	14
Weiland, Erick F., Geologist	14
Weitzman, Morley J., Geologist	14
Wellendorf, William, Geologist.....	14
White, Daniel H., Geological Engineer	4
White, Don C., Geologist.....	14
Whitler, Ronald R., Geologist	14
Wickersham, Ginia, Geologist.....	14
Wilson, Eric, Geologist.....	15
Winters, Harry J. Jr., Geological Engineer	5
Wright, Alan, Geologist.....	15
Wythes, Thomas, Geological Engineer	5

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 database, 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 database 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 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 publications 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 listing of the Department publications is available upon request or at the Department's website.
- ◆ Operate the Arizona Mining and Mineral Museum.