

	LOCATION	NATURAL LIGHT COLOR	310/312nm COLOR	MINERAL ASSOC.	OBSERVER	PRIMARY RESPONSE
Adamite	Ojuela Mine, Mapimi, Durango State, Mexico	Pale yellow	Green	Limonite matrix NR	JMH	SW, green
Adamite	Ojuela Mine, Mapimi, Durango State, Mexico	Pastel green	Strong green	Limonite matrix NR	JMH & DS	LW, green
Afghanite (TL)	Ladjuar Medam, Sar-e-Sang, Koksha Valley, Badakhshan Province, Afghanistan	Deep blue	Orange	--	JMH	LW, orange
Agate	Anderson Mine, Dale Cree Basin, Yavapai County, Arizona, USA	Brown	Green	--	JMH	SW, green
Agate, dyed pink	Rio Grande do Sul State, Brazil	Pink	Orange & yellow	--	JMH	LW, pink/SW, pink
Agate, Condor	Andes Mountains, Mendoza Province, Argentina	Gray, Black, Tan	Green	--	JMH	SW, green
Agate, Condor with Chalcedony lining	Andes Mountains, Mendoza Province, Argentina	Blue, white, brown	Weak green	--	JMH	SW, pale green
Agate, Crater	Andes Mountains, Patagonia Region, Chubut Province, Argentina	Black	Green	--	DS	SW, green
Agate, Puma, with quartz crystal infilling	Near Malargue City, Mendoza Province, Argentina	Gray to colorless	Green	Agate NR	JMH	SW, green
Agate, Sweetwater, dendritic	Agate Flats, northeast of Jeffrey City, Fremont County, Wyoming, USA	Gray	Green	MnOx dendrites NR	JMH	SW, green
Agate Nodule, Condor	Andes Mountains, Mendoza Province, Argentina	Pale blue, gray, reddish tan	Green to sky blue	--	JMH	SW, green
Agate Nodule, Cuatita	Corrientes Province, northeast Argentina	Gray, tan, cream	White, pastel blue, tan	--	JMH	LW, no data
Agate, Graveyard Point	near Graveyard Point, Owyhee Mtns., Malheur County, Oregon, USA	Purplish gray	Sky blue	--	JMH	LW, cream white
Agate Nodule, Puma	Malargue City, Mendoza Province, Argentina	Cream to tan	Light to dark green	--	JMH	SW, green
Agate, Turrillata, slab	Northwest USA	Cream to gray	Pale blue to tan	--	JMH	LW, no data
Agrellite	Sheffield Lake, Villedieu, Quebec Province, Canada	Gray	Pink with orange flash	--	JMH	SW, pink/LW, pink
Agrellite, Eudialyte, Albite, Calcite	Kipawa Complex, Kipawa River, Quebec Province, Canada	Gray to cream, clear	Hot pink, magenta	Eudialyte, Albite, Calcite NR	JMH & DS	LW, pink/SW, pink
Amber	Bukit Barisan, Sumatra, Indonesia	Dark amber	Blue	--	JMH	LW, bluish cream
Amber	Bukit Barisan, Sumatra, Indonesia	Dark brown	Blue	--	JMH	LW, bluish cream
Amphibole, var. Clinosuenoite (rename of Tirolidite)	International Talc Company Mine, Talcville, St. Lawrence County, New York, USA	White	Pink	--	DS	SW, pink to red
Andalusite, var. Chiastolite	Pestovoye Keivy, Kieg Mountains, Murmansk Oblast, Russia	Gray-white	Deep pink	--	JMH	SW, pale yellowish cream
Andersonite	D-Day #2 Mine, Yellow Cat Mesa, Grand County, Utah, USA	White to colorless	Bright green	efflorescence	JMH	SW, green
Andersonite on gypsum	D-Day #2 Mine, Yellow Cat Mesa, Grand County, Utah, USA	Yellow green	Bright green	Gypsum NR	JMH	LW, weak green/SW, green
Andersonite	Atomic King Mine, San Juan County, Utah, USA	Green	Green	--	DS	SW, green
Aragonite	Prospect east of Organ, Dona Ana County, New Mexico, USA	White to cream	Green to blue green, phosph.	--	JMH	SW, bright green/LW, pale green
Aragonite	Tough Nut Mine, Cochise County, Arizona, USA	Tan transparent	Green	--	JMH	SW, green
Aragonite	KY Hwy 111 Roadcut, Owensville, Bath County, Kentucky, USA	White	Pastel greenish white	--	JMH	LW, no data
Aragonite	Silver Coin Mine, Valmy, Humboldt County, Nevada, USA	Cream	Blue-white	--	JMH	LW/SW, no data
Aragonite, var. flos ferri, on pectolite	Upper New Street Quarry, Passaic County, New Jersey, USA	white/cream to gray	Blue-white/pale yellow-pale blue	Unknown, blue	JMH	SW, bluish white/LW, white
Aragonite needle sphere	La Timana Quarry, La Serna, Toledo, Castile-LaMancha, Spain	Colorless to tan	Yellow	--	JMH	LW, white/SW, bluish white
Aragonite & Calcite Septarian Nodule	30 miles north of Oklahoma City, Logan County, Oklahoma, USA	Cream/white-brown	White, phos./pink	--	JMH	LW, no data
Aragonite Septarian Nodule	Hwy 71 outcrop, north of Fayetteville, Washington County, Arkansas, USA	Cream	Pale white	Siderite NR	JMH	LW, no data
Aragonite, var. Travertine	Mount Pleasant Mills, Snyder County, Pennsylvania, USA	Tan	Bluish white to pale tan	--	JMH	SW, white to tan
Aragonite, var. Travertine	Morocco	Tan, cream	Blue, tan, cream	--	JMH	LW, brown, white, blue
Aragonite, var. Travertine	Corydon, Harrison County, Indiana, USA	Brown	White	--	DS	No data
Aragonite	Grotto Poggio alla Guardia, Florence, Tuscany Region, Italy	White	Blue-white, phos. greenish	--	JMH	LW, bluish white/SW, gray blue
Aragonite	Agrigento, Island of Sicily, Italy	Light green	Green	--	DS	No data
Aragonite in Tufa	Hot Springs National Park, Garland County, Arkansas, USA	White	Blue-white	--	JMH	LW, white
Aragonite veins in calcite	Long Lake Zn Mine, Parham, Ontario Province, Canada	white/white	Bright blue white/red	--	JMH	SW, blue white
Aragonite vein	Long Lake Zn Mine, Parham, Ontario Province, Canada	Cream	Blue-white	--	JMH	LW, blue white
Aragonite on calcite	Roadcut, Patterson, NW Wayne County, Missouri, USA	Tan	Blue-white	Calcite NR	JMH	LW, blue white
Aragonite	Wea Deposit, Barranko del Mulo, Murcia Province, Spain	Tan	Yellow, phos.	--	JMH	LW, white/SW bluish white
Aragonite	Imam Rabat, Nawzad District, Hilmand Province, Afghanistan	Yellow	Greenish-white, phos.	--	JMH	LW, creamy white/SW, greenish white
Artinite	Artinite Pit, San Bernardino County, California, USA	White	Blue gray	--	JMH	LW, blue white
Austunite (TL)	Gold Hill Mine, Toole County, Utah, USA	Pale yellow	Green	limonite matrix NR	JMH	SW, bluish white/LW, green
Austunite (TL)	Gold Hill Mine, Toole County, Utah, USA	Gray	Green	goethite matrix NR	JMH	SW, bluish white/LW, green
Autunite	Hunan Province, China	Yellow green	Brilliant green	--	JMH	SW, brilliant green/LW, green
Autunite flakes	Marginac Quarry, Compreignac, Bellac, Haute-Vienne Department, France	Yellow-green	Brilliant yellow-green	--	JMH	SW, brilliant green/LW, green
Autunite	Marmagne Quarry, Saone-et-Loire, Comte Region, France	Yellow-green	Brilliant green	--	JMH	LW, green/SW, brilliant green
Autunite	Streubery Bergen Vogtland, Saxony State, Germany	Green	Green	--	DS	LW, green/SW, brilliant green
Autunite	Crooker/Duntan, Newry, Oxford County, Maine, USA	Pale yellow	Green	--	JMH	LW, green/SW, brilliant green
Autunite	Midnite Mine, Stevens County, Washington State, USA	Gray	Green	--	JMH	LW, green/SW, brilliant green
Autunite	Infesta Mine, Viariz, Baiao, Porto District, Portugal	Yellow-green	Bright yellow-green	--	JMH	LW, green/SW, brilliant green
Autunite on smoky quartz	Assungao Mine, Ferreira De Aves, Viseu City, Centro Region, Portugal	Yellow green	Bright green	Smoky Quartz NR	JMH	LW, green/SW, brilliant green
Autunite and fluorapatite	Ray Mine, Spruce Pine, Mitchell County, North Carolina, USA	White to cream	Green/yellow	Muscovite NR	JMH	LW, green/SW, brilliant green/yellow
Barite	Fall River, Fall River County, South Dakota, USA	Colorless to white	Cream to white/phos. pale green	--	JMH	SW, white
Barite	Caldwell Stone Quarry, Danville, Boyle County, Kentucky, USA	Clear	Yellow	Calcite, Fluorite	DS	No data
Barite	Linwood Mine, Buffalo, Scott County, Iowa, USA	White	White, Phos. green	--	JMH	LW, white/SW, bluish white
Barite	Stony Bluff on River Road, Girard, Burke County, Georgia, USA	Colorless to cream	Blue white	chert NA	JMH	SW pinkish white/LW, blue white
Barite	Girard Chert, River Road, Girard, Burke County, Georgia, USA	White	Bright white, phos.	chert NA	JMH	LW, blue white/SW, pinkish white
Barite	Huamaldas Province, Huanuco State, Peru	Transparent golden	Blue white, strong phos.	--	JMH	LW, strong blue white/SW, blue
Barite	Lubin Cu Mine, Lower Silesia Voivodeship, Lubin County, Poland	White to tan	Pastel green, phos.	Marcasite NA	JMH	LW, bright cream/SW, cream
Barite	Crater of Diamonds State Park, Murfreesboro, Pike County, AR, USA	White	White	--	JMH	LW, yellowish white to orange
Barite	Linwood Mine, Buffalo, Scott County, Iowa, USA	Colorless to tan	Bluish green, phos.	--	JMH	LW, white/SW, bluish white
Barite	Franklin Mine, Franklin, Sussex County, New Jersey, USA	White	White	Calcite, Orange	DS	LW, white/SW, yellowish white
Barite and Calcite	Sterling Hill Mine, Ogdensburg, Sussex County, New Jersey, USA	Gray, cream	Cream, dull red	--	JMH	LW, pale blue white
Barite radial nodule	Lawton, Cherokee County, Oklahoma, USA	Light brown	Yellow to orange to purple	--	JMH	SW, weak yellow/LW, yellow to brown
Bazirite	Esquire #3 Claim, Big Creek, Fresno County, California, USA	White	Pink	--	JMH	SW, bright blue white
Benitoite (TL)	Dallas Gem Mine, Santa Rita Peak, San Benito County, California, USA	Gray blue	Blue white	--	JMH	SW, strong blue white to blue
Benitoite (TL)	Dallas (CA state) Gem Mine, Santa Rita Peak, Benito Co., California, USA	Blue	Pale blue	Joaquinite-(CA) NR	JMH	SW, strong blue white to blue
Benitoite	San Benito County, California, USA	Blue	Blue	--	DS	No data
Benitoite (TL) & Natrolite	Dallas Gem Mine, Santa Rita Peak, San Benito County, California, USA	Blue gray	Pale blue	Natrolite, pale yellow	JMH	SW, strong blue white
Boltwoodite	New Method Mine, Amboy, San Bernardino County, California, USA	Golden yellow	Orange	Quartz NR	JMH	LW, orange
Brocrite and Magnesite	Cedar Hill Quarry, Lancaster County, Pennsylvania, USA	White and Pearly gray	Blue white and gray tan	--	JMH	LW, bluish white to pink
Brocrite	Maxwell Quarry, Wakefield, Quebec Province, Canada	Gray	Blue and white	--	JMH	LW, bluish white to pail bluish white
Bustmanite	Buckwheat Dump, Franklin Mine, Sussex County, New Jersey, USA	Pinkish tan	Dull Red	Willernite/green	JMH	SW, deep red
Calcite	Purple Passion Mine, Wickenburg Mountains, Yavapai County, AZ, USA	White	Red-orange	Willernite/green	JMH	SW, blue/LW, blue
Calcite	Långban Mine, Filipstad, Värmland County, Sweden	Cream to gray	Orange	--	JMH	SW, red
Calcite	Långuan Mine, Filipstad, Värmland County, Sweden	Tan to gray	Deep red	--	JMH	SW, bright red/LW, red
Calcite, banded cleavage	Black Metals Mine, Lincoln County, Nevada	White to gray	White with pink flash, red	Native Ag NR	JMH	SW, white to pink
Calcite, cleavages	Challenger Cave, Nuevo Leon State, Mexico	Pinkish to gray	White to bluish, Phos.	--	JMH	LW, pink/SW, blue
Calcite	Franklin, Sussex County, New Jersey, USA	Gray	Red with orange flash	--	JMH	SW, red
Calcite	Maybee Quarry, Monroe County, Michigan, USA	Pale yellowish white	Blue white/ strong phos. green blue	--	JMH	SW, white to pink

Calcite	Callahan Mine, Hancock County, Maine, USA	White	Red	Hydrozincite NR	JMH	SW, no data
Calcite	Nuevo Leon State, Mexico	Blue	Purple	--	JMH	LW, orange
Calcite, vein	Rucks Pit, east Orlando, Orange County, Florida, USA	Amber	Bluish white, weak phos.	--	JMH	LW, white
Calcite	Junction City, Boyle County, Kentucky, USA	Black	Yellow	--	DS	No data
Calcite	Delcarman Mine, Coahuila State, Mexico	White	Orange	--	DS	No data
Calcite	Cave-in-Rock, Hardin County, Illinois, USA	Yellow	Light yellow	Fluorite	DS	No data
Calcite	Elmwood Mine, Smith County, Tennessee, USA	Orange	Pink	Sphalerite	DS	No data
Calcite	Stonoco Lime City Quarry, Lime City, Wood County, Ohio, USA	White	White	--	DS	No data
Calcite	Gopher Valley Quarry, Gopher Valley, Yamhill County, Oregon, USA	Yellow	Cream	--	DS	No data
Calcite	Junction Mine, Bisbee, Cochise County, Arizona, USA	Tan	Orange	--	JMH	SW, strong orange
Calcite	Santa Barbara Mine, Chihuahua State, Mexico	Tan	Deep red	--	JMH	SW, orange red
Calcite	Cavradi Gorge, Val Curnera, Grisons Region, Switzerland	Colorless	Pinkish red	--	JMH	SW, orange red
Calcite	Maharashtra State, India	Pink	Red	--	DS	No data
Calcite, vug filling	Granite Mountain Quarry #1, Pulaski County, Arkansas, USA	White to gray	Bright red	Feldspar NR	JMH	LW, orange/SW, pale orange red
Calcite	Granite Mountain Quarry #1, Pulaski County, Arkansas, USA	White to brown	Gray	Unknown, MW red	JMH	SW, yellow
Calcite	Franklin, Sussex County, New Jersey, USA	Cream	Pale orange	Dolomite NR	JMH	SW, strong orange/LW, pale orange
Calcite	Franklin Mine, Franklin, Sussex County, New Jersey, USA	White	Red	Willemite, green	DS	SW, orangish red
Calcite	Sterling Hill Mine, Ogdensburg, Sussex County, New Jersey, USA	White	Red	Willemite, green	DS	SW, orangish red
Calcite	Augusta, Richmond County, Georgia, USA	Pink	Red-orange	--	JMH	LW, orange red
Calcite, Columnar	Huanggang, Laren, Mongolia State, China	Gray	Red Orange	--	JMH	LW, orange/SW, weak orange
Calcite, Columnar	Fujian Province, China	Gray	Orange	--	JMH	LW, orange/SW, weak orange
Calcite	I-64 Road Cuts, Owensville, Bath County, Kentucky, USA	Orange	Yellow	Dolomite NR	JMH	LW, weak orangish red
Calcite	Green River Reservoir, Taylor County, Kentucky, USA	Clear	Yellow	--	DS	No data
Calcite	Caldwell Stone Quarry, Danville, Boyle County, Kentucky, USA	White	Pink	Barite no data	DS	No data
Calcite	Mount Pleasant Mills, Snyder County, Pennsylvania, USA	Colorless to gray	Yellow	--	JMH	LW, creamy yellow/SW, creamy yellow
Calcite	Terlingua, Brewer County, Texas, USA	Orange and white	Pink with blue phos.	--	JMH	LW, pink red/SW, blue white
Calcite	Terlingua, Brewer County, Texas, USA	White	Pink	--	DS	No data
Calcite	Monte Arsiccio Mine, Stazzerna, Lucca Province, Italy	Tan	Blue-white, phos. greenish	--	JMH	LW, white
Calcite and Aragonite	Long Lake Zn Mine, Parham, Ontario Province, Canada	White	Red/white	Chondrodite NR	JMH	SW, red
Calcite, Columnar	Sanming, Fujian Province, China	Gray to cream	Red Orange	--	JMH	LW, orange/SW, weak orange
Calcite, "Crazy"	Sterling Hill Mine, Ogdensburg, Sussex County, New Jersey, USA	White to cream	Mixture of red and orange	Franklinite NR	JMH	SW, orange/LW, red
Calcite, "Crazy"	Sterling Hill Mine, Ogdensburg, Sussex County, New Jersey, USA	White	Orange to dark orange	--	JMH	LW, red/SW, orange
Calcite, salmon colored	Sterling Hill Mine, Ogdensburg, Sussex County, New Jersey, USA	Salmon	Red	--	JMH	SW, orange to red orange
Calcite	Badakhshan Province, Afghanistan	White	Red Orange	Afghanite NR	JMH	LW, red
Calcite	Sar-e-Sang, Koska Valley, Badakhshan Province, Afghanistan	White	Pink	Spinel & Phlogopite NR	JMH	SW, red/LW, weak red
Calcite	Rio Grande Do Sul State, Brazil	White	Red	--	DS	No data
Calcite	Pure Potential Mine, La Paz County, Arizona, USA	Gray	Red	Fluorite no data	DS	No data
Calcite	Dyer Quarry, Gibraltar, Berks County, Pennsylvania, USA	Tan	Pastel yellow, phos.	Stilbite NR	JMH	LW, yellow cream/SW, pale yellow cream
Calcite	Midwest Lime Quarry, Batesville, Independence County, Arkansas, USA	White	Blue-white	--	JMH	SW, yellow orange
Calcite	Streetley, Dundas, Ontario Province, Canada	White	Pale orange	--	JMH	LW, no data
Calcite	Holiday Inn Airport Quarry, Pulaski County, Arkansas, USA	Honey	Red to orange	--	JMH	LW, tan
Calcite	Longyan Mine, Fujian Province, China	White to gray	Pinkish with blue overtones	--	JMH	LW, light orange/SW, orange
Calcite	China	Pink	Pink	--	DS	No data
Calcite	Hunan Province, China	White	Red	--	DS	No data
Calcite	Brazil	White	Red-orange	--	DS	No data
Calcite	Boldut Mine, Cavnic, Maramures County, Romania	White	Red-orange	--	DS	No data
Calcite	Copper Mine, Old Hadley District, Luna County, New Mexico, USA	Gray	Deep red	--	JMH	SW, orange
Calcite	Flemingsburg, Fleming County, Kentucky, USA	White	Purple	Calcite, Barite	DS	No data
Calcite, banded	Sterling Hill Mine, Ogdensburg, Sussex County, New Jersey, USA	Gray/white	Orange/orange with blue flash	--	JMH	SW, weak orange
Calcite, crystal crust	Kelly Mine, Socorro County, New Mexico, USA	White	Red with orange tips to crystals	--	JMH	SW, no data/LW, no data
Calcite with Diopside and Chondrodite	Long Lake Zn Mine, Parham, Ontario Province, Canada	White	Orange with red flash	Diopside, Chondrodite NR	JMH	LW, red
Calcite, Diopside, Aragonite, and Chondrodite	Long Lake Zn Mine, Parham, Ontario Province, Canada	Gray/gray/gray	Red/white/blue white/yellow orange	--	JMH	SW, red/LW, weak red
Calcite, Fluorite, Willemite	Purple Passion Mine, Wickenburg Mountains, Yavapia County, AZ, USA	White/cream/white	Red orange/Blue/pale green	--	JMH	LW, blue/SW, blue
Calcite, Fluorite, Willemite	Red Cloud Mine, Trigo Mountains, La Paz County, Arizona, USA	Tan/white	Red orange/Blue	Willemite NR	JMH	LW, no data/SW, no data
Calcite, Fluorite, Willemite	Black Rock Mine, Trigo Mountains, Le Paz County, Arizona, USA	Gray/tan/white	Red orange/Blue/pale green	--	JMH	LW, blue/SW, red
Calcite, Mangano (?)	Sanming, Jingxi Sub-District, Sanyan District, Fujian Province, China	Pale pink	Bright orange	--	JMH	LW, orange/SW, red orange
Calcite, Petoskey Stone	Lake Michigan beach, Northern Michigan, USA	Tan	Pastel yellowish-green	--	JMH	LW, tannish yellow/SW, bluish yellow
Calcite, Stromatolite	Anti-Atlas Mountains, Morocco	Tannish brown	Orange	--	JMH	LW, orange
Calcite vein	Martin Marietta Quarry, Magnet Cove, Hot Spring County, Arkansas, USA	White	Orange red	--	JMH	LW reddish orange/SW, weak orange
Calcite vein w/ tan sphene	North Wilson Pit, Potash Sulphur Springs, Garland County, Arkansas, USA	Tan	Red	Sphene NR, Unk., pale blue	JMH	SW, red
Calcite and Fluorapatite	Roadcut on State Hwy 519, Rio Arriba County, New Mexico, USA	white/white	Red/cream, phos.	--	JMH	LW, red
Calcite w/ Orthoclase	Granite Mountain Quarry #1, Pulaski County, Arkansas, USA	Gray	Red	Orthoclase NR	JMH	LW, pinkish blue/SW, tannish cream
Calcite in vug	Granite Mountain Quarry #1, Pulaski County, Arkansas, USA	Amber	Mottled yellow and orange	--	JMH	LW, yellow
Calcite and Aragonite	Mount Oladri Quarries, Monastir, South Sardinia Province, Sardinia, Italy	White	Red/white	Frerrierite (Mg) NR	JMH	LW, weak blue white. Light tan, white
Calcite and Quartz	Goose Creek Quarry, Leesburg, Loudoun County, Virginia, USA	Cream	Pink	Quartz NR	JMH	LW, weak blue
Calcite in Geode	Halls Gap, Lincoln County, Kentucky, USA	Clear	Blue white, phos	--	JMH	LW, bluish white/SW, bluish white
Calcite in Geode	Halls Gap, Lincoln County, Kentucky, USA	White	White	Millerite NR	DS	No data
Calcite	Halls Gap, Lincoln County, Kentucky, USA	White	Red	Millerite NR	DS	No data
Calcite Septaria	Nacimiento Mine area, San Pablo, Sandoval County, New Mexico, USA	White to gray	Red-orange	--	JMH	LW, no data
Calcite, var. Caliche	Bauxite, Saline County, Arkansas, USA	Tan	Yellow orange	--	JMH	LW, yellow
Calcite, var. Caliche	Hot Springs, Fall River County, South Dakota, USA	Tan	Orange	Tufa NR	JMH	LW, pale orange
Calcite, var. Caliche	Silver Coin Mine, Valmy, Humboldt County, Nevada, USA	White	Patchy orange	--	JMH	LW, no data
Calcite, var. Caliche	Duguesne, Patagonia Mountains, Santa Cruz County, Arizona	Gray	Green	--	DS	No data
Calcite, var. Caliche conglomerate	Grimes Sexton Quarry, Inyo County, California, USA	Tan	Orange	Rock fragments NR	JMH	LW, orange yellow/SW weak orange yellow
Calcite, var. Caliche on Polyolithionite	Mont St. Hilaire, Quebec Province, Canada	Colorless	Orangy yellow	Polyolithionite NR	JMH	LW, orange
Calcite, var. Caliche w/ Agate	Saddle Mountain, Maricopa County, Arizona, USA	Tan/cream	Orange/Green	--	JMH	LW, orange
Calcite (carbonatite)	Oka Carbonatite, Quebec Province, Canada	White-gray	Orange	Pyrochlore NR	JMH	SW, red
Calcite with hydrocarbon inclusions	Midwest Lime Quarry, Batesville, Independence County, AR, USA	Gray-white	Red/yellow	--	JMH	LW, orange
Calcite with hydrocarbon inclusions	Midwest Lime Quarry, Batesville, Independence County, AR, USA	Colorless	Orange	Calcite NR	JMH	LW, orange
Calcite with hydrocarbon inclusions	Midwest Lime Quarry, Batesville, Independence County, AR, USA	White to tan	Orange/pink	Marcasite NR	JMH	LW, orange
Calcite with hydrocarbon inclusions	Eureka Mine, Marion, Crittenden County, Kentucky, USA	Tan	Inclusions bright yellow	Calcite NR	JMH	LW, yellow
Calcite with hydrocarbon inclusions	Lafayette Mine, Francis, Crittenden County, Kentucky, USA	Light tan	Inclusions yellow	Calcite NR	JMH	LW, yellow
Calcite in Stromatoporoïd sponge	Caldwell Stone Quarry, Danville, Boyle County, Kentucky, USA	White	Red	--	DS	No data
Calcite/Willemite	Sterling Hill Mine, Ogdensburg, Sussex County, New Jersey, USA	Gray/Tan	Orange/Green	Fault Zone	JMH	SW, red/SW green
Calcite, Fluorite, Willemite	Purple Passion Mine, Wickenburg Mountains, Yavapia County, AZ, USA	Gray/cream	Orange/blue	--	JMH	LW, blue/SW, blue, red, greenish

Calcite/Willemite w/ Rhodonite	Franklin Mine, Franklin, Sussex County, New Jersey, USA	Pink/gray	Orange/blue green	Rhodonite NR	JMH	SW, orange/green/blue
Calcite	Afghanistan	White	Red	Haunite, Lazurite NR	JMH	LW, red
Calcite	Naica, Chihuahua State, Mexico	White - light tan	Blue white to pale tan to pale pink	--	JMH	SW, orange red
Calcite, cleavage	Nuevo Leon State, Mexico	Colorless-milky	Pale Lavender, weak phos.	--	JMH	SW/LW
Calcite lining in cavity	Green River Lake Spillway, Taylor County, Kentucky, USA	Orangish yellow	Yellow	--	JMH	LW, yellow
Calcite, var. Travertine	Mount Pleasant Mills, Perry Township, Snyder County, Pennsylvania, USA	White to tan	Blue white, phos. pale green	--	JMH	LW, white and tan/SW, cream and tan
Calcite and Sulfur	Carnicano Mine, Agriganto Province, Island of Sicily, Italy	White/yellow	Pale pink, phos. greenish/tan	--	JMH	LW, bright pink
Calcite & Aragonite, Septarian Nodule	East of Hurricane, Washington County, Utah, USA	Yellow/brown	Pastel green/tan	--	JMH	LW, cream to blue white/brown
Calcite, Septarian Nodule	Mount Carmel, near Orderville, Kain County, Utah, USA	Light yellow	Yellow	--	DS	No data
Calcite & Aragonite, Septarian Nodule	Ambondromamy, Betsiboka Region, Madagascar	Yellow/brown	Pale green/yellowish green	--	JMH	LW, pale green/SW, yellowish cream
Calcite, Geode	Hamilton, Hancock County, Illinois, USA	Pale yellow	Blue white, phos. pale greenish	--	JMH	LW, white/SW, bluish white
Calcurmolite	Kyzylsai Mo-U Deposit, Chu-Ili Mountains. Almaty Province, Kazakhstan	Tan	Yellow-green	--	JMH	LW, yellow green
Calomel	Funderburk Prospect, Pike County, Arkansas, USA	Yellow to gray	Bright orange	Quartz NR	JMH	LW, orange
Carnotite	Anderson Mine, Dale Creek Basin, Yavapai County, Arizona, USA	Yellow	Green	--	JMH	SW, green/LW, weak green
Catapleite	Norra Karr, Granna, Jonkoping County, Sweden	Gray	Green	--	JMH	SW, green
Catapleite	Norra Karr, Granna, Jonkoping County, Sweden	Cream	Green	Sodalite NR	JMH	LW, green/SW, weak green
Celadonite with agate	East Wilson Pit, Potash Sulphur Springs, Garland County, AR, USA	Cream	Blue-white	Agate NR	JMH	LW/SW, no data
Celestine	Stonoco Lime City Quarry, Lime City, Wood County, Ohio, USA	White	Greenish cream to white, phos.	Barite no data	JMH & DS	LW, pale bluish white
Cerussite and Barite	Mbladen District, Khenifra Province, Morocco	Colorless/tan	Yellow/brown	--	JMH	LW, yellow
Cerussite	Mbladen District, Khenifra Province, Morocco	Tan to colorless	Yellow	Galena, Barite NR	JMH & DS	LW, yellow
Cerussite	Dioping Mine, Gallia, Guangxi Province, China	Tan	Yellow	Galena NR	JMH	LW, yellow
Cerussite	Hickory Cane Mine, Marion, Crittenden County, Kentucky, USA	Tan	Golden yellow	--	JMH	LW, orange
Cerussite, Hydrozincite, Sphalerite	Columbia Mine, Marion, Crittenden County, Kentucky, USA	Tan, white, brown	Yellow, blue-white, orange	--	JMH	LW/SW
Chalcedony	Mount Airy, Landen County, Nevada, USA	Pale blue	Green	--	JMH	SW, cream to white
Chalcedony	Western USA	Gray	Green	--	JMH	SW, green
Chalcedony	Hidalgo County, New Mexico, USA	Cream	Green	--	DS	No data
Chalcedony	Aga Mine, Silver Lake Mining District, San Bernadino, California, USA	Tan - gray	Green	--	JMH	SW, green
Chalcedony flowers	North Slope, Saddle Mountain, west of Phoenix, Maricopa County, Arizona, USA	White	Green	--	JMH	LW, green
Chalcedony lined geode	Hamilton, Hancock County, Illinois, USA	Gray to cream	Bluish gray to yellow green, phos.	--	JMH	LW, white to cream
Chalcedony geode, Dugway	Dugway diggings, Juab County, Utah, USA	Blue gray	Green	--	JMH	SW, weak green
Chalcedony geode, Dugway	Dugway geode beds, Juab County, Utah, USA	Gray	Green	--	JMH	SW, weak green
Chalcedony, silicified coral	Withlacoochee River, Swannee-Lafayette Counties, Florida, USA	Tan	Cream, phos.	--	JMH	LW, tan to blue white
Chalcedony, silicified coral	Withlacoochee River, Swannee-Lafayette Counties, Florida, USA	Blue	Yellow	--	DS	No data
Chalcedony, slab	Unknown	Gray white	Pastel green	--	JMH	LW, no data
Chalcedony, slab	Unknown	Dark gray with white rind	Yellowish/cream	--	JMH	LW, no data
Chalcedony, silicified coral slab	Tampa Bay, Tampa, Hillsborough County, Florida, USA	Brown and tan	Gray tan and blue	--	JMH	LW, tan and blue/SW, tan
Chert, banded, slab	Unknown	Gray to cream	Pastel cream	--	JMH	LW, orangish
Chondroite	Long Lake Zn Mine, Parham, Ontario Province, Canada	White	Pale orange	Calcite NR	JMH	SW, yellow
Churchite (Y)	Indian Mountain, Cherokee County, Alabama, USA	White	White	--	JMH	LW, very pale greenish white
Clinohedrite	Franklin Mining District, Franklin, Sussex County, New Jersey, USA	White	Tan	Hardystonite NR, Willemite green	JMH	SW, orange
Colemanite	Boron, Death Valley, Kern County, California, USA	White	White	--	DS	LW, pastel orange
Corundum, var. Ruby	Cascade Canyon, Los Angeles County, California, USA	Pink	Dull red	Mica matrix, NR	JMH	LW, strong red/SW, dull red
Corundum, var. Ruby	Kiteto District, Manyara Region, Tanzania	Dark purple	Dark red	--	JMH	LW, red
Corundum, var. Ruby	Mercara Region, India	Reddish brown	Dull red	Kyanite Schist NR	JMH	LW, red
Corundum, var. Ruby	Mason Mountain Mine, near Franklin, Macon County, North Carolina, USA	Purplish pink	Dull red	--	JMH	LW, red
Corundum, var. Ruby	Zazafotsy, Ihosy, Ihorombe Region, Madagascar	Reddish brown	Red Orange	--	JMH	LW, red
Corundum, var. Ruby	Kiteto District, Manyara Region, Tanzania	Purple red	Dull red	--	JMH	LW, red
Corundum, var. Ruby in Fuchsite	Madikeri Area, Kodaga Dist., Karnataka State, India	Dark red	Red	Fuchsite, NR	JMH	LW, red
Corundum, var. Ruby in Calcite Marble	Yuanjiang Mine, Yuanjiang Co, Yuxi Province, China	Red/white	Dull red/blue	--	JMH	LW, red
Corundum, var. Sapphire	Ab-i-Panja, Ishkashim District, Badakhshan Province, Afghanistan	Blue and white	Orange	--	JMH	LW, pink/SW, very weak pink
Corundum, var. Sapphire, grains	Gem Mine (?), Rock Creek, Granite County, Montana, USA	Gray, cream, blue, pink	Pink, pale blue, cream, yellow	--	JMH	LW, various colors/SW, colors more pastel
Dawsonite	Francon Quarry, Montreal, Quebec Province, Canada	White	White	Unknown green min. NR	JMH	SW, white
Dawsonite	Salvena, Grosseto Province, Tuscany Region, Italy	White	Blue-white	--	JMH	LW, white/SW, white
Deweyite w/ Serpentine	Kibblehouse Quarry, Lancaster County, Pennsylvania, USA	Cream to tan	Cream	Serpentine, pale yellow	JMH	LW, yellowish white
Diamonds	Worldwide (natural crystals)	white to brownish yellow	bright yellow(1 crystal)	Most diamonds, NR	JMH	LW, various colors
Diopside spots and Calcite vein	Long Lake Zinc Mine, Parham, Ontario Province, Canada	Gray/reddish tan	Pale blue	Calcite, red	JMH	SW, blue white
Diopside	Sterling Hill Mine, Ogdensburg, Sussex County, New Jersey, USA	White	Pink	--	JMH	SW, blue white/LW, pale yellow mottled
Diopside	Lake Valhalla Quarry, Montville Township., Morris County, New Jersey, USA	Cream to white	Mottled gray and yellow, white	--	JMH & DS	SW, blue white/LW, pale yellow mottled
Diopside, Calcite, Afghanite	Badakhshan Province, Afghanistan	White/white	White/red	Afghanite NR	JMH	LW, calcite orange/SW, diopside blue-white
Dolomite on Galena	Brushy Creek Mine, Reynolds County, Missouri, USA	White	Pale creamy yellow	Galena NR	JMH	LW
Dolomite w/ hydrocarbon inclusions	Rensselaer Quarry, Pleasant Ridge, Jasper County, Indiana, USA	Brown	Pale orange	--	JMH	LW
Dresserite	Francon Quarry, Montreal, Quebec Province, Canada	Gray	Dull Orange	--	JMH	LW, bluish white/SW, weak bluish white
Dumortierite	Dehesa Road, Alpine, San Diego County, California, USA	White	Tan	--	JMH	SW, no data
Elpidite	Poudrette Quarry, Mont St. Hilaire, Quebec Province, Canada	Gray	Strong yellow green	Hyaline (Opal-An) ?	JMH	LW, yellow green/SW, green
Elpidite	Poudrette Quarry, Mont St. Hilaire, Quebec Province, Canada	Cream to gray	Green	--	JMH	LW, green
Emerald crystals	Various localities mixed	Green	Weak green	--	JMH	LW/SW, no data
Esperite with Willemite	Parker Shaft, Franklin, Sussex County, New Jersey, USA	Tan to gray/tan	Yellow to yellow green, green	Calcite NR	JMH & DS	SW, bright yellow green
Eucrypite	Xinghauling Mine, Linwu County, Chenzhou, Hunan Province, China	Dark gray	Deep red	--	JMH	SW, bright red
Eucrypite	Xinghauling Mine, Linwu County, Chenzhou, Hunan Province, China	Gray	Pink red	--	JMH	SW, bright red
Eucrypite and Scheelite	Xinghauling Mine, Linwu County, Chenzhou, Hunan Province, China	Pale purple/white	Red/yellow	--	JMH	SW, bright red
Fluoborite	Hopini Mine, New Method Mine, San Bernadino County, California, USA	Purplish cream	Blue-white	--	JMH	LW, cream/SW, blue
Fluorapatite	Kunar Province, Afghanistan	Cream	Bright yellow	Quartz NR	JMH	SW, yellow/LW, bright yellow
Fluorapatite	Thomas Edison Fe Mine, Sparta Mountain, Sussex County, New Jersey, USA	White	Peach	--	JMH	SW, pinkish orange/LW, pinkish orange
Fluorapatite	Strickland Quarry, Portland, Middlesex County, Connecticut, USA	Gray	Bright yellow	Almandine, Albite NR	JMH	SW, weak yellow
Fluorapatite	Copper Mine Shaft, Edison Mine, Sussex County, New Jersey, USA	Cream	Peachy tangerine	--	JMH	LW, peachy brown/SW, yellow
Fluorapatite	Klein's Quarry, Klein's Point, Wool Bay, South Australia, Australia	Cream	Cream	--	JMH	LW, blue
Fluorapatite	Panasqueira Mines, Covilha, Castelo Branco District, Portugal	White	Blue-gray	--	JMH	LW, no data
Fluorapatite	Dara-I-Pech, Chapa Dara District, Kunar Province, Afghanistan	Gray	Bright yellow	--	JMH	SW, bright yellow/LW, yellow
Fluorapatite	Franklin Mine, Ogdensburg, Sussex County, New Jersey, USA	Cream to gray	Yellow	--	JMH	LW, pale peach/SW, pale yellow
Fluorapatite, var. Manganoan	Ham & Weeks Mine, Wakefield, Carroll County, New Hampshire, USA	White	Yellow	Unknown, gray	JMH	LW/SW, no data
Fluorapatite, zoned crystal	Badakhshan Province, Afghanistan	Pale violet	Yellow core, blue rim	--	JMH	SW, core yellow, rim bluish/LW, core yellow, rim pink
Fluorapatite and quartz	Jeffrey Quarry, North Little Rock, Pulaski County, Arkansas, USA	Pinkish cream	Bluish white	Quartz NR	JMH	LW, pale pink
Fluorapophyllite on Wollastonite	North Wilson Pit, Potash Sulphur Springs, Garland County, Arkansas, USA	Pink/white	Bright pink	Wollastonite NR	JMH	SW, very pale pink
Fluorite (cleavages)	IL - KY Fluorspar District, USA	Pale yellow	Pale pinkish yellow	--	JMH	SW, pink/LW, cream white
Fluorite	West Thomas Range, Juab County, Utah, USA	Pale blue	Reddish orange	--	JMH	SW, blue

Fluorite	Girbelbach, Rhona Valley, Vatais Canton, Switzerland	Pale green	Blue	--	JMH	SW, blue
Fluorite	Rogerly Mine, County Durham, England	Gray transparent	Blue	--	JMH	LW, blue/SW, blue
Fluorite	Spar Hill Mine, Pine Canyon, Silver City, Grant County, New Mexico, USA	Purple and green	Blue	--	JMH	LW, blue
Fluorite	Mandrosonoro, Amoron'i Mania Region, Madagascar	Green	Blue	--	JMH	LW, blue/SW, blue
Fluorite	Boltry Limestone Quarry, Seilles, Wallonia Region, Belgium	Purple	Red	--	JMH	LW, red
Fluorite	StoneCo White Rock Quarry, Clay Center, Ottawa County, Ohio, USA	Colorless to tan	White, phos. white	--	JMH	LW, strong white/SW, pale white
Fluorite	Moscona Pt. Solis Parish, Asturias Province, Spain	Strong yellow	Pastel yellow	--	JMH	LW, blue with dull reddish overtone
Fluorite	Xinghauling Mine, Linwu County, Chenzhou, Hunan Province, China	Green	Strong blue	--	JMH	LW, blue
Fluorite	Shangbao Mine, Leliyang County, Hunan Province, China	Green	Blue	--	JMH	LW, blue
Fluorite	Newlandslide Quarry, Stanhome, County Dunham, England	Pale Purple	Blue	--	JMH	LW, bluish white/SW, blue
Fluorite	Lianyang, Jiangsu Province, China	Pale green	Blue, white phos.	--	JMH	LW, strong blue
Fluorite	StoneCo White Rock Quarry, Clay Center, Ottawa County, Ohio, USA	Tan	White, Phos.	--	JMH	LW, white/SW, pale white
Fluorite	Caldwell Stone Quarry, Danville, Boyle County, Kentucky, USA	Cream	Blue to blue-white	Calcite NR	JMH	LW, white
Fluorite	Lexington Quarry, Jessamine County, Kentucky	Cream	Yellow	Barite, No data	DS	No Data
Fluorite	Woodford County, Kentucky, USA	Clear	Blue	Barite, Calcite No data	DS	No Data
Fluorite	Flamborough Quarry, Hamilton, Ontario Province, Canada	Colorless	White	--	JMH	LW, bluish white/SW, white
Fluorite	J-44 Pit, Pine Point Mine, Northwest Territory Province, Canada	Gray	Yellow, Phos.	--	JMH	LW, yellow/SW, dark yellow
Fluorite	StoneCo White Rock Quarry, Clay Center, Ottawa County, Ohio, USA	Brown	Yellow	--	JMH	LW, yellowish white/SW, cream white
Fluorite	StoneCo White Rock Quarry, Clay Center, Ottawa County, Ohio, USA	Honey brown	Greenish white, phos.	--	JMH	LW, white
Fluorite	Hunan Province, China	Pale green	Blue	--	JMH	LW, blue
Fluorite	Mexico	Green	Blue	--	JMH	LW, blue/SW, blue
Fluorite and Chalcodony vein	V- Intrusive, south shore of Lake Hamilton, Garland County, Arkansas, USA	Deep purple/tan-cream	Deep blue/white-tan	Pyrite NR	JMH	LW, bright blue
Fluorite on Celestine	StoneCo White Rock Quarry, Clay Center, Ottawa County, Ohio, USA	Pale tan	White, Phos.	Celestine NR	JMH	LW, white
Fluorite w/ Calcite	Lianyang, Jiangsu Province, China	Purple & whitish	Deep blue/orange	White Calcite, LW Orange	JMH	LW, blue
Fluorite and Calcite	Shizhuyan, Hunan Province, China	Pale green	Blue	White Calcite, red	JMH	LW, blue
Fluorite and Calcite	Huanzala Mine, Huallanca District, Bolognesi Province, Ancash, Peru	Gray/cream	Deep blue/orange	--	JMH	LW, blue
Fluorite and Calcite	El Hamman Mine, Khémisset Province, Morocco	White/pale yellow	Blue/bright orange	Pyrite NR	JMH	LW, blue
Fluorite and Calcite veinlet	Granite Mountain Quarry #1, Pulaski County, Arkansas, USA	Light purple/white	Blue/red	Feldspar NR	JMH	LW, blue
Fluorite and Calcite veinlet	Main Pit, Martin-Marietta Quarry, Hot Spring County, Arkansas, USA	Purple/tan	Blue/orange	--	JMH	LW, blue
Fluorite and Calcite, banded	North Geronimo Mine, Trigo Mountains, La Paz County, Arizona, USA	Gray/white	Blue/red orange	--	JMH	LW, fluorite blue/SW, calcite red
Fluorite in Calcite	Sterling Hill Mine, Ogdensburg, Sussex County, New Jersey, USA	Gray/white	Pale blue/ pink and cream	--	JMH	SW, fluorite blue/ calcite red
Fluorite and Galena	Bianchard Mine, Bingham, Socorro County, New Mexico, USA	Pale blue	Blue	Galena NR	JMH	LW, blue
Fluorite w/ Sphalerite	Caldwell Stone Quarry, Danville, Boyle County, Kentucky, USA	Very pale purple	White to cream	Sphalerite, orange	JMH	LW, blue
Fluorite with hydrocarbon inclusions	Eureka Mine, Marion, Crittenden County, Kentucky, USA	Purple	Yellow phantoms	Fluorite NR	JMH	LW, hydrocarbons yellow
Fluorite with hydrocarbon inclusions	Eureka Mine, Marion, Crittenden County, Kentucky, USA	Purple	Yellow phantoms	Fluorite, Qtz, Smithsonite NR	JMH	LW, hydrocarbons yellow
Fluorite and Phlogopite	Poudrette Quarry, Mont St. Hilaire, Quebec Province, Canada	Gray	Blue	Phlogopite, tan	JMH	LW, blue
Fluorite on Sodalite Syenite	Granite Mountain Quarry #1, Pulaski County, Arkansas, USA	Pale Purple	Blue	Sodalite, orange	JMH	LW, blue
Fossil Dinosaur Bone	Unknown locations, likely Utah, USA	Unknown locations, likely Utah, USA	Peachy tan	2 1" Spheres	JMH	SW, orange
Fossil Silicified Colonial Coral	Philippines	Tan and cream	Blue and tan	2" Sphere	JMH	LW, mottled pale yellow and bluish
Fresnoite	Esquire #7 Claim, Big Creek, Fresno County, California, USA	White	White to yellow	--	JMH	SW, yellowish white
Gaidonnayite	Poudrette Quarry, Mont St. Hilaire, Quebec Province, Canada	Gray	Green	Feldspar, gray	JMH	LW, yellowish green/SW, orange
Gaidonnayite w/ Sodalite	Poudrette Quarry, Mont St. Hilaire, Quebec Province, Canada	Gray	Green	Sodalite, orange	JMH	LW, yellowish green/SW, green
Garnet, var. Grossular	W.L.Stifle Claim, Near Georgetown, El Dorado County, California, USA	White	Dark pink red	--	JMH	LW, reddish orange
Gibbsite	Saga #1 Quarry, Vestfold og Telemark, Norway	Cream	Cream	--	JMH	LW, pale yellowish white/SW, pale yellowish white
Gibbsite	Mina Gerais State, Brazil	Clear	White	--	DS	No Data
Gypsum, var. Selenite	Red River Floodway, near Winnipeg, Manitoba Province, Canada	Clear	Blue	--	DS	No Data
Gypsum, var. Selenite	Smoky Hill River, Russel County, Kansas, USA	Clear	Zoned blue-white, Phos.	--	JMH	LW, bluish white/SW, pale pastel green
Gypsum, var. Selenite	Georgia, USA	Yellow	Golden yellow	--	JMH	LW, yellow
Gypsum, var. Selenite	Willow Creek, near Montore, Alberta Province, Canada	Colorless	Pale blue, phos. hourglass	--	JMH	LW, bluish white/SW, bluish white
Gypsum, var. Selenite	River Road, near Girard, Burke County, Georgia, USA	White	Bluish white	--	JMH	LW, cream white
Gypsum, var. Selenite with calcite	Gessoungo Sulfur Mine, Caltanisetta Province, Island of Sicily, Italy	White/white	Blue-white, phos greenish/Gray & white	--	JMH	LW, bluish white/SW, purplish gray
Gypsum, var. Selenite rose	Mina Otuma, Pisco, Region Ica, Peru	Golden orange	Yellow-cream, phos. greenish	--	JMH	LW, cream
Halite	Salton Sea, Riverside County, California, USA	Tan	Orange	--	JMH	SW, orange
Halite	Salton Sea, Riverside County, California, USA	Brown	Red	--	DS	No Data
Halite	Inowroclaw, Kujawsko-Pomorskie Province, Kujawy Region, Poland	Clear	Red	--	DS	No Data
Halite	Mallowa Salt member, Canning Basin, Australia	Green	Red	--	DS	No Data
Hambegite	Antandrokomby Pegmatite, Mount Ibity, Anosibe An'ala District, Madagascar	Cream	Pale purplish white	--	JMH	LW, Pale yellow
Hanksite (TL)	Searles Lake, San Bernardino County, California, USA	Gray	Pale blue	--	JMH	LW, creamy white/SW, pale white
Hardystonite (TL)	Franklin Mine, Franklin, Sussex County, New Jersey, USA	Gray	Pale Purple	Willemite/green	JMH	SW, violet blue
Hardystonite (TL)	Franklin Mine, Franklin, Sussex County, New Jersey, USA	Tan	Bluish purple	Willemite/green	JMH	LW, blue
Hawleyite	Silver Queen Mine, Eureka County, Nevada, USA	Yellow	Weak yellow	--	JMH	LW, bright orange
Hauyne	Sacrefano, Mountain Cavalluccio, Undine Province, Italy	Pale blue	Pink	--	JMH	LW, orange
Hauyne	Rock Negra Volcano, Santa, Sant a Pau, Catalonia Republic, Spain	Gray	Orange	--	JMH	LW, red
Hedyphane (TL)	Langban Mine, Filipstad, Varmland County, Sweden	Gray	Dull red	--	JMH	SW, strong red/LW, red
Heinrichite	Krunkebach Valley, Baden-Wuttemberg State, Germany	Pale yellow	Green	Unknown red	JMH	LW, green
Holtite w/ Albite	Vasin-Myt'k Massif, Tundry, Kola Peninsula, Russia	Cream	Very pale greenish cream	Albite NR	JMH	LW, bluish white/SW, pale bluish white
Howlite	Faro-Jurruta area, west of Sant-Tarem, Para State, Brazil	Cream	Whitish tan	MnOx dendrites NR	JMH	LW, yellowish white
Hyaline (Opal-An)	Spruce Pine, Mitchell County, North Carolina, USA	Cream	Green	--	JMH	SW, bright green/LW, pale green
Hyaline (Opal-An) on Alaskite	Chalk Mountain Mine, Spruce Pine, Mitchell County, North Carolina, USA	White	Green	Alaskite NR	JMH & DS	SW, bright green
Hyaline (Opal-An) ?	Mont St. Hilaire, Quebec Province, Canada	Colorless	Green	Aegerine & Albite NR	JMH	SW
Hyaline (Opal-An)	Santa Eulalia Mine, Chihuahua State, Mexico	White	Green	--	DS	No Data
Hyaline (Opal-An)	Thomas Range, Juab County, Utah, USA	Colorless	Brilliant green	--	JMH	LW, blue green/SW, grass green
Hyaline (Opal-An)	Girard Chert, Gerard District, Burke County, Georgia, USA	White	Blue and green	--	JMH	SW, green/LW, bluish white
Hyaline (Opal-An)	Monok, Borsod-A-Bauj, Zemplen County, Hungary	Tan	Green	--	JMH	SW, green/LW, blue green
Hyaline (Opal-An)	Wushan Spessartine Mine, Fujian Province, China	Colorless	Green	Spessartine NR	JMH	SW, green
Hyaline (Opal-An)	Zemplen Mountains, Boisd, Abauj-Zemplen County, Hungary	Colorless	Green	--	JMH	SW, green/LW, pale green
Hyaline (Opal-An)	1/4 mi. west of Lake Pleasant, Yavapai County, Arizona, USA	White	Yellow	Calcite NR	JMH	LW, weak yellow
Hyaline (Opal-An)	River Road, Near Girard, Burke County, Georgia, USA	Colorless to white	Blue	Cacoxenite NR	JMH	LW, white
Hyaline (Opal-An) on wavelite	River Road, Near Hillis Grocery, Girard, Burke County, Georgia, USA	Gray	Green	Wavelite NR	JMH	LW, blue white
Hyaline (Opal-An) film	Coon Creek Manganese Mine, Polk County, Arkansas, USA	colorless	Blue	Limonite NR	JMH	LW, blue
Hydroxylapatite, fossil bison tooth	East Nebraska, USA	Ivory	Blue-white, phos.	--	JMH	LW, ivory
Hydrozincite	Narlara Zinc Mine, West Australia, Australia	White	Pastel weak blue	--	JMH	SW, blue
Hydrozincite	Hogan Claim, Wickenburg, Yavapai County, Arizona, USA	White	Blue white	--	JMH	SW, blue
Hydrozincite	Yong Chun, Fujian Province, China	White	Bright green	Quartz NR	JMH	SW, bright green/LW, green
Hydrozincite	Bleyberg Mine, Verriers, Liege Province, Belgium	White	White to pale violet	Limonite NR	JMH	LW, strong blue/SW, pale blue

Hydrozincite, Willemite, Calcite	Nellie James Mine, Miller Peak, Cochise County, Arizona, USA	White to gray/gray/white	Blue white/green/orange red	--	JMH	SW, blue
Hydrozincite, Calcite, Fluorite	Grubberget, Djura, Dalarna County, Sweden	White/gray/brown	Yellow/white/red	--	JMH	SW/LW
Iridalite	N. Fork Little Sulphur Crk., Cloverdale, Sonora County, California, USA	Gray	Green	--	JMH	LW/SW
Inyoite	New Pit, Boron, Kern County, California, USA	Gray	Greenish yellow	--	JMH	LW/SW
Kamotoite-(Y) (TL)	Kamoto East Open Pit, Kolwezi District, Luabala, DR Congo	Yellow	Pale green	--	JMH	LW/SW
Kernite	Boron, Death Valley, Kern Co., California, USA	White	Blue white	--	JMH & DS	LW
Liebigite	Les Mares III, Saint-Martin, Herault, Occitanie Region, France	Yellow-green	Bright green	--	JMH	LW/SW
Limestone, oolitic, slab	Unknown location	Light to dark tan	Pale yellow	--	JMH	LW
Magnetite in Pinolite	Sunk, Hohenauern, Murtal District, Styria Province, Austria	Cream	Pale pink	--	JMH	LW
Manganapatite	Bennett Mine, Buckfield, Oxford County, Maine, USA	Dark green	Yellow	--	JMH	SW
Manganocalcite	Sterling Hill Mine, Ogdensburg, Sussex County, New Jersey, USA	Light peach	Orange	--	JMH	LW/SW
Manganocalcite	Idarado Mine, San Juan Mountains, Ouray County, Colorado, USA	White	Orange	--	DS	No Data
Manganocalcite	Pribram District, Central Bohemian Region, Czech Republic	Banded pink and white	Orange to pale white	--	JMH	SW
Manganocalcite	Helmand Province, Afghanistan	White	Salmon Orange	--	JMH	LW/SW
Manganocalcite	Casapalca Mine, Chicla District, Huarochiri Province, Peru	Pink, banded	Bright orange, banded	--	JMH	LW/SW
Manganocalcite	Huanzala Mine, Huallanca District, Bolognesi Province, Ancash, Peru	White	Red	--	DS	No Data
Manganocalcite	Rhodope Mountain, Madan District, Symolian Province, Bulgaria	White	Red	--	Chalcopyrite NR	DS
Margosonite	Franklin Mine, Franklin, Sussex County, New Jersey, USA	White	Red	--	Willemite, green	DS
Melanophyllogite	Fortulino, Rosignano, Tuscany Region, Italy	Gray	Yellow	--	JMH	LW/SW
Meta-Ankoelite	Kovagosrollo U Mine, Pecs District, Baranya County, Hungary	Cream-tan	Green	--	JMH	LW, green/SW, green
Meta-Autunite	Nory Fojtov, Nejdek, Karlovy Vary Region, Czech Republic	Yellow-green	Brilliant green	--	JMH	LW, strong green/SW, green
Meta-Autunite	south off River Road, Girard, Burke County, Georgia, USA	Tan	Green	--	JMH	LW, strong yellow green
Meta-Autunite	Ray Mica Mine, Burnsville, Yancey County, North Carolina, USA	White	Green	--	Muscovite NR	LW, green
Meta-Autunite	Halley Quarry, Poland, Andres Cogin County, Maine, USA	Pale yellow	Green	--	Quartz NR	LW, strong green
Metanovachekite	Clara Mine, Oberwolfach, Ortenau District, Baden-Wuerttemberg, Germany	Gray	Green	--	Unknown, orange	LW, greenish yellow/SW, pale greenish yellow
Meyerhofferite	Mott Project, Furnace Creek, Mining District, Inyo County, California, USA	White	Blue-white, phos.	--	Caliche, orange	LW, grayish cream
Mimetite	Santa Eulalia Mine, Chihuahua State, Mexico	Yellow	Orange	--	JMH	LW, orangish brown
Mimetite and Calcite	El Potosi Mine, Santa Eulalia, Chihuahua State, Mexico	yellow green and colorless	Orange and white	--	JMH	SW, orangish tan to bluish white
Miserite (TL)	North Wilson Pit, Potash Sulphur Springs, Garland County, AR, USA	pink	Yellow	--	Wollastonite NR	JMH
Monazite	Gasteiner Valley, Pongau District, Salzburg Province, Austria	Gray	Red	--	JMH	LW, pale white
Montbrasite	Emmons Quarry, Uncle Tom Mountain, Oxford County, Maine, USA	White	Green	--	Muscovite NR	JMH
Montbrasite	Emmons Quarry, Uncle Tom Mountain, Oxford County, Maine, USA	Tan	Green	--	JMH	SW, green
Mordenite in Geode	Purple Heart Claim, near Morrirstown, Maricopa County, Arizona, USA	White	White, phos.	--	JMH	LW, white
Natrolite	Poudrette Quarry, Mont St. Hilaire, Quebec Province, Canada	Whitish	Green	--	JMH	LW, orange
Natrolite and Analcime	North Table Mountain, Golden, Jefferson County, Colorado, USA	Cream	Blue white/pale yellow	--	JMH	LW, gray and cream/SW, pale cream
Natrozippite	Kovagos Zolos U Mine, Pecs District, Baranya County, Hungary	White	Brilliant yellow-green	--	JMH	LW, brilliant green/SW, brilliant green
Natrozippite	Jack Pile Uranium Mine, Leguna Sub-Dist., Cibola County, New Mexico, USA	Gray	Green	--	JMH	LW, brilliant green/SW, brilliant green
Norbergite in calcite marble	Franklin Quarry, Franklin, Sussex County, New Jersey, USA	Mottled white & tan	Golden yellow/ red	--	JMH	SW, yellow
Norberite in calcite marble	Franklin Quarry, Franklin, Sussex County, New Jersey, USA	Tan	Golden yellow	--	Calcite, weak red	JMH
Novacekite	Pedra Preta Pit, Sierra das Equas, Bahia State, Brazil	Yellow-green	Green	--	JMH	LW, green/SW, green
Okenite	Pune Division, Maharashtra State, India	White	Mottled blue and white	--	JMH	LW, mottled blue white/SW, weak mottled blue white
Opal, Common	Autunite #8 Claim, Thomas Range, Juab County, Utah, USA	Pale white	Brilliant green	--	JMH	LW, green/SW, green
Opal, Common	East Wilson Pit, Potash Sulphur Springs, Garland County, Arkansas, USA	Tan	Yellowish green	--	JMH	LW, green/SW, pale green
Opal, Common	Virgin Valley, Humboldt County, Nevada, USA	Cream to pale tan	Green	--	JMH	SW, green/LW, pale green
Opal, Common, var. Opalite	Nevada, USA	Orange	Green	--	DS	No Data
Opal, Common, on milky quartz	West Markham St. outcrop, West Little Rock, Pulaski Co., Arkansas, USA	White	Green	--	Milky Quartz NR	JMH
Orthoclase lined cavity	Martin Marietta Quarry, Magnet Cove, Hot Spring County, Arkansas, USA	Gray	Dull Pink	--	Pyrite NR	JMH
Parauranophane	Roca Orana Quarry, Montoso Quarries, Bagnolo Province, Italy	Yellow	Pale green	--	JMH	LW, green/SW, yellowish green
Pectolite	Kbiny Massif, Murmansk Oblast, Kola Penninula, Russia	White	Tangerine	--	JMH	LW, yellowish orange
Pectolite	Upper New Street Quarry, Passaic County, New Jersey, USA	White	Pale greenish yellow	--	JMH	LW, blue white
Petalite	Hirvikalund, Tammela, Kanta-Hamg, Tavastia Province, Finland	Gray-tan	Mottled cream and yellow	--	JMH	LW, blue and yellow
Petrified Dinosaur Bone, slab	Utah (?), USA	Light to dark tan	Pastel orange	--	JMH	LW, orange
Petrified Dinosaur Bone, 3 slabs	Four Corners Area, USA	Cream, red, brown	Cream, Pale yellow, pale orange, green	--	JMH	LW, golden yellow to creamy white
Petrified Wood, Opalized	New Mexico, USA	Cream to tan	Green	--	JMH	SW, no data
Petrified Wood, Agatized	Arizona, USA	Mottled white, gray, tan	Pastel yellow	--	JMH	LW, yellow/SW, pale yellowish white
Petrified Wood, Opalized, slab	Unknown	Light to dark tan	Orange and green	--	JMH	LW, no data
Petrified Wood, Palm, slab	Louisiana, USA	Light to dark tan	Cream and light gray	--	JMH	LW, no data
Petrified Wood, slab	Unknown	Tan to cream	Yellow and orange	--	JMH	LW, no data
Phlogopite	Koska Valley, Kuran Wa Munjan District, Badakhshan Province, Afghanistan	Tan/white	Dull golden/red	--	JMH	SW, yellowish/LW, no data
Phlogopite	Koska Valley, Kuran Wa Munjan District, Badakhshan Province, Afghanistan	Tan	Yellow orange	--	Forsterite NR	JMH
Phoenicochroite	Potter-Cramer Mine, Vulture Min. Dist., Maricopa County, Arizona, USA	Orange to red	Dark pink	--	JMH	LW, no data
Phosphuranylite	Christa Mine, Upper Franconia, Bavaria State, Fed. Republic of Germany	Pale yellow	Green	--	JMH	LW, strong green/SW, weak green
Pickeringite	Alum Mine, Reuss Valley, Uri Canton, Switzerland	Cream	Blue-white	--	JMH	LW/SW, no data
Plumbogummite	Les Montmins Mine, Auvergne-Rhone-Alpes Region, France	Cream	Pale yellow	--	JMH	LW, weak cream
Proberite	Ryan Mines, Furnace Creek Min. Dist., Inyo County, California, USA	Pinkish white	Yellowish pink, phos.	--	JMH	LW, tannish yellow/SW, weak yellow
Pollucite	Emmons Quarry, Uncle Tom Mountain, Oxford County, Maine, USA	White	Pale blue to white	--	JMH	SW, greenish pastel yellowish white
Polyolithonite	Poudrette Quarry, Mont St. Hilaire, Quebec Province, Canada	Silvery gray	Pale tan	--	JMH	SW, pastel yellow
Powellite	Hwy 80 Prospect, Hidalgo County, New Mexico, USA	Cream	Lemon yellow	--	JMH	SW, yellow
Powellite	"A" level Adit, Pure Creek Mine, Mt. Morgan, Inyo County, California, USA	Gray	Bright yellow	--	JMH	SW, yellow
Powellite	Jokmark, Norrbotten County, Sweden	White	Yellow	--	Piedmontite, Quartz NR	JMH
Powellite	Nashik Quarry, Nashik District, Maharashtra State, India	White	White	--	DS	No Data
Prismatine and Phlogopite	Stakholmen Quarry, Hassela, Gävleborg County, Sweden	Gray/white	Yellow/pale greenish gray	--	JMH	SW, weak golden yellow/LW, yellow
Quartz, drusy	Madison, Dane County, Wisconsin, USA	Pale tan	Dark Tan	--	JMH	LW, brown
Quartz, drusy in Youngite	Near Guernsey, Platte County, Wyoming, USA	White to gray	Cream to green	--	JMH & DS	SW, pale green/LW, white
Quartz, drusy in Oco Ocho Geode	Rio Grande do Sul State, Brazil	White	Yellowish white	--	Quartz crystal NR	JMH
Quartz, var. Flint replacement of Stromatoporioid sponge	Caldwell Stone Quarry, Danville, Boyle County, Kentucky, USA	Brown	Yellow	--	DS	No Data
Quartz, var. Jasper, Brecciated	Burro Creek, near Kaiser Hot Springs, Mojave County, Arizona, USA	White	Green	--	DS	No Data
Quartz, var. Milky	La Sassa Carbonatite vein, Pisa Province, Italy	Cream	Yellow	--	JMH	LW, strong yellow/SW, dull yellow
Quartz with hydrocarbon inclusions	Balochistan Region, Pakistan	Colorless to tan	Blue white to yellow inclusions	--	Quartz NR	JMH
Quartz with hydrocarbon inclusions	Wadh, Khuzdak District, Balochistan Region, Pakistan	Colorless	Bright white inclusions	--	Quartz NR	JMH
Quartz with hydrocarbon inclusions	Francon Quarry, Montreal, Quebec Province, Canada	Gray	Yellow	--	Calcite, red	JMH
Quartz, drusy lined geode	Trancas, Chihuahua State, Mexico	White	Pastel green	--	JMH	SW, yellow green/LW, blue white
Quartz, drusy on chalcodony geode	Bou Craa, Laäyoune-Sakia Province, El Hamra Region, Morocco	White	White	--	Quartz NR	JMH
Quartz, drusy with chalcodony and calcite geode	Madison County, Kentucky, USA	Clear/gray	Green/cream	--	DS	No Data
Quartz, geode with clear & white quartz and red calcite	Middlefork, Estill County, Kentucky, USA	Clear and white/ red	Blue and green/ red	--	Calcite, red	DS

Quartz, var. smoky	Poudrette Quarry, Mont St. Hilaire, Quebec Province, Canada	Brown	Yellow	--	JMH	LW, whitish yellow/SW, pastel yellow
Rabbittite	Barbora Adit, Jáchymov, Karlovy Vary Region, Czech Republic	Gray	Green, phosp.	--	JMH	LW, yellow green/SW, yellow green
Rhodizite	Ampasagona Pegmatite, Betafo District, Vakinankaratra Region, Madagascar	Colorless	Very pale pink	--	JMH	LW, very pale yellow
Sabugalite	Arcu su Linnarbu, Cagliari, Island of Sardinia Region, Italy	Yellow	Green	--	JMH	LW, green
Scapolite, var. Marialite	Diamond Lake Roadcut, Hastings County, Ontario Province, Canada	Tannish yellow	Pink	Diopside NR	JMH	SW, orangish red
Scapolite, var. Marialite, in Calcite	Badakhshan Province, Afghanistan	White/white	White/red, short red phos.	--	JMH	LW, white/SW, pink and yellow
Scapolite, var. Meionite	Bolton Limestone Quarry, Worcester County, Massachusetts, USA	Gray	Lavendar pink	--	JMH	LW/SW, no data
Scapolite, loose crystals	Koska Valley, Kuran Wa Munjan District, Badakhshan Province, Afghanistan	Colorless	Pale violet	--	JMH	LW, cream/SW, red
Scapolite, large single crystal	Koska Valley, Kuran Wa Munjan District, Badakhshan Province, Afghanistan	Dark olive, yellow transm.	Red	--	JMH	LW, orange/SW, red
Scapolite crystal	Morogero, Ulugum Mountains, Mongero Region, Tanzania	Pastel pink	Pinkish orange	--	JMH	LW, yellow/SW, pink
Scapolite	Badakhshan Province, Afghanistan	Purple and cream	Pastel greenish	--	JMH	LW, orange
Scapolite, var. Marialite with Lapiz Lazuli	Badakhshan Province, Afghanistan	White and blue	Red-orange, blue	Pyrite NR	JMH	LW, yellow
Scapolite, var. Marialite with Lapiz Lazuli	Badakhshan Province, Afghanistan	White and blue	Yellow and blue	Calcite, no data; pyrite NR	DS	No Data
Scapolite, var. Marialite in Dolomite	Koksha Valley, Kuran Wa Munjan District, Badakhshan Province, Afghanistan	Pale purple/white	Pale purple/white	--	JMH	SW, yellow
Scapolite, var. Meionite	Quebec Province, Canada	Gray	Yellow	--	DS	No Data
Scapolite, var. Wernerite	Kipawa Complex, Quebec Province, Canada	White	Strong yellow	--	JMH	SW, yellow
Scapolite, var. Wernerite	Kipawa Complex, Quebec Province, Canada	Grey to pale yellow	Strong yellow	--	JMH	LW, yellow
Scapolite, var. Wernerite	Argontrail RMC, Laurentides, Quebec Province, Canada	White	Yellow	--	JMH	LW/SW
Scapolite, var. Wernerite	Robertsville Mine, Frontenac County, Ontario Province, Canada	Pastel yellow	Bright golden yellow	--	JMH	LW, yellow
Scapolite, var. Wernerite	Koska Valley, Kuran Wa Munjan District, Badakhshan Province, Afghanistan	Gray	Orangish yellow	--	JMH	LW, yellow
Scapolite, var. Wernerite, Afghanite, Diopside, Calcite	Badakhshan Province, Afghanistan	Gray, blue, white, white	Orange, blue-white, red	Afghanite NR	JMH	LW, yellow/SW
Scapolite, irradiated	Koska Valley, Kuran Wa Munjan District, Badakhshan Province, Afghanistan	Purple	Red	--	JMH	LW, orange/SW, red
Scheelite	Three Muscateers Mine, Granite Wash Mtns., La Paz County, Arizona, USA	White	Pale yellow	Quartz NR	JMH	SW, blue white
Scheelite	Verenigt, Zwickfeld Mine, Saxony State, Germany	Tan	Dull yellow	Quartz NR	JMH	SW, gray to white
Scheelite	Mittersill Scheelite Deposit, Zellamsee District, Salzburg, Austria	White	Yellow	--	JMH	SW, blue white
Scheelite	Omega Mine, Helvetia, Pima County, Arizona, USA	Tan	Pale orange	--	JMH	SW, white
Scheelite	South Mineral Range, Beaver County, Utah, USA	White	Blue white, phos.	--	JMH	SW, bluish white
Scheelite	Reef Mine, Huachuca Mountains, Carr Canyon, Cochise County, Arizona, USA	Yellow cream	Pale yellow	--	JMH	SW, blue white
Scheelite	Tae Hwa Mine, Chungju, Chungcheongbuk-do Province, South Korea	Gray	Yellow	--	DS	No Data
Scheelite	Pingwu County, Sichuan Province, China	Gray	Yellow	--	DS	No Data
Scheelite	Pingwu County, Sichuan Province, China	Cream	Red	--	DS	No Data
Scheelite on Quartz (NR)	Qitianling Complex, Chenzhou, Hunan Province, China	Tan	Tan	Unknown/orange	JMH	SW, bright blue
Schoepite	Kovagoszolos Uranium Mine, Pecs District, Baranya County, Hungary	Yellow	Brilliant green	--	JMH	LW/SW, no data
Schoepite	Krunkeloach Valley Uranium Deposit, St. Blasien, Baden-Wuerttemberg State, Germany	Brown	Green	Lanthinite NR	JMH	LW, pale green
Schrockingerite	Isolagrande Mine, Murialdo, Savona, Laguria Region, Italy	Pale green	Bright green	--	JMH	LW, bright yellow green/SW, bright yellow green
Schrockingerite	Isolagrande Mine, Murialdo, Savona, Laguria Region, Italy	Yellow-green	Yellow-green	--	JMH	LW, bright yellow green/SW, bright yellow green
Scolecite	Nashik Quarry, Nashik District, Maharashtra State, India	White	Blue-white	--	JMH	LW/SW, no data
Shortite in shale	FMC West Vaco Mine, Green River Fm, Sweetwater County, Wyoming, USA	Dark gray	Pale orange	Shale, pale orange	JMH	LW, weak orange
Smithsonite, banded	Buena Tierra Mine, Santa Eulalia, Chihuahua State, Mexico	Gray	Pale blue gray, red	--	JMH	LW., orange/SW, red and blue
Smithsonite	Northern Searcy County, Arkansas, USA	Tan	Pale blue to white	Sphalerite NR	JMH	LW, bluish white
Sodalite crystal	Granite Mountain Quarry #3, Saline County, Arkansas, USA	White	Bright orange	Orthoclase NR	JMH	LW, orange
Sodalite in syenite	Granite Mountain Quarry #1, Pulaski County, Arkansas, USA	Gray	Orange	Orthoclase NR	JMH	LW, orange
Sodalite in syenite	3M Big Rock Quarry, Little Rock, Pulaski County, Arkansas, USA	Gray	Pale orange	Orthoclase NR	JMH	LW, orange
Sodalite in Orthoclase syenite	Diamond Jo Quarry, Magnet Cove, Hot Spring County, Arkansas, USA	Gray	Weak orange	Orthoclase NR	JMH	LW, orange
Sodalite in syenite	Red Hill, Mouttonborough, Carrol County, New Hampshire, USA	Gray	Pastel orange	--	JMH	LW, orange
Sodalite, var. Hackmannite	Davis Quarry, Hastings County Ontario Province, Canada	Gray	Red	--	JMH	LW, orange
Sodalite, var. Hackmannite	Poudrette Quarry, Mont St. Hilaire, Quebec Province, Canada	Purple	White	Calcite, pink	JMH	LW, orange/SW, pale orange
Sodalite, var. Hackmannite	Quebec Province, Canada	White	Red	--	DS	No Data
Sodalite, var. Hackmannite	Kibiny Massif, Murmansk Oblast, Kola Peninsula, Russia	Cream	Purplish white	Eudialyte NR	JMH	LW, no data
Sodalite and Calcite	Badakhshan Province, Afghanistan	Blue/white	Orange tan/red	Calcite, red	JMH	LW, sodalite orange/SW, calcite pink
Sodalite, blue	Poudrette Quarry, Mont St. Hilaire, Quebec Province, Canada	Blue	Orange	--	JMH	LW, orange
Sodalite	Poudrette Quarry, Mont St. Hilaire, Quebec Province, Canada	Gray to white	Orange	Xenoliths NR	JMH	LW, orange/SW, dull red
Sodalite, green	Sar-e-Sang District, Badakhshan Province, Afghanistan	Pale green	Orange	Calcite Red	JMH	LW, sodalite, orange/SW, calcite, red
Sodalite, green	Badakhshan Province, Afghanistan	Green	Mottled Orange	--	JMH	SW, orange
Sodalite, green, Scapolite, Calcite	Badakhshan Province, Afghanistan	Green/gray/tan	Orange/yellow/red	--	JMH	LW, orange/SW, orange
Sodalite with Lapis and Calcite	Koska Valley, Kuran Wa Munjan District, Badakhshan Province, Afghanistan	Gray	Orange	Lapis NR, Calcite red	JMH	LW, yellow orange
Sodalite	Red Hill, Mouttonborough, Carrol County, New Hampshire, USA	Gray	Pale orange	Feldspar NR	JMH	LW, orange
Sodalite	Undisclosed Quarry, Tvedalen, Telemark Region, Norway	Bluish gray	Orange	--	JMH	LW, dull red
Sphalerite	Taylor Road Site, Franklin, Sussex County, New Jersey, USA	Tan	Orange	Cleiophanes, blue	JMH	LW, pink and blue/SW, orange
Sphalerite	Passaic Pit, Sterling Hill Mine, Sussex County, New Jersey, USA	Tan	Bright orange	--	JMH	LW, orange
Sphalerite	Sterling Hill Mine, Ogdensburg, Sussex County, New Jersey, USA	Cream to tan	Pale orange	Galena NR	JMH	LW, pale orange
Sphalerite	Caldwell Stone Quarry, Danville, Boyle County, Kentucky, USA	Black	Orange	Calcite, Fluorite no data	DS	No Data
Sphalerite	Sweet Home Mine, Mount Bross, Park County, Colorado, USA	Brownish gray	Orange	Pyrite NR	JMH	LW, golden yellow
Sphalerite	Sterling Hill Mine, Ogdensburg, Sussex County, New Jersey, USA	Tan	Golden orange	Bornite, Chalcocopyrite, Pyrite NR	JMH	LW/SW, no data
Sphalerite coating Chalcocopyrite w/ Calcite	Buick Mine, Viburnum Trend, Bixby, Iron County, Missouri, USA	Brown/golden/tan	Yellow orange	Chalcocopyrite, calcite NR	JMH	LW, strong orange, phos.
Sphalerite	Hasselhöjden, Hallefors, Örebro County, Sweden	Gray	Orange	--	JMH	LW, golden yellow
Sphalerite	Hot Springs, Madison County, North Carolina, USA	Brown	Orange	--	DS	No Data
Sphalerite and Willemite	Sterling Hill Mine, Ogdensburg, Sussex County, New Jersey, USA	Tan	Orange/Blue	--	JMH	LW, sphalerite orange/SW, willemite green
Sphalerite vein, with Willemite and Calcite	Sterling Hill Mine, Ogdensburg, Sussex County, New Jersey, USA	Brown	Orange	Willemite, green/ Calcite NR	JMH	LW, sphalerite orange/SW, willemite green
Sphalerite vein in Calcite	Hasselhöjden, Hallefors, Örebro County, Sweden	Tan gray/white	Orange/purple	--	JMH	LW, golden yellow
Sphalerite, Fluorite, var. Cleiophanes	Buckwheat Dump, Franklin, Sussex County, New Jersey, USA	Brown/gray	Orange	Fluorite, blue	JMH	LW, bright orange, pink & blue/SW, orange
Sphalerite, var. Schalenblende	Schmaufgrat Mine, Liege, Walloon Region, Belgium	Light to medium tan	Pale green	Marcasite NR	JMH	SW, pale yellowish tan
Sphalerite, var. Schalenblende	Pomorzany Mine, Olkusz County, Lesser Poland Voivodeship, Poland	Tan to brown	Dark orange	Galena NR	JMH	LW, golden yellow
Sphalerite, var. Cleiophanes	Sterling Hill Mine, Ogdensburg, Sussex County, New Jersey, USA	Gray	Blue	Willemite, green/Hardystonite NR	JMH	LW, pink & blue/SW, reddish orange
Sphalerite, Fluorite, var. Chlorophane	Franklin Mine, Franklin, Sussex County, New Jersey, USA	Gray/gray/gray	Golden yellow	Fluorite, blue/ Willemite NR	JMH	LW, orange
Spodumene, var. Kunzite	K Pegmatite, Kunon, Nuristan Province, Afghanistan	Whitish	Pale purple	--	JMH	LW, tangerine orange
Spodumene	Harding Pegmatite, Taos County, New Mexico, USA	White	Blue white	Eucryptite NR	JMH	LW/SW, no data
Strelkinit	Yellow Cat Mine, Thompson District, Grand County, Utah, USA	Yellow	Pale green	--	JMH	LW, green
Strontioaragonite	Boccheggiano Mine, Grosseto Province, Italy	Gray	Tangerine	--	JMH	LW/SW, no data
Strontianite	Taylor-Middle Creek Quarry, Union County, Pennsylvania, USA	White	Pastel greenish white	--	JMH	LW, white
Strontianite	Mt. Pleasant, Westmoreland County, Pennsylvania, USA	White	White	--	DS	No Data
Strontianite	Mackville Quarry, north of Appleton, Outagamie County, Wisconsin, USA	White	Pastel blue-white	Ironstone NR	JMH	LW, cream white
Strontianite	Susquahanna Quarry, East Salem, Juniata County, Pennsylvania, USA	White	Cream, phos. pale green	--	JMH	LW/SW, no data
Strontianite on Barite	Caldwell Stone Quarry, Danville, Boyle County, Kentucky, USA	Cream	Cream	Barite NR	JMH	LW, white
Strontianite on Calcite	Caldwell Stone Quarry, Danville, Boyle County, Kentucky, USA	Cream	Cream	Calcite NR	JMH	LW, pink

Strontianite with Barite and Calcite	Caldwell Stone Quarry, Danville, Boyle County, Kentucky, USA	White	White	--	DS	No Data
Svabite	Pole Dump, Långban Mine, Filipstad, Värmland County, Sweden	Mottled tan & gray	Orange	--	JMH	SW, orange
Talc	Silurian Hills, San Bernardino County, California, USA	Cream	Cream	--	JMH	LW, grayish tan
Talc	Nuristan Province, Afghanistan	White	Pink	Tourmaline, var. Dravite, no data	DS	No Data
Tilasite (TL)	Långban Mine, Filipstad, Värmland County, Sweden	Tan	Orange	--	JMH	SW, orange
Tremolite	Nellie Ulmur Quarry, Rockland, Knox County, Maine, USA	Pale tannish gray	Pale Yellow	--	JMH	SW, blue gray
Tremolite	Franklin Mine, Franklin, Sussex County, New Jersey, USA	White	Pale peach	Calcite NR	JMH	SW, bluish white
Tremolite	Zilertal, Schwaz District, South Tyrol Province, Italy	Gray	Yellowish cream	--	JMH	LW, pale blue
Tremolite	Sunset South Mine, Aguila area, Maricopa County, Arizona, USA	White	Blue gray	--	JMH	SW, pale blue white
Tremolite and Talc	Fowler, Saint Lawrence County, New York, USA	Pearly white to gray	Yellow and orange	--	JMH	LW, tangerine orange/SW, bluish white
Tridymite	Dellen Quarries, Rhineland-Palatinate State, Germany	Colorless	Orange	--	JMH	LW, cream white
Tourmaline, Var. Rubellite	Minas Gerais State, Brazil	Strong pink	Pale pink	Milky Quartz NR	JMH	LW, bluish white/SW, reddish yellow
Tacharanite	Bramburg Quarry, Saxony State, Germany	White to gray	Pale blue to white	--	JMH	LW, yellowish white
Thaumasite	Crestmore Quarries, Crestmore, Riverside County, California, USA	Cream	Pale blue-white	--	JMH	LW, yellow and pale blue
Tugtupite	Taseq Slope, Ilimaussaq Complex, Kujalleq State (Municipality), Greenland	White	Pinkish orange	Chkalasite NR	JMH	LW, orange/SW, red
Tugtupite	Ilmussaq Complex, Kvanefjeld, Kitaa Province, Greenland	Pink	Pinkish salmon	Unknown, green	JMH	SW, orange/LW, red
Tugtupite	Ilmussaq Complex, Kvanefjeld, Kitaa Province, Greenland	Pink	Salmon	Sodalite, no data	DS	No Data
Turneaureite	Empire State No. 4 Mine, Balmat, St. Lawrence County, New York, USA	White	Orange	--	DS	No Data
Ulexite (commonly called TV Stone)	Boron, Death Valley, Kern County, California, USA	White	White	--	DS	No Data
Uranocircite	Menzenschwand, Baden-Württemberg State, Germany	Yellow green	Brilliant green	--	JMH	LW, bright yellowish green/SW, yellowish green
Uranocircite	Dieresis Mine, El Cabril, Cordoba Province, Spain	Greenish yellow	Brilliant green	--	JMH	LW, bright yellowish green/SW, yellowish green
Uranophane-alpha	Eureka Mine, Castell-estao, Catalunya Region, Spain	Yellow	Green	--	JMH	LW, greenish yellow/SW, greenish yellow
Uranophane	Madawaska Mine, Hastings County, Ontario Province, Canada	Cream	Pale green	--	JMH	LW, weak green
Uranophane	Rabe, Le Puech, Lodeve, Herault, Occitanie Region, France	Yellow	Green	--	JMH	LW, weak green
Uranopilite	Yellow Cat Mining District, Grande County, Utah, USA	Yellow-green	Bright green	--	JMH	LW, green/SW, green
Villiaumite, Halite Group	Aris Quarries, Windhoek Rural, Khomas Region, Namibia	Pink	Orange	--	JMH	LW, dark orange red
Villiaumite, Halite Group	Mont St. Hilaire, Quebec Province, Canada	Deep red	orange	--	JMH	LW, deep red
Vlasovite (TL)	Kipawa Complex, Quebec Province, Canada	White	Bright yellow	Eudialyte NR	JMH	SW, yellow/LW, mottled yellow
Walstromite (TL)	Esquire #7 Claim, Big Creek, Fresno County, California, USA	Bluish gray	Pink	--	JMH	SW, red pink
Wavellite	Christy V Mine, Magnet Cove, Hot Spring County, Arkansas, USA	White	Green	Variscite NR	JMH	SW, green
Wavellite	Clear Springs, Bartow, Polk County, Florida, USA	Tan	Pale greenish white	--	JMH	LW, tan/SW, cream
Wavellite	Phosphate Quarry, Creamer, Snyder County, Pennsylvania, USA	White	Blue-white, weak phos.	--	JMH	LW, blue white/SW, pale blue
Wavellite	National Ls. Qy #2, Lime Ridge, Pleasant Mills, Snyder, PA, USA	Yellow	Pale green	--	JMH	LW, moderate green/SW, dull green
Weeksite	Autunite #8 Claim, Thomas Range, Juab County, Utah, USA	Pale yellow - gray	Bright green	--	JMH	LW, bright green/SW, bright green
Whewellite	Ronneburg U Mine, Thuringia State, Germany	Grayish white	Pale pink	--	JMH	LW, bluish white/SW, bluish white
Wickenburgite (TL)	Potter-Cramer Mine, Vulture Mining District, Maricopa County, Arizona, USA	White	Red	--	JMH	SW, red
Wickenburgite (TL)	Potter-Cramer Mine, Vulture Mining District, Maricopa County, Arizona, USA	White	Dark red	--	JMH	SW, red
Willemite	Franklin, Sussex County, New Jersey, USA	Tan	Green	Minor Calcite/orange	JMH	SW, green
Willemite	Franklin Mine, Sussex County, New Jersey, USA	Green	Green	Calcite, no data	DS	No Data
Willemite	Sterling Hill Mine, Ogdensburg, Sussex County, New Jersey, USA	Reddish	Green	Calcite, no data	DS	No Data
Willemite	Puttapa Zn Mine, Leigh Creek, South Australia, Australia	Cream	Yellow, phos.	Dolomite NR	JMH	SW/LW, no data
Willemite and Calcite	Garpenberg Mine (North), Hedemora, Dalarna County, Sweden	Tan/gray	Green/red	--	JMH	SW, green
Willemite and calcite skarn	Bolden's Garpenberg Mine, Dalarna County, Sweden	Dark gray	Green/orange	--	JMH	SW, green
Witherite and Barytocalcite	Settlingstones Mine, Newbrough, County Northumberland, England	White/tan	Blue white/pale yellow	--	JMH	LW, pastel yellow/SW, grayish white
Wollastonite/Miserite(TL)	North Wilson Pit, Potash Sulphur Springs, Garland County, Arkansas, USA	Cream	Pale Yellow	Minor Calcite/red	JMH	SW, pale yellow
Wollastonite & Calcite	White Knob Quarry, Mojave Desert, San Bernardino County, CA, USA	Gray & cream	Purple & pale yellow	--	JMH	SW, yellow
Wollastonite w/ Celsian vein	Esquire #8 Claim, Big Creek, Fresno County, California, USA	White/ pale tan	Blue white/ orange	--	JMH	SW, no data
Wollastonite in calcite marble	Franklin Mine, Franklin, Sussex County, New Jersey, USA	Cream	Bright orange/dull red	--	JMH	LW, yellow/SW, no data
Wollastonite	Kocksgruvan, Skinneskatterberg, Västmanland County, Sweden	White	Lilac pink	--	JMH	SW, yellow/LW, dull yellow
Wollastonite	Harquahala Mountains, Yuma County, Arizona, USA	White	Pale Yellow	--	JMH	SW, yellow
Wollastonite, fluorapatite, Miserite (TL)	North Wilson Pit, Potash Sulphur Springs, Garland County, Arkansas, USA	White/white	Orange/blue white	Miserite NR	JMH	SW, yellow
Xonotlite fragments	Parker Shaft, Franklin, Sussex County, New Jersey	White	White	--	JMH	LW, white
Zellerite	Uranus Mine, Saxony State, Germany	Tan	Pale green	--	JMH	LW, pale green/SW, pale green
Zincite w/ Sphalerite	Raibl Miners, Cave de Previl, Udine Province, Italy	Yellow/tan	Pale blue, orange	Dolomite NR	JMH	LW/SW
Zippeite	Parco #23 Mine, Thompsons Mining District, Grand County, Utah, USA	Yellow	Bright green	--	JMH	LW, bright green/SW, bright green
Zircon in granite	Pikes Peak, El Paso County, Colorado, USA	Deep red	Yellow orange	Unknown/bright blue	JMH	SW
Zircon in Feldspar	Vishnevye Mountains, Chelyabinski Oblast, Ural Region, Russia	Tan	Bright yellow	Feldspar/red	JMH	LW, yellow
Zircon	Astora Valley, Gilgit-Baltistan Province, Pakistan	Reddish brown	Yellow to brown	--	JMH	SW, mottled yellow
Zircon	Mont St. Hilaire, Quebec Province, Canada	White	Orange	Albite, Siderite NR	JMH	LW, orange to yellow orange
Zircon	Poudrette Quarry, Mont St. Hilaire, Quebec Province, Canada	Tan	Orangy yellow	--	JMH	LW, orange to yellow orange
Zircon	Eureka Tunnel, St. Peter's Dome, El Paso County, Colorado, USA	Gray	Orange	--	DS	No Data
Zircon, giant crystal	Mount Malosa, Zomba District, Malawi, Africa	Reddish brown	Golden yellow	--	JMH	LW, yellow and orange
Zircon on Calcite	Skardu, Gilgit area, Baltistan Province, Pakistan	Reddish brown & white	Yellow brown & red	--	JMH	SW, mottled yellow
Zunite (TL)	Zuni Mine, Big Bertha extension, San Juan County, Utah, USA	Tan	Cream white	--	JMH	SW, pale red