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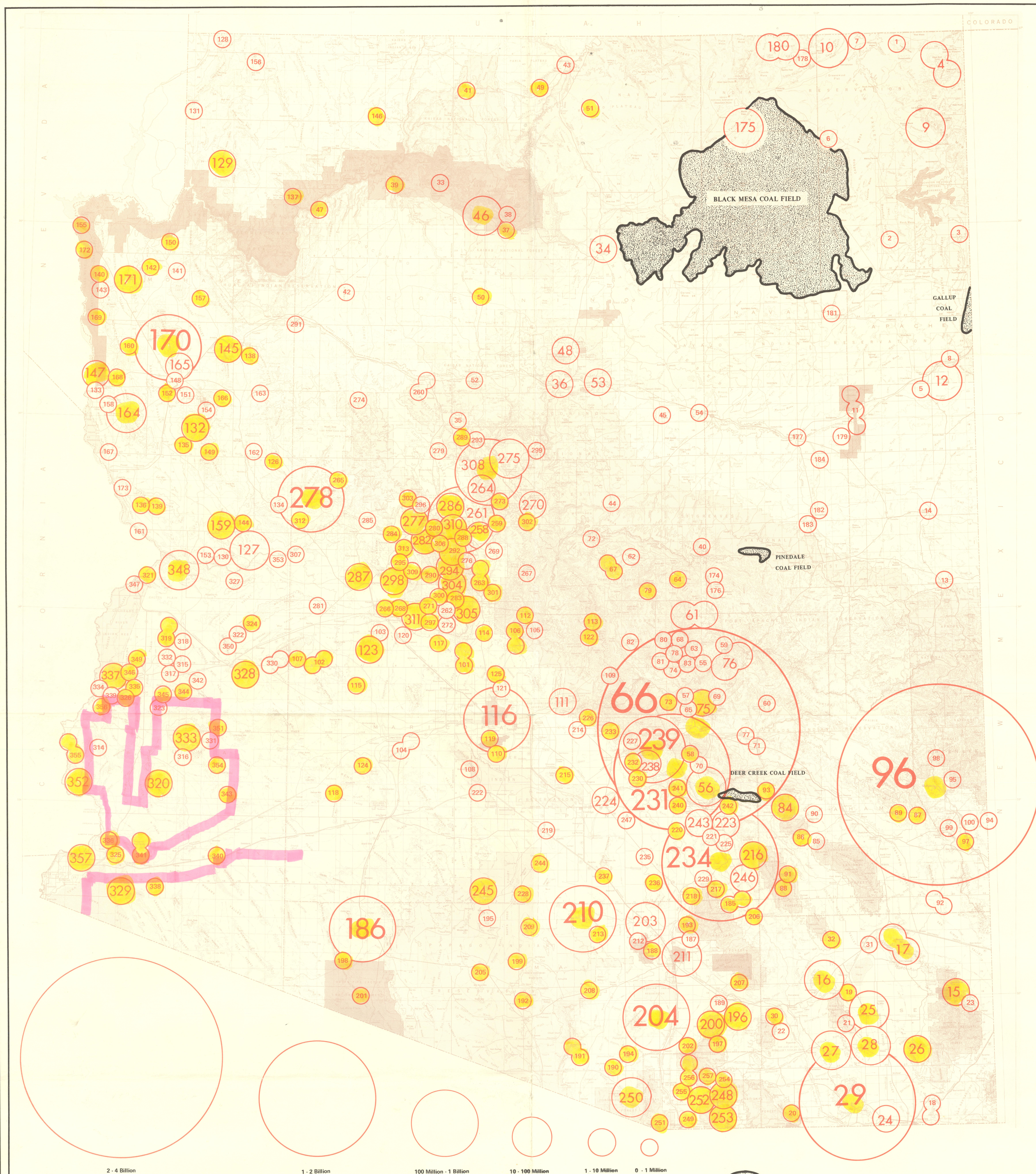

Cumulative Production In Dollars To 1973

COAL FIELD

Scale 1:1,000,000

1 inch equals approximately 16 miles

0 10 20 30 40 50 100 Miles

0 10 20 30 40 50 100 Kilometers

Contour Interval 500 feet

Note: Base reduced from U. S. Geol. Survey Topographic Base Map of Arizona with highways and contours, scale, 1:500,000, 1955.

Sand and gravel. "In Arizona, the annual tonnage [of sand and gravel] used outranks that of any other mineral resource and ranks second to copper in total value."

"In Arizona, the most important sand and gravel deposits are the ones formed by the transportation, deposition, and reworking of detritus by stream action. Such deposits occur in basin and valley fills, in stream terraces, in buried and active stream channels, and in alluvial fans." (Reference 81, p. 424, 429).

PRICE FIVE DOLLARS

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MINING DISTRICTS AND MINERAL DEPOSITS OF ARIZONA

(Exclusive of Oil and Gas)

Compiled By

Charles A. Mardirosian, Consulting Geologist

LIST OF MINING DISTRICTS AND MINERAL DEPOSITS BY COUNTIES

APACHE COUNTY

Mining District, Mine, Area, or Deposit	Principal Commodity	Description and/or Reference
1 Barton No. 3	Uranium	Salt Wash Member of the Morrison Formation (60).
2 Beautiful Valley	Gemstones: silicified wood	Triassic Chinle Formation (71, 81).
Black Mesa Coal Field (see Navajo Co.)		
3 Buell Park	Gemstones: peridot, pyrope garnet, diopside, olivine	Eroded from Cenozoic kimberlite tuff (1, 7, 71, 81).
4 Carrizo Mountains	Uranium, vanadium	Salt Wash Member of the Morrison Formation (60).
5 Chambers	Bentonite	(7)
6 Chilchinbito-Rough Rock area	Uranium, vanadium	Salt Wash Member of the Morrison Formation (60).
Gallup Coal Field	Coal, subbituminous	Cretaceous beds (30, 60, 81).
7 Garnet Ridge	Gemstones: pyrope garnet	Garnetiferous gneiss and schist (29, 81).
8 Houck	Specialty sand	Decomposed sandstone (45, 81)
9 Lukachukai Mountains	Uranium, vanadium	Salt Wash Member of the Morrison Formation (60).
10 Monument No. 2	Uranium, vanadium, molybdenum	Shinarump Member of the Chinle Formation (60, 81).
11 Petrified Forest National Monument	Gemstones: silicified wood	Chinle Formation (71, 81).
12 Sanders-Chito	Bentonite	Lenses, discontinuous beds, and channel-fill deposits in the Pliocene Bidahochi Formation (6, 81).
13 Springerville	Volcanic cinders	(81).
14 St. Johns	Gemstones: silicified wood	In Tertiary gravels eroded from the Triassic Chinle Chinle Formation (81).

COCHISE COUNTY

Mining District, Mine, Area, or Deposit	Principal Commodity	Description and/or Reference
15 California (Chiricahua)	Lead, silver, copper, zinc, gold	Replacement deposits in Paleozoic limestone, associated with monzonite and diorite dikes; gold placer deposits (24, 81).
16 Cochise (Johnson Camp, Little Dragoon Mts., Primos)	Copper, zinc, silver, lead Tungsten Molybdenum Marble	Copper, zinc, silver lead—replacement deposits in Cambrian Abrigo Limestone, near quartz monzonite stock. Tungsten—N-S to N30E quartz veins in Precambrian schist, Paleozoic limestone, and granite; disseminated in tactite bodies; placer deposits. Molybdenum—pyrometasomatic deposits in limestone. Marble for dimension and crushed stone—Earp Formation (12, 18, 81).
17 Dos Cabezas-Teviston	Gold, copper, silver, lead, zinc	In NE and NW quartz veins in Precambrian granite, and Cretaceous sedimentary rocks, and replacement deposits in Paleozoic limestone adjacent to Tertiary rhyolite porphyry and diabase dikes. Gold placer deposits in gulches in the Teviston and Dos Cabezas areas (24, 39, 46, 81, 86, 87).
18 Douglas	Gypsum, gypsite	Overlying Cenozoic clay and shale (81).
19 Dragoon (Golden Rule)	Gold, lead	Veins in Cambrian Abrigo Limestone (24, 87).
20 Hartford (Huachuca)	Lead, zinc, silver, gold, copper Tungsten	Lead, zinc, silver, gold, copper—replacement deposits along E-W, and NE fractures in Paleozoic limestone; gold placers in Ash Canyon. Tungsten—NW-trending quartz veins in Paleozoic sedimentary rocks, and granite (18, 24, 39, 81, 86).
21 Jonnie Boy No. 1	Barite	Bedded deposits in Paleozoic limestone associated with N55W fractures (74).
22 Lone Star mine	Fluorspar	N30W quartz vein in sheared Precambrian schist, intruded by aplite dikes, and alaskite stock (23, 81, 84).
23 Paradise	Fluorspar	Veinlets with quartz in granite (23).
24 Paul Spur (Paul)	Limestone	Mural Limestone (8, 81).
25 Pearce	Silver, gold	Veins and replacement deposits in Tertiary andesite and rhyolite breccia; gold placer deposits from Pearce Hill area (24, 39, 81, 86).
26 Swisshelm (Elfrida)	Lead, silver, gold, zinc, copper	Replacement deposits along NE and NW fractures in the Naco Limestone, above diorite porphyry sill (5, 81).
27 Tombstone	Silver, lead, gold, copper, zinc, manganese	Replacement deposits along NE fractures in Pennsylvanian Naco Limestone, and Mesozoic limestone, associated with quartz monzonite intrusives (24, 46, 81, 87).
28 Turquoise (Courtland, Gleeson)	Copper, silver, lead, gold, zinc, manganese Quartzite gravel Gemstones: turquoise	Copper, silver, lead, gold, zinc, manganese—in pyritic replacement deposits in limestone, shale, and porphyry, along thrust faults; silver, lead in replacement deposits in the Naco Limestone; gold placer deposits east of Gleeson. Quartzite gravel—Cambrian Bolsa Quartzite Turquoise—in veins and as nuggets in Cambrian quartzite (24, 39, 46, 71, 81, 86).
29 Warren (Bisbee)	Copper, gold, lead, zinc, manganese, silver Sand and gravel Clay Gemstones: malachite, turquoise	Copper, gold, lead, zinc, manganese, silver—disseminated in silicified quartz porphyry and breccia; replacement deposits in limestone; gold placer deposits in Gold Gulch Sand and gravel— Clay— Malachite, turquoise—(10, 24, 39, 46, 76, 77, 79, 81, 86).
30 Whetstone (Benson)	Lead, silver, copper	In veins (7, 24, 81).
31 Wilcox	Sand and gravel	(81).
32 Winchester	Copper, lead, zinc	(7).

COCONINO COUNTY

Mining District, Mine, Area, or Deposit	Principal Commodity	Description and/or Reference
33 Bass	Asbestos	Cross-fiber veins in Precambrian Bass Limestone, associated with diabase sill (73, 81).
Black Mesa Coal Field (see Navajo Co.)		
34 Cameron	Uranium, vanadium	Carbonaceous channels in the Shinarump and Petrified Forest Members of the Chinle Formation (60).
35 Drake	Dimension stone, sandstone	Coconino Sandstone (7, 81).
36 Flagstaff	Sand and gravel Volcanic cinders	Sand and gravel— Volcanic cinders—basalt scoria (77, 81).
37 Grandview (Grand Canyon)	Copper, uranium, silver	In pipe-like body in recrystallized Redwall Limestone (24, 60, 81).
38 Hance	Asbestos	In serpentinized areas in Precambrian diabase sill and Precambrian sedimentary rocks (73, 81).
39 Havasu Canyon	Lead	(4, 81).
40 Heber	Manganese	As fragments and masses in clayey residual soil overlying the Coconino Sandstone (26).
41 Jacob Lake (Jacob Canyon, Warm Springs)	Copper, silver	Disseminated in cherty sandstone of the Permian Kaibab Limestone (24, 75, 81).
42 Johnson and Hayden	Manganese	NE fracture or breccia zone in Kaibab Limestone (26).
43 Lees Ferry	Gemstones: silicified wood	Triassic Chinle Formation (81).
44 Long Valley	Manganese	Irregular bodies in Kaibab Limestone (26).
45 Meteor Crater	Specialty sand	Coconino Sandstone fused by meteorite impact (81, 90).
46 Orphan Lode	Uranium, molybdenum, vanadium, copper	Vertical pipe-like body of collapse breccia in Permian Coconino Sandstone and Hermit Shale, Penn.-Permian Supai Formation, and Miss. Redwall Limestone (60, 81).
47 Ridenour (Prospect Canyon)	Uranium, vanadium, copper	Pipe-like body of fractured and collapsed Supai Formation sediments (60).
48 Sugarloaf Peak	Pumice	Tertiary rhyolite (81).
49 Sun Valley	Uranium, molybdenum, rhenium	Shinarump Member of the Chinle Formation (60, 81).
50 Valle	Copper, uranium	(7).
51 White Mesa (Kaibito Plateau)	Copper	Disseminated in Navajo Sandstone (24, 81).
52 Williams	Pumice	Dacite pumice (81).
53 Winona	Volcanic cinders	(8, 81).
54 Winslow	Gypsum	Alabaster-like gypsum underlain by shale of the Triassic Moenkopi Formation (81).

GILA COUNTY

Mining District, Mine, Area, or Deposit	Principal Commodity	Description and/or Reference
55 Apache	Manganese	In NW to NE-trending fracture zones in partly consolidated gravel beds in Cenozoic conglomerate (27, 56).
56 Banner (Christmas, Troy, Dripping Springs, Hayden)	Copper, lead, zinc, silver, gold, molybdenum Limestone	Copper, lead, zinc, silver, gold, molybdenum—bedded and massive replacement deposits in Paleozoic limestones; pipe-like deposits in diorite along the intersection of N20E and N80-85W shear and fracture zones; in E-W and N15-55E veins in Paleozoic limestones and Cretaceous volcanic rocks; gold placer deposits in Dripping Springs Wash, Cowboy Gulch, and Steamboat Wash. Limestone—Escabrosa Limestone (21, 39, 46, 81, 86).
57 Black Point (Malone White)	Manganese	N20E shear and breccia zone in granite (27).
58 Bobtail, Samsel	Tungsten	N30-55E veins in Pinal Schist (17).
59 Canyon Creek	Gemstones: turquoise	Blebs and coatings in bedding planes and fractures in the Dripping Springs Quartzite (56).
60 Casador (Bear Canyon)	Asbestos	In Mescal Limestone, associated with diabase sill (81).
61 Cherry Creek-Rock House	Asbestos	As cross-fiber veins in serpentine layers in the Precambrian Mescal Limestone, associated with Precambrian diabase sills (45, 73, 81).
62 Diamond Rim	Gemstones: quartz crystals	Devonian Martin Formation (7, 81).
63 Donna Lee	Uranium	In oxidized black facies of the Dripping Springs Quartzite (60).
64 Ellison	Copper, lead, zinc, silver	(7).
65 Giant Cactus	Manganese	NW-trending breccia zone in metamorphosed limestone (27).
66 Globe (Globe-Miami)	Copper, silver, gold, lead, zinc, manganese, iron, vanadium Limestone Sand and gravel Gemstones: chrysocolla, turquoise Clay	Copper, silver, gold, lead, zinc, manganese, iron, vanadium—disseminated in granite porphyry facies of the Schultze Granite, in the Pinal Schist, and in the Precambrian and Paleozoic sedimentary rocks; copper and iron as blanket deposits in schist and quartz monzonite; placer gold deposits along Pinal Creek, in the Gap and Catsclaw Flat area, Richmond Basin, Lost and Gold Gulches, and Pinto Creek. Limestone—Escabrosa Limestone. Sand and gravel— Chrysocolla, turquoise—with copper in veins, veinlets, and nodules (7, 46, 58, 61, 62, 69, 71, 76, 77, 79, 81, 86).
67 Green Valley (Payson)	Gold, lead, zinc	N15-65W veins in schist and diorite; gold placer deposits from East Verde River, and below Ox Bow Hill (39, 86, 87).
68 Hope, Lucky Stop, Lost Dog, Little Joe	Uranium	In hornfels of the black facies in the Dripping Springs Quartzite (60).

GILA COUNTY (con't)

Mining District, Mine, Area, or Deposit	Principal Commodity	Description and/or Reference
69 Ireland	Manganese	N55E altered diabase dike in quartzite (27).
70 Lucky Boy	Uranium	In the black facies in the Dripping Springs Quartzite (60).
Mazatzal Mountains (see Maricopa Co.)		
71 Peridot Mesa	Gemstones: peridot	In aggregates in basalt (71, 81).
72 Pine	Dimension stone, sandstone	Coconino Sandstone (7, 81).
73 Pinto Creek (Pinto Valley)	Lead, copper	(7, 81).
74 Red Bluff	Uranium	In the black facies in the Dripping Springs Quartzite (60).
75 Richmond Basin (MacMorris, McMillen)	Silver	With hematite in veins in Precambrian granite and diabase (24, 81).
76 Salt River-Crysotile	Asbestos	As cross-fiber veins in serpentine layers in the Precambrian Mescal Limestone, associated with Precambrian diabase sills (45, 73, 81).
77 San Carlos	Gypsum	Interbedded with Cenozoic mudstone, siltstone, and sandstone (81).
78 Sierra Ancha	Asbestos	As cross-fiber veins in serpentine layers in the Precambrian Mescal Limestone, associated with Precambrian diabase sills (73, 81).
79 Spring Creek (Young)	Gold, lead	Gold—placer deposits along Spring Creek, west of Young. Lead—(39, 81).
80 Suckerite	Uranium	In fracture zone in the black facies of the Dripping Springs Quartzite (60).
81 Sunset (Armer)	Manganese	N70W shear zone in Precambrian quartzite (27).
82 Tonto Basin (Packard)	Fluorspar	Lenses in E-W quartz veins in gneissic granite (15).
83 Zimmerman-Asbestos Points	Iron	Replacement deposits in serpentinized, chloritized, and silicified Mescal Limestone (34).

GRAHAM COUNTY

Mining District, Mine, Area, or Deposit	Principal Commodity	Description and/or Reference
84 Aravaipa	Lead, zinc, copper, silver, gold, molybdenum	Lead, zinc, copper, silver, gold—NW veins and fault zones in limestone and rhyolite porphyry. Molybdenum, lead, copper, silver—in NW fault along Horse Mountain Volcanics and Bolsa Quartzite (66, 70, 81).
85 Black Hawk	Manganese	N70E shear zone in Precambrian granitic rocks (27).
86 Clark	Gold	N73E vein in granite (87).
Deer Creek Coal Field (see Pinal Co.)		
87 Gila River	Gold	Placer deposits along the Gila River and Bonita Creek (86).
88 Gold Mountain (Galiuro)	Gold	(7).
89 Lone Star (Safford)	Copper, lead, silver, gold, molybdenum Volcanic cinders	Copper, lead, silver, gold, molybdenum—disseminated in Cretaceous (?) porphyritic andesites and breccias associated with NE and E-W dikes; gold in E-W sheeted zones in and near diorite dikes. Volcanic cinders—(64, 81, 87).
90 Mount Jackson (Rhodes Spar)	Fluorspar	Vein in Precambrian granite (23).
91 Rattlesnake	Gold, silver	N20W breccia zones in andesite porphyry; gold placer deposit (39, 87).
92 San Simon Creek	Zeolites	Cenozoic lacustrine zeolitic tuff (7, 81).
93 Stanley (Stanley Butte, Quartzite Mountain)	Copper, lead Gemstones: andradite garnet	Copper, lead—replacement deposits in Paleozoic limestone; NW shear zones in andesite. Garnet—in metamorphosed Paleozoic limestone near granitic intrusive (66, 71, 81).

GREENLEE COUNTY

Mining District, Mine, Area, or Deposit	Principal Commodity	Description and/or Reference
94 Black Cat	Manganese	N-S veins in volcanic rocks (27).
95 Black Rock (Black Magic)	Manganese	In chert bed in the Longfellow Limestone (27).
96 Copper Mountain (Morenci)	Copper, molybdenum, silver, gold Gemstones: turquoise Limestone Quartzite	Copper, molybdenum, silver, gold—disseminated in quartz monzonite porphyry; gold in NE veins in Ordovician limestone, and diorite porphyry; gold placer deposits in San Francisco River, Eagle Creek, Gold Gulch, and Chase Creek. Turquoise— Limestone—Modoc Limestone. Quartzite—Cambrian Coronado Quartzite (39, 55, 71, 81, 86, 87).
97 Duncan (Ash Peak, Steeple Rock, Denton)	Silver, gold Fluorspar Manganese	Silver, gold—N60W vein in Tertiary tuffs, rhyolite, and andesite. Fluorspar—lenses in E-W quartz veins in Tertiary rhyolite, andesite, and basalt. Manganese—N55-80W shear zones in vesicular basalt (23, 27, 46, 51, 81).
98 Oliver	Manganese	N40-50E fault zone in Carboniferous limestone (27).
99 Peloncillo Mountains	Gemstones: chalcedony	(71).
100 York	Gemstones: fire agate, carnelian, banded agate	(71).

MARICOPA COUNTY

Mining District, Mine, Area, or Deposit	Principal Commodity	Description and/or Reference
101 Agua Fria	Gold	Placer deposit in Moores Gulch (7, 24, 81, 86).
102 Aguila (Big Horn)	Manganese Gold Gemstones: marekanite (Apache tears) Celestite	Manganese—in irregular masses, fractures, and fissure fillings in older schists and granitic rocks, and younger andesite and tuffs. Gold—veins in gneissic granite, and placer deposits. Marekanite (Apache tears)—in perlite. Celestite—interbedded with Tertiary shaly tuff (24, 26, 39, 81, 86, 87).
103 Big Star (Big Spar)	Fluorspar	E-W veins in andesite near granite porphyry intrusive (23, 81).
104 Buckeye Hills (Buckeye)	Mica, euxenite, xenotime	In pegmatites in granite and schist (72, 81).
105 Camp Creek	Gemstones: jasper	Red orbicular jasper with rosettes of quartz needles (71, 81).
106 Cave Creek (Gold Cliff, Golden Reef)	Gold, copper, silver, lead, molybdenum, vanadium Tungsten Gemstones: onyx marble (Mexican onyx)	Gold, copper, silver, lead, molybdenum, vanadium—in N-S breccia zones in schist; gold in placer deposits along Cave Creek. Tungsten—in N45E, and N25-30E fissures in granite stock, and Precambrian schist. Onyx marble (Mexican onyx)—travertine deposit (16, 24, 81, 84, 86).
107 Ellsworth (Snowball, Princess Ann, White Rock)	Gold, copper, silver, lead Dimension stone, limestone and marble Barite Fluorspar	Gold, copper, silver, lead—NW veins in Precambrian schist and gneiss. Limestone and marble—recrystallized Paleozoic limestone. Barite—NW veins and fracture fillings in an igneous flow conglomerate. Fluorspar—with calcite, barite, and quartz in veins in gneiss, schist, limestone, volcanic agglomerate, and basalt (7, 19, 74, 81).
108 Estrella Mountains	Mica	In pegmatite and adjacent schist (7, 81).
109 Four Peaks	Gemstones: amethyst	In cavities in the Mazatzal Quartzite (71, 81).
110 Gila Crossing (Salt River)	Gold	NW quartz veins in silicified chloritic schist (85).
111 Granite Reef (Arizona Barite, Macco)	Barite	N75W fault and fracture zones in Cretaceous conglomerate red beds (74).
112 Magazine	Copper, silver, gold	Vein in Precambrian schist (49, 81).
113 Mazatzal Mountains	Mercury	As veinlets and in fault gouge and breccia in chlorite and sericite schists, and altered phyllites (78).
114 New River (Moors)	Dimension stone, schist Gold	Schist— Gold—lode and placer deposits (39, 81).
115 Osborn	Gold, lead, copper	N60E vein in breccia zone in volcanic rocks (4, 81).
116 Phoenix	Sand and gravel Dimension stone, schist, granite, slate Clay Mercury	Sand and gravel— Dimension stone—Precambrian gneissic granite, schist, and micaceous slate. Clay— Mercury—N25E shear zone in quartz-sericite schist (77, 78, 81).
117 Pikes Peak (Morgan City)	Gold Lead Iron	Gold—placer deposits in Morgan Wash. Lead— Iron—tactonite-like deposit in schist and greenstone of the Precambrian Yavapai Series (34, 39, 81, 86).
118 Rowley (Reliance)	Molybdenum, copper	In N30-37W fault in Tertiary andesite (44).
119 Salt River Mountains (Max Delta)	Gold, silver	N60W, N30W, and N10W veins in schist and gneiss (24, 87).
120 San Domingo (Hassayampa River)	Gold Lead	Gold—placer deposits in San Domingo Wash and Old Woman Gulch. Lead—(81, 86).
121 Squaw Peak	Kyanite	(81).
122 Sunflower	Gold Lead	Gold—placer deposits. Lead—(81, 86).
123 Vulture	Gold, lead, zinc, copper, silver	NW veins in Precambrian granite and schist, and Cretaceous (?) andesite; placer gold in the pediment of Red Top Basin, and in Vulture Wash (24, 81, 86, 87).
124 Webb (Gila Bend Mountains)	Copper	(7, 80, 88).
125 Winifred (Jack White)	Gold	NE vein in granite (24, 81, 87).

MOHAVE COUNTY

Mining District, Mine, Area, or Deposit	Principal Commodity	Description and/or Reference
126 Aquarius Range	Tungsten	N70-80W veins in Precambrian granite and gneiss (17, 83).
127 Artillery Mountains	Manganese	Bedded deposits in the Chapin Wash Formation (26, 45).
128 Beaver Dam	Gypsum	Lenses in the Pennsylvanian Callville Limestone (81).
129 Bentley (Grand Gulch, Grand Wash Cliffs)	Copper, silver	Annular-shaped replacement deposit around vertical sandstone plug in calcareous sandstone (24, 37).
130 Black Burro	Manganese	Bedded deposit in Tertiary sandstone (26).
131 Black Diamond	Manganese	NE-trending fault zone in Paleozoic limestones (26).
132 Boriana	Tungsten Gemstones: scheelite	Tungsten—N30-40E quartz veins in Precambrian phyllite or schist, and Cretaceous granite. Scheelite—brown to yellow crystals from Boriana mine (17, 71, 83).
133 Bullhead City	Sand and gravel	(81).
134 Burro Creek	Bentonite	Associated with rhyolite tuff in Cenozoic lake beds (7, 81).
135 Cedar Valley (Antler)	Copper, zinc, silver, lead	Massive sulfide lenses and pods, and in veins in altered Precambrian schist and gneiss (65, 81).
136 Chemehuevis (Gold Wing)	Gold, silver, lead	NE veins in schist; gold placer deposits in Red Hills area, and in Dutch and Printers Gulches (86, 87).
137 Copper Mountain (Andrus Canyon)	Copper	Pipe-like collapse structure in Supai Formation (60).
138 Cottonwood (Cottonwood Cliffs)	Gold	N25W vein in schist; placer deposits in and tributary to Wright Creek (86, 87).
139 Dutch Flat	Tungsten	N15E and N28W quartz veins in Precambrian schist (17).

MOHAVE COUNTY (con't)

Mining District, Mine, Area, or Deposit	Principal Commodity	Description and/or Reference
140 Eldorado Pass	Gold, silver Copper	Gold, silver—quartz veins in Precambrian granite. Copper—along contact between granite and Tertiary volcanics (24, 67, 81).
141 Garnet Mountain	Mica	NW-trending pegmatite in granite (59, 81).
142 Gold Basin	Gold, lead	N50E veins in Precambrian granite and schist; gold placer deposits in arroyos and gulches from White Hills to Hualapai Wash (86, 87).
143 Gold Bug	Gold, silver, lead, vanadium	NE veins in volcanic rocks (67, 87).
144 Greenwood (Signal)	Lead	(7, 81).
145 Hackberry (Peacock)	Silver, lead	Veins in granite (67, 81).
146 Hacks Canyon (Tucket)	Uranium, vanadium, copper	In pipe-like body of collapse breccia in Hermit Shale (60).
147 Katherine	Gold, silver	N62-65E veins in granite, associated with rhyolite porphyry dikes (48).
148 Kingman	Sand and gravel Mica	Sand and gravel— Mica—in pegmatite (53, 81).
149 Leviathan (Copper Canyon)	Molybdenum	With copper in quartz veins in quartz diorite (36, 81).
150 Lost Basin	Gold, silver Euxenite	Gold, silver—N-S veins in granite and schist; gold placer deposits from King Tut placer area. Euxenite—(81, 86, 87).
151 Maynard (Hualpai)	Silver, lead, zinc, gold	NW veins in Precambrian granite; gold placer deposits in gulches and hillside gravels of Lookout placers (39, 67, 81, 86).
152 McConnico	Gold Gemstones: amethyst	Gold—N-S pegmatite dikes and shear zones in Precambrian granite; placer deposits from gulches in Lewis placer area. Amethyst—in mineralized zone in Precambrian granite (39, 67, 86).
153 Mesa Manganese	Manganese	N30-35W fractures in Paleozoic limestone and bedded deposits in Tertiary sandstone (26).
154 Mica Hill (Merlo)	Mica	(7, 81).
155 Minnesota	Gold, silver, lead, copper	Quartz veins in Precambrian granite (7, 67, 81).
156 Mokiah Wash	Gypsum	Lenses in Permian red beds (81).
157 Music Mountain	Gold	NE veins in granite, schist, and gneiss (87).
158 Oatman	Brucite	Layered deposits in the Tertiary Alcyone Trachyte (81).
159 Owens (McCracken, Potts Mountains)	Silver, lead	N-S veins in Precambrian quartz-mica schist (9, 24, 81).
160 Pilgrim	Gold	N30W fault zone in andesite and rhyolite (87).
161 Pilot Rock	Manganese	N-S en echelon veins in Tertiary basalt and sandstones (26).
162 Rare Metals	Rare-earth minerals, beryllium	N85E pegmatite dikes in Precambrian granite (35, 81).
163 Rucker	Barite	In vein along N60W shear zone in granite (74).
164 San Francisco (Boundary Cone, Oatman, Gold Road)	Gold, silver	NW veins in Oatman Andesite, latite, quartz monzonite porphyry, Esperanza Trachyte, and Alcyone Trachyte; gold placer deposits from Silver Creek Valley, and near Oatman Camp (39, 81, 86, 87).
165 Taylor	Feldspar, quartz, quartzite, thorium, euxenite	NE-trending pegmatite dikes in granite (59, 81).
166 Telluride Chief	Gold, silver, molybdenum	With tungsten in N30W, and NE quartz veins in granite, intruded by aplite and pegmatite dikes (7, 81, 83).
167 Topock	Gemstones: chalcedony	In gravels in river terraces (71, 81).
168 Union Pass	Gold, silver	NE veins in granite and rhyolite porphyry (48).
169 Virginia (Weaver, Mocking Bird)	Gold	Veins in Tertiary rhyolite and andesite (24, 67).
170 Wallapai (Cerbat, Chloride, Ithaca Peak, Mineral Park)	Copper, molybdenum Gold, silver, lead, zinc, copper Gemstones: turquoise	Copper, molybdenum—disseminated in Cretaceous quartz monzonite porphyry. Gold, silver, lead, zinc, copper—N60W to N-S veins in Precambrian schist, gneiss, and granite; N10-30W and NE veins in Cretaceous stocks. Turquoise—in veins and nodules in quartz monzonite porphyry (22, 71, 77, 81, 87).
171 White Hills (Indian Secret)	Silver, gold	NW quartz veins in Precambrian granite gneiss (67, 81).
172 Willow Beach	Gold	Placer deposits in river bars in Colorado River (86).
173 Yucca (Santa Fe)	Manganese	Bedded deposits in sandstone, and shear zones in volcanic rocks (26).

NAVAJO COUNTY

Mining District, Mine, Area, or Deposit	Principal Commodity	Description and/or Reference
174 Apache Iron	Iron	Replacement deposits in Mescal Limestone, associated with diabase intrusives (34, 56).
Black Mesa Coal Field	Coal, bituminous and subbituminous	Dakota Sandstone, and Toreva and Wepo Formations of the Cretaceous Mesaverde Group (11, 60, 81).
175 Black Mesa No. 1 (Peabody)	Coal	Cretaceous Wepo Formation of the Mesaverde Group (7, 8, 60).
176 Chediski	Iron	Replacement deposits in Mescal Limestone, associated with diabase intrusives (34, 56).
177 Holbrook	Sand and gravel Uranium	(60, 81).
178 Hunts Mesa	Uranium	Shinarump Member of the Chinle Formation (60).
179 Little John and Ruth	Uranium	Petrified Forest Member of the Chinle Formation (60).
180 Monument Valley (Monument No. 1, Moonlight, Starlight, Sunlight, Boot Jack)	Uranium, vanadium	Shinarump Member of the Chinle Formation (60, 81).
181 Morales	Uranium, vanadium	In laminated siltstone and tuff, near diatreme (60, 81).
Pinedale Coal Field	Coal, subbituminous	Cretaceous Mesaverde Group, and Mancos Shale (60, 81).
182 Snowflake	Gypsum	Triassic Moenkopi Formation (81).
183 Taylor	Dimension stone, sandstone Sand and gravel	Dimension stone, sandstone—Coconino and Moenkopi Sandstones (81).
184 Woodruff	Gypsum	Triassic Moenkopi Formation (81).

PIMA COUNTY

Mining District, Mine, Area, or Deposit	Principal Commodity	Description and/or Reference
185 Adler Canyon	Gold	Placer deposits in Adler Canyon and tributaries (86).
186 Ajo (New Cornelia)	Copper, gold, silver Gemstones: shattuckite Quartz	Copper, gold, silver—disseminated in Tertiary quartz monzonite, quartz diorite, and Mesozoic rhyolite and andesite. Shattuckite— Quartz—pegmatite deposit (20, 81).
187 Alamo Springs	Gypsum	Interbedded with Cenozoic clay, shale and sandstone (81).
188 Amole (Tucson Mountains)	Silver, copper, lead, zinc, gold, molybdenum	Veins and replacement deposits in limestones, andesite, and granodiorite (24, 38, 81).
189 Andrada Marble	Limestone, marble	Recrystallized Escabrosa Limestone (7, 8, 81).
190 Arivaca (Las Guijas)	Lead, silver, gold, zinc Tungsten	Lead, silver, gold, zinc—veins in andesite and granite; gold placer deposits along Las Guijas Creek, and Durazno, Piquero, Yaqui, and Sangose Gulches. Tungsten—N65-80W and N60E quartz veins in granite (18, 24, 39, 81, 86).
191 Baboquivari	Gold, silver, molybdenum	Gold, silver—E-W veins in Cretaceous (?) shale, conglomerate, and quartzite, intruded by granite and diorite porphyry; gold placer deposits in benches and bars along E-W-trending wash. Molybdenum, gold—N70W quartz veins in aplitic granite (39, 44, 81, 86, 87).
192 Cababi (Comobabi)	Gold, silver, lead, copper, zinc	E-W veins in Cretaceous (?) shales and NW veins in diorite porphyry; gold placer deposits near Jaeger gold mine (24, 39, 86, 87).
Canada del Oro (see Pinal Co.)		
193 Catalina (Santa Catalina)	Copper	(7, 24, 88).
194 Cerro Colorado	Silver, lead, zinc Mercury	Silver, lead, zinc—quartz veins in andesite and granite. Mercury—(24, 81).
195 Drew Springs	Manganese	Replacement deposits in limestone (27).
196 Empire	Lead, silver, zinc, copper, gold, molybdenum	Replacement deposits in brecciated Permian limestone adjacent to N30E fractures; gold placer deposits (5, 24, 81, 86).
197 Greaterville	Gold, lead, silver, copper, zinc	Fissure veins in granite and sedimentary rocks; gold placer deposits in Boston, Kentucky, Harshaw, Sucker, Graham, Louisiana, Hughes, Ophir, Los Pozos, Colorado, Chispa, and Empire Gulches (24, 39, 81, 86).
198 Growler	Copper, gold, silver, lead	(7, 81).
199 Gunsight (Meyer)	Silver, lead	N20-30E veins in granite (24, 81).
200 Helvetia (Rosemont)	Copper, silver, zinc, lead, gold Molybdenum	Copper, silver, zinc, lead, gold—replacement deposits in silicated limestone along fault zones. Molybdenum—disseminated with copper in tactite zone between limestone and granitic rock (14, 44, 81).
201 Montezuma (Puerto Blanco Mountains)	Gold	Veins in schist (87).
202 Old Baldy	Gold Molybdenum	Gold—placer deposits from Madera Canyon alluvial cone. Molybdenum—N70W to N80E quartz veins in diorite and granite (44, 86).
203 Picacho de Calera (Rillito)	Limestone for cement rock	Escabrosa and Naco Group Limestones (7, 81).
204 Pima (Armagosa, Esperanza, Fluxore, Mineral Hill, Mission-Pima, Neptune, New Year's Eve, Olive, Papago, Sierrita, Sharon D., Twin Buttes)	Copper, molybdenum, gold, silver, lead, zinc Fluorspar Gemstones: beryl	Copper, molybdenum, gold, silver, lead, zinc—disseminated in and in veins in Cretaceous (?) silicated limestone, altered siltstone and sandstone, and Tertiary (?) quartz monzonite porphyry, quartz dacite porphyry, and andesite porphyry; zinc, copper in tactite replacement deposits in limestone and along fault zones and fractures, and near granite intrusive; lead, zinc in massive sulfide replacement deposits in limestone and brecciated andesite in fault zones, and in N10W to N50W veins in andesite; gold placer deposits in Ash Creek, Pascola Canyon, and Armargosa Arroyo. Fluorspar—with calcite and barite in N10W and N60W quartz veins along Precambrian schist, and Tertiary (?) granite and aplite contact. Beryl—in pegmatites in the north pediment of the Sierrita Mountains (23, 24, 44, 52, 81, 84, 86).
205 Quijotoa	Silver, gold	NW shear zones in quartz diorite; gold placer deposits in Horseshoe Basin area, Homestake, and Midas Gulches, and 3 miles south of Pozo Blanco (24, 39, 86, 87).
206 Redington	Copper, uranium	(7).
207 Rincon	Lead, barite	(7, 81).
208 Roadside	Copper	(7).
209 Santa Rosa	Lead	(7, 81).
210 Silver Bell	Copper, gold, lead, zinc, molybdenum, silver	Disseminated in Paleozoic and Mesozoic sedimentary rocks, and Tertiary-Cretaceous alaskite, monzonite, and dacite porphyry (24, 63, 81).
211 Tucson	Sand and gravel	(77, 81).

PIMA COUNTY (con't)

Mining District, Mine, Area, or Deposit	Principal Commodity	Description and/or Reference
212 Tucson Mountains	Gemstones: chalcedony	North end of the Tucson Mountains in andesite (7, 81).
213 Waterman (Silver Hill, Roskruge)	Lead, copper, silver	Veins and replacement deposits in Paleozoic limestone and quartzite (4, 81).

PINAL COUNTY

Mining District, Mine, Area, or Deposit	Principal Commodity	Description and/or Reference
214 Apache Junction	Sand and gravel	(81).
215 Blackwater (Sacaton Mountains)	Gold, silver, lead	(7, 81).
216 Bunker Hill (Copper Creek)	Copper, molybdenum, lead, silver, gold, rhenium	Breccia pipes and veins in and adjacent to Copper Creek Granodiorite (5, 70).
217 Campo Bonito (Maudina)	Tungsten, gold	Along NW-trending fault zone in Escabrosa Limestone, adjacent to Precambrian granite (16).
218 Cañada del Oro (Old Hat)	Gold	Placer deposits in Cañada del Oro Creek (86).
219 Casa Grande	Sand and gravel	(81).
220 Cottonwood (Crozier Peak)	Gold, copper	(7, 81).
221 Crescent	Manganese	N20-45W fracture zones in the Mescal Limestone and adjacent quartzite (27).
Deer Creek Coal Field	Coal, bituminous	Thin beds in Upper Cretaceous rocks (60).
222 Enid Station	Mica	In pegmatite and adjacent schist (81).
223 Feldman	Gypsum	Interbedded with shale and silt in the Cenozoic Gila Group (45, 81).
224 Florence	Sand and gravel	(77, 81).
225 Garcia Gypsum	Gypsum	Interbedded with shale and silt in the Cenozoic Gila Group (81).
226 Goldfields	Gold, silver	N-S faults in granite (24, 81, 87).
227 Hewitt Canyon	Dimension stone, limestone	Recrystallized and serpentinized Mescal Limestone (81).
228 Lakeshore	Copper	Replacement deposits in calcareous metasediments associated with Tertiary (?) quartz diorite-quartz monzonite porphyry intrusive (7, 33).
229 Little Hills	Silica	(8).
230 Martinez Canyon	Lead, silver	Fault zone in granite and schist (4, 81).
231 Mineral Creek (Ray, Kelvin)	Copper, gold, lead, zinc, molybdenum	Disseminated in Precambrian schist and diabase, and Tertiary quartz monzonite porphyry (24, 41, 42, 54, 81).
232 Mineral Hill	Gold, lead, zinc	Veins in Precambrian mica schist (4, 81).
233 Nations Mercury	Mercury	Native mercury in schist (78).
234 Old Hat (Mammoth, San Manuel-Kalamazoo, Tiger)	Copper, molybdenum, gold, lead, silver, zinc, vanadium	Copper, molybdenum, silver, gold—disseminated in quartz monzonite, granodiorite porphyry, and diabase; gold, lead, zinc, molybdenum, silver, vanadium in NW-trending veins in Tertiary (?) rhyolite and quartz-monzonite (7, 13, 25, 76, 77, 81, 87).
235 Omega	Iron	Alluvial deposits with sand, gravel, and silt (7, 34).
236 Owl Head	Silver	(7, 24).
237 Picacho	Lead	(7, 81).
238 Picketpost Mountain	Perlite	Associated with Tertiary glassy rhyolite, and tuff or breccia (77, 81, 89).
239 Pioneer (Magma, Silver King, Superior)	Copper, silver, gold, lead, zinc, manganese	E-W veins and replacement deposits in the Escabrosa, Naco, and Martin Limestones; replacement deposits along N-S faults in the Pinal Schist, diabase, and Paleozoic limestone; stockwork in diorite porphyry (24, 27, 31, 81, 87).
240 Ripsey	Gold, silver, lead, copper, zinc	In fault zone (7, 81).
241 Riverside (Kearney, Rare Metals)	Sand and gravel Gold, silver, copper, lead Molybdenum	Sand and gravel— Gold, silver, copper, lead—vein in granite. Molybdenum—E-W to N70E quartz veins in biotite granite, cut by quartz porphyry and aplite dikes (44, 81).
242 Saddle Mountain	Lead, silver	N35E to E-W fissure veins in Cretaceous andesite (24, 81).
243 San Pedro (Camp Grant)	Limestone Quartzite Manganese Asbestos	Limestone—Escabrosa Limestone Quartzite—Precambrian or Cambrian quartzite. Manganese— Asbestos—(7, 81).
244 Silver Reef Mountains	Silver, gold Manganese	Silver, gold—replacement deposits in Pennsylvanian limestone, and veins in limestone, granite porphyry, and volcanic flows. Manganese—N20E fracture zone in granite (7, 27, 81).
245 Vekol (Casa Grande)	Silver, copper, gold, lead	N60E and N20W veins in Cambrian schistose, sandy slates (24, 81, 87).
246 White Cliffs (Mammoth)	Diatomite	Interbedded with mudstones, siltstones, and tuffaceous materials in the Pliocene and Pleistocene Quiburis Formation (81).
247 Zig Zag	Manganese	N10-25W veins in granite (27).

SANTA CRUZ COUNTY

Mining District, Mine, Area, or Deposit	Principal Commodity	Description and/or Reference
248 Harshaw	Silver, lead, copper, gold, manganese, zinc	Replacement deposits along E-W fault between Paleozoic limestones and quartz monzonite; gold placer deposits between Sonoita Creek and Alum Canyon (24, 27, 86).
249 Nogales (Gold Hill)	Sand and gravel Gold, lead, silver Tungsten	Sand and gravel— Gold—placer deposits in Guebabi Canyon. Lead, silver— Tungsten—N25W quartz veins in granodiorite (81, 83, 86).
250 Oro Blanco (Ruby)	Silver, lead, gold, zinc, copper	NW veins in diorite and metamorphosed Cretaceous (?) conglomerates; gold placer deposits in Alamo and neighboring gulches (5, 86, 87).
251 Pajarito	Lead	(7, 81).
252 Palmetto	Copper, silver, lead	Copper, silver in stockworks along N-S shear zone in granite porphyry; silver, lead in veins in quartz monzonite (68, 81).
253 Patagonia (Duquesne, Washington)	Copper, lead, silver, gold, molybdenum	Veins and contact-metamorphic deposits in Paleozoic sedimentary rocks and Mesozoic intrusive rocks; molybdenum and copper in N-S to N50E fractures in feldspathized quartz monzonite; gold placer deposits in Mowry Wash and area, and Quajolote Flat (24, 44, 68, 81, 86).
254 Red Rock	Silver, lead	E-W and NE veins in andesite, rhyolite, and conglomerate (24, 68, 81).
255 San Cayetano	Copper, silver	N70-75W quartz veins in rhyolite and quartz diorite, near quartz monzonite porphyry intrusives (68).
256 Tyndall (Aztec)	Silver, lead, copper, gold, zinc	Silver, lead, zinc in veins in igneous rocks; copper, silver, in veins in igneous rocks and replacement deposits in Paleozoic limestone; gold placer deposits SW of Salero and south of Mount Allen, and at the SW base of Grosvenor Hills (24, 68, 81, 86).
257 Wrightson	Copper, silver, lead, gold	Quartz veins and replacement deposits in monzonite and andesite (24, 68, 81).

YAVAPAI COUNTY

Mining District, Mine, Area, or Deposit	Principal Commodity	Description and/or Reference
258 Agua Fria	Copper, gold, silver, lead, zinc	Replacement deposits in Yavapai Schist (24, 50, 81).
259 Ash Creek	Gold, lead	(81).
260 Ashfork	Crushed stone, basalt Dimension stone, sandstone Gemstones: onyx marble (Mexican onyx)	Crushed stone, basalt—basalt scoria. Dimension stone, sandstone—Coconino Sandstone. Onyz marble (Mexican onyx)—travertine deposit (81).
261 Big Bug (Iron King)	Zinc, lead, gold, silver, copper	Massive pyrite lenses and quartz veins along the contact of Precambrian meta-rhyolite and meta-andesite; gold placer deposits from upper Big Bug Creek to Mayer, and in gulches near McCabe (28, 81, 87).
262 Black Buck	Manganese	Veins or fracture zones in granitic rocks (26).
263 Black Canyon	Gold, silver, lead, copper	NE and N-S veins in granite and Yavapai Schist; placer gold in Turkey, Poland, and Bumblebee Creeks, and American and Mexican Gulches (81, 86, 87).
264 Black Hills	Copper, gold, silver,	E-W vein in schist (24, 50, 81).
265 Black Pearl	Tungsten	N70-75W vein in Precambrian granite (17).
266 Black Rock, Box Canyon	Gold, silver, lead, copper Manganese	Gold, silver, lead, copper—N20-30W and N37-70E fissure zones in granite and schist. Manganese—lenticular bodies in NW fractures in volcanic breccia (24, 26, 87).
267 Bloody Basin	Gemstones: onyx marble (Mexican onyx)	(7).
268 Blue Tank	Gold, lead, manganese	Gold—placer deposits. Lead, manganese—(81, 86).
269 Burmister (Black Magic)	Manganese	Irregular bodies in travertine, associated with sandy sediments and tuffs (26).
270 Camp Verde	Sodium sulfate Gypsum Sand and gravel Bentonite	Sodium sulfate—with halite, gypsum, and clay in Cenozoic Verde Formation. Gypsum—interbedded with mudstone and volcanic ash in the Verde Formation. Sand and gravel— Bentonite—Verde Formation (6, 8, 81).
271 Castle Creek	Gold, copper, lead	N10W veins in Precambrian schist and granite (87).
272 Castle Hot Springs	Gemstones: chalcedony	(81).
273 Cherry Creek	Gold, silver	Veins in NE shear zones in granite (24, 87).
274 Chino (Seligman Iron)	Iron	Replacement deposits in Redwall Limestone (7, 34).
275 Clarkdale	Limestone for cement rock Clay, shale Sand and gravel	Limestone—Redwall Limestone. Clay, shale—Verde Formation. Sand and gravel—(7, 81).
276 Cleator	Iron	Tactonite, semitaconite, and jaspilite beds in the Precambrian Yavapai Series (34).
277 Copper Basin	Copper, molybdenum, gold, zinc, lead, silver	Copper, molybdenum, in breccia pipes in quartz monzonite, and quartz monzonite porphyry; gold, copper, in N60-75W and N55-70E veins in Precambrian rocks; zinc, lead, silver, in veins around breccia pipes; gold placer deposits north of Copper Basin Wash between Skull Valley and Sierra Prieta (40, 44, 81, 86).
278 Eureka (Bagdad)	Copper, silver, molybdenum, lead Tungsten Iron	Copper, molybdenum, silver, gold—disseminated and in fractures in quartz monzonite. Copper, lead, zinc, silver, gold—Massive sulfide replacement deposits in the Precambrian Bridle Formation, and in N10W to N25E vein in Precambrian Hillside Schist; gold, silver, in N-S to N15E veins in mica schist; gold placer deposits in Burro Creek at the Old Placers. Tungsten—E-W veins in the Precambrian Lawler Peak Granite. Iron—lenticular bodies in gabbro (2, 32, 34, 81, 86, 87).
279 Granite Creek (Del Rio)	Gold	Placer deposits from Granite Creek, New England Gulch and at Del Rio (86).
280 Groom Creek	Gold, silver	N15-20W shear zone in Precambrian schist; gold placer deposit at Groom Creek (86, 87).
281 Harris	Manganese	Lenticular bodies in E-W vein in sandstone (26).

YAVAPAI COUNTY (con't)

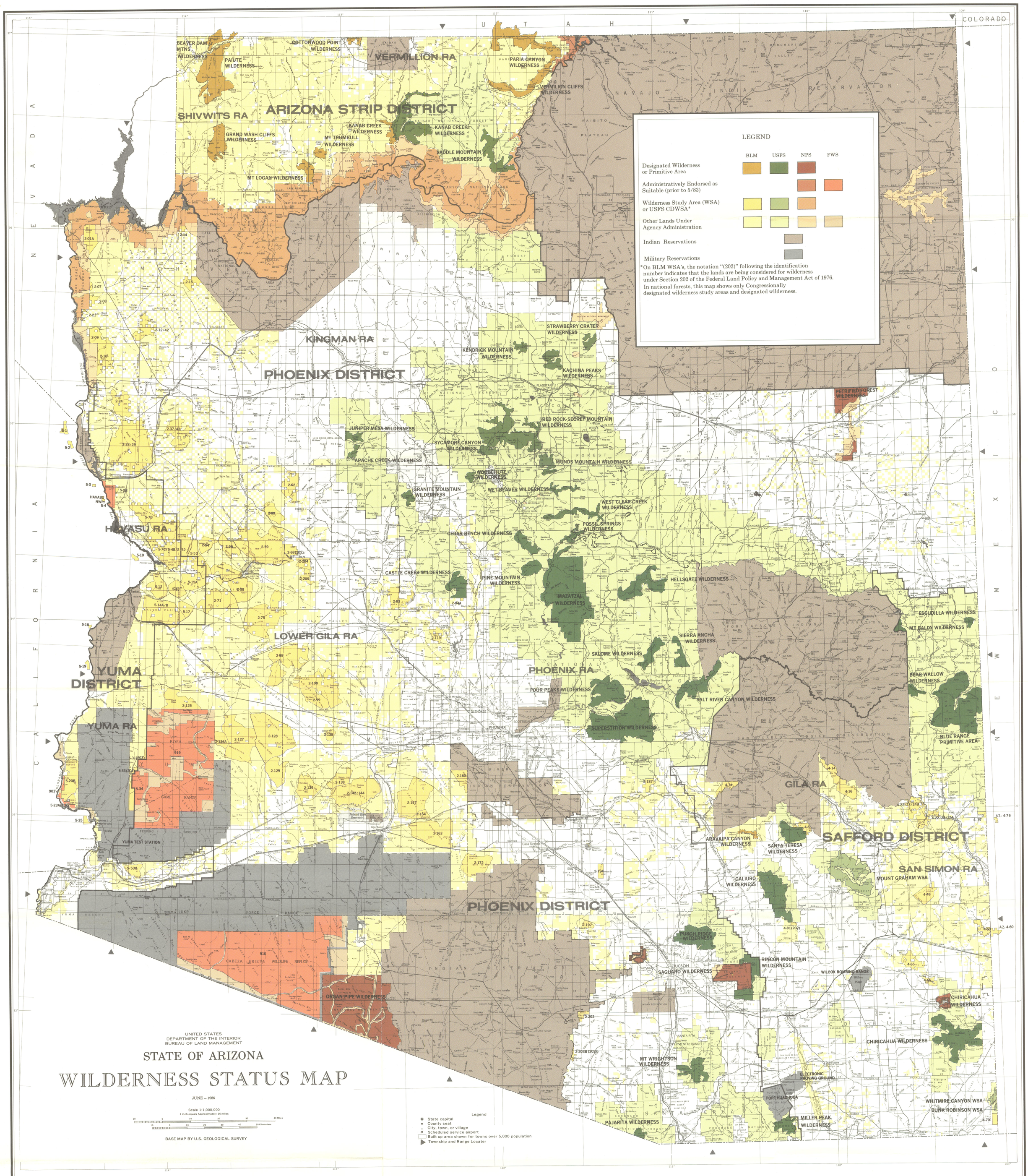
Mining District, Mine, Area, or Deposit	Principal Commodity	Description and/or Reference
282 Hassayampa (Prescott)	Gold, silver, copper, lead, zinc	N10-20W and N40E veins in schist, greenstone, and gneissic granite; gold placer deposits (24, 81, 87).
283 Humbug	Gold, silver, lead	NE veins in schist and granite; gold placer deposits along Humbug, French, and Cow Creeks (86, 87).
284 Kirkland	Gold, lead	Gold—placer deposits. Lead—(39, 81, 86).
285 Lyles	Bentonite	Cenozoic lake beds (57, 81).
286 Lynx	Gold	Placer deposits in Lynx Creek and tributary gulches (86, 87).
287 Martinez (Congress)	Gold, silver	N-S and E-W veins in granite and greenstone dikes; gold placer deposits (87).
288 Mayer	Iron Dimension stone, schist Gemstones: onyx marble (Mexican onyx)	Iron—taconite bed in Precambrian Yavapai Schist. Dimension stone, schist— Onyx marble (Mexican onyx)—travertine deposit (34, 81).
289 Mineral Point	Lead	(81).
290 Minnehaha	Gold, silver	E-W quartz vein; gold placer deposits along Minnehaha Creek (50, 86, 87).
291 Nelson	Limestone	Redwall Limestone (81).
292 Peck	Silver, copper, gold, lead	N-S and N25E veins in Precambrian Yavapai Schist (50, 82, 86).
293 Perkinsville	Sand and gravel	(81).
294 Pine Grove (Crown King)	Gold, silver, copper, lead Beryllium	Gold, silver, copper, lead—NE veins in schist, associated with granite and rhyolite porphyry dikes. Beryllium—in pegmatite (24, 81, 87).
295 Placerita	Gold	Placer deposit (24).
296 Prescott	Sand and gravel Dimension stone, granite	Sand and gravel— Dimension stone, granite—residual boulders of granitic rock (81).
297 Red Picacho	Gold, copper	(7).
298 Rich Hill (Octave, Weaver, Stanton)	Gold, silver Iron	Gold, silver—N70E to E-W veins in quartz diorite, schist, and greenstone; gold placer deposits from Rich Hill, Weaver and Antelope Creeks, and Oro Fino Gulch. Iron—laminated, taconite bed in schist, quartzite, and greenstone of the Precambrian Yavapai Series (34, 81, 86, 87).
299 Sedona	Dimension stone, sandstone	Coconino Sandstone (81).
300 Silver Mountain	Gold, lead	Gold—placer deposits. Lead—(81, 86).
301 Squaw Creek	Gold	Placer deposit along Squaw Creek (39).
302 Squaw Peak	Copper, molybdenum	Disseminated, and in NW and NE veins in Precambrian quartz diorite (44).
303 Thumb Butte	Lead	(81).
304 Tiger (Bradshaw, Harrington)	Silver, gold, copper	N10-30E veins in granodiorite and Yavapai Schist; gold placer deposits (50, 81, 87).
305 Tip Top	Silver, gold, lead, tungsten	N50-60E vein in granite and pegmatite; gold placer deposits (24, 50, 81, 83, 86).
306 Turkey Creek (Goodwin)	Silver, gold, copper, lead Iron	Silver, gold, copper, lead—NE veins in granite; gold placer deposits along Turkey Creek. Iron—taconite bed in the Precambrian Yavapai Series (24, 34, 39, 50, 86).
307 Uranium Aire	Uranium, vanadium	In carbonaceous mudstone-limestone unit in Tertiary lake beds (60, 81).
308 Verde (Jerome)	Copper, gold, silver, zinc, lead	Massive pyritic pipes and sulfide lenses in Precambrian schist (3).
309 Wagoner (Walnut Grove)	Gold, lead	Gold—placer deposits from French and Placerita Gulches (81, 86).
310 Walker	Gold, silver, copper, lead	N30E fissure veins in schist and gneissic granite (81, 87).
311 White Picacho	Lithium minerals, feldspar, beryl, mica, columbium-tantalum minerals Gold	Lithium minerals, feldspar, mica, beryl, columbium-tantalum minerals—pegmatite dikes, pods, and irregular bodies in Precambrian schist, gneiss, granite, and amphibolite. Gold—NE veins in schistose rhyolite, and placer deposits (53, 81, 86, 87).
312 Zannaropolis	Tungsten	Stringers in Precambrian gneiss and schist (17).
313 Zonia	Copper	Disseminated in NE shear zone in Precambrian sericite schist, intruded by monzonite porphyry (47, 81).

YUMA COUNTY

Mining District, Mine, Area, or Deposit	Principal Commodity	Description and/or Reference
314 ABC (Self)	Manganese	N-S veins in volcanic rocks (26).
315 Black Beauty	Manganese	N-S veins in shear zone in volcanic rocks (26).
316 Black Dahlia	Manganese	NW fracture zones in volcanic rocks (26).
317 Black Top	Manganese	NW veins in volcanic rocks (26).
318 Blue Moon	Gypsum	Permian limestone (81).
319 Bouse (Plomosa)	Gold, copper Manganese Barite Bentonite	Gold, copper—N-S to N20W veins in metamorphosed Cretaceous (?) shales, near granite porphyry intrusive; gold placer deposits along the eastern margin of La Posa Plain, and the western foot of the Plomosa Mountains. Manganese—along NW fractures in volcanic rocks. Barite—NW veins in volcanic agglomerate. Bentonite—Cenozoic lake beds (24, 26, 74, 81, 86, 87).
320 Castle Dome	Lead, silver, gold, fluorspar, copper	NW fissure veins in Cretaceous quartzites, shale, and diorite porphyry dikes; gold placer deposits in gulches east and south of the Big Eye mine (23, 39, 81, 82, 84, 86, 87).
321 Cienega	Gold, copper, silver	NW and NW shear zones in siliceous limestone and schistose quartzite (24, 87).
322 Cottonwood Pass	Barite	In N30-50W shear fractures in granite schist and gneiss (74).
323 Crystal Peak	Gemstones: quartz crystals	Clear, chatoyant quartz crystals from Crystal Peak (71, 81).
324 Cunningham Pass	Copper, gold	N50-60W vein in Precambrian gneiss and schist (9, 81).
325 Dome (Gila City)	Gold Granite	Gold—placer deposits in Quaternary gravels in Monitor Gulch and surrounding area. Granite for crushed stone—(81, 82, 86).
326 Dome Rock Mountains	Mercury	In fault breccia in schist (78).
327 Doyle (Last Resort)	Manganese	Bedded deposits in sandstones and conglomerates adjacent to granite (26).
328 Ellsworth (Harcuvar, Harquahala)	Gold, copper, lead	NW and NE shear zones in limestone, shale, quartzite, and granite; gold placer deposits in Harquahala Gulch (24, 86, 87).
329 Fortuna	Gold, silver	N40E vein in schist (81, 87).
330 Harquahala Mountains	Limestone, marble Gypsum	Limestone, marble—recrystallized Paleozoic limestone. Gypsum—in irregular, lensing bed in folded Permian (?) limestone and shale (8, 81).
331 Hovatter	Manganese	In NW veins and shear zones in volcanic rocks (26).
332 Keiser (Sierra Blanca)	Barite	N75E fault fissure in volcanic rocks (74).
333 Kofa	Gold, silver	N60W to E-W veins and replacement deposits in brecciated andesite; gold placer deposits in a gulch north of the King of Arizona mine (81, 86, 87).
334 La Angora	Manganese	Replacement deposits along N-S fracture in limestone (26).
335 La Cholla	Gold	Placer deposits in pediment along eastern foothills of the Dome Rock Mountains (86).
336 Laguna (Las Flores)	Gold	Veins in NE shear zones in schist; placer deposits from McPhaul Bridge, Las Flores, and Laguna Dam areas (86, 87).
337 La Paz (Weaver)	Gold	Veins in NW shear zones in schist; placer deposits mainly in Goodman Arroyo, and Arroyo La Paz and tributary gulches (86, 87).
338 La Posa (Wellton)	Gold, silver, copper	Veins in E-W and N35W fault zones in gneiss and schist; gold placer deposits (39, 82, 87).
339 Metate	Manganese	Replacement deposits along minor fold in limestone (26).
340 Mohawk	Silver, barite	N65-70W veins in schist and granitic gneiss (74, 82).
341 Muggins (Muggins Mountain)	Gold	Placer deposits in bars and stream beds in Burro Canyon, and in the central part of the Muggins Mountains (86).
342 National Debt	Manganese	In E-W fracture zones in volcanic rocks (26).
343 Neversweat (Palomas Mountains)	Silver, lead	Veins in brecciated fault zone in schist (81, 82).
344 New Water	Silver, lead	(7).
345 Nighthawk and White Dike	Tungsten	NE and NW fractures along the contact between calcareous tourmalinized schist, and limestone and quartzite (16).
346 Oro Fino (Middle Camp)	Gold	Placer deposits in pediment along eastern foothills of the Dome Rock Mountains (86).
347 Parker	Sand and gravel	(81).
348 Planet (New Planet, Santa Maria, Swansea, Bill Williams, Mineral Hills Wash, Buckskin Mountain Lucky)	Copper, iron, gold, silver Manganese	Copper, iron, gold, silver—replacement deposits in metamorphosed Paleozoic limestone, and schist; copper, gold in NE breccia zone in silicified schist. Manganese—replacement deposits in limestone (24, 26, 34, 87, Lewis W. Cramer, oral commun., 1972).
349 Quartzite (Quartzsite)	Tungsten Mica	Tungsten—along intersections of N20W and N70E fractures in garnet-epidote tactite, and calcareous schist. Mica—in schistose rocks (7, 16, 81).
350 Salome	Dimension stone, granite	(7, 81).
351 Sheep Tanks	Gold, silver, copper	Veins in NW fault zone in brecciated andesite and brecciated diorite porphyry; placer gold deposit (39, 82, 87).
352 Silver (Eureka)	Silver, lead, zinc	NW veins in sericite schist, granite, and andesite (5, 81, 82).
353 Spring	Manganese	NW-trending bed in sandstone and clay of the Artillery Formation (26).
354 Tank Mountains	Gold	NW veins in granite and schist; placer deposits in a gulch below the Johnnie or Engesser prospect, and in the Puzzles area (39, 82, 86, 87).
355 Trigo Mountains (Cibola)	Gold Manganese Gemstones: chalcedony	Gold—veins in fault zones in schist. Manganese—in N-S fracture zone along the contact between older schistic rocks and younger volcanic rocks. Chalcedony—in gravels near the Colorado River (26, 81, 86, 87).
356 Trigo Placers	Gold	Placer deposits in bars and channels at the western base of the Dome Rock Mountains (86).
357 Yuma	Sand and gravel Gold	Sand and gravel— Gold—NE quartz vein in gneiss (77, 81, 82).

REFERENCES

1. Allen, J. E., and Balk, Robert, 1954, Mineral resources of Fort Defiance and Tohatchi quadrangle, Arizona and New Mexico: New Mex. Bur. Mines Bull. 36, 192 p.
2. Anderson, C. A., Stolz, E. A., and Strobell, J. D., Jr., 1956, Geology and ore deposits of the Bagdad area, Yavapai County, Arizona: U. S. Geol. Survey Prof. Paper 278, 103 p.
3. Anderson, C. A., and Creasey, S. C., 1958, Geology and ore deposits of the Jerome area, Yavapai County, Arizona: U.S. Geol. Survey Prof. Paper 308, 185 p.
4. Arizona Bureau of Mines, 1950, Arizona zinc and lead deposits, part I: Ariz. Bur. Mines Bull. 156, 144 p.
5. ——— 1950, Arizona zinc and lead deposits, part II: Ariz. Bur. Mines Bull. 158, 115 p.
6. ——— 1962, The mineral industries of Arizona: Ariz. Bur. Mines Bull. 169, 20 p.
7. ——— 1973, file data: Tucson.
8. Arizona Department of Mineral Resources, 1972, Directory of active mines in Arizona: Ariz. Dept. of Mineral Resources, Phoenix, 15 p.
9. Bancroft, Howland, 1911, Reconnaissance of the ore deposits in northern Yuma County, Arizona: U. S. Geol. Survey Bull. 451, 130 p.
10. Bryant, D. G., and Metz, H. E., 1966, Geology and ore deposits of the Warren mining district, in Titley, S. R., and Hicks, C. L., eds., Geology of the porphyry copper deposits, southwestern North America: Arizona Univ. (Tucson), p. 189-203.
11. Campbell, M. R., and Gregory, H. E., 1911, The Black Mesa coal field, Arizona: U. S. Geol. Survey Bull. 431-B, p. 229-238.
12. Cooper, J. R., and Silver, L. T., 1964, Geology and ore deposits of the Dragoon quadrangle, Cochise County, Arizona: U. S. Geol. Survey Prof. Paper 416, 196 p.
13. Creasey, S. C., 1965, Geology of the San Manuel area, Pinal County, Arizona: U. S. Geol. Survey Prof. Paper 471, 65 p.
14. Creasey, S. C., and Quick, G. L., 1955, Copper deposits of part of the Helvetia mining district, Pima County, Arizona: U. S. Geol. Survey Bull. 1027-F, p. 301-323.
15. Cummings, J. B., 1946, Exploration of the Packard fluorspar property, Gila County, Arizona: U. S. Bur. Mines Rept. of Inv. 3880, 7 p.
16. Dale, V. B., 1959, Tungsten deposits of Yuma, Maricopa, Pinal, and Graham Counties, Arizona: U. S. Bur. Mines Rept. of Inv. 5516, 68 p.
17. ——— 1961, Tungsten deposits of Gila, Yavapai, and Mohave Counties, Arizona: U. S. Bur. Mines Inf. Circ. 8078, 104 p.
18. Dale, V. B., Stewart, L. A., and McKinney, W. A., 1960, Tungsten deposits of Cochise, Pima, and Santa Cruz Counties, Arizona: U. S. Bur. Mines Rept. of Inv. 5650, 132 p.
19. Denton, T. C., and Kumke, C. A., 1949, Investigation of Snowball fluorite deposit, Maricopa County, Arizona: U.S. Bur. Mines Rept. of Inv. 4540, 15 p.
20. Dixon, D. W., 1966, Geology of the New Cornelia mine, Ajo, Arizona, in Titley, S. R., and Hicks, C. L., eds., Geology of the porphyry copper deposits, southwestern North America: Arizona Univ. (Tucson), p. 123-132.
21. Eastlick, J. T., 1968, Geology of the Christmas mine and vicinity, Banner mining district, Arizona, in Ore deposits of the United States, 1933/1967 (Graton/Sales volume): New York, Am. Inst. Mining, Metall., and Pet. Engineers, Inc., p. 1191-1210.
22. Eidel, J. J., Frost, J. E., and Clippinger, D. M., 1968, Copper-molybdenum mineralization at Mineral Park, Mohave County, Arizona, in Ore deposits in the United States, 1933/1967 (Graton/Sales volume): New York, Am. Inst. Mining, Metall., and Pet. Engineers, Inc., p. 1258-1281.
23. Elevatorski, E. A., 1971, Arizona fluorspar: Ariz. Dept. of Mineral Resources, Phoenix, 51 p.
24. Elsing, M. J., and Heineman, R. E., 1936, Arizona metal production: Ariz. Bur. Mines Bull. 140, 112 p.
25. Engineering and Mining Journal, 1971, Magma Copper Co., San Manuel Division, in 1971 E/MJ International directory of mining and mineral processing operations: New York, McGraw-Hill, p. 101.
26. Farnham, L. L., and Stewart, L. A., 1958, Manganese deposits of western Arizona: U. S. Bur. Mines Inf. Circ. 7843, 87 p.
27. Farnham, L. L., Stewart, L. A., and DeLong, C. W., 1961, Manganese deposits of eastern Arizona: U. S. Bur. Mines Inf. Circ. 7990, 178 p.
28. Gilmour, Paul, and Still, A. R., 1968, The geology of the Iron King mine, in Ore deposits in the United States, 1933/1967 (Graton/Sales volume): New York, Am. Inst. Mining, Metall., and Pet. Engineers, Inc., p. 1238-1257.
29. Gregory, H. E., 1916, Garnet deposits on the Navajo Reservation, Arizona and Utah: Econ. Geol., v. 11, p. 223-230.
30. ——— 1917, Geology of the Navajo country—a reconnaissance of parts of Arizona, New Mexico, and Utah: U. S. Geol. Survey Prof. Paper 93, 161 p.
31. Hammer, D. R., and Peterson, D. W., 1968, Geology of the Magma mine area, Arizona, in Ore deposits in the United States, 1933/1967 (Graton/Sales volume): New York, Am. Inst. Mining, Metall., and Pet. Engineers, Inc., p. 1282-1310.
32. Hardwick, W. R., and Jones, E. L., III, 1959, Open-pit copper mining methods and costs at the Bagdad mine, Bagdad Copper Corp., Yavapai County, Arizona: U. S. Bur. Mines Inf. Circ. 7929, 30 p.
33. Harper, H. E., and Reynolds, J. R., 1969, The Lakeshore copper deposit, in Mining Congress Journal, v. 55, no. 11, p. 26-30.
34. Harrer, C. M., 1964, Reconnaissance of iron deposits in Arizona: U. S. Bur. Mines Inf. Circ. 8236, 204 p.
35. Heinrich, E. W., 1960, Some rare-earth mineral deposits in Mohave County, Arizona: Ariz. Bur. Mines Bull. 167, 22 p.
36. Hess, F. L., 1924, Molybdenum deposits, a short review: U. S. Geol. Survey Bull. 761, 35 p.
37. Hill, J. M., 1915, The Grand Gulch mining region, Mohave County, Arizona: U. S. Geol. Survey Bull. 580-D, p. 39-58.
38. Jenkins, O. P., and Wilson, E. D., 1920, A geological reconnaissance of the Tucson and Amole Mountains: Ariz. Bur. Mines Bull. 106, p. 5-18.
39. Johnson, M. G., 1972, Placer gold deposits of Arizona: U. S. Geol. Survey Bull. 1355, 103 p.
40. Johnston, W. P., and Lowell, J. D., 1961, Geology and origin of mineralized breccia pipes in Copper Basin, Arizona: Econ. Geol., v. 56, p. 916-940.
41. Kennecott Copper Corp. 1970, Annual Report, 1971: New York, 36 p.
42. Kennecott Copper Corp. 1971, Annual Report, 1972: New York, 32 p.
43. Kinnison, J. E., 1966, The Mission copper deposits, in Titley, S. R., and Hicks, C. L., eds., Geology of the porphyry copper deposits, southwestern North America: Arizona Univ. (Tucson), p. 281-287.
44. Kirkemo, Harold, Anderson, C. A., and Creasey, S. C., 1965, Investigations of molybdenum deposits in the conterminous United States, 1942-1960: U. S. Geol. Survey Bull. 1182-E, p.E1-E90.
45. Knight, F. P., 1970, Mining in Arizona: Ariz. Dept. of Mineral Resources, Phoenix, 52 p.
46. Koschmann, A. H., and Bergendahl, M. H., 1968, Principal gold-producing districts of the United States: U. S. Geol. Survey Prof. Paper 610, 283 p.
47. Kumke, C. A., 1947, Zonia copper mine, Yavapai County, Arizona: U. S. Bur. Mines Rept. of Inv. 4023, 6 p.
48. Lausen, Carl, 1931, Geology and ore deposits of the Oatman and Katerine districts, Arizona: Ariz. Bur. Mines Bull. 131, 126 p.
49. Lewis, A. S., 1920, Ore deposits of the Cave Creek district, in Arizona: Eng. and Min. Jour., v. 110, no. 15, p. 713-716.
50. Lindgren, Waldemar, 1926, Ore deposits of the Jerome and Bradshaw Mountains quadrangles, Arizona: U. S. Geol. Survey Bull. 782, 192 p.
51. Lines, H. L., 1950, Mining and milling methods and costs at the Ash Peak mine of the Veta Mines, Inc., Duncan, Arizona: U. S. Bur. Mines Inf. Circ. 7119, 26 p.
52. Lynch, D. W., 1966, The economic geology of the Esperanza mine and vicinity, in Titley, S. R., and Hicks, C. L., eds., Geology of the porphyry copper deposits, southwestern North America: Arizona Univ. (Tucson), p. 267-279.
53. Meeves, H. C., Harrer, C. M., Salsbury, M. H., Konselman, A. S., and Shannon, S. S., Jr., 1966, Reconnaissance of beryllium-bearing pegmatite deposits in six western states: Arizona, Colorado, New Mexico, South Dakota, Utah, and Wyoming: U. S. Bur. Mines Inf. Circ. 8298, 34 p.
54. Metz, R. A., and Rose, A. W., 1966, Geology of the Ray copper deposit, Ray, Arizona, in Titley, S. R., and Hicks, C. L., eds., Geology of the porphyry copper deposits, southwestern North America: Arizona Univ. (Tucson), p. 177-188.
55. Moolick, R. T., and Durek, J. J., 1966, The Morenci district, in Titley, S. R., and Hicks, C. L., eds., Geology of the porphyry copper deposits, southwestern North America: Arizona Univ. (Tucson), p. 221-232.
56. Moore, R. T., 1968, Mineral deposits of the Fort Apache Indian Reservation, Arizona: Ariz. Bur. Mines Bull. 177, 84 p.
57. Norton, J. J., Lithium-bearing bentonite deposits, Yavapai County, Arizona: U. S. Geol. Survey Prof. Paper 525-D, p. D163-D166.
58. Olmstead, H. W., and Johnson, D. W., 1966, Inspiration geology, in Titley, S. R., and Hicks, C. L., eds., Geology of the porphyry copper deposits, southwestern North America: Arizona Univ. (Tucson), p. 143-150.
59. Olson, J. C., and Hinrichs, E. N., 1960, Beryl-bearing pegmatites in the Ruby Mountains and other areas in Nevada and northwestern Arizona: U. S. Geol. Survey Bull. 1082-D, p. 135-200.
60. Peirce, H. W., Keith, S. B., and Wilt, J. C., 1970, Coal, oil, natural gas, helium, and uranium in Arizona: Ariz. Bur. Mines Bull. 182, 289 p.
61. Peterson, N. P., 1962, Geology and ore deposits of the Globe-Miami district, Arizona: U. S. Geol. Survey Prof. Paper 342, 151 p.
62. Peterson, N. P., Gilbert, C. M., and Quick, G. L., 1951, Geology and ore deposits of the Castle Dome area, Gila County, Arizona: U. S. Geol. Survey Bull. 971, 134 p.
63. Richard, Kenyon, and Courtright, J. H., 1966, Structure and mineralization at Silver Bell, Arizona, in Titley, S. R., and Hicks, C. L., eds., Geology of the porphyry copper deposits, southwestern North America: Arizona Univ. (Tucson), p. 157-163.
64. Robinson, R. F., and Cook, Annan, 1966, The Safford copper deposit, Lone Star mining district, Graham County, Arizona, in Titley, S. R., and Hicks, C. L., eds., Geology of the porphyry copper deposits, southwestern North America: Arizona Univ. (Tucson), p. 251-266.
65. Romslo, T. M., 1948, Antler copper-zinc deposit, Mohave County, Arizona: U. S. Bur. Mines Rept. of Inv. 4214, 14 p.
66. Ross, C. P., 1925, Geology and ore deposits of the Aravaipa and Stanley mining district, Graham County, Arizona: U.S. Geol. Survey Bull. 763, 120 p.
67. Schrader, F. C., 1909, Mineral deposits of the Cerbat Range, Black Mountains, and Grand Wash Cliffs, Mohave County, Arizona: U. S. Geol. Survey Bull. 397, 226 p.
68. ——— 1915, Mineral deposits of the Santa Rita and Patagonia Mountains, Arizona: U. S. Geol. Survey Bull. 582, 373 p.
69. Simmons, W. W., and Fowells, J. E., 1966, Geology of the Copper Cities mine, in Titley, S. R., and Hicks, C. L., eds., Geology of the porphyry copper deposits, southwestern North America: Arizona Univ. (Tucson), p. 151-156.
70. Simons, F. S., 1964, Geology of the Klondyke quadrangle, Graham and Pinal Counties, Arizona: U. S. Geol. Survey Prof. Paper 461, 173 p.
71. Sinkankas, John, 1959, Gemstones of North America: Princeton, D. Van Nostrand Co., Inc., 675 p.
72. Sterrett, D. B., 1923, Mica deposits of the United States: U. S. Geol. Survey Bull. 740, 342 p.
73. Stewart, L. A., 1955, Crysotile-asbestos deposits of Arizona: U. S. Bur. Mines Inf. Circ. 7706, 124 p.
74. Stewart, L. A., and Pfister, A. J., 1960, Barite deposits of Arizona: U. S. Bur. Mines Rept. of Inv. 5651, 89 p.
75. Tainter, S. L., 1947, Apex copper property, Coconino County, Arizona: U. S. Bur. Mines Rept. of Inv. 4013, 23 p.
76. U. S. Bureau of Mines, 1925-1934, Mineral resources of the United States (annual volumes 1924-31): Washington, U.S. Gov't Printing Office.
77. ——— 1933-1970, Minerals yearbook (annual volumes, 1932-1970): Washington, U.S. Gov't Printing Office.
78. ——— 1965, Mercury potential of the United States: U. S. Bur. Mines Inf. Circ. 8252, 376 p.
79. U. S. Geological Survey, 1881-1924, Mineral resources of the United States (annual volumes 1880-1923): Washington, U.S. Gov't Printing Office.
80. ——— 1951, Woolsey Peak, Arizona: U. S. Geol. Survey topo. map, 15-minute quad., scale, 1:62,500.
81. U. S. Geological Survey (and others), 1969, Mineral and water resources of Arizona: U. S. Cong., U. S. Senate Comm. Interior and Insular Affairs, Comm. Print (Arizona Bur. Mines Bull. 180), 638 p.
82. Wilson, E. D., 1933, Geology and mineral deposits of southern Yuma County, Arizona: Ariz. Bur. Mines Bull. 134, 236 p.
83. ——— 1941, Tungsten deposits of Arizona: Ariz. Bur. Mines Bull. 148, 54 p.
84. ——— 1950, Fluorspar in Arizona: Ariz. Bur. Mines Circ. 15, 13 p.
85. ——— 1969, Mineral deposits of the Gila River Indian Reservation: Ariz. Bur. Mines Bull. 179, 34 p.
86. Wilson, E. D., et. al., 1961, Gold placers and placering in Arizona: Ariz. Bur. Mines Bull. 168, 124 p.
87. Wilson, E. D., Cunningham, J. B., and Butler, G. M., 1934 (revised 1967), Arizona lode gold mines and mining: Ariz. Bur. Mines Bull. 137, 254 p.
88. Wilson, E. D., O'Haire, R. T., and McCrory, F. J., 1961, Map and index of Arizona mining districts: Arizona Bur. Mines Map, scale, 1:1,000,000.
89. Wilson, E. D., and Roseveare, G. H., 1945, Arizona perlite: Ariz. Bur. Mines Circ. 12, 10 p.
90. ——— 1949, Arizona nonmetallics, 2nd ed., revised: Ariz. Bur. Mines Bull. 155, 60 p.



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

STATE OF ARIZONA

WILDERNESS STATUS MAP

JUNE – 1986

Scale 1:1,000,000
1 inch equals Approximately 16 miles

BASE MAP BY U.S. GEOLOGICAL SURVEY

Arizona Wilderness Study Areas

Phoenix District

AZ-020-001A
AZ-020-007
AZ-020-008
AZ-020-009
AZ-020-010
AZ-020-012/042
AZ-020-014
AZ-020-015
AZ-020-021
AZ-020-024
AZ-020-028/029
AZ-020-037/043
AZ-020-053
AZ-020-054
AZ-020-056
AZ-020-058
AZ-020-059
AZ-020-060
AZ-020-062
AZ-020-068
AZ-020-071
AZ-020-075
AZ-020-083
AZ-020-084A
AZ-020-095
Mount Wilson
Van Deeman
Mockingbird
Black Mountains N.
Burns Springs
Mount Tipton
Grapevine Wash
Grand Wash Cliffs
Mount Davis
Mount Nutt
Warm Springs
Wabayuma Peak
Planet
Aubrey Peak
Black Mesa
Rawhide Mountains
Arrastra Mountain
Lower Burro Creek
Upper Burro Creek
Peoples Canyon
Buckskin Mountains
Harcuvar Mountains
Hassayampa River Canyon
South Bradshaws
Harquahala Mountains
AZ-020-099
AZ-020-100
AZ-020-119
AZ-020-125
AZ-020-126A
AZ-020-127
AZ-020-128
AZ-020-129
AZ-020-135
AZ-020-136
AZ-020-138
AZ-020-142/144
AZ-020-157
AZ-020-160
AZ-020-163
AZ-020-164
AZ-020-172
AZ-020-187
AZ-020-194
AZ-020-197
AZ-020-202
AZ-020-203B
AZ-020-204
AZ-020-205
Big Horn Mountains
Hummingbird Springs
Hells Canyon
New Water Mountains
Little Horn Mountains W
Little Horn Mountains
Eagletail Mountains
East Clanton Hills
Saddle Mountain
Face Mountain
Signal Mountain
Woolsey Peak
North Maricopa Mountains
Sierra Estrella
South Maricopa Mountains
Butterfield Stage Memorial
Table Top Mountain
White Canyon
Picacho Mountains
Ragged Top
Coyote Mountains
Baboquivari Peak
Black Mtns/Ives Peak
Tres Alamos

Safford District

AZ-040-001A
AZ-040-008
AZ-040-014
AZ-040-016
AZ-040-022/023/024A
AZ-040-022/023/024B
AZ-040-048
AZ-040-060
AZ-040-065
AZ-040-066
AZ-040-070
AZ-040-076
AZ-040-077
AZ-040-081
Needle's Eye
Black Rock
Fishhooks
Day Mine
Gila Box
Turtle Mountain
Javelina Peak
Peloncillo Mountains
Dos Cabezas Mountains
Bowie Mountain
Baker Canyon
Apache Box
Hoverrocker
Galiuro Addition #3

Yuma District

AZ-050-001
AZ-050-002
AZ-050-003
AZ-050-004
AZ-050-005B
AZ-050-007B
AZ-050-007C/5-48/2-52
AZ-050-010
AZ-050-012
AZ-050-013
AZ-050-014A/B
AZ-050-015A
AZ-050-017
AZ-050-018
AZ-050-019
AZ-050-023A
AZ-050-023B
AZ-050-031
AZ-050-033
AZ-050-034
AZ-050-035
AZ-050-053A
Dead Mountain, North Addition
Dead Mountain, South Addition
Chemehuevi Mountains
Chemehuevi/Needles
Needles East Addition
Crossman Peak
Mojave Wash
Whipple Mountain Addition
Gibralter Mountain
Planet Peak
Cactus Plain
Swansea
East Cactus Plain
Big Maria Mountain, North
Big Maria Mountain, South
South Trigo Mountains
Trigo Mountains
Kofa Unit 3 South
Kofa Unit 4 North
Kofa Unit 4 South
Little Picacho Peak, South
Muggins Mountain

INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1986