

D-19 (84)

DIRECTORY OF EXPLORATION AND MINERAL DEVELOPMENT IN ARIZONA



ARIZONA DEPARTMENT OF MINERAL RESOURCES

BY MICHAEL N. GREELEY & NYAL J. NIEMUTH

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INTRODUCTION

This directory is the first of what will become an annual series. Its purpose is to briefly discuss the level of exploration activity and to highlight specific properties receiving exploration and/or development during 1982 and 1983. Included are mines which have had intermittent production. It is hoped that this information will attract additional interest in the state's mineral resources.

This directory was compiled in early 1984 from field visits and information received by the department engineers. It is acknowledged that there are additional areas and properties not listed which are in an exploration, evaluation or development phase. It is not the intent of the department to neglect or ignore such properties. Recognizing however that exploration is a rather secretive undertaking and that the department is not a regulatory or taxing authority our data is limited to that obtained by the department field engineers and/or by voluntary submission of information for our mine files.

EXPLORATION

Exploration activity in Arizona appears to have increased significantly during the last few years. Attempting to quantify that statement is, of course, a difficult if not impossible task. Fortunately most activity, whether by large company or the individual prospector, is preceded by the acquiring of mineral rights. Thus, one measure that can be used to estimate exploration activity is property acquisition. The following tables provide information regarding such activity on state and federal lands.

CLAIMS RECORDED IN ARIZONA ^{1/}

<u>Year</u> ^{2/}	<u>New Claims</u>	<u>Accumulative Total</u>	<u>Total Active Claims</u>
1981	26,802	140,095	-
1982	45,867	185,962	-
1983	21,050	207,011	168,657

^{1/} Information from U.S. Bureau of Land Management's Arizona State Office.

^{2/} Based on U.S. Government's fiscal year October 1 thru September 30.

ACTIVITY ON STATE LANDS

<u>Year</u> ^{1/}	<u>Prospecting Permits</u>	<u>Acres</u>
81-82 ^{2/}	1,128	549,119
82-83	784	371,284
83-84 ^{3/}	830	380,000

^{1/} Based on July 1 through June 30 period.

^{2/} Figures for 81-82 are skewed higher by approximately 500 permits and 200,000 acres due to the brief activities of one company.

^{3/} Figures as of 3/84.

Exploration Activity (continued)

ACTIVITY BY COUNTY

<u>County</u>	<u>Claims</u> ^{1/}	<u>Property</u> ^{2/}
Apache	497	1
Cochise	8,029	18
Coconino	16,418	1
Gila	23,031	9
Graham	8,569	6
Greenlee	3,391	3
La Paz	13,113	17
Maricopa	19,331	17
Mohave	59,394	23
Navajo	85	1
Pima	11,159	7
Pinal	20,231	11
Santa Cruz	6,984	12
Yavapai	30,306	38
Yuma	3,507	5
Total	<u>224,045</u>	<u>169</u>

^{1/} Information from U.S. Bureau of Land Management, Arizona Mining Claim Microfiche of 1/17/84. Reported county and total numbers are higher than the actual figures due to computer counting of some claims more than once based on the claim's legal description.

^{2/} Breakdown of properties listed in Property Directory, this publication.

Exploration Activity (continued)

The search for precious metals, particularly gold, dominated activity across the state. In western Arizona a gold rush occurred as the search for "Picacho-type" deposits moved east across the Colorado River. Though the area has long been known to host epithermal and mesothermal gold veins, the unraveling of its complex tectonic history is creating new interest. Attention is also being given to the low-angle thrusts, detachment surfaces, and associated structures similar to those proven to contain mineralized deposits in southeastern California. American Selco, Amoco Minerals, Anaconda, Goldfields, Freeport, Noranda, Newmont, Phelps Dodge, and U.S. Borax are some of the major firms acquiring and evaluating properties in the area.

Other areas receiving concentrated interest for precious metals are the Ash Peak district of Greenlee County, Oro Blanco district of Santa Cruz County, the Tombstone-Pierce area of Cochise County, southern Yavapai and northern Maricopa counties. A variety of deposit types are represented in these areas. Interestingly, the "players" in these areas also seem more varied with "junior" exploration companies, Canadian firms, and individual prospectors dominating activity.

The search for uranium has boomed over the last two to three years and has made a significant impact on the level of exploration activity in the state. This is in sharp contrast to the uranium market and the general health of the nuclear industry. The main target involved has been small but high-grade uranium bearing breccia pipes occurring on the Colorado Plateau. A claim staking rush occurred with Energy Fuels, Pathfinder Mines, and Western Nuclear being the major participants. All together approximately 30,000 claims have been staked north and south of the Grand Canyon in Mohave and Coconino counties. Additional companies have been active in other areas of the state chasing potentially high grade uranium occurrences.

PROPERTY DIRECTORY

Mineral exploration and development in 1982-83 was dominated by search for gold and silver. Of the 169 properties listed herein, over 75% have gold, silver or both listed as the commodity. Some of the other commodities being sought or produced included barite, bentonite, beryl, diatomite, lead, limestone, pozzalon, tungsten, uranium and zeolites. In addition, 5% of the properties listed have had intermittent production of gemstones and mineral specimens.

For the properties listed in this directory we have provided: location by legal description; primary commodity(ies) being sought; name and address of the operator; and a brief description of the activity at the property. A state map with the Gila and Salt River Base and Meridian and other reference points follows the listing for the property location.

For further information on the properties listed here, other properties or any mining related questions contact the department's engineers at the Phoenix or Tucson office.

APACHE COUNTY

PROPERTY	LOCATION	COMMODITY	OPERATOR	ACTIVITY
Cheto No. 1	Sec.6,T21N,R29E	Bentonite	United Catalyst, Inc. P.O. Box 32370 Louisville, KY 40232	Intermittent surface mine. Production capacity approximately 12,000 tpy.

COCONINO COUNTY

PROPERTY	LOCATION	COMMODITY	OPERATOR	ACTIVITY
White Pumice	Sec.24,T23N,R7E	Light weight aggregate, pozzalon	Arizona Tufflite Inc. 7540 N. 67th Ave. Glendale, AZ 85301	Intermittent production.

COCHISE COUNTY

PROPERTY	LOCATION	COMMODITY	OPERATOR	ACTIVITY
Beacon Light	Sec.16,T16S,R19E	Copper & silver	Ruth Compton P.O. Box 522 Pearce, AZ 85625	Large sample taken from dozer cuts and leached.
Blue Jeep	Sec. 35,T17S,R25E	Gold & silver	Santa Fe Mining, Inc. P.O. Box 3588 Albuquerque, NM 87190	Extensive exploration drilling on surface.
C. A. Scott	Sec.10,T15S,R28E	Gold	C. A. Scott P.O. Box 232 Bowie, AZ 85605	Gravity concentration facility installed for placer operation.
Commonwealth	Sec.5,T18S,R25E	Silica flux & silver	Phelps Dodge Corporation 2600 N. Central Ave. Phoenix, Arizona 85004	Intermittent shipping of mill tailings to smelter.
Dean	Sec.23,T18S,R24E	Silica flux	Ruth Compton P.O. Box 522 Pearce, AZ 85625	Three 100-ft rotary holes drilled and sampled.
Dry Hills	Sec.15,T20S,R22E	Silver	Can-American Mining Co. Inc. P.O. Box 130 Tombstone, AZ 85638	Underground mine development. Over 600 feet of new decline and cross-cuts. Crushing and agglomeration plant with cyanide heap leach facility. Intermittent production.
Ellsworth	Sec.16,T24S,R29E	Lead & silver	Frank J. Frankovich East 34 High Drive Spokane, WA 99203	Geologic mapping and evaluation.
Gambasino's Dream	Sec.22,T20S,R22E	Gold	Bill Walker Cochise Ltd. c/o Houston Mining & Resources 3050 S. Post Oak Rd. Suite 1600 Houston, TX 77056	New adit and drift. Heap leach facility constructed. North end of vein mined by surface trench.

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COCHISE COUNTY (Continued)

PROPERTY	LOCATION	COMMODITY	OPERATOR	ACTIVITY
Gold Camp	Sec.33,T19S,R25E	Gold	Les Bowyer B.H. & G. Co. P.O. Box 654 Tombstone, AZ 85638	Gravity concentration facility installed for placer operation.
Golden Horseshoe	Sec.9,T15S,R28E	Gold	Joseph Cooke Cooke Tillage P.O. Box 332 Bowie, AZ 85605	Underground mine development. Some 70 feet of new decline.
Golden Rule	Sec.23,T16S,R23E	Gold, silver & lead	Wayne Lee Gold Fort Mining Co. P.O. Drawer 1980 Benson, AZ 85602	Underground mine. Main inclined shaft rehabilitated and siliceous flux ore produced from first level. Construction of mill and vat-leach facility.
Independence	Sec.14,T20S,R22E	Silver	Gabriel Heday P.O. Box 301 Tombstone, AZ 85638	Chiefly foreign mill tailings shipped onto property and subjected to cyanide leach and Merrill-Crow recovery. Intermittent production.
Little Christmas	Sec.2,T14S,R19E	Gold	Keith Miller 11231 E. Shady Lane Tucson, AZ 85749	Underground mine development. New 100-ft. adit driven and sampled.
March	Sec.12,T20S,R27E	Silver, lead, & zinc	H. William Lyle MPM Mining & Exploration Co. 4651 N. First Ave. Suite 103 Tucson, AZ 85718	Geologic mapping and intermittent underground development.
San Ramon	Sec.6,T18S,R25E	Amethyst	Manuel Hernandez P.O. Box 522 Pearce, AZ 85625	Intermittent production.
Tombstone Extension	Sec.13,T20S,R22E	Silver & lead	William J. Cox, Jr. Three Star Oil Co. 1522 Droxford Lane Houston, TX 77008	Underground mine development. New inclined shaft. Intermittent production.

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COCHISE COUNTY (Continued)

PROPERTY	LOCATION	COMMODITY	OPERATOR	ACTIVITY
Tungsten Reef	Sec.14,T23S,R20E	Gold & silver	Goldsil Resources, Ltd. Academy Place 1, Suite 445 7333 W. Jefferson Ave. Lakewood, CO 80235	Extensive surface sampling and geologic evaluation.
Zebra	Sec.28,T29S,R23E	Silver	Goldsil Resources Ltd. Academy Place 1, Suite 445 7333 W. Jefferson Ave. Lakewood, CO 80235	Surface rotary drilling and geologic evaluation.

GILA COUNTY

PROPERTY	LOCATION	COMMODITY	OPERATOR	ACTIVITY
Bobtail	Sec.1,T2S,R14E	Gold, silver & copper	Don Unrau S & G Mining Co. 1000 Kiewit Plaza Omaha NE 68131	Geologic mapping, sampling, and evaluation.
Carolyn D	Sec.7,T10N,R10E	Gold & silver	James E. Bond, II P.O. Box 948 Welch, WV 24801	Sampling and geologic evaluation.
Defiance	Sec.2,T1N,R15E	Vanadinite specimens	John Mediz Copper City Rock & Gift Shop 566 Ash St. Globe, AZ 85501	Intermittent production.
Lydia	Sec.35,T1S,R14E	Gold & silver	Natasha Greenlee 4148 N. 33rd St. Phoenix, AZ 85018	Ongoing geologic evaluation.
Pioneer	Sec.29,T2S,R15E	Lead, zinc, silver & gold	Pioneer Mining Ltd. 4241 Winfield Scott Plaza Scottsdale, AZ 85251	Geologic report prepared.
79 Mine	Sec.21,T4S,R15E	Copper mineral specimens	John Mediz Copper City Rock & Gift Shop 566 Ash St. Globe, AZ 85501	Intermittent production.
Sunchief Mill	Sec.5,T1S,R16E	Sulfide ores & precious metals	Richard Neslund Sunchief Mines Co. 742 Twelve Oaks Center Wayzata, MN 55391	Mill facility consisting of ball mill, classifier, gravity tables, and flotation unit. Approximate capacity of 200 tpd.
Top Hat	Sec.31,T8N,R12E	Barite	Herb Nordmeyer Costal and Western P.O. Box 217 Knippa, TX 78870	Intermittent production from surface cut. Crushed, screened, and jigged at facility in Payson, AZ.
Zulu	Sec.1,T9N,R9E	Gold	Floyd R. Bleak 4241 Winfield Scott Plaza Scottsdale, AZ 85251	Cyanide heap-leach facility. Intermittent operation.

GRAHAM COUNTY

PROPERTY	LOCATION	COMMODITY	OPERATOR	ACTIVITY
Compensation	Sec.4,T8S,R30E	Silver	Fischer-Watt Mining Co. 114 Tucker, Suite 7 Kingman, AZ 86401	Surface drilling
Crystal Peak	Sec.5,T5S,R20E	Garnet & quartz specimens	Andy Clark P.O. Box 293 Superior, AZ 85273	Intermittent production.
Dorothy B	Sec.21,T6S,R28E	Gold	Ernie Schonert Gila Placers P.O. Box 1033 Safford, AZ 85546	Extensive gravity concentration facility installed for placer operation. Intermittent production at approximately 50 tons per hour.
EZ	Sec.19,T11S,R29E	Zeolite	James Kirchner Union Carbide Corp. P.O. Box 1029 Grand Junction, CO 81502	Surface mine. Periodic stripping and shipping of ore.
Jumping Jack	Sec.15,T6S,R24E	Magnetite	Bill Mullins Pima Mining Co. P.O. Box 741 Pima, AZ 85543	Surface mining of alluvial black sands. Dry magnetic concentration. Operation rated at 20 TPD.
Penny	Sec.12,T9S,R20E	Fire agate	David Penny P.O. Box 320 Pima, AZ 85543	Intermittent production from surface cuts.

GREENLEE COUNTY

PROPERTY	LOCATION	COMMODITY	OPERATOR	ACTIVITY
Cragg	Sec.20,T4S,R29E	Silica flux & silver	Phelps Dodge Corp. Small Mines & Mine Development P.O. Box 151 Safford, AZ 85546	Underground drifting and sampling.
Harrington	Sec.12,T8S,R31E	Diatomite	R. T. Crow American Minerals Industries 1 Lake St. Louis Blvd. Lake St. Louis, MO 63367	Surface geologic mapping, auger drilling and sampling. Air separation facility under construction.
OBW Fry	Sec.9,T3S,R29E	Gold	Clifford Willis O. B. Willis, Inc. 807 Stirrup Dr. Safford, AZ 85546	Surface sampling and metallurgical testing.

LA PAZ COUNTY

PROPERTY	LOCATION	COMMODITY	OPERATOR	ACTIVITY
Black Rock	Sec.10,T4S,R23W	Silver, lead & barite	Gulf & Western Natural Resources Group 1 Commerce Pl. Nashville, TN 37239	Development drilling for surface mine. Milling and metallurgical testing. Approximately 6,000,000 tons defined.
Blaine Millsite	Sec.6,T3S,R23W	Silver & barite	Gerald Smart G. E. Smart & Sons, Inc. 3314 Observatory Ave. Cincinnati, OH 45208	Recovery plant being installed to recover silver from manganiferous tails from Silver Clip mine.
Copperstone	Sec.12,T6N,R20W	Gold	Amoco Minerals P.O. Box 3299 Englewood, CO 80144	Core drilling exploration program.
Doland	Sec.5,T6N,R13W	Gold	Rainbow Mining Co. 3336 N. 32nd St. Phoenix, AZ 85018	Surface mining of vein structures and pilot test of cyanide heap-leach. Core drilling program.
Farrar Gulch	Sec.25,T4N,R21W	Gold	Aztec Resources, Inc. P.O. Box 775 Blythe, CA 98225	Placer operation utilizing two-stage, dry and wet, concentration.
Harquahala	Sec.22,T4N,R13W	Gold & silver	Cave Creek Mining Co. P.O. Box 1598 Cave Creek, AZ 85331	Construction of heap-leach facility. Delineation program of core drilling.
Jackpot	Sec.9,T3N,R18W	Gold	Aztec Resources, Inc. P.O. Box 775 Blythe, CA 98225	Dry placer operation with capacity of 300 yards per hour.
Middle Camp	Sec.28,T4N,R20W	Gold	Aztec Resources, Inc. P.O. Box 775 Blythe, CA 98225	Dry placer operation with capacity of several hundred yards per hour.
Overshot	Sec.21,T4N,R13W	Gold	Can-Ex Resources Ltd. 2580-1066 W. Hastings St. Vancouver, B.C. V6E 3X2 Canada	Cyanide heap-leach and carbon adsorption facilities. Intermittent operation. Surface drilling.

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LA PAZ COUNTY (Continued)

PROPERTY	LOCATION	COMMODITY	OPERATOR	ACTIVITY
Ramsey	Sec.2,T3N,R17W	Silver & lead	MPH Consulting, Inc. P.O. Box 644 Parker, CO 80134	Cyanide heap leach and recovery by zinc precipitation. Exploration drilling. Two claims patented.
Red Cloud	Sec.2,T4S,R23W	Lead, silver & wulfenite crystals	Red Cloud Mills Ltd. 1502 Kuns Court Yuma, AZ 85364	Underground mine development. Mine hoist installed and underground workings repaired. Flotation mill, approximate capacity of 125 tpd, completed. Intermittend production.
Rio Del Monte	Sec.4,T4N,R13W	Gold & silica flux	Bradley W. James 4845 W. Harmont Dr. Glendale, AZ 85302	Surface geologic map prepared at 1" = 200 ft. Vein outcrops sampled in detail. Geologic report submitted with recommendations.
Robinson	Sec.28,T5N,R12W	Gold	Frank Magini 2406 W. Tuckey Ln. Phoenix, AZ 85015	Conversion from cyanide heap-leach to milling and amalgamation. Geophysical survey and extensive sampling done. Geologic report prepared.
San Marcos	Sec.14,T5N,R12W	Gold	Hilbrands Bros. P.O. Box 261 Wenden, AZ 85357	Cyanide heap-leach facility. Intermittent production.
San Marcos South	Sec.14,T5N,R12W	Gold	Foundation Mining Co. 5222 N. Dromedary Phoenix, AZ 85018	Surface-mined ore crushed and agglomerated prior to placement on cyanide heap-leach pad. Carbon adsorption and electrowinning plant.
Socorro	Sec.25,T5N,R12W	Gold	Noranda Exploration Inc. P.O. Box 50326 Tucson, AZ 85703	Geologic evaluation and surface drilling.
White Marble	Sec.9,T5N,R11W	Marble	Vermont Stone & Minerals Ltd Landgrove, VT 05184	Drilling and geologic evaluation.

MARICOPA COUNTY

PROPERTY	LOCATION	COMMODITY	OPERATOR	ACTIVITY
Black Butte	Sec.14,T2S,R7W	Gold & copper	Rhyolite Resources Box 31, Black Point Road Powell River, B.C. V8A 4Z2 Canada	Geologic report prepared. Surface core drilling program initiated.
Black Queen	Sec.36,T2N,R8E	Gold	Sanstead Mining P.O. Box 1404 Apache Junction, AZ 85220	Underground mine development. Milling and wet gravity concentration plant installed.
Blue Lode	Sec.12,T6N,R5E	Decorative stone	Brian Falkner 9507 N. 12th St. Phoenix, AZ 85020	Intermittent production from surface cut. Crushing, screening, and bagging facility.
Dragon	Sec.23,T7N,R4W	Gold	S & G Mining Co. 1000 Kiewit Plaza Omaha, NE 68131	Geologic mapping, trenching, and geochemical survey. Surface core drilling and sampling.
Eagle Mountain	Sec.30,T8N,R5E	Onyx marble	Western States Stone Co. 2830 Grand Ave. Phoenix, AZ 85017	Production generally during summer.
Jack White	Sec.22,T4N,R3E	Gold	Leo III, Inc. 1920 West Eugie Ave. Phoenix, AZ 85029	Screening and agglomerating plant. Cyanide heap-leach treatment of dump material. Carbon adsorption recovery.
Ken Pan Mill	Sec.14,T7N,R9W	Gold & silver	Ken Pan Ltd. P.O. Box 36 Aguila, AZ 85320	Small cyanide mill for bulk testing and custom milling.
Little Daisy	Sec.4,T6N,R9E	Gold	Walter Knott 5712 E. Osborn Rd. Phoenix, AZ 85018	Intermittent mining and milling of ore. Concentrates shipped for refining.
Moon Anchor	Sec.31,T4N,R7W	Lead & silver	Sierra Amarillo Mining Co. P.O. Box 408 Tonopah, AZ 85354	Constructing a spiral concentration mill.

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MARICOPA COUNTY (Continued)

PROPERTY	LOCATION	COMMODITY	OPERATOR	ACTIVITY
Mystic	Sec.11,T5N,R1W	Gold	Ranchers Exploration & Development Corp. 1776 Montano Rd., N.W. Albuquerque, NM 87197	Extensive geologic evaluation and abundant core drilling. Reserves defined over more than 2,000 feet of strike length.
Newsboy	Sec.22, T6N,R4W	Gold & silver	Nor-Quest Resources, Ltd. P.O. Box 464 Congress, AZ 85332	Metallurgical testing and evaluation of pilot leach plant. Reserves have been defined, drilled and shot.
Pumpkin Glow	Sec.30,T2S,R9W	Silver & gold	Jim Weatherby 6603 W. Montebello Ave. Glendale, AZ 85301	Preliminary geologic evaluation and sampling.
Red Mountain	Sec.24,T2N,R6E	Decorative stone & silver	Red Mountain Mining Co. 4520 N. Bush Highway Mesa, AZ 85205	Intermittent surface mining and stockpiling. Periodic shipping of landscaping material.
Suffolk Basalt	Sec.1,T7S,R1W	Rock wool	Del Tierra Engineering & Mining Corp. 4310 N. Brown, Suite 5 Scottsdale, AZ 85251	Mined 750-ton bulk sample for "metallurgical" evaluation at American Rock Wool, Inc.'s plant in Casa Grande.
Sunrise	Sec.33,T7N,R7W	Gold	Ted Housley P.O. Box 2296 Wickenburg, AZ 85358	Operation of a cyanide heap-leach using dump material.
Union	Sec.21,T4N,R3E	Gold	Hilbrands Bros. 12401 S. 130th St. Chandler, AZ 85224	Dump and tailings material agglomerated and treated by cyanide heap-leaching. Carbon adsorption recovery.
Vulture	Sec.36,T6N,R6W	Gold	Quintana Minerals Corp. 7951 E. Maplewood Ave., Suite 114 Englewood, CO 80111	Geologic evaluation, drilling of mill tailings, underground drilling, and metallurgical testing. Reserves defined.

MOHAVE COUNTY

PROPERTY	LOCATION	COMMODITY	OPERATOR	ACTIVITY
Ark	Sec.25,T23N,R18W	Gold, silver, lead & zinc	Mountain States Resources Corp. 1399 S. 700E Suite 11 Salt Lake City, UT 84015	Dump material trucked to PAC mill- site for eventual treatment by tabling and flotation.
Copper Head Mill	Sec.24,T15N,R13W	Gold & silver	F. J. "Dusty" Denten P.O. Box 921 Wikieup, AZ 85360	Millsite with gravity circuit. Currently being modified to include cyanide circuit.
Cunningham	Sec.16,T33N,R14W	Uranium	Uranerz U.S.A., Inc. 445 Union Blvd., Suite 230 Denver, CO 80228	Geologic evaluation and drilling.
Fay	Sec.29,T20N,R17W	Gold	Henry Wray Desert Ranch Mining & Milling P.O. Box 847 Kingman, AZ 86401	Development of a pilot open-pit, cyanide heap-leach operation.
Flag	Sec.32,T20N,R15W	Gold & silver	F. Russell Enterprises, Inc. 6515 Glidden Lane San Diego, CA 92111	Tunnel level surveyed and mapped. Preliminary sampling and geologic evaluation.
Florence Group	Sec.20,T20N,R20W	Gold	Anvil Resources, Ltd. Box 80659 South Burnaby, B.C. V5H,3Y1 Canada	Extensive geologic evaluation to be followed by drilling program.
4th of July	Sec.16,T20N,R17W	Gold & silver	Don Lindsay 4th of July Mines 1960 Atlantic Ave. Kingman, AZ 86401	Developing open pit to take bulk sample for metallurgical evaluation.
Frisco	Sec.9,T21N,R20W	Gold	Frisco Land & Mining Co. 355 Riata Valley Rd. Kingman, AZ 86401	Definition drilling completed. Surface mine and crushing and agglomeration plant under develop- ment. Cyanide heap-leach pad under construction.

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MOHAVE COUNTY (Continued)

PROPERTY	LOCATION	COMMODITY	OPERATOR	ACTIVITY
GB Claims	Sec.36,T28N,R19W	Gold & silver	Pacific Coast Mines 3075 Wilshire Blvd. Los Angeles, CA 90010	Geologic evaluation and drilling program.
Golconda	Sec.6,T22N,R17W	Gold & silver	Resource Partners,Ltd. 274 Union Blvd., Suite 400 Lakewood, CO 80228	Cyanide heap-leach pad prepared with tailing and dump material. Carbon adsorption plant established.
Golden Gem	Sec.7,T22N,R17W	Silver, lead & gold	American International Minerals Corp. 612 East Carjon Las Vegas, NV 94105	Construction of crushing facility and laboratory building completed. Rehabilitation of flotation mill to 150-tpd capacity.
Jackman Lead	Sec.28,T20N,R14W	Silver, lead, & gold	Jornix Exploration & Mining Inc. P.O. Box 6283 Kingman, AZ 86401	Geologic evaluation and drilling.
Juno	Sec.33,T24N,R18W	Gold & silver	Resource Partners, Ltd. 274 Union Blvd. Suite 400 Lakewood, CO 80228	Dump material removed and trucked to PAC millsite in preparation for cyanide heap-leach.
Keystone	Sec.13,T23N,R18W	Gold, silver, lead & zinc	Mountain States Resources Corp. 1399 S. 700 E, Suite 11 Salt Lake City, UT 84015	Dump material trucked to PAC mill-site for eventual treatment by tabling and flotation.
McCracken	Sec.25,T13N,R15W	Silver & lead	Corval Development, Inc. P.O. Box 1001 Las Vegas Star Route Kingman, AZ 86401	Underground mine development. Metallurgical evaluation.
Midnight Group	Sec.17,T19N,R20W	Gold	Midnight Gold Mining Co. P.O. Box 417 Oatman, AZ 86433	Gravity mill constructed. Open pit under development.
Oatman	Sec.14,T19N,R20W	Gold	Fischer-Watt Mining Co. 114 Tucker, Suite 7 Kingman, AZ 86401	Extensive geologic review and development of mineralization model. Several thousand feet of core drilling.

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MOHAVE COUNTY (Continued)

PROPERTY	LOCATION	COMMODITY	OPERATOR	ACTIVITY
O'Fallon	Sec.20,T22N,R17W	Lead & silver	Mohave Hope Mine, Inc. P.O. Box 712 Kingman, AZ 86401	Surface cuts in vein and airtrack drilling. Pilot flotation mill.
PAC Mill	Sec.5,T23N,R18W	Gold, silver, lead & zinc	Mountain States Resources Corp. 1399 S. 700 E, Suite 11 Salt Lake City, UT 84015	Portable modular mill established consisting of grinding mill, cyclone, jigs, float cells, and table. Approximate capacity of 200 tpd.
Payroll	Sec.2,T23N,R18W	Gold, silver, lead & zinc	Mountain States Resources Corp. 1399 S. 700 E, Suite 11 Salt Lake City, UT 84015	Dump material trucked to PAC mill-site for eventual treatment by tabling and flotation.
Roadside	Sec.12,T21N,R21W	Gold	Fischer-Watt Mining Co. 114 Tucker, Suite #7 Kingman, AZ 86401	Geologic evaluation and drilling program.
Savanic	Sec.9,T33N,R14W	Uranium	Uranerz U.S.A., Inc. 445 Union Blvd., Suite 230 Denver, CO 80228	Rehabilitating underground workings. Geologic evaluation and drilling.
Tennessee-Schuykill	Sec.3,T23N,R18W	Gold, silver, lead & zinc	Mountain States Resources Corp. 1399 S. 700 E, Suite 11 Salt Lake City, UT 84015	Dump material crushed, screened, and trucked to PAC millsite for eventual treatment by tabling and flotation.

NAVAJO COUNTY

PROPERTY	LOCATION	COMMODITY	OPERATOR	ACTIVITY
Rainbow Forest	Sec.3,T16N,R23E	Petrified wood	Patton & Sons, Inc. Rainbow Forest Stone Co. P.O. Box 908 Holbrook, AZ 86025	Intermittent mining and fee areas for the public.

PIMA COUNTY

PROPERTY	LOCATION	COMMODITY	OPERATOR	ACTIVITY
Devils Wash	Sec.2,T15S ,R2E	Gold	Don Killgore HCR Box 840 Sells, AZ 85634	Placer operation using wet gravity separation equipment. Production capacity approximately 60 yards/day.
Happy Jack	Sec.25,T12S,R8E	Limestone	Harlow L. Jones Mine X-Cavation, Inc. 15311 W. Hardin Rd. Marana, AZ 85238	Quarry production, with contract crushing, rated at 400 tpd.
La Colorada	Sec.25,T29S,R10E	Silver	Glynn G. Burkhardt La Colorada Minerals, Inc. 9100 Indian Hill Rd. Tucson, AZ 85715	Heap-leach facility constructed. Intermittent production.
Laguna	Sec.18,T19S ,R16E	Gold	Jacqueline Balen 5130 Calle La Cima Tucson, AZ 85718	Gravity concentrator installed for placer operation.
Morning Star	Sec.24, T19S,R15E	Gold	Ernest Ross Morning Star Mining Co. P.O. Box 203 Sonoita, AZ 85637	Gravity concentration facility installed for placer operation. Experimental equipment.
Old Yuma	Sec.9,T13S,R12E	Gold, molybdenum, vanadium, & mineral specimens	L. Arden Miller Consolidated Mining & Milling Co., Ltd. 5959 N. Yuma Mine Road Tucson, AZ 85713	Underground mine development. Rehabilitation of inclined shaft to lowest (200-ft) level. Workings mapped and sampled.
Whitcomb	Sec.11,T17S,R12E	Silver & lead	W. R. Becker Hel-Roc Mining Co. P.O. Box 26706 Tucson, AZ 85726	Rehabilitation of Whitcomb and Martin inclined shafts. Surface geophysics, percussion drilling, and small pit. Flotation mill installed. Intermittent underground production.

PINAL COUNTY

PROPERTY	LOCATION	COMMODITY	OPERATOR	ACTIVITY
Galena #1	Sec.7,T3S,R13E	Lead, zinc, & silver	Herman Hoodenpyle P.O. Box 1482 Kearny, AZ 85237	Repair and cleanup of underground workings with sampling project to follow.
Goldfield	Sec.1,T1N,R8E	Gold	Apache Mining & Development P.O. Box 1445 Apache Junction, AZ 85220	Surface mine under development. Crushing, grinding, and gravity concentration plant installed.
Hotboy	Sec.10,T8S,R14E	Gold & silver	George McJunkin McJunkin Const. Co. 413 N. Jay Chandler, AZ 85224	Cyanide heap-leach and carbon adsorption plant under construction to treat dump ore.
Reymert	Sec.22,T2S,R11E	Silica flux & silver	Inspiration Mines, Inc. P.O. Box 1559 Claypool, AZ 85532	Two new declines established for intermittent underground mine production. Underground drilling. Portable crushing plant. Surface cuts.
San Francisco	Sec.32,T10S,R13E	Marble	Darell Goode Catalina Marble Inc. 16302 N. Oracle Rd. Catalina, AZ 85704	Quarry with crushing and sizing facility. Intermittent production.
Silver King Ext.	Sec.19,T1S,R13E	Silver	Fischer-Watt Mining Co. 114 Tucker, Suite #7 Kingman, AZ 86401	Surface drilling and geologic evaluation.
Star	Sec.14,T5S,R14E	Copper, lead, zinc & gold	Richard L. Himebaugh Copper Kettle Mining Co. P.O. Box 312 Mammoth, AZ 85618	Intermittent underground mine development. Some 15 feet of new inclined shaft.
Superstition	Sec.11, T3S,R11E	Gold	Mohawk Mining Inc. 6157 River Road Shreveport, LA 71105	Dump material shipped to custom mill and concentrates treated at custom refinery.

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PINAL COUNTY (Continued)

PROPERTY	LOCATION	COMMODITY	OPERATOR	ACTIVITY
Transvaal Group	Sec.28,T2S,R11E	Gold	Dave Taylor Mineral Exploration Co. P.O. Box 1523 Mesa, AZ 85201	Selective underground mining of vein material. Operating small capacity, stamp-amalgamation mill.
Talley-Walker	Sec.5,T3S,R12E	Silver	Bob Kennealy Ken Pan Ltd. P.O. Box 36 Aguila, AZ 85320	Exploration on property using <u>UNC</u> map probe. Mined bulk samples are processed at Ken Pan Ltd's mill in Aguila.
Vekol	Sec.34,T9S,R2E	Silver	Arthur Hindrichs Argosy Mining Co. P.O. Box 295 Stanfield, AZ 85272	Preparation of cyanide leach facility. Professional geologic evaluation.

SANTA CRUZ COUNTY

PROPERTY	LOCATION	COMMODITY	OPERATOR	ACTIVITY
Austerlitz	Sec.31,T22S,R11E	Gold	Goldsil Resources, Ltd. Academy Place 1, Suite 445 7333 W. Jefferson, Ave. Lakewood, CO 80235	Surface air-track drilling and geologic evaluation.
Brick	Sec.31,T22S,R11E	Silver & lead	B. L. Williams Ord Silver Mines, Inc. c/o Four Star Group 210-700 W. Pender St. Vancouver, B.C. V6C 1G8 Canada	Underground mine development. Some 1300 feet of new decline and drifting. Mill tests, surface geophysics and surface drilling.
California	Sec.20,T23S,R11E	Gold & silver	Vernon B. Dale P.O. Box 264 Arivaca, AZ 85601	Heap leach facility.
Cliff	Sec.21,T22S,R10E	Gold	John Perkins P.O. Box 370 Arivaca, AZ 85601	Surface cut mine. Crushing, agglomeration, and cyanide heap leach facility. Intermittent production.
Grubstake	Sec.19,T23S,R11E	Gold	John W. Frye Grubstake Mining & Development Co. P.O. Box 268 Arivaca, AZ 85601	Intermittent underground production from main adit. Crushing plant and vat-type cyanide leach. Occasional custom treatment of precious-metal ores.
Jackpot	Sec.6,R23S,R11E	Gold	Goldsil Resources, Ltd. Academy Place 1, Suite 445 7333 W. Jefferson Ave. Lakewood, CO 80235	Surface air-track drilling and geologic evaluation.
Margarita	Sec.7,T23S,R11E	Gold	Robert A. Johnson Apache International Mining Co Sasabe Star Route Box 45-C Tucson, AZ 85736	Surface geologic mapping, extensive rock chip sampling, and extensive rotary and air-trac drilling.

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SANTA CRUZ COUNTY (Continued)

PROPERTY	LOCATION	COMMODITY	OPERATOR	ACTIVITY
Oro Blanco	Sec.17,T23S,R11E	Gold	Terry Antoniuk Rayrock Resources, Ltd. 2200 Yonge St., Suite 1011 Toronto, Ontario M4S 2C6 Canada	Surface geologic mapping and rehabilitation of No. 1 shaft to the first (125-ft) level. Underground sampling program.
Saint Christopher	Sec.26,T22S,R10E	Gold, silver, lead, copper, & zinc	Genaro F. Delgado P.O. Box 101 Arivaca, AZ 85601	Underground mine development. Some 25 feet of new inclined shaft.
Three R	Sec.36,T22S,R15E	Silver, gold, & copper	Jack C. Pierce 612 Morrell Blvd. Prescott, AZ 86301	Preliminary geological and geochemical evaluation.
Tres Amigos	Sec.19,T23S,R11E	Gold	John Perkins P.O. Box 370 Arivaca, AZ 85601	Underground mine development. Some 700 feet of new adit and drift. Preparation of heap leach facility.
Worlds Fair	Sec.32,T22S,R16E	Silver & gold	Lyll Lichy Argentor Mining Corp. P.O. Box 1267 Tubac, AZ 85640	Geologic map and geochemical sampling program. Cleaned and sampled 120-ft adit.

YAVAPAI COUNTY

PROPERTY	LOCATION	COMMODITY	OPERATOR	ACTIVITY
Alvarado	Sec.21,T10N,R5W	Gold	Scarth Oil & Gas Co. 205 Paramount Plaza Amarillo, TX 79101	Extensive evaluation. Geologic mapping. Trenching and sampling. Mill tailings tested.
Anchrist	Sec.1,T10N,R1E	Gold	A. H. Christiansen Ceco Corporation 2942 W. Sierra Phoenix, AZ 85029	Intermittent placer dredging operation.
Big Ruth	Sec.10,T7N,R2W	Gold & silver	William J. Haggerty 101 N. 32nd St. #30B Phoenix, AZ 85034	Extensive geologic mapping and surface sampling.
Big Stick	Sec.28,T12N,R9W	Gold	A. H. Little Little Margie Leaching Inc. P.O. Box 2348 Wickenburg, AZ 85358	Surface mine under development. Gravity-amalgamation mill constructed.
Boaz	Sec.1,T9N,R2W	Gold	Gold Mesa, Inc. P.O. Box 1568 Bullhead City, AZ 86430	Intermittent surface mine development. Ore shipped for milling. Concentrates shipped for refining.
Burnbrite	Sec.21,T7N,R1W	Silver	ND Resources P.O. Box 20766 Phoenix, AZ 85036	Exploration program. Surface core drilling. Some ore shipped to custom mill.
Button	Sec.31,T10N,R1W	Gold	Silvester Dimmer Copper Basin, Inc. 5013 N. 69th Place Scottsdale, AZ 85253	Intermittent underground production. Gravity concentration facility.
Camp B	Sec.20,T8N,R3W	Copper & gold	Steve Oberon c/o First Interstate Bank of Arizona P.O. Box 2669 Phoenix, AZ 85002	Surface drilling and extensive geologic evaluation.

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YAVAPAI COUNTY (Continued)

PROPERTY	LOCATION	COMMODITY	OPERATOR	ACTIVITY
Climax	Sec.1,T12N,R3W	Gold & silver	Chris French 715 W. Gurley Prescott, AZ 86301	Extensive geologic evaluation.
Congress	Sec.23,T10N,R6W	Gold	Magic Circle Energy Co. 4141 Northwest Expressway Oklahoma City, OK 73116	Surface drilling and geologic evaluation.
Crown King	Sec.10,T10N,R1W	Gold	Dore Metals & Mining Corp. 8300 Dunwoody Place Dunwoody, GA 30338	Cyanide heap-leach of dump material and carbon adsorption recovery. Intermittent production.
Diana	Sec.11,T8N,R1E	Tungsten	Floyd Miller 1349 N. 39th Dr. Phoenix, AZ 85009	Intermittent evaluation. Mill test.
Dixie Queen	Sec.34,T12N,R5W	Beryl & silica	Bill Horsting Weaver Mountain Mining Corp. 770 Frontage Rd. Northfield, IL 60093	Surface mine development. Intermittent shipments of silica ore to mill.
George Washington	Sec.29,T9N,R3W	Gold	James Bowker Telstar Resources Corp. 5189 W. Poppy Yuma, AZ 85364	Underground mine developed. Repaired 150 feet of adit and drove extension about 300 feet. Gravity concentration plant installed.
Gladiator	Sec.2,T10N,R1W	Gold & silver	Nor-Quest Resources, Ltd. 2231-G McGarrigle Rd. Nanaimo, B. C. B95 4M5 Canada	Surface geologic map prepared at 1in = 400 ft. Detailed surface sampling program. Geologic report. Surface core drilling program in progress.
Granite Mountain	Sec.16,T15N,R3W	Gold	Santa Fe Mining, Inc. P.O. Box 3588 Albuquerque, NM 87190	Geologic evaluation and drilling.

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YAVAPAI COUNTY (Continued)

PROPERTY	LOCATION	COMMODITY	OPERATOR	ACTIVITY
Iona	Sec.10,T10N,R1W	Gold & silver	Charles Nelson P.O. Box 404 Crown King, AZ 86343	Intermittent surface mining and shipping to custom mill.
Lincoln	Sec.1,T10N,R1W	Gold & silver	Dorothy George Lincoln Mines Inc. 400 S. Burnside Ave. Los Angeles, CA 90036	Detailed underground sampling program on two levels.
Lynx Creek	Sec.22, T14N, R1W	Gold	Lynx Corporation P.O. Box 26459 Prescott, Valley, AZ 86312	Wet gravity concentration plant installed to treat placer. Production capacity approximately 350 tph.
Mayer Onyx	Sec.22,T12N,R1E	Onyx marble	Apache Stone Division 4637 E. Washington Phoenix, AZ 85034	Production generally May to September.
Mica Mule	Sec.7,T8N,R2E	Mica	E. M. Industries 2090 Highland Ave. Cincinnati, OH 45212	Bulk samples shipped for extensive product-suitability tests.
Midnight Owl	Sec.31,T8N,R2W	Beryllium, columbium, & tantalum	Sidney Anderson 602 W. University Dr. Mesa, AZ 85201	Intermittent surface mining and stockpiling of beryl.
Monarch	Sec.7,T8N,R4W	Gold	Monarch Mining Co. Star Rt. 1, Box 167 Deming, NM 88030	Centrifugal concentration facility constructed to treat placer material. Capacity up to 500 tpd. Intermittent production.
Monte Cristo	Sec.4,T8N,R3W	Silver & gold	Roy Rogers 705 Seale St. Dallas, TX 75208	Surface drilling. Samples assayed.
Mountainside	Sec.36,T10N,R5W	Gold	Al Wittliff 2045 W. Hayward Phoenix, AZ 85021	Underground mine workings repaired and extended. Gravity mill installed. Intermittent production.

YAVAPAI COUNTY (Continued)

PROPERTY	LOCATION	COMMODITY	OPERATOR	ACTIVITY
Rattler	Sec.9,T8N,R3W	Gold	Howard R. French 6407 West Clouse Dr. Phoenix, AZ 85033	Ongoing exploration and geologic evaluation. Preliminary open-pit target identified.
Rattlesnake	Sec.3,T10N,R2E	Gold	Terry Anderson Box 1803 New River Star Rt. #1 New River, AZ 85029	Surface rotary drilling.
Russell	Sec.6,T10N,R1E	Silver & gold	F. Russell Enterprises Inc. 6515 Glidden Lane San Diego, CA 92111	Repair of underground workings and sampling.
Savoy	Sec.26, T10N,R1W	Gold & silver	Dennis K. Pickens Mine Management Corp. P.O. Box 7277 Phoenix, AZ 85011	Rehabilitated underground workings and extended drift. Some ore mined and stockpiled.
Sheep Mountain	Sec.10,T8N,R1W	Copper	Ken Smith 137 E. 2nd Ave. Mesa, AZ 85202	Extensive geologic evaluation. Drill indicated reserves reportedly 300-400 million tons.
Silver Crown	Sec.8,T11N,R3W	Lead, silver & gold	George C. Medd Morning Glory Mining Co. P.O. Box 482 Yarnell, AZ 85362	Underground mine rehabilitated. Some ore reportedly defined.
Six Shooter	Sec.22,T13N,R10W	Gold	Carl Jathro Mineral Research Co. 4666 N. Stockton Hill Rd. Kingman, AZ 86401	Intermittent production from surface cut. Ore crushed, jigged, and treated in pachuca tank. Electro-winning plant.
Swallow	Sec.6,T8N,R2W	Gold & copper	Charles Brown 11067 Pleasant Valley Rd. Sun City, AZ 85351	Repaired underground mine workings to provide access for detailed sampling program.

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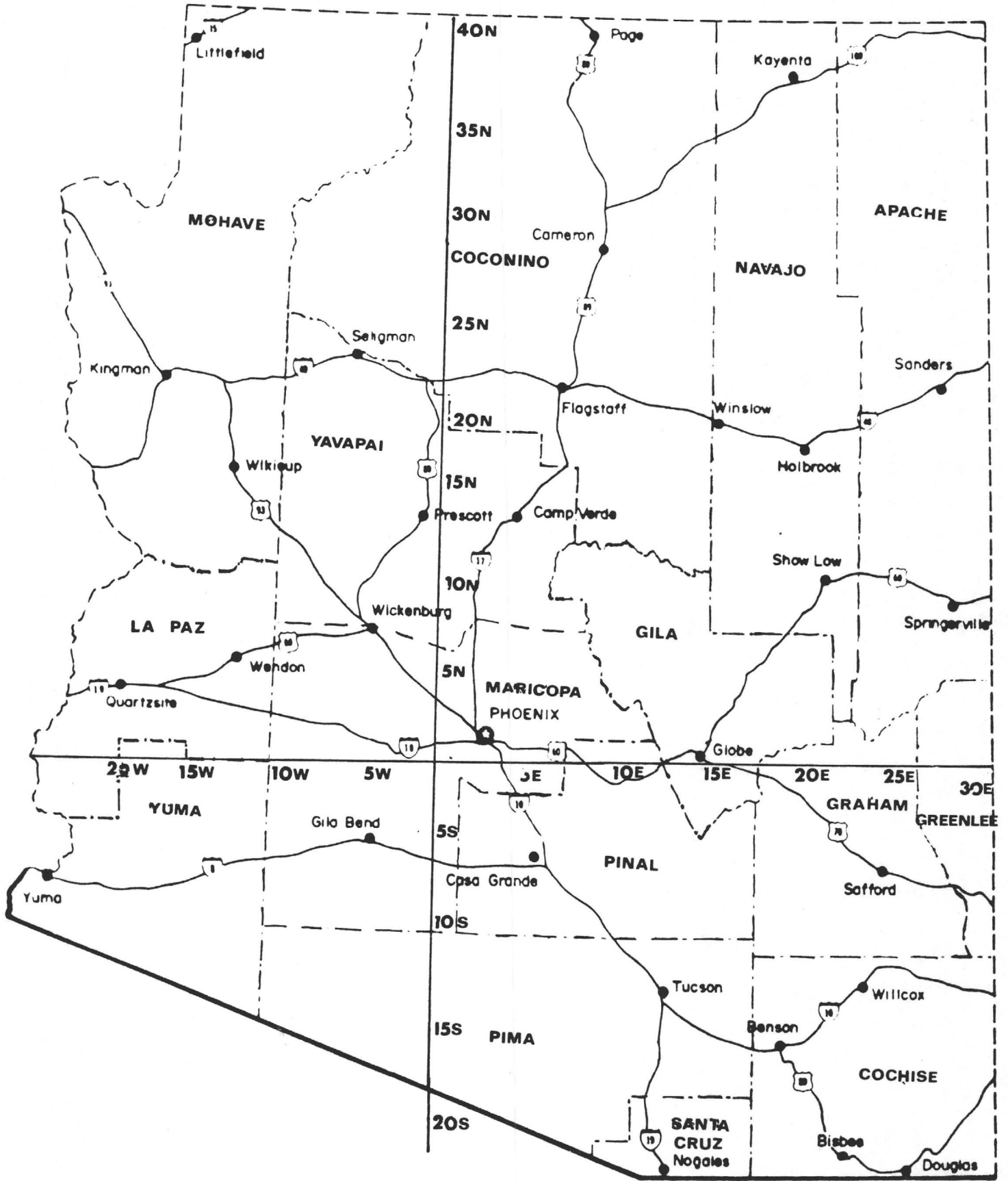
YAVAPAI COUNTY (Continued)

PROPERTY	LOCATION	COMMODITY	OPERATOR	ACTIVITY
Tip Top (Blue Tank Dist.)	Sec. 9, T8N,R3W	Uranium, gold, & silver	Uranerz U.S.A. Inc. 445 Union Blvd., Suite 230 Denver, CO 80228	Repair of underground workings for sampling. Extensive surface core drilling program.
Tip Top (Tip Top Dist.)	Sec.10,T8N,R1E	Gold & silver	Santa Fe Mining Inc. P.O. Box 3588 Albuquerque, NM 87190	Repair of underground workings for survey and sampling.
Trails End	Sec.20,T11N,R2W	Gold & silver	Neal Mischke Trails End Enterprises P.O. Box 59 Star Route Kirkland, AZ. 85332	Underground mine workings repaired and extended. Intermittent mining, milling, and refining.
Waters-Sunset	Sec.29,T12N,R9W	Gold	Terramar Resource Corp. 1030-1176 W. Georgia St. Vancouver, B.C. V6E 4A2 Canada	Surface geologic mapping and sampling. Over 5,500 ft. of core drilling completed.
Weatherby	Sec.26,T9N,R2W	Beryllium	Jim Weatherby 6603 W. Montebello Ave. Glendale, AZ 85301	New discovery. Preliminary surface mining and stockpiling.

YUMA COUNTY

PROPERTY	LOCATION	COMMODITY	OPERATOR	ACTIVITY
BVO	Sec.10,T1S,R14W	Gold & silver	Lincoln Resources 1440-625 Howe St. Vancouver, B.C. V6C 2C2 Canada	Geologic mapping and geochemical and geophysical surveys completed. Geologic reports prepared. Some 32 core and reverse circulation holes drilled.
King of Arizona	Sec.12,T2S,R17W	Gold	P. A. Birdick P.O. Box 231 Yuma, AZ 85364	Ongoing geologic evaluation.
McPhaul	Sec.31,T7S,R21W	Gold	John Bir 150 W. Catalina, #26 Yuma, AZ 85364	Gravity concentration plant installed to treat placer. Intermittent production.
North Star	Sec.36,T1S,R17W	Gold	Anaconda Minerals Co. 555 17th St. Denver, CO 80202	Repair of underground mine workings and geologic evaluation.
Sheep Tanks	Sec.1,T1S,R15W	Silver & gold	Richard Neslund Sunchief Mines Co. 742 Twelve Oaks Center Wayzata, MN 55391	Geologic mapping and evaluation.

MAP



Arizona reference map showing Gila and Salt River Base and Meridian lines.