

# Arizona Mining Consultants

by Nyal J. Niemuth, Mining Engineer

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## 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](http://www.admmr.state.az.us)

## **Board of Governors**

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

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# Introduction

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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](http://www.btr.state.az.us)

E-mail: [info@btr.state.az.us](mailto: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.sgground-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](http://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 CaCO<sub>3</sub> 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](http://www.amec.com)

**Engineering and economic evaluation for the mining industry**

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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 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.