RESOURCE MAP 24

Mining Districts and Prospect Areas in New Mexico

by Virginia T. McLemore

edited by Shari Kelley

New Mexico Bureau of Geology and Mineral Resources
A division of New Mexico Institute of Mining and Technology

Socorro, New Mexico 2017

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Socorro, New Mexico 87801

ISBN XXXXXXXXXXXXX

New Mexico Bureau of Geology and Mineral Resources
First Printing 2017

Published by Authority of State of New Mexico, NMSA 1953 Sec. 63–1–4

Printed in the United States of America
Starline Printing, Albuquerque, New Mexico

Available from New Mexico Bureau of Geology and Mineral Resources
801 Leroy Place, Socorro, NM 87801
(575) 835-5490
Visit our website at geoinfo.nmt.edu

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Abstract

Minerals have been and still are an important contribution to the economy of New Mexico. More than $43 billion worth of minerals have been produced from New Mexico since the early 1800s from 246 mining districts and prospect areas (excluding coal, oil and gas). Today, mining is still an important part of the economy of New Mexico, although to a lesser extent compared to the late 1800s and early 1900s. A mining district, as used in this report, is a group of mines and/or mineral deposits that occur in a geographically defined area (such as a mining district or coal field) that locally are determined by geologic criteria (distribution of mines and deposits, mineralogy, faults, lithology, stratigraphic horizons, common mineralization processes, age, etc.) and has had some mineral production. A prospect area is an area defined by geologic criteria (distribution of mines and deposits, mineralogy, faults, lithology, stratigraphic horizons, age, etc.) that has had no mineral production. This resource map updates reports on mining districts last published in 1966 and 1971.

Introduction

In industry, minerals refer to any rock, mineral, or other naturally occurring material of economic value, including metals, industrial minerals, energy minerals, gemstones, and aggregates. New Mexico's mineral wealth is among the richest endowments of any state in the United States. Although oil and gas are the most important mineral resource to New Mexico in terms of production value (Broadhead, 2016; McLemore et al., 2016), coal, copper, potash, industrial minerals, and aggregates are important commodities produced in the state (Table 1). Other important commodities include a variety of industrial minerals (perlite, cement, zeolites, etc.), sulfuric acid, molybdenum, gold, uranium, and silver. More than $43 billion worth of minerals have been produced from New Mexico since the early 1800s (Table 1; excluding coal, oil and gas).

There are 246 mining districts and prospect areas described in New Mexico, summarized in Appendix 1 and located on the map. However, not all sand and gravel, crushed stone, and dimension stone operations are located in a specific mining district or prospect area, even if they were actually mined, because these low-value commodities are not constrained by geologic criteria. Undoubtedly new occurrences of metallic and industrial minerals will be located that also are not in a mining district or prospect area designated in this resource map. Thus new mining districts or prospect areas will be added to this resource map in the future. File and Northrop (1966) recognized a Guadalupe Mountains district in Otero County, but there is no evidence of mineral deposits in that exact area, so that district is no longer included as a district in this report.

Only five commodities have cumulative production from New Mexico exceeding $1 billion (Table 1): copper, potash, uranium, aggregates, and cement. The combined total of many industrial minerals (excluding potash and aggregates) also is greater than $1 billion. Only seven mining districts in New Mexico have total cumulative value of production exceeding $1 billion (Appendix 2: Carlsbad potash, Ambrosia Lake subdistrict (Grants uranium district), Laguna subdistrict (Grants uranium district), Fierro–Hanover, Santa Rita, Burro Mountains (Tyrone), and Tijeras Canyon (Tijeras Cement Plant). Mardirosian (1979) reported five of these districts exceeding $100 million in 1978. Metals production by mining district in New Mexico is in Appendix 2. Uranium production by district is in McLemore and Chenoweth (1989) and by mine in McLemore (1983a).

This report accompanies the resource map that shows the mining districts and prospect areas, and updates File and Northrop (1966), Howard (1967), and Mardirosian (1971), the last comprehensive summaries of all mining districts in New Mexico. This report begins with a brief description of the history of mining in New Mexico and is followed by discussions of previous work, mining claims, definition of a mining district, methods, and classification of mineral deposits. Short descriptions of the individual mining districts and prospect areas in New Mexico are in Appendix 1, and Appendix 2 includes metal production from selected districts. Appendix 3 is a summary of previous mining districts maps.

TABLE 1. Estimated total production of major commodities in New Mexico. Commodities are in order of estimated cumulative value (from USGS, 1902–1927; New Mexico State Inspector of Mines, 1912–1982; USBM, 1927–1990; Kelley, 1949; Northrop, 1959, 1996; Harrer, 1965; USGS, 1965; Howard, 1967; New Mexico Energy, Minerals and Natural Resources Department, 1986-2015; McLemore and Lueth, 2016; McLemore and Austin, 2016). Figures are subjected to change as more data are obtained (these are conservative estimates). *Data are from New Mexico Energy, Minerals and Natural Resources Department (2015). **Industrial minerals include the combined total of several industrial minerals (e.g., perlite, cement, decorative stone, pumice, zeolites, etc.), but excluding potash and aggregates. ***Aggregates include only sand and gravel from 1951–1997, after 1997 aggregates include crushed stone and scoria.

Commodity	Years of production	Estimated quantity of production	Estimated cumulative value ($)	Quantity of production in 2014*	Value in 2014($)*	Ranking in U.S. in 2014
Copper	1804–2014	>11.5 million tons	>$20.6 billion	171,646 short tons	$1,071,057,411	3
Potash	1951–2014	112,054,218 short tons	>$15 billion	2,130,352 short tons	$1,093,208,523	1
Uranium	1948–2002	>347 million pounds	>$4.7 billion	none	—	—
Aggregates***	1951–2014	>666 short tons	>$2.6 billion	11,339,585 short tons	$93,439,942	—
Industrial minerals**	1997–2014	40,276,083 short tons	>$2.6 billion	1,199,137 short tons	$77,800,389	—
Cement	1959–2014		>$1 billion	Included in industrial minerals	—	—
Molybdenum	1931–2014	>176 million pounds	>$852 million	13,183 pounds	$150,194	—
Gold	1848–2014	>3.2 million troy ounces	>$463 million	8,580 troy ounces	$10,858,944	9
Zinc	1903–1991	>1.51 million tons	>$337 million	none	—	—
Silver	1848–2014	>118.7 million troy ounces	>$279 million	22,617 troy ounces	$431,333	7
Lead	1883–1992	>367,000 tons	>$56.7 million	none	—	—
Iron	1888–2014	>6.7 million long tons	$23 million	71,352 short tons	$982,217	—
Fluorspar	1909–1978	>721,000 tons	$12 million	none	—	—
Manganese	1883–1963	>1.9 million tons	$5 million	none	—	—
Barite	1918–1965	>37,500 tons	>$400,000	none	—	—
Tungsten	1940–1958	113.8 tons (>60% WO_3)	—	none	—	—
Niobium-tantalum	1953–1965	34,000 pounds of concentrates	—	none	—	—
TOTAL (excluding coal)	1804–2014	—	>$43 billion	—	$2,010,776,277	13

Beryl, tin, antimony, arsenic, vanadium, selenium, tellurium, thorium, REE, titanium, bismuth also have been produced.

Purpose of this Report

The purpose of this report is to: 1) define a mining district , 2) identify, locate, and briefly describe the mining districts and history of mining in New Mexico, 3) define the types of mineral deposits found in New Mexico, and 4) provide production data and other information on the mining districts of New Mexico.

This Mining Districts and Prospect Areas of New Mexico Resource Map is intended to provide the best data available on mining districts and prospect areas in the state. Throughout the appendices associated with this report, the district identification numbers, prefixed by DIS, and mine identification numbers, prefixed by NM, are from the New Mexico Mines Database and refer to the districts and mines in the database listed in the text (McLemore et al., 2002, 2005a, b). Appendix 1 summarizes the mining districts found in New Mexico, whereas Appendix 2 summarizes the metal production from selected districts where non-confidential production statistics are available.

One of the concerns about releasing these data is that the general public will have ready access to locations of inactive mines and mining districts. **Recreation in or around inactive mine sites is extremely dangerous, and can result in serious injury or death. Stay out and stay alive! Also respect private lands! Obtain permission from private land owners.**

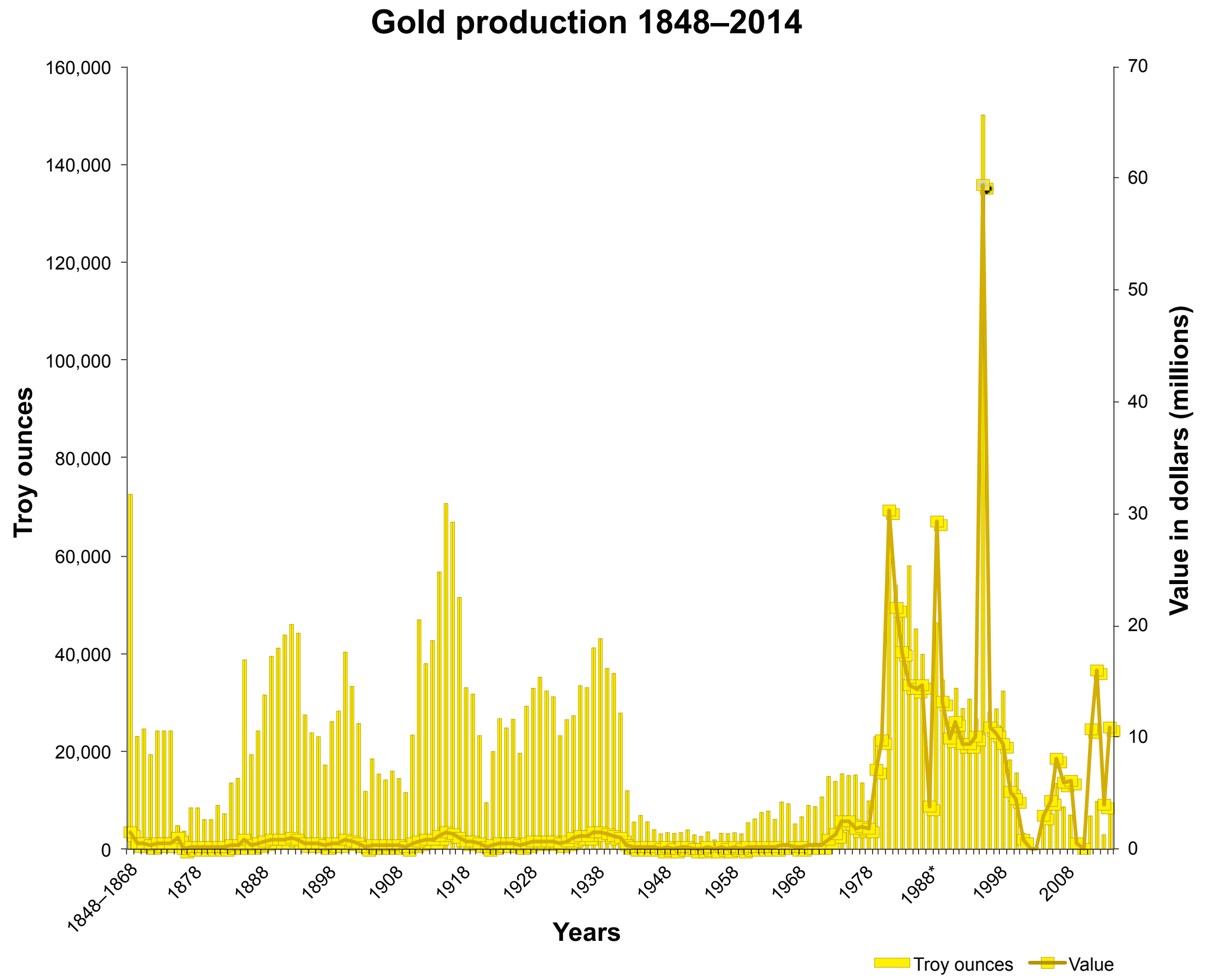

FIGURE 1. Gold production in New Mexico from 1828 to 2014.

Mining History

Mining has been an integral part of the economy of New Mexico since prehistoric times. The earliest mining in New Mexico was by Native Americans, who recovered obsidian, chert, basalt, turquoise, malachite, azurite, and fluorite for ornaments and stone tools. They also collected hematite and other mineral pigments and clay for decoration and pottery. Their houses were made of stone, adobe, and clay. Native Americans collected native copper from porphyry copper deposits along with turquoise.

The Spanish first entered New Mexico about 1534 with the expedition led by Álvar Nuñez Cabeza de Vaca. That exploration was followed in 1539 by Fray Marcos de Niza, who reported of seven cities of gold at Zuni and coined the phrase, "Land of Cibola" or "Land of the golden cities." In 1540, Francisco Vasques de Coronado led an expedition looking for gold (Jones, 1904; Christiansen, 1974). Coronado did not find any gold or silver, but he did find turquoise and led the way to future colonization. Another 40 years would pass before Juan de Oñate marched north to colonize New Mexico in 1598.

Early Spanish mining in New Mexico was centered around Mount Chalchiuitl in the Cerrillos district and also in the Old Placers (Santa Fe County) and Burro Mountains (Grant County) districts. The first mining claim in New Mexico was established by Pedro de Abalos in the Fra Cristobal Mountains, Sierra County on March 26, 1685 (Northrop, 1996), but there is no record of any production from that claim. The Pueblo Revolt in 1680 was in part attributed to Spanish enslavement of Native Americans to work in the mines, but there is little documentation to support such accounts (Jones, 1904; Northrop, 1959).

Mining by the Spanish in southern New Mexico did not amount to much until ca. 1798, when an Apache Indian told Lt. Col. Josè Manuel Carrasco about the copper deposits inwhat is now known as the Santa Rita district. Carrasco interested Francisco Manuel Elguea to form a partnership and they were issued a land grant, the Santa Rita del Cobre Grant. By 1803 Elguea bought out Carrasco and began mining the copper at Santa Rita in earnest (Lundwall, 2012). Elguea found a ready market for copper in Mexico City for coinage. Actual production records are lacking, but Christiansen (1974) estimated that he shipped 200 mule trains annually, amounting to approximately 6,000,000 pounds of copper per year. The U.S. Army expedition of Lieutenant Pike in 1807 encountered mining at Santa Rita (Jones, 1904). The ore was shipped with little or no processing and the processing that was required involved smelting in simple adobe furnaces. Elguea died in 1809 and mining at

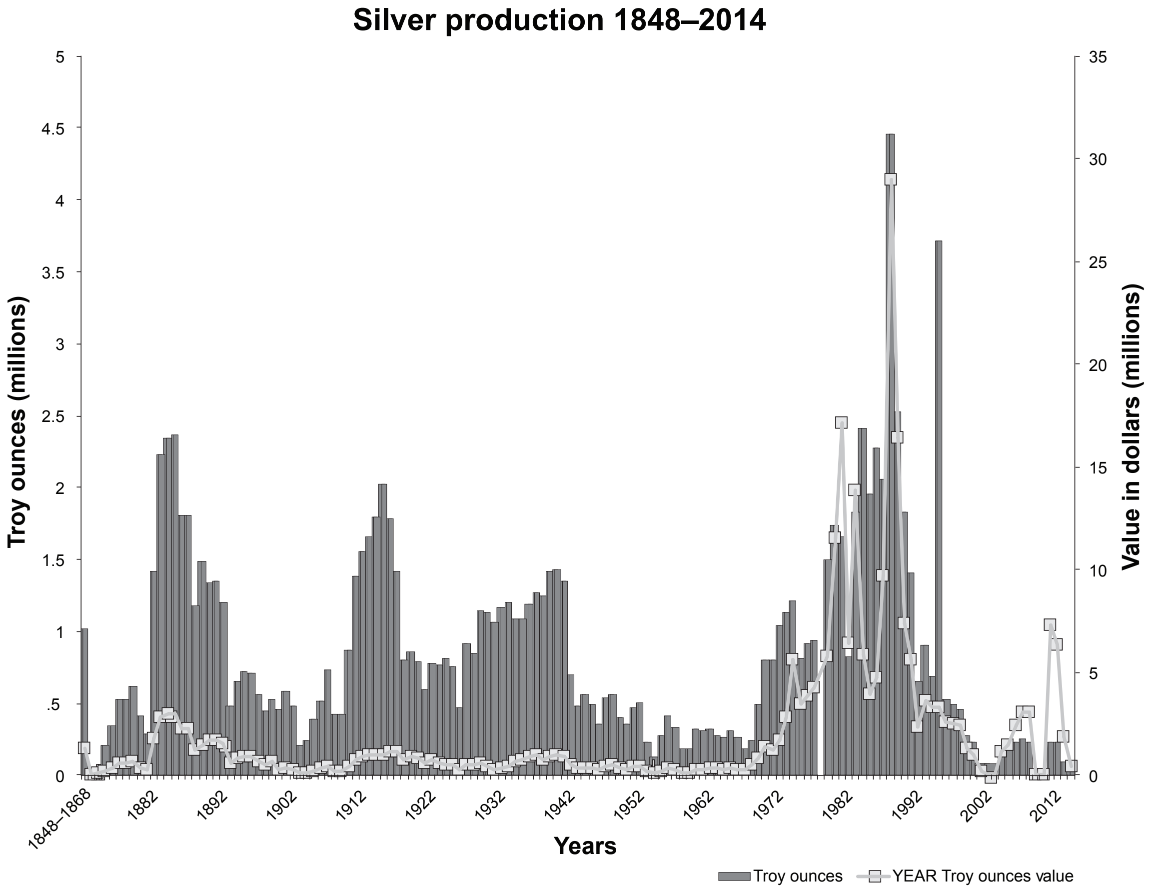

FIGURE 2. Silver production in New Mexico from 1828 to 2014.

Santa Rita diminished as a result of increasing costs, difficult transportation, Native Americans uprisings, declining copper demands in Mexico, and finally the Mexican Revolution in 1810. The records are conflicting as to who owned and operated the mines after 1809 and the mines finally closed in 1834. They were still inactive when Kearney's army visited the area in 1846 (Jones, 1904; Milbauer, 1983).

New Mexico was part of the Spanish empire until 1821, when Mexico, including New Mexico, became an independent nation. The Santa Fe Trail opened up during this time. Gold was discovered in the Ortiz Mountains in 1828, attracting many prospectors, even though New Mexico was still under the control of the Mexican government. This was one of earliest gold rushes in the West, 21 years before the California gold rush in 1949, and this discovery drew an estimated 2,000–3,000 miners to New Mexico. When the gold played out at Ortiz, many of these miners began prospecting throughout New Mexico.

The arrival of Anglos after New Mexico became part of the United States in 1848 triggered the beginning of the great metal mining period of New Mexico history. Some prospectors traveling through the state heading for the gold fields in California in the 1850s, found New Mexico to their liking and stayed. Written records of mining activity and production were still rarely preserved and conflicting stories exaggerating the mineral wealth in New Mexico are abundant in early accounts.

At first, mining was by small groups of individuals; large mining companies were not formed until the late 1880s. Prospectors had already discovered the mineral deposits in the Organ Mountains in the 1830s; the Stephenson–Bennett mine was discovered in 1849 (Dunham, 1935; Eveleth, 1983). Placer gold was discovered in the Piños Altos district in 1860, when more than 700 miners were working in the district (Milbauer, 1983). Mining had resumed at Santa Rita by the late 1850s. Mining began in the Fierro–Hanover district in 1850, Bayard district in 1858, and Fremont and Steeple Rock districts in 1860. But then the Civil War erupted in the east and the soldiers stationed in New Mexico to protect the miners from raids by Native Americans were needed in the east. Most mining in New Mexico ceased in 1862 with the invasion of New Mexico by the Confederate forces (Milbauer, 1983). Many districts remained inactive until after the war.

The end of the Civil War brought tremendous change to mining in New Mexico. Better records were kept in the late 1800s and were preserved for the future. Yearly production statistics for gold and silver are available for New Mexico starting in 1869 and for copper starting in 1882 (Figs. 1, 2, 3; USGS, 1902–1927; USBM, 1927–1990). Settlers and prospectors fled the war torn east to start new lives in the west. Soldiers were sent to New Mexico and Arizona to eliminate interference by Native Americans. The first Federal Mining Act of 1866 established rules and regulations governing prospecting and mining with provisions to

obtain private ownership of federal land containing valuable mineral resources. The act was subsequently amended in 1870 and 1872 and in the years since. The mining act further encouraged mining and prospecting in New Mexico and the mining boom of 1870–1890 began. Many districts opened up and production began as the threat by raids from Native Americans subsided. The arrival of the telegraph sent first-hand accounts of the success of miners in the area as mining continued to flourish. New mining and metallurgical techniques were developed in the late 1800s. The cyanide process was perfected in 1891 and revolutionized gold recovery. Times were exciting for the miner in the late 1800s as metal prices soared. Larger mining companies were formed to develop many deposits.

The construction of railroads in the New Mexico Territory between 1878 and 1882 brought a new wave of prospectors (Christiansen, 1974). Silver became an important product in the 1880s in many districts (Fig. 2 ; Appendix 1). In 1890 the Sherman Silver Act was passed, which increased the price and demand for silver. This demand was short lived. The Sherman Silver Act required the U.S. government to purchase 4.5 million troy ounces of silver per month and, hopefully, would result in inflation that would help farmers and miners in the United States. However, the U.S. Treasury soon had a surplus of silver dollars and at the same time, a number of larger industrial firms went bankrupt, resulting in the Panic of 1893. It was believed that the inflation created by the Sherman Silver Act caused the Panic and the Sherman Silver Act was repealed in 1893 by Congress. Without a guaranteed market, most silver mines in the Southwest closed, never to reopen. A depression resulted and, in some districts, only gold ore was the important resource.

New mining and milling technologies were developed throughout the 20th century, which encouraged exploration and development of many deposits in the state that had been ignored in the 1800s. But booms and busts were the norm for most mining towns in New Mexico as world wars and financial slumps controlled the metals markets, as seen in the cumulative production graphs (Figs. 1, 2, 3). Demand for new commodities such as manganese, uranium, fluorite, and barite increased. Since 1900, thousands of mines and prospects have been located and numerous names given to the mining districts (File and Northrop, 1966).

In 1904, Daniel C. Jackling opened the first large, open-pit mine to produce low-grade copper ore (less than 2% Cu) at Bingham Canyon, Utah. At the same time, John M. Sully arrived at Santa Rita and recognized the similarity of ore at Santa Rita to that mined at Bingham Canyon. Sully thoroughly explored the area and attempted to obtain backers (Sully, 1908). Finally, in 1909 he obtained financial backing

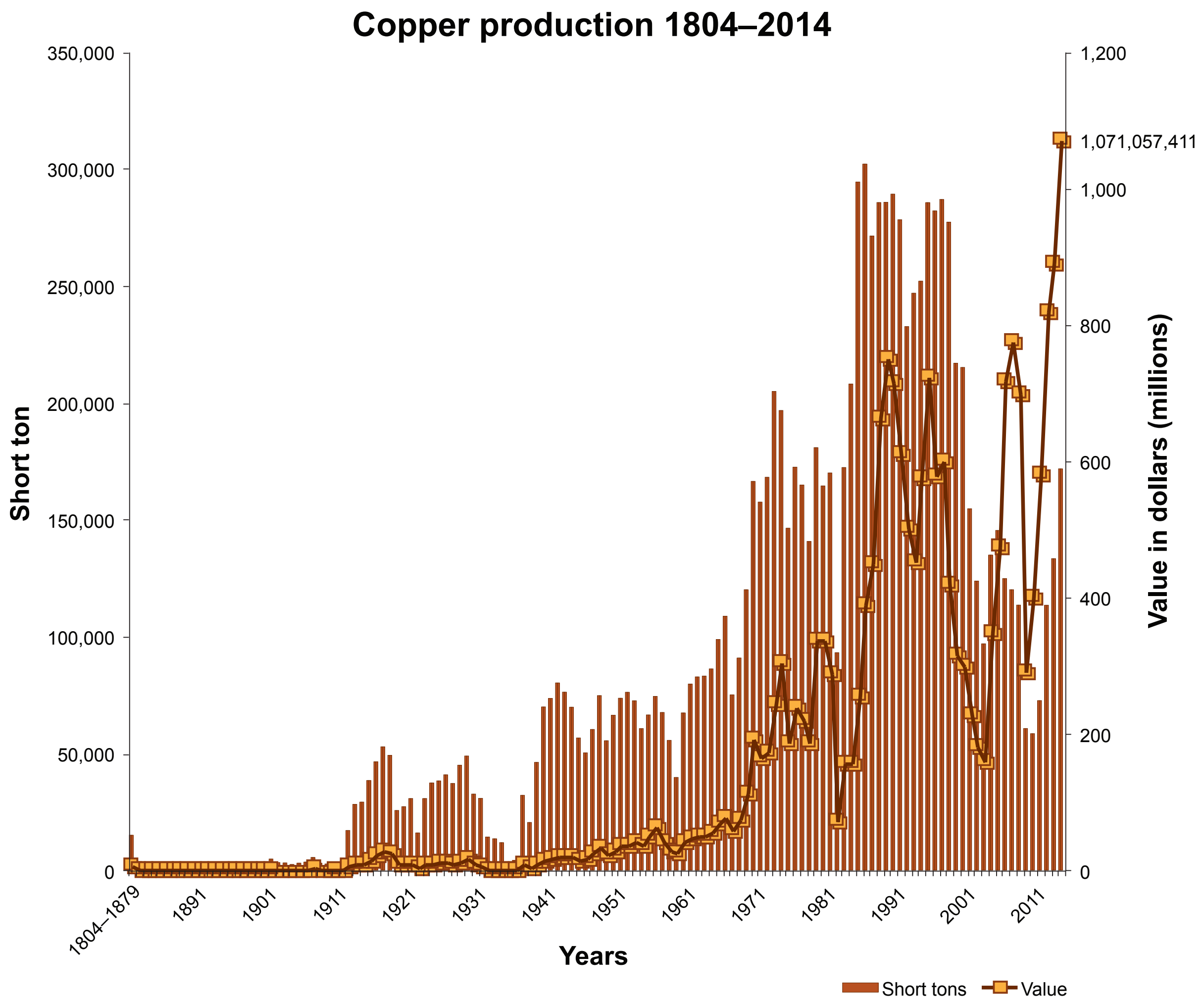

FIGURE 3. Copper production in New Mexico from 1882 to 2014.

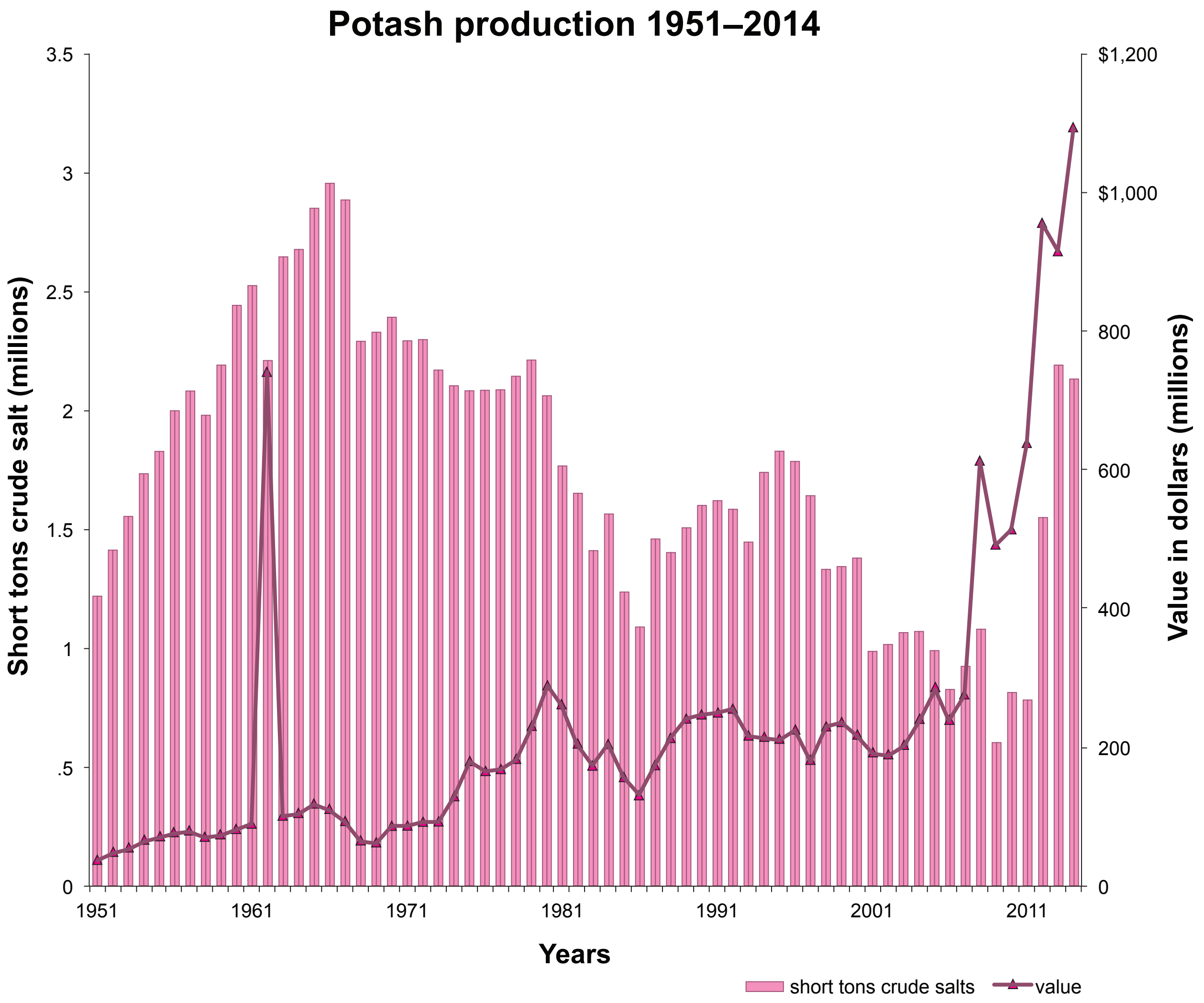

FIGURE 4. Potash production in New Mexico from 1951 to 2014.

and in 1910 production began. The first concentrator mill was erected at Hurley in 1911; flotation concentration was added in 1914 (Hodges, 1931).

Other commodities were soon developed. Fluorite was discovered and mined at Fluorite Ridge in 1909 and manganese was produced from the Little Florida Mountains in 1918 (Griswold, 1961). Manganese production resumed throughout New Mexico in 1916 for use as smelter flux at Pueblo, Colorado (Dorr, 1965). Molybdenum production began in 1918 at the Questa mine; the Questa mine finally closed in 2014.

New Mexico became a state in 1912 and in 1914 World War I began. Metal prices and production increased as metals were needed for the war effort. The annual production of minerals in New Mexico reached a peak of over $43 million. In 1918, World War I ended and was followed by another depression, which closed many mines (Northrop, 1959). Fluorite was produced from the Cooke's Peak district in 1918 and from the Tonuco and Tortugas Mountains districts in 1919 (Appendix 1). The Ground Hog mine in the Fierro–Hanover district began production in 1928.

In 1930, the price of copper dropped from 18 to less than 10 cents per pound, but production continued at the big mines in the area. Copper was only 5 cents per pound in 1932, forcing most of the copper mines to close (Northrop, 1959). Recovery did not occur until 1938. These fluctuations in copper, gold, and silver production are illustrated in Figures 1, 2 and 3.

Potash minerals, used in manufacturing fertilizers and in the chemical industry, were discovered by drilling for oil and gas around 1925 in the Carlsbad area, although production did not begin until 1931 (Fig. 4). Today, the Carlsbad potash district is the largest potash producing area in the United States, and New Mexico is ranked number one in national potash production.

World War II began in 1940 and once again war increased demand for metals. On October 6, 1942, the U. S. War Department closed all gold mines in the United States. Only base metals and other strategic minerals such as tin, tungsten, manganese, beryllium, fluorite, vanadium, and iron were mined. Exploration for these commodities increased and many mines went into production. The war ended in 1945 as did the Federal ban on gold mining.

Mining in New Mexico continued after the war; booms and busts in exploration and production continued to be the trend. In 1948, drilling in the Piños Altos area by the U.S. Mining, Smelting, and Refining Co. first encountered lead-zinc ore bodies that have been more recently mined by Cyprus Metals Co. (Osterberg and Muller, 1994). The Federal government initiated incentive buying programs for domestic production of manganese (Agey et al., 1959), tungsten, and uranium in 1951. Miners could get loans from the Federal government to develop their resources. Tungsten and uranium mines in the state began production (Fig. 2) and exploration for these commodities intensified. Termination of these programs in 1956 (tungsten), 1959 (manganese) and 1965 (uranium) effectively closed many of these mines for good. In 1958, Ideal Basic Industries began construction of the Tijeras cement plant in the Tijeras Canyon district. This plant is now owned by Groupo Cementos Chihuahua, and is the only cement plant in New Mexico. Many mining districts in the state continued to see some exploration into the 1960s and 1970s as company after company examined the state, looking for the missed deposit. But most mining districts have seen insignificant production since the 1950s (Appendix 2).

For a period of nearly three decades (1951–1980), the Grants uranium district in northwestern New Mexico produced more uranium than any other uranium district in the world (Fig. 5). More than 340 million pounds of uranium oxide (U_3O_8) were produced from these uranium deposits from 1948 through 2002 (Table 1; McLemore and Chenoweth, 1989, 2016), accounting for 37.8% of the total uranium production in the United States. Uranium demand and production in New Mexico began to decline in 1980 after the Three Mile Island nuclear accident (Fig. 5), which resulted in a decrease in uranium price as the construction of many nuclear reactors throughout the United States were cancelled as the country moved to cheaper and presumably safer coal-fired power plants.

Changes in the public's perception of mining and associated environmental issues during the 1970s and 1980s resulted in more than three dozen Federal environmental laws and regulations that were passed governing mine reclamation and safety, including the Clean Water Act (CWA), Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA or Superfund act), Federal Mine Safety and Health Act of 1977, among others. In 1993, the Mining Act Reclamation Program (MARP) was created under the New Mexico Mining Act of 1993 to regulate mining reclamation activities for most minerals in the state.

At the same time, the production and flow of minerals in the United States and the world increased dramatically in the last 50 years as the quality of life has improved, a result of the tremendous increase in population in the world (Wagner, 2002). A shift to a more global economy has occurred in recent decades, where commodities are mined throughout the

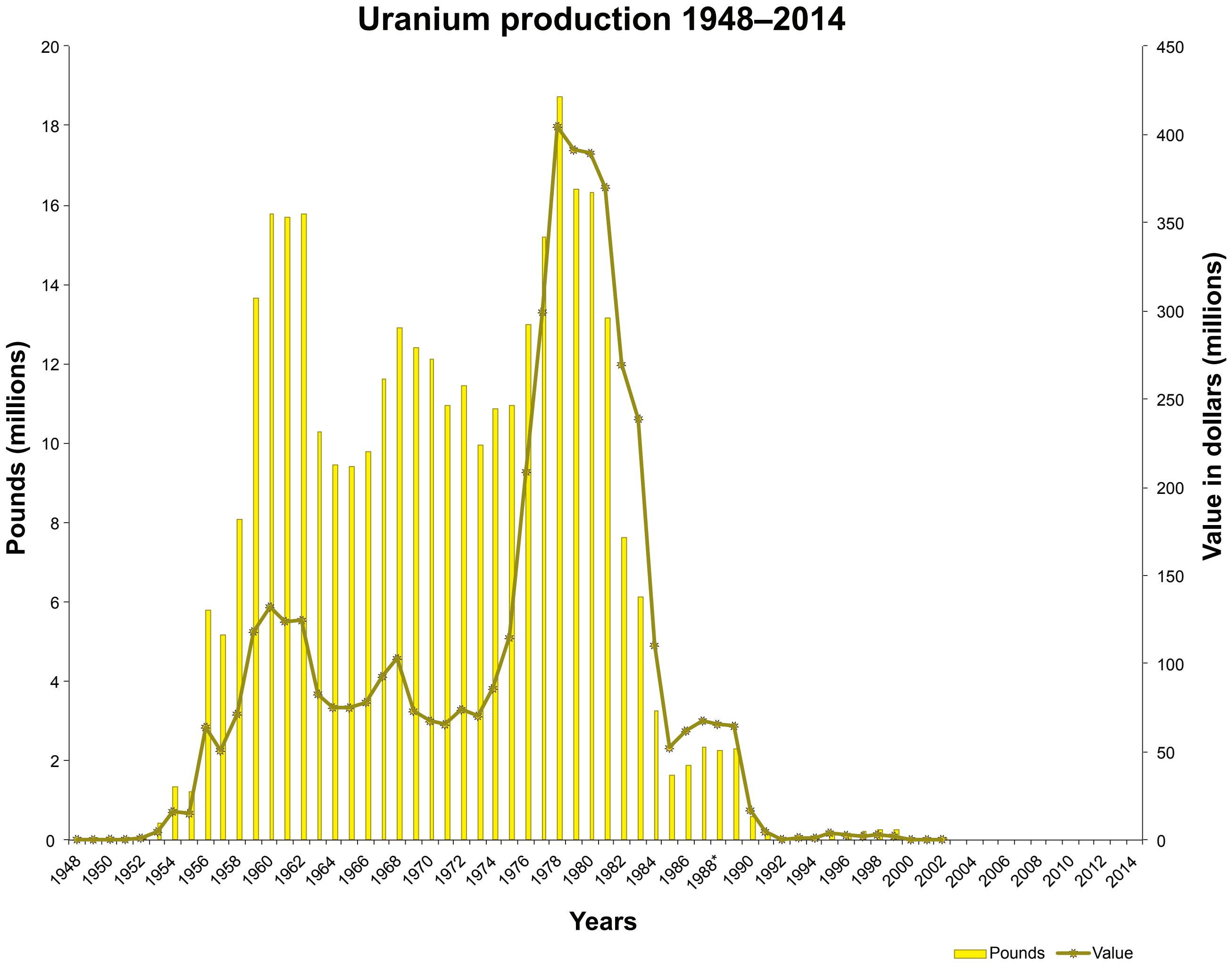

FIGURE 5. Uranium production in New Mexico from 1948 to 2002.

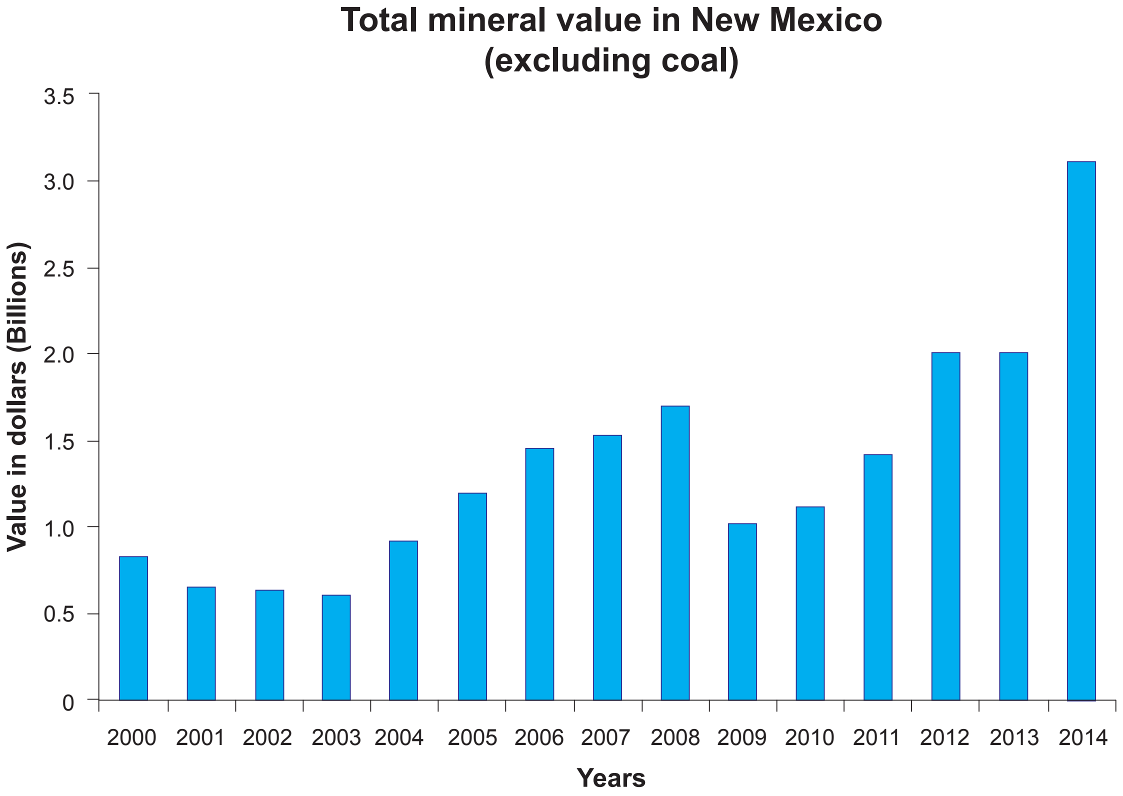

FIGURE 6. Cumulative value of mineral production produced from New Mexico from 2000 to 2014.

world and shipped to the United States cheaper than we can produce them in this country. Different types of commodities, such as rare earth elements (REE; McLemore, 2015c), tellurium (McLemore, 2016), and beryllium (McLemore, 2010c), must be mined now and in the future to support our technological life style. For example, in the 1980s computer chips were manufactured using 12 elements, whereas today more than 60 elements are required to manufacture computer chips and those elements are mined throughout the world (Committee on Critical Mineral Impacts of the U.S. Economy, 2008). Some of these commodities are referred to as critical and strategic minerals. Although no official definition of critical minerals really exists, critical minerals can be defined as any mineral that is important to industry if supply of that mineral becomes an issue. A strategic mineral can be defined as a mineral that is important to the Nation's economy (particularly for defense purposes), doesn't have many replacements, and primarily comes from foreign countries. Some of these commodities are found in New Mexico, but these areas must be evaluated to determine if they can be economically developed. Today, another important aspect of mine planning in a modern regulatory setting is the philosophy, actually, the requirement in most cases, that new mines and mine expansions must have plans and designs for closure. This philosophy is relatively new and attempts to prevent environmental accidents common in the past and has increased the cost of mining.

Although, the actual dollar value of mineral production is at record high levels because of higher commodity prices (Fig. 6), the number of mining claims, mines, and actual tonnage of produced minerals has declined in New Mexico in recent years. Figure 7 shows the active mines and exploration permit sites in New Mexico. In 2014, 226 active mines and mills were registered in New Mexico and included four coal, eight potash, 11 metallic minerals, 33 industrial minerals, and 170 aggregate and stone operations (New Mexico Mining and Minerals Division, 2015). This decline is a result of numerous complex and interrelated factors. Some of the more important factors include declining profits in mineral operations, decreased quality of ore (for example, lower grades and more difficult ore to process), competition from the global market, and a shift from coal-generated electricity to alternative energy sources. New mines face a multitude of challenges including water availability, water rights issues, public perception, access to available land, and public opposition to mining. These factors are paired with the complex regulatory process at local, state, and federal levels that requires a substantial amount of time for obtaining permits to open a mine in the United States. Permitting a mine today can take 10–25 years to complete before production can begin. All of these factors add to the increased cost of mining, resulting in fewer mines being economical to operate.

Previous Work

Since 1870, a number of maps and reports locating and describing the mining districts and prospect areas of New Mexico have been published (Table 2). One of the first mining districts maps, Jones (1915), is shown in Figure 8.

For the past 90 years, the New Mexico Bureau of Geology and Mineral Resources (NMBGMR, formerly New Mexico Bureau of Mines and Mineral Resources) has collected information on mining districts and prospect areas in the state of New Mexico. This information, mostly on paper, is currently being transformed to digital format. A preliminary report showing the mining districts in New

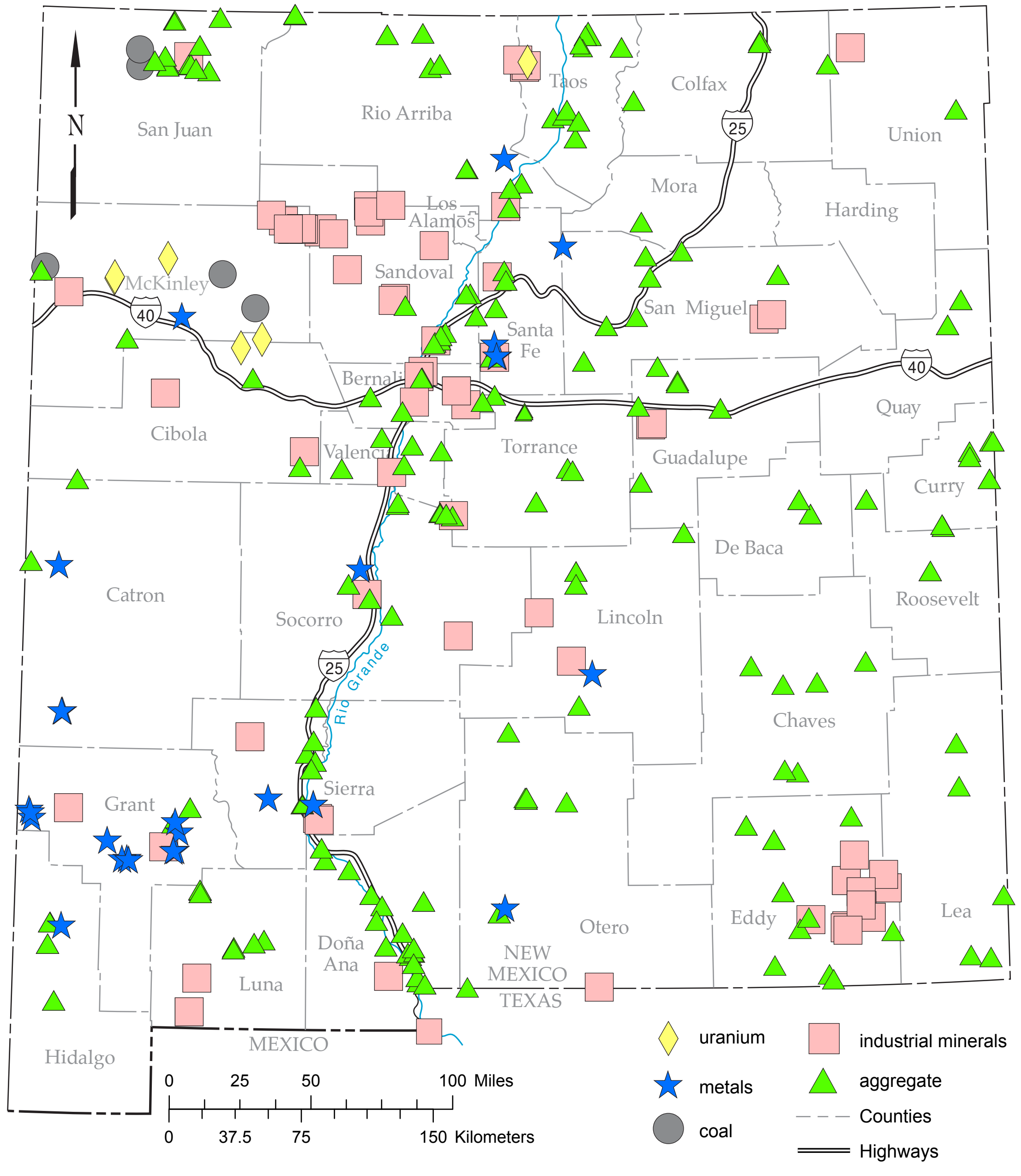

FIGURE 7. Active mines and permit sites in New Mexico.

Mexico as of 2005 was released as an Open-File Report (McLemore et al., 2005a, b). This resource map is an update of that endeavor. The map includes information from the New Mexico Mines Database on the mining districts in the state and includes most industrial minerals found in New Mexico (McLemore and Austin, 2017). Industrial minerals and rocks are any rock, mineral, or other naturally occurring substance of economic value, excluding most metals and gemstones. Industrial minerals and rocks are used in the manufacture of many products, from ceramics to plastics and refractories to paper. The coal fields are described in Hoffman (1996, 2017) and are not included in this resource map. Uranium districts are included in this resource map, primarily from McLemore and Chenoweth (1989, 2017 [in press]), because most of the uranium districts also have produced or have potential to produce other metals.

The Mining Act of 1872 grants United States citizens the right to prospect, explore, and develop minerals on public domain lands that have not been "withdrawn" from mineral entry by Congress or the Secretary of the Interior. Most mineral activities on or adjacent to Federal land are administered by the U.S. Bureau of Land Management (BLM) or the U.S. Forest Service. There are several types of mining claims. On Federal land, the Mining Act of 1872 and subsequent legislation designated minerals as locatable, leasable, or saleable (see definitions at **http://www.blm.gov/id/st/en/prog/energy___minerals/minerals.html**). Locatable minerals are any minerals on Federal land that are not leasable or salable, and are managed under the Mining Act of 1872 and subsequent Federal regulations. Typical locatable minerals

LIST OF MINING DISTRICTS

No.		Key
	BERNALILLO COUNTY	
1	Bernalillo, Cu Pb	E-4
2	Coyote Springs, Pb	E 5
3	Hell Canon (Star), Au	E-5
4	Tijeras Canon, Pb	E-4
	COLFAX COUNTY	
5	Baldy (Ute Cr.), Au Pl	H-2
6	Cimarroncito, Au	H-2
7	Elizabethtown (Moreno Val.), Au Pl	G-2
7	Moreno Valley (Elizabethtown), Au Pl	G-2
8	Ponil, Au	H-1
	DONA ANA COUNTY	
9	Black Mt., Au Ag	E-9
10	Hembrillo, Cu Pb	E-9
11	Modoc, Pb Ag	E-10
12	Organ Mts, Pb Ag Cu	E-9
13	Rincon, Cu Mg	D-9
14	San Augustine, Au	E-10
15	Texas Creek, Au Ag	F-9
	GRANT COUNTY	
16	Anderson, Cu Ag	A-9
17	Apache No. 2, Cu (Au Ag)	B-11
18	Bear Mt., Ag	B-9
19	Black Hawk, Ag	B-9
20	Burro Mt., Cu	B-9
21	Carpenter, Zn Pb	C-9
22	Central, Cu Pb Ag (Zn)	B-9
23	Chloride Flat (Silver City), Ag Pb	B-9
24	Clark's Peak, Ag	A-9
25	Cow Sp. (White Signal), Au	B-9
26	Eureka (Hachita), Ag Pb Cu Zn	B-10
27	Fierro, Fe Cu	B-9
28	Georgetown, Ag (Pb)	C-9
29	Gillespie, Pb Ag	A-11
30	Gold Hill, Au	B-9
31	Granite Gap (San Simon), Pb Ag	A-10
32	Hanover, Cu Zn Fe	B-9
33	Kimball (Steins Pass), Ag Au Cu	A-10
34	Lone Mt., Ag	B-9
35	Lordsburg, Au Ag Cu	A-10
36	Malone, Au	B-9
37	Mimbres, Ag Pb	C-9
38	Pinos Altos, Cu Au Pb Ag Zn	B-9
39	Pyramid, Ag Cu	A-10
31	San Simon (Granite Gap), Pb Ag	A-10
40	Santa Rita, Cu	B-9
41	Steeple Rock (Carlisle), Au Ag Zn	A-9
42	Steins Peak, Ag	A-9
43	Sylvanite, Au Cu	B-11
44	Telegraph, Ag	A-9
35	Virginia (Shakespeare), Ag Cu (Au Pb)	A-10
	LINCOLN COUNTY	
45	Bonito (Parsons), Au	G-8
46	Capitan, Au	G-7
47	Cedar Cr. (Alto), Ag Cu Pb	G-8
48	Estey, Cu	F-7
49	Gallinas (Red Cloud), Au Ag Pb Fe	G-6
50	Jicarilla, Au Pb	G-7
51	Little Burro Mts., Cu Ag Zn	F-7
52	Nogal, Au Ag Cu	G-7
53	Tecolote, Fe	G-6
54	Vera Cruz, Au	G-7
55	White Oaks, Au Ag (Pl) Fe	G-7
	LUNA COUNTY	
56	Carrizalillo, Ag Cu Pb	B-10
57	Cook's Peak, Pb Ag Zn	C-9
58	Florida Mts., Ag Pb Cu	C-10
59	Fremont, Pb Ag Cu	B-11
60	Gage (Victorio), Pb Ag Zn	B-10
61	Tres Hermanas, Au Ag Pb Zn	C-10
60	Victorio, Pb Ag Zn	B-10
	MORA COUNTY	
62	Mora, Cu	G-2
	OTERO COUNTY	
63	Guadalupe Mt., Cu Au	H-9
64	High Rolls, Cu	G-8
65	Jarilla (Silver Hill), Au Ag Cu Fe	F-9
66	Rio Tularosa, Cu Au	F-8
67	White Mt., Au Cu	F-8
	RIO ARRIBA COUNTY	
68	Abiquiu, Cu	F-2
69	Bromide No. 2, Cu Au Ag	F-1
70	Chama Placers, Pl	F-2
71	Gallina, Cu	E-2
72	Headstone (Hopewell), Au Pl Ag Cu	F-1
73	Petaca (mica)	F-2
74	Vallecitos, Au Ag Cu	F-2
	SANDOVAL COUNTY	
75	Cochiti (Bland), Au Ag	F-3
76	Nacimiento (Cuba), Cu	E-3
77	Nero Placers	F-4
78	Placitas, Cu Au Pb	E-4
79	Sandia, Ag Pb	E-4
	SAN MIGUEL COUNTY	
80	Cooper (Pecos), Cu Au	G-3
81	Las Vegas Mines, Cu	G-3
82	Mineral Hill, Cu	G-3
83	Rio de la Vaca	G-4
84	Rociada, Cu	G-3
85	Tecolote, Cu	G-4
	SANTA FE COUNTY	
86	Cerrillos (Galisteo), Pb Ag Zn	F-4
87	Glorieta, Cu	G-3
88	Mailleuchet, Au Cu	F-3
89	Nambe, Au Ag	F-3
90	New Placers, Au (Pl)	F-4
91	Old Placers (Ortiz Mine (Gt), Au (Pl)	F-4
92	Rio Galisteo, Pl	F-4
93	San Pedro, Cu Au Ag	F-4
94	Santa Fe, Cu Ag	F-3
	SIERRA COUNTY	
95	Apache No. 1 (Chloride), Ag Cu Au	C-8
96	Black Range, Ag Cu Au	C-8
97	Bromide No. 1 (Tierra Blanca), Ag Pb	C-9
98	Caballos Mts., Cu Pb	D-8
99	Cuchillo Negro (Limestone), Fe Cu Zn Pb	D-8
100	Hermosa (Palomas), Ag Pb	C-8
101	Hillsboro (Las Animas), Au Ag	C-8
102	Iron Reef, Ag Pb	D-8
103	Kingston, Ag Pb Zn	C-9
104	Lake Valley, Ag Pb	C-9
105	Macho, Ag Pb Cu	C-9
106	Perche, Au Ag	C-9
107	Pittsburg (Shandon), Au Pl	D-9
108	San Andreas, Cu Pb	E-8
109	San Cristobal, Ag Cu	D-8
	SOCORRO COUNTY	
110	Abbey, Cu Pb	D-6
111	Alumina, Alum	B-8
112	Amy, Cu	D-6
113	Canyoncito, Pb	E-6
114	Cat Mt., Au Cu	D.6
115	Cooney, Au Ag Cu	A-8
116	Council Rock (Iron Mt), Ag	D-6
131	Encarnacion (Socorro), Ag	E-6
117	Hansonberg, Cu	F-7
118	Hop Canon (Mill Can.), Au Ag Cu Au	D-7
119	Jones Camp, Fe	F-6
120	Kelly (Magdalena), Zn Pb Au Ag Cu	D-6
121	Ladrones, Au Cu	D-6
122	La Joya Mt. (Joya Mt), Cu Ag Pb	E-6
123	Limitar, Cu Pb	D-6
120	Magdalena (Kelly), Zn Pb Au Ag Cu	D-6
124	Mogollon, Au Ag Cu	A-8
125	Oscura Mt., Pb	F-7
126	Pueblo, Ag Pb Cu Zn	D-6
127	Red Hill, Au	D-7
128	Rosedale, Au Ag	D-7
129	San Lorenzo, Cu	D-6
130	Silver Mt. (Water Can.), Au Ag Cu Pb	D-6
131	Socorro (Encarnacion), Ag	E-6
132	Spring Hill, Cu	D-6
	TAOS COUNTY	
133	Anchor (LaBelle), Au Ag	G-1
134	Black Copper, Au	G-1
135	Picuris (Copper Hill), Cu Ag	G-2
136	Red River, Au Ag Cu	G-1
137	Rio Colo. Placers.	G-1
138	Rio Grande Placers. Pl.	G-2
139	Rio Hondo (Twining), Cu Au Ag	G-2
140	Taos	G-2
	TORRANCE COUNTY	
141	Manzano, Cu	E-5
142	Mud Springs, Fe Cu	F-6
	VALENCIA COUNTY	
143	Mount Taylor, Cu Pb	C-4
144	Zuni Mt. (Copperton), Cu	B-4

Abbreviations for Metals

Gold	Au
Silver	Ag
Copper	Cu
Lead	Pb
Iron	Fe
Zinc	Zn
Placer Gold	Pl

FIGURE 8. Mining districts of New Mexico. (Jones, 1915).

are gold, silver, copper, lead, zinc, molybdenum, uranium, barite, gypsum, gemstones, and certain varieties of high calcium limestone. A locatable mining claim, also known as an unpatented mining claim, provides the right to extract minerals, but no land ownership is conveyed. There are several types of locatable mining claims, as designated by the Mining Act of 1872: lode (deposits having well defined boundaries, such as veins), placer (typically unconsolidated, sedimentary deposits), mill site (site designated for milling and other processing, but must be on unmineralized ground), and tunnel site (site designated for a tunnel or adit required to develop the deposit). The locatable claims and related information can be obtained from the BLM website **http://www.blm.gov/lr2000/**.

Leasable minerals on Federal land include oil and gas, oil shale, geothermal resources, potash, sodium, native asphalt, solid and semisolid bitumen, bituminous rock, phosphate, sulfur, and coal that are managed by the BLM under the Mineral Leasing Act of 1920, other leasing acts, and BLM regulations. Salable minerals, also known as mineral materials, are common varieties of minerals and building materials such as sand, stone, gravel, pumice, pumicite, cinders, and clay and are managed under the Materials Act of 1947, as amended by subsequent legislation.

In addition, minerals are owned by private individuals or companies and are typically obtained by actual miners by obtaining mining leases. Patented mining claims are previous locatable mining claims where the Federal government has issued a mining patent, which gives the owner full title (ownership) to the land surface, minerals, and other resources on the claim, as specified under the Mining Act of 1872 and subsequent legislation. However, the Interior and Related Agencies Appropriation Act of 1994 included a moratorium on the acceptance of new mineral patent applications, starting October 1, 1994. All mineral patent applications received after October 1, 1994, until the moratorium expires, are returned to the applicant without further action. Most Federal homestead and other Federal land patents reserved the Federal ownership of the minerals and only the surface ownership was transferred. These mixed ownership lands are known as split-estate lands.

The New Mexico State Land Office offers leases to mining companies for minerals on state trust land (see **http://www.nmstatelands.org/**). The various Native American tribes throughout New Mexico control their mineral resources and offer mining leases.

The Federal Land Policy and Management Act of 1976 (FLPMA) did not amend the Mining Act of 1872, but required that all mining claims must be recorded with the BLM as well as the county courthouse. A mining plan must be filed and approved with the BLM for any mining operations on Federal land. Exploration and mining permits must be obtained from the New Mexico Mining and Minerals Division under the New Mexico Mining Act of 1993 for all disturbances to the ground, including exploration drilling and other activities and mining, for all minerals except potash, sand, gravel, caliche, borrow dirt, quarry rock, natural petroleum, coal, geothermal resources, activities regulated by the federal Nuclear Regulatory Commission and except for lands owned by Indian tribes **http://www.emnrd.state.nm.us/MMD/MARP/marpmainpage.html**.

Rock collecting (or rock hounding), prospecting, and non-commercial gold panning are considered a casual use of public lands under most circumstances, and are not subjected

Table 2. Summary of reports on mining districts in New Mexico

Author(s)	Number of mining districts recognized	Map	Types of commodities
Jones (1904, 1908)	>100	no	Mostly metals
Lindgren et al. (1910)	81	yes	Mostly metals
Hill (1912)	85	yes	Mostly metals
Jones (1915)	144	yes	Mostly metals
Ellis (1929)	75	no	Mostly metals
Lasky and Wooton (1933)	119		Metals
Northrop (1942, revised in 1959 and 1996) 14SSA-5	156 in 1941; 177 in 1959	yes	Metals, industrial minerals, coal, uranium
Talmage and Wootton (1937)	175	yes	Industrial minerals
Anderson (1955)	140	no	Metals
File and Northrop (1966)	196 (71 prospect areas)	no	Metals, industrial minerals, coal, uranium
Howard (1967)	136	no	Metals, industrial minerals, coal, uranium
Mardirosian (1971)	254		Metals, industrial minerals, coal, uranium
North and McLemore (1986)	149	yes	Silver, gold districts
Hoffman (1996)		yes	Coal
McLemore (2001)	163	yes	Silver, gold districts
McLemore and Chenoweth (1989)	87	yes	Uranium
Ackerly (1997)	140	yes	Metals, uranium
McLemore et al. (2005a, b)	269	yes	Metals, industrial minerals, coal, uranium

to the Mining Act of 1872 and the New Mexico Mining Act of 1993. However, it is up to each individual to know the laws and land ownership before prospecting and mining.

Definition of a Mining District

During the California Gold Rush in 1849, the Military Governor of California established that gold can be produced from federal land without charge or hindrance (Lacy, 1995), and thus, set the stage for subsequent legislation and mining culture in the western United States, including New Mexico. Most mining laws prior to the California Gold Rush already established that the minerals on Federal land belonged to the government, even though prospecting and development were encouraged. In practice, miners typically established local mining district boundaries and regulations for prospecting and mining, essentially a consensual group of bylaws agreed to by the individual miners. Local and regional conflicts between miners still occurred and the United States Congress was asked to formalize these arrangements. In 1865, Congress established Committees on Mines and Mining in both the House and Senate.

In May 1872, after many discussions and variations of legislation, Congress passed a general mining law called, "An Act to promote the Development of the mining resources of the United States." This act declared that mineral deposits on lands belonging to the United States are free and open to exploration and purchase by citizens of the United States, according to provisions detailed in the law, and also according to local customs and to the rules established by miners in various organized districts. The 1872 Mining Law validated existing organized mining districts and authorized formation of new mining districts. At that time, some mining districts were legally defined lawful governmental entities, formed by the miners themselves to establish law and order. By-laws were written and filed at the county courthouse that defined the boundaries of the district, provided a name, and established rules and procedures for the miners (Hill, 1912; Tingley, 1998). In some mining districts, these laws included procedures for punishment of claim jumpers, robbers and murderers. Today these mining districts are often referred to as traditional or organized mining districts (Foley, 2011). The full text of the 1872 Mining Act can be found at **http://www.usminer.com/the-general-mining-act-of-1872/**. The 1872 Mining Act has been modified and revised by subsequent legislation since. The discussion of these changes is beyond the scope of this report.

The importance of the traditional or organized mining districts diminished throughout western United States after the 1872 Mining Law was passed. Since the 1872 Mining Act was passed, miners no longer felt the need for formalizing the districts and the term mining district has been loosely applied to areas of mineral production in New Mexico, in some cases without regard to legal definitions and formation of bylaws (Hill, 1912). One of the earliest uses of mining districts was by Raymond (1870), who reported metal production by district in 1870. Jones (1904) stated that "*most mining districts in New Mexico are very indefinite in regard to their extent or area…*" Lindgren et al. (1910, p. 46) was one of the first to recognize the geological importance of mining districts by observing that, "*deposits of metallic ores rarely occur in single occurrences. They cluster characteristically in certain localities and these are designated as 'districts'. Each district is delimited simply by customs or regulations of miners within its confines, and may contain several subdistricts or camps.*" File and Northrop (1966) and Howard (1967) also recognized that most mining districts in New Mexico were never formalized as prescribed by law.

Elsewhere in the western United States, the term mining district was used to include any area of mineral production, especially when reporting state and mining district mineral production by the U.S. Geological Survey (USGS) and later the U.S. Bureau of Mines (USBM) (USGS, 1902–1927; USBM, 1927–1990). Since 1990, the USGS has published the mineral yearbooks (**http://minerals.usgs.gov/minerals/pubs/myb.html**) and mineral production is generally reported only for the entire state. Clark (1970) defined gold districts in California as any area that yielded gold in commercial amounts. More recently, mining districts have been defined by geologic criteria and mineral production. Keith et al. (1983) defined the mining districts in Arizona on the basis of geologic criteria, specifically similar age and style of mineralization. In the description of mining districts in Nevada, Tingley (1998) included the traditional, historical organized mining districts, but also included areas where concentrations of specific mineral deposits are known to occur in Nevada, including the nonmetallic or industrial minerals as mining districts. See Appendix 3 for more information on the evolution of the definition of mining districts in New Mexico through time.

A *mining district*, as used in this resource map, is a group of mines and/or mineral deposits that occur in a geographically defined area (such as a mining district or coal field) that locally are determined by geologic criteria (distribution of mines and deposits, mineralogy, faults, lithology, stratigraphic horizons, common mineralization processes, age, etc.) and has had some mineral production. A *prospect area* is an area defined by geologic criteria (distribution of mines and deposits, mineralogy, faults, lithology, stratigraphic horizons, age, etc.) that has had no mineral production. A *mineral deposit* is any occurrence of a valuable commodity or mineral that is of sufficient size and grade (concentration) for potential economic development under past, present, or future favorable conditions. An *ore deposit* is a well-defined mineral deposit that has been tested and found to be of sufficient size, grade, and accessibility to be extracted and processed at a profit over a specific time. Mineral deposits are not commonly found just anywhere in the world. Instead they are relatively rare and their formation and distribution depends upon specific natural geologic conditions or processes to form, as described in this resource map and McLemore et al. (2017). Mineral deposits require a source of constituent elements, transport and concentration mechanisms or processes, and preservation from subsequent geochemical and mechanical destruction. The requirement that an ore deposit must be extracted at a profit makes them even rarer. Mineral deposits also formed at various geologic times, through a combination of geological processes that are closely related in time (McLemore and Lueth, 2017; McLemore and Austin, 2017). Thus, mineral deposits are commonly clustered in geological provinces (i.e., mineral or mining districts) in terms of both location and time (Lindgren et al., 1910; Lindgren, 1933).

Note that many mining districts and prospect areas in New Mexico have more than one type of mineral deposit (Appendix 1). Most mining districts, prospect areas, and coal fields in New Mexico were previously defined by File and Northrop (1966), North and McLemore (1986), McLemore and Chenoweth (1989), Hoffman (1996), and McLemore (2001) (see Appendix 3), but some districts and prospect areas have been combined and new districts and prospect areas have been added, as explained in Appendix 1. Traditionally, the USGS and USBM reported mineral production by mining districts, not by individual mines (Appendix 2; USGS, 1902–1910; USBM, 1927–1957). Because of this reporting policy, many of the districts shown on this resource map also are based on USBM-defined districts as described in these yearly reports. Most sand and gravel, crushed stone, and dimension stone mines are scattered throughout New Mexico, are found in many geologic units, and were never designated as belonging to specific mining districts. Mardirosian (1971) attempted to delineate some of these areas of common industrial minerals production as districts, but not all of them are included on this resource map. These active and inactive, low-value industrial minerals operations are generally not included in specific mining districts, because development of these operations depends upon being close to cities or highways where they are used and not because of geologic criteria. New Mexico has potential for several critical and strategic mineral resources (REE, tellurium, beryllium, etc.) and several prospect areas were added on this resource map to include these areas.

The naming of a mining district or prospect area is a complex and sometimes an arbitrary and emotional issue. File and Northrop (1966) found five factors that enter into the naming of a mining district or prospect area: 1) lode and placer mining claim names, 2) survey names, 3) post office names, 4) agency names, and 5) names from other sources. These are in themselves complicating factors, and become more so when local custom imposes a local name for a place officially named something else on a topographic map or in the official government records.

The 1872 Mining Law established procedures for locating mining claims using the public land survey, i.e. township, range, and sections. The original surveyor was allowed to name mining districts that he surveyed, but these names could be changed by mining claim owners and anyone else. Some mining districts were simply named after the nearby U.S. Post Office. Although this resource map attempts to standardize the naming of mining districts and prospect areas in New Mexico, other names will undoubtedly be used.

The names of mining districts and prospect areas as established by File and Northrop (1966) are used wherever possible on this resource map. All mining districts and prospect areas on this resource map have mineral potential and some exploration has been performed. A subdistrict is any part of the mining district that has been subdivided for any reason. Mining areas and mining regions as defined by Howard (1967) are obsolete terms and their use is no longer recommended, although these areas can be identified as a subdistrict. Mining camps are now defined as mining districts or subdistricts. The boundaries of mining districts and prospect areas on this resource map are generally determined by historical convention or custom, geologic criteria and the distribution of known mining claims, mines and deposits, especially producing mines. Even the mining district boundaries are expected to change with time as additional prospecting and development occurs and as inventories of historical mines are completed.

Some of the challenges in identifying a unique mining district and prospect area name include synonyms or aliases, spelling variations, confusion with names of mining camps and subdistricts, legislative changes in the county boundaries, and the same name applied to different areas. Thus the assignment of a DISTRICT ID number becomes important to uniquely identify a particular mining district. This resource map attempts to include all of the known synonyms or aliases in Appendix 1.

Methods

Published and unpublished data were inventoried and compiled from lists of existing mining claims, mines and mills within New Mexico, from a literature search of published data, and from unpublished file data. Mineralized areas were examined and sampled in 1980 through 2016 by NMBGMR staff. Some information on the individual mines are included in the New Mexico Mines Database (McLemore et al., 2005a), which will be available on the NMBGMR web site sometime in the future. This resource map only includes the district portion of the New Mexico Mines Database. The New Mexico Mines Database consists of a finite collection of tables, which are linked to one another through use of unique alphanumeric mining district identification number (DISTRICT ID). This alphanumeric mining DISTRICT ID, termed "primary key" in the database, allows for information to be queried, entered without redundancy, and reported as standard output.

Mining and production records are generally poor, particularly for the earliest times and many early records are conflicting. The data reported in this report are the best data available and were obtained from publically available published and unpublished sources (NMBGMR file data). Proprietary data were not included in this report. However, mining district data are subject to change as new data are obtained, therefore updates to this resource map are expected. The dollar value of production used throughout this resource map represents the estimated dollar value at the time of production and was not adjusted for inflation.

The production figures are the best non-confidential data available and were obtained from published and unpublished sources (NMBGMR file data). Production figures are subject to change as new data are obtained. Some resource and reserve data presented in this resource map are historical, are provided for informational purposes only, unless otherwise stated, and do not conform to Canadian National Instrument NI 43-101 requirements (**http://web.cim.org/standards/documents/Block484_Doc111.pdf**, accessed November 12, 2015). Historic and recent production and reserve/resource data are reported in metric or English units, according to the original publication, in order to avoid conversion errors. Stratigraphic nomenclature is currently being revised as the geologic mapping program administered by the NMBGMR progresses. An attempt has been made to use the most current stratigraphic nomenclature as suggested by Chapin et al. (2004) and Cather et al. (2013). However, changes in the stratigraphic nomenclature are expected in the future.

Gold and silver grades (or concentration), by convention are generally reported as ounces per short ton (oz/ton). Other metals and many industrial minerals are reported in weight percent (%). Uranium grades, by convention, are generally reported as weight percent (%) or parts per million (ppm) U_3O_8. Uranium production and reserves in the United States are typically reported in pounds or short tons, although many companies are beginning to use the international system that uses grams per metric ton and metric tons. Historic conventions are used in this report, unless otherwise noted.

TABLE 3. Types of mineral deposits in New Mexico, in order of perceived age (oldest to youngest), excluding coal deposits (modified from North and McLemore, 1986, 1988; Cox and Singer, 1986; McLemore and Chenoweth, 1989, 2017; McLemore and Lueth, 1996, 2017; McLemore, 1996a, 1996b, 2001; McLemore and Austin, 2017). USGS (U.S. Geological Survey) classification from Cox and Singer (1986) and subsequent reports (see **http://minerals.usgs.gov/products/depmod.html**). PGE=platinum group metals. REE=rare earth elements. See Table 5 for definitions of abbreviations.

NMBGMR classification	USGS classification (USGS model number)	Commodities	Perceived age of deposit in New Mexico
Volcanogenic massive sulfide (VMS) USGS classification (USGS model number)	Volcanogenic massive sulfide (24a,b, 28a)	Au, Ag, Cu, Pb, Zn	1650–1600 Ma
Pegmatite	Pegmatite (13a-h)	Be, Li, U, Th, REE, Nb, Ta, W Sn, Zr, Hf	Probably 1450–1400 Ma, 1100–1200? Ma, some Tertiary
Vein and replacement deposits in Proterozoic rocks (formerly Precambrian veins and replacements)	Polymetallic veins, fluorite veins (22c, 26b)	Au, Ag, Cu, Pb, Zn, Mn, F, Ba	Proterozoic to Tertiary
Proterozoic iron formation	Volcanic hosted magnetite (25i)	Fe, Au	Proterozoic
Syenite/gabbro-hosted Cu-Ag-PGE	Gabbroid-associated Ni-Cu (7a)	Cu, Ag, PGE	Probably 1450–1400 Ma, could be older
Disseminated Y-Zr deposits in alkaline rocks	Alkaline complex associated zircon (11c)	Y, Zr, REE, U. Th, Hf	1100–1200 Ma
Carbonatites	Carbonatite and peralkaline intrusion-related REE deposits (10)	REE, U, Th, Nb, Ta, Zr, Hf, Fe, Ti, V, Cu, apatite, barite	400–600 Ma, one about 22 Ma
Episyenites and REE-Th-U veins	Th-REE veins (10b, 11d)	REE, U, Th, Nb, Ta	400–600 Ma
Sedimentary-iron deposits	Oolitic iron (34f)	Fe	Cambrian–Ordovician
Sedimentary-copper deposits	Sediment-hosted copper (30b)	Cu, Ag, Pb, Zn, U, V	Pennsylvanian–Permian, Triassic
Uraniferous collapse-breccia pipe (including clastic plug deposits)	Solution-collapse breccia pipe U deposits (32e)	Cu, Ag, U, Co, Se, REE?	Triassic, Jurassic
Limestone uranium deposits	none	U, V, Se, Mo	Jurassic
Sandstone uranium deposits	Sandstone uranium (30c)	U, V, Se, Mo, REE?	Pennsylvanian-Permian–Miocene
Beach placer sandstone deposits	Shoreline placer Ti (39c)	Th, REE, Zr, Hf, Ti, U, Fe, Nb, Ta	Cretaceous
Replacement iron	Iron skarn (18d)	Fe	Cretaceous–Miocene (75–50 Ma)
Porphyry Cu, Cu-Mo (±Au)	Porphyry copper (17, 20c, 21a)	Cu, Mo, Au, Ag	75–50 Ma
Cu, Pb, Zn, Fe skarn	Skarn (18a, 18c, 19a)	Au, Ag, Cu, Pb, Zn	75–40 Ma
Polymetallic vein	Polymetallic veins (22c)	Au, Ag, Cu, Pb, Zn	75–40 Ma
Porphyry Mo (±Cu, W)	Porphyry Mo-W (16, 21b)	Mo, W, Au, Ag, Be, Cu	Probably 35–25 Ma
Carbonate-hosted W-Be replacement and skarn (Mo-W-Be, F-Be, Fe-Mn)	W-Be skarns (14a)	Mo, W, Be, Pb, Zn, Cu, F, Mn	Probably 35–25 Ma
Carbonate-hosted Pb-Zn (Cu, Ag) replacement	Polymetallic replacement (19a)	Pb, Zn, Cu, Ag	75–25 Ma
Carbonate-hosted Ag-Mn (Pb) replacement	Polymetallic replacement, replacement manganese (19a, b)	Ag, Mn, Pb, Zn	75–25 Ma
Great Plains Margin (GPM or alkaline-related) deposits (including polymetallic epithermal to mesothermal veins; gold-bearing breccias and quartz veins; porphyry Cu-Mo-Au; Cu, Pb/Zn, and Au skarns and carbonate-hosted replacement deposits; Fe skarns and replacement bodies; Th-REE-fluorite (with U and and Nb) epithermal veins)	Porphyry copper, polymetallic veins, copper skarns, iron skarns, placer gold (17, 22c, 18a,b, 18d, 39a), Th-REE veins (10b, 11d)	Au, Ag, Cu, Pb, Zn, Mo, Mn, Fe, F, Ba, Te, REE, Nb, Zr, U, Th	47–25 Ma

(continued on the next page).

TABLE 3. Types of mineral deposits in New Mexico, in order of perceived age (oldest to youngest), excluding coal deposits.

NMBGMR classification	USGS classification (USGS model number)	Commodities	Perceived age of deposit in New Mexico
Volcanic-epithermal veins	Quartz-adularia, quartz-alunite, epithermal manganese (25b,c,d,e,g, 26b, 35[a])	Au, Ag, Cu, Pb, Zn, Mn, F, Ba	35–16 Ma or younger
Rhyolite/granite-hosted tin (topaz rhyolites)	Rhyolite-hosted tin (25h)	Sn, Be, REE	28 Ma
Tin skarns	Tin skarns (15c, 14b, 14c)	Sn	—
Volcanogenic Be (volcanic-hosted replacement, volcanic-epithermal, Spor Mountain Be-F-U deposits)	Volcanogenic Be deposits	Be, F, U	Miocene–Pliocene
Carbonate-hosted Mn replacement	Replacement Mn (19b)	Mn	Miocene–Pliocene
Copper-silver (±U) vein deposits	Polymetallic veins (22c)	Cu, Ag, U	Miocene–Pliocene
Mississippi Valley-type (MVT) (here restricted to Permian Basin)	Mississippi Valley-type (MVT) (32a-d)	Cu, Pb, Ag, Zn, Ba, F	Oligocene–Pliocene
Surficial uranium deposits	none	U	Miocene–Recent
Rio Grande Rift (RGR) epithermal Mn	Epithermal Mn (25g)	Mn	Miocene–Recent
Rio Grande Rift (RGR) barite-fluorite veins	Fluorite and barite veins, polymetallic replacement (IM26b, c, 27e, 19a)	Ba, F, Pb, Ag, U	12 Ma–Recent
Placer tungsten	none	W	Pliocene–Recent
Placer tin	Stream placer tin (39e)	Sn	Pliocene–Recent
Placer gold	Placer gold-PGE (39a)	Au, Ag	Pliocene–Recent

Classification of Mineral Deposits

Numerous classifications have been applied to mineral deposits to aid in exploration and evaluation of mineral resources (Lindgren et al., 1910; Lindgren, 1922, 1933; Eckstrand, 1984; Guilbert and Park, 1986; Cox and Singer, 1986; Roberts and Sheahan, 1988; Sheahan and Cherry, 1993; Dill, 2010). Early classifications were based on the form of the deposit or a combination of form and perceived chemical conditions of formation, such as Lindgren's (1933) classification of mineral deposits associated with igneous rocks into epithermal, mesothermal, and hydrothermal. In the 1960s and 1970s, wide acceptance of plate tectonic theories led to the recognition that similar mineral deposits occur in areas of similar tectonic settings and resulted in classifications of mineral deposits according to tectonic settings (Sillitoe, 1972, 1981, 2005; Guilbert and Park, 1986). In the 1980s, mineral deposit models became popular, incorporating tectonic setting and physical and chemical characteristics of the deposits (Cox and Singer, 1986; Roberts and Sheahan, 1988; Sheahan and Cherry, 1993). In New Mexico, North and McLemore (1986, 1988) and McLemore (2001) classified the silver and gold deposits of New Mexico according to age, mineral assemblages, form, alteration, tectonic setting, and perceived origin. Industrial minerals and rocks have been classified in many ways as well, but the most practical is alphabetically according to Kogel et al. (2006) and Dill (2010). These classification schemes, mostly based upon Guilbert and Park (1986), Cox and Singer (1986, and subsequent reports (see **http://minerals.usgs.gov/products/depmod.html** and Kogel et al., 2006) with some modifications and additions, is retained in this resource map (Table 3, 4). The geologic processes that have led to the wealth of energy and mineral resources found in New Mexico are reviewed in volumes included in McLemore et al. (2017) and are only summarized Tables 3 and 4.

Acknowledgments

Robert Eveleth began collecting and archiving mining records that are part of the New Mexico Mine Archives at NMBGMR and were used in this report. Maureen Wilks deserves special recognition for her long commitment in archiving and organizing other mine data used in this resource map, providing comments in revising this resource map, and providing some of the information in Appendix 3. Special thanks to Gretchen K. Hoffman, Glen R. Jones, Christian B. Krueger, Mark Mansell, Steve Raugust, John Asafo-Akowuah, William Chenoweth, Susan Bartsch-Winkler and Miles Silberman for their involvement and assistance with this project over the years. This resource map was reviewed by David Ennis (New Mexico Mining and Minerals Division), Kevin Cook (Freeport McMoRan Inc.), Robert Eveleth (NMBGMR) and Maureen Wilks (NMBGMR). Chris Teske and Ray Hewitt of the U.S. Bureau of Land Management in Las Cruces provided mine location data and suggestions on revising some district boundaries. Funding for this project over the years was provided directly or indirectly by a variety of sources. Mineral resource assessments of northwestern New Mexico in the 1980s was funded by the U.S. Bureau of Land Management and provided the first descriptive inventory of mines, mills, prospects, and mineral deposits in that part of the state (McLemore, 1984; McLemore et al., 1984, 1986a, b, c, d, e).

(Continued from Acknowledgments page 15.) The first compilation of uranium districts, occurrences, prospects, mills, and mines was funded by the U.S. Department of Energy and the NMBGMR, and released as McLemore (1983a). Funding for inputting uranium data into a GIS computerized database was provided in part by the U.S. Environmental Protection Agency (McLemore et al., 2002). The New Mexico State Land Office funded a mineral resource assessment of Luna County (McLemore et al., 2001). The USGS funded over the years a minerals deposit and mining district map of New Mexico, identifying significant deposits in New Mexico (Long et al., 1998), and mineral resource assessments of southern New Mexico (McLemore, 1996c; Bartsch-Winkler, 1997). The Army Corps of Engineers and USGS funded the input of data for a computerized database of Sierra and Otero Counties (Green and O'Neill, 1998). Numerous mining companies provided some production and reserve data.

TABLE 4. Types of industrial minerals and rocks deposits in New Mexico in alphabetical order (modified from Cox and Singer, 1986; Dill, 2010; McLemore and Austin, 2017). USGS classification from Cox and Singer (1986) and subsequent reports (see http://minerals.usgs.gov/products/depmod.html). Some deposits are listed in Table 2 because they are also considered to be metallic mineral resources as well as industrial minerals and rocks. Gems are included in this table, but are generally not considered industrial minerals and rocks. See Table 5 for definitions of abbreviations.

NMBGMR classification	USGS classification (USGS model number)
Adobe and earthen construction	—
Aggregate (sand and gravel)	—
Alunite and alum	—
Asbestos	Serpentine hosted asbestos (8d)
Barium minerals (Ba)	Bedded barite (31b), vein barite (31b, 27e)
Bauxite	—
Beryllium minerals (Be)	—
Boron and borates	Lacustrine borates (35b.3)
Bromide	Bromine brines (35an)
Chromite	—
Clay	Sedimentary clay (31K), hydrothermal bentonite (251.1), hydrothermal kaolin (251.2), sedimentary bentonite (28e.1, 28e.2), sedimentary kaolin (31k.1, 31k.2, 31k.3), palygoskite (34e), residual kaolin (38h)
Diatomite	Lacustrine diatomite (31s)
Evaporite	—
Feldspar	Feldspar in pegmatite (13e)
Fluorspar	Fluorite veins (26b)
Garnet	—
Gems	—
Gilsonite	—
Glauconite	—
Graphite	Amorphous graphite (18k)
Gypsum and anhydrite	Bedded gypsum (35ae), lacustrine gypsum (35b.4)
Iron, iron oxide and magnetite	—
Kyanite, sillimanite, and andalusite	—
Lime	—
Limestone and dolomite	Limestone (32g)
Lithium	Lithium brines (35bm), lithium in smectites (251c)
Magnesium minerals and compounds (excluding dolomite)	Metasomatic and metamorphic replacement magnesite (1981)
Manganese	Sedimentary Mn (34b)
Mica	—
Nepheline syenite	—
Nitrogen and nitrates (guano)	—
Olivine	—
Perlite	—
Potash	Potash bearing-bedded salt (35ab)
Pozzolans and supplementary cementitious materials	—
Pumice, pumicite, and scoria (volcanic cinder)	Pumice scoria-volcanic cinders (IM25kb)
Pyrophyllite	—
Rare earth elements (REE)	Thorium-rare earth veins (11d)
Salt	Bedded salt, marine evaporite (35ac), lacustrine halite (35b.5)

(continued on the next page).

TABLE 4. Types of industrial minerals and rocks deposits in New Mexico.

NMBGMR classification	USGS classification (USGS model number)
Silica	Sandstone/quartzite silica (30e), silica sand (39i)
Soda ash	Sodium carbonate (35ba)
Sodium sulfate	—
Soil amendments (including humate)	—
Stone (crushed, dimension)	—
Strontium minerals	—
Sulfur	Fumarolic sulfur (25)
Talc	Metasomatic and metamorphic talc (18m)
Tellurium	—
Titanium	—
Vermiculite	—
Wollastonite	Wollastonite skarn (18g)
Zeolites	Sedimentary zeolites (25oa, 25ob)

TABLE 5. Abbreviations of elements used in this Resource Map.

As arsenic	**Cd** cadmium	**Ge** germanium	**Sn** tin
Au gold	**Co** cobalt	**Mn** manganese	**Te** tellurium
Ag silver	**Cr** chromium	**Mo** molybdenum	**Th** thorium
Ba barium	**Cu** copper	**Ni** nickel	U uranium
Be beryllium	F fluorine	**Pb** lead	V vanadium
Bi bismuth	**Fe** iron	**REE** rare-earth elements	**W** tungsten
Br bromine	**Ga** gallium	**Sb** antimony	**Zn** zinc

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SELECTED CONVERSION FACTORS*

To Convert	Multiple By	To Obtain
Length		
inches, in	2.540	centimeters, cm
feet, ft	3.048×10^{-1}	meters, m
yards, yds	9.144×10^{-1}	m
statute miles, mi	1.609	kilometers, km
fathoms	1.829	m
angstroms, Å	1.0×10^{-8}	cm
Å	1.0×10^{-4}	micrometers, μm
Area		
in^2	6.452	cm^2
ft^2	9.29×10^{-2}	m^2
yds^2	8.361×10^{-2}	m^2
mi^2	2.590	km^2
acres	4.047×10^{3}	m^2
acres	4.047×10^{-1}	hectares, ha
Volume (wet and dry)		
in^3	1.639×10^{-1}	cm^3
ft^3	2.832×10^{-2}	m^3
yds^3	7.646×10^{-1}	m^3
fluid ounces	2.957×10^{-2}	liters, l or L
quarts	9.463×10^{-1}	l
U.S. gallons, gal	3.785	l
U.S. gal	3.785×10^{-3}	m^3
acre-ft	1.234×10^{-3}	m^3
barrels (oil), bbl	1.589×10^{-1}	m^3
Weight, mass		
ounces avoirdupois, avdp	2.8349×10^{1}	grams, gr
troy ounces, oz	3.1103×10^{1}	gr
pounds, lb	4.536×10^{-1}	kilograms, kg
long tons	1.016	metric tons, mt
short tons	9.078×10^{-1}	mt
oz mt^1	3.43×10^{1}	parts per million, ppm

To Convert	Multiply By	To Obtain
Density		
lb in^{-3} (= lb/in^3)	2.768×10^{1}	gr cm^{-3} (= gr/cm^3)
Viscosity		
poises	1.0	gr cm^{-1} sec^{-1} or dynes cm^{-2}
Discharge		
U.S. gal min^{-1}, gpm	6.308×10^{-2}	1 sec^{-1}
gpm	6.308×10^{-5}	m^3 sec^{-1}
ft^3 sec^{-1}	2.832×10^{-2}	m^3 sec^{-1}
Hydrolic conductivity		
U.S. gal day^{-1} ft^{-2}	4.720×10^{-7}	m sec^{-1}
Permeability		
darcies	9.870×10^{-13}	m^2
Transmissivity		
U.S. gal day^{-1} ft^{-1}	1.438×10^{-7}	m^2sec^{-1}
U.S. gal min^{-1} ft^{-1}	2.072×10^{-1}	1 sec^{-1} m^{-1}
Energy, heat		
British thermal units BTU	2.52×10^{-1}	calories, cal
BTU	1.0758×10^{2}	kilogram-meters, kgm
BTU lb^{-1}	5.56×10^{-1}	cal kg^{-1}
Temperature		
°C + 273	1.0	°K (Kelvin)
°C + 17.78	1.8	°F (Fahrenheit)
°F - 32	5/9	°C (Celsius)

**Divide by the factor number to reverse conversions.*
Exponents: for example 4.047×10^3 (see acres) = 4,047; 9.29×10^{-2} (see ft^2) = 0.0929

APPENDIX 1 FOLLOWS ON PAGE 36. Mining districts and prospect areas in New Mexico (updated and modified from Lindgren et al., 1910; File and Northrop, 1966; Howard, 1967; North and McLemore, 1986; McLemore and Chenoweth, 1989; McLemore, 2001). Districts and prospect areas are in alphabetical order by county then by district name. Estimated production is in dollars at the time of production. Commodity symbols are explained in Table 5. Types of deposits are summarized in Tables 2 and 3 and described by McLemore et al. (2017). Summary of metals production is in Table 1. REE=rare earth elements, PGE=platinum group elements, VMS=volcanic massive sulfide, MVT=Mississippi Valley type, RGR=Rio Grande rift, GPM=Great Plains Margin. Names in italics are prospect areas with no production. Note that the Grants uranium district consists of several subdistricts as indicated by McLemore and Chenoweth (1989).

APPENDICES 1, 2, AND 3 in their complete form are available for download online in Excel, CVS, and Pdf formats through our website at XXXXXXXXXXNEED REPOSITORY LINK.

District Id, District or Prospect Area (highlighted)	County	Major commodity catergory	Year of Discovery	Year of Initial Production-Year of Last Production	Estimated Cumulative Production (all commodities)	Commodities Produced	Other commodities	Types of Deposits	Description	Comments
DIS001, Albuquerque	Bernalillo	industrial minerals	before 1900	1900-present	>$1,000,000	brick, clay, scoria, aggregate, gypsum	—	aggregate, clay, processing plants	Plants producing bricks from local clay, cinder blocks from scoria, and wallboard from gypsum. Aggreagate locally mined.	Kinney Brick Co. (NMCI0106) has operated a plant in Albuquerque since 1928.
DIS012, Bernabe Montaño subdistrict (Grants district)	Bernalillo, Cibola, Sandoval	uranium	1970s	—	$0	—	U, V, Ti, Zr, REE, Th, Mo	sandstone uranium, beach-placer sandstone	Sandstone uranium deposits in Jurassic Morrison Formation. Cretaceous beach placer sandstone deposits.	No production. Subdistrict of the Grants uranium region. Exploration drilling in the 1970s and 1980s.
DIS002, Coyote Canyon	Bernalillo	metals	1900	1910–1916	$4,000-12,000	F, Pb, Ag, Au	Cu, Ba, Be, Fe	pegmatite, placer gold, RGR, scoria, Vein and replacement deposits in Proterozoic rocks	Veins filling faults and fissures in Proterozoic schist, phyllite, and granite gneiss. Ba-F-Pb veins in Pennsylvanian Sandia and Madera Formations.	Can be separated from Tijeras Canyon district by geology and locations of mines (North and McLemore, 1986).
DIS250, Hell Canyon	Bernalillo, Torrance, Valencia	metals	1880	1880–1976	$350,000	Au, Ag, Cu, Mo	—	Vein and replacement deposits in Proterozoic rocks, VMS, placer gold	Veins filling shear zones in Proterozoic greenstone. Gold placers. Fulp and Woodward (1990) suggest these veins are epithermal veins.	Can be separated from Tijeras Canyon district by geology and locations of mines (North and McLemore, 1986).
DIS004, Tijeras Canyon	Bernalillo	industrial minerals	1880	1880–present	>$1,000,000,000	cement, limestone, clay, Cu, Pb, Au, Ag, F	Zn, U, Ba, Ni, REE, Th	RGR, sedimentary-copper, Vein and replacement deposits in Proterozoic rocks, VMS, placer gold, pegmatite, volcanogenic uranium, volcanic-epithermal vein, sedimentary	New Mexico produces 7 types of cement at an estimated capacity of 800,000 metric tons/year from the Tijeras cement plant operated by Grupos Cementos de Chihuahua (GCC). Veins and small stratiform orebodies in Proterozoic Tijeras greenstone. Stratabound sedimentary-copper deposits in Permian Abo Formation and Ba-F-Pb veins in Pennsylvanian Madera Group. Placer gold deposits reported.	Metals produced 1880–1952. Cement produced 1959–present. Could have been mined by Spanish Colonials.
DIS006, Cimarron Mesa-Red Hill	Catron	industrial minerals	unknown	unknown	>$10,000	aggregate, scoria	pumice	scoria	Scoria from basaltic field.	
DIS007, Mogollon	Catron	metals	1875	1875–1969	>$25,000,000	Cu, Pb, Au, Ag, U, Zn	Ba, Mn, F, Mo, Fe, Te	volcanic-epithermal	Oligocene-Miocene veins filling faults cutting Oligocene volcanic rocks, in the ring-fracture zone of the Bursum caldera.	The largest gold-silver production from volcanic-epithermal veins in New Mexico.
DIS008, Red Basin-Pietown	Catron	uranium	1954	1954–1957	$13,000	U, V	—	sandstone uranium, volcanogenic uranium	Roll-type sandstone uranium deposits are found along a paleosol formed at the top of the Crevasse Canyon Formation, just below the Eocene Baca Formation.	File and Northrop (1966) mention McPhaul Ranch as a propect area.
DIS010, Wilcox	Catron, Grant	metals	1879	1941	$100,000-500,000	Au, Ag, Cu, F, Te, Mn	Pb, Zn, Mo, Cd, Bi	volcanic-epithermal, fluorite veins	Veins filling faults and fissures cutting Oligocene volcanic rocks in the ring-fracture zone of the Bursum caldera. Acid-sulfate alteration is older than veins.	Includes Sevety-four district of File and Northrop (1966).
DIS011, Zuni salt lake	Catron	industrial minerals	1540	1540–1980s	$1,000	salt	—	salt	Shallow, salt lake in a maar. Pueblo Indians harvest salt from the lake annually.	Salt plant in the 1930s.
DIS013, East Grants Ridge	Cibola	industrial minerals	1940s	1946–2000	>$431,000,000	perlite, pumice	gems, Be, obsidian, scoria, garnet	perlite, pumice, scoria	Pumice was produced from 1939 to 1952. U.S. Gypsum Co. operated from 1953 to 2000. The U.S. Gypsum perlite mine produced <10,000 tpy perlite and trucked ore to a processing facility in Grants.	Limestone uranium deposits on flank of East Grants Ridge are in the Ambrosia Lake subdistrict of the Grants uranium district.
DIS014, Laguna subdistrict (Grants district)	Bernalillo, Cibola, Sandoval, Valencia	uranium	1951	1951–1983	$2,000,000,000	U, V, Mo	Se	sandstone uranium, limestone uranium, uraniferous collapse-breccia pipe	Sandstone uranium deposits in Jurassic Morrison Formation. Limestone uranium deposits in Todilto Formation.	Subdistrict of the Grants uranium region, Woodrow breccia pipe (NMCI0106) is largest breccia pipe in NM
DIS015, Marquez subdistrict (Grants district)	Cibola, McKinley, Sandoval	uranium	1970s	1979–1980	$714,000	U, V	—	sandstone uranium	Sandstone uranium deposits in Jurassic Morrison Formation.	subdistrict of the Grants uranium region
DIS017, Zuni Mountains	Cibola	metals	late 1800s	1905–1965	$1,700,000-8,400,000	Cu, Au, Ag, F, Pb, scoria, mica	U, V, Ba, Fe, REE, serpentinite, Te, PGE	sedimentary-copper, Vein and replacement deposits in Proterozoic rocks, RGR, episyenites (metasomatites), mica, scoria, high Ca limestone, Fe deposits	Quartz veins in shear zones and disseminated deposits in Proterozoic granite. Stratabound sedimentary-copper deposits in Permian Abo Formation. Fluorite veins filling faults and fissures in Proterozoic rocks and Permian Abo Formation. Platinum minerals identified in Proterozoic mafic rocks, but not in economic concentrations.	Metals produced 1905–1965. Fluorite produced 1946–1953.
DIS018, Cimarroncito	Colfax	metals	1890	1896–1940	<$5,000	Au, Ag, Cu	Bi, Pb	GPM, placer gold	Skarn deposits in Pennsylvanian limestones adjacent to Oligocene porphyritic trachydacite to dacite dikes.	Gold placers worked in 1898, but production was not recorded (Johnson, 1972).
DIS019, Elizabethtown-Baldy	Colfax	metals	1866	1866–1968	$10,000,000	Au, Ag, Cu, Pb, W	Mo, Bi, Te, U, Ni, Fe, garnet	GPM, placer gold	Veins filling fissures in Oligocene sills and Cretaceous Pierre Shale. Minor copper- and iron-skarn deposits in shale beds in the Pierre Shale. Gold placers in dry washes and Moreno Creek derived from the lode deposits.	T27, 28N, R16E is the Elizabethtown subdistrict and T27N, R16-18E is the Mount Baldy subdistrict. One of the early gold rushes in New Mexico in 1860s. Aztec mine (NMCO0034) yielded >$4 million.

District Id, District or Prospect Area (highlighted)	County	Major commodity catergory	Year of Discovery	Year of Initial Production-Year of Last Production	Estimated Cumulative Production (all commodities)	Commodities Produced	Other commodities	Types of Deposits	Description	Comments
DIS020, Laughlin Peak	Colfax	metals	1950s	?	$0	—	Au, Ag, REE, U, Th, Nb, Fe, Be, zeolites	GPM, carbonatite, volcanogenic uranium	REE-Th veins and breccia deposits, trace gold in Tertiary volcanics and intrusions.	no production, exploration drilling in the 1980s.
DIS022, Springer	Colfax	industrial minerals	1890	1890–1899	$90,000	limestone, cement	alum	sedimentary	Limestone mined from quarry in Cretaceous Timpas limestone.	Cement plant operated 1890-1899 and produced 85,500 barrels of cement worth $89,125.
DIS023, Aden	Doña Ana, Luna	industrial minerals	1900s	1950s–present	$3,000,000–10,000,000	scoria, basalt	—	igneous, scoria	Scoria and basalt found in more than 150 cinder cones and associated basaltic flows that form the Potrillo volcanic field.	File and Northrop (1966) designated Black Mountain No. 2 as a separate district. McLemore (1996c) combined it with Aden.
DIS024, Bear Canyon	Doña Ana	metals	1883	early 1900s–1950s	<$5,000	Cu, Pb, Ba, Ag	Mo, F, V	RGR	Irregular replacement and vein deposits in Silurian dolomites and veins associated with a low-angle normal fault between Ordovician limestones and Proterozoic granite.	
DIS025, Black Mountain No. 1	Doña Ana	metals	1883	1883–1900s	$33,000–78,000	Cu, Pb, F, Au, Ag	Ba	RGR	Veins in Proterozoic granite at the contact of Proterozoic (?) diorite dikes and granite. Vein deposits along faults between Proterozoic granite and Ordovician El Paso Limestone, with minor replacement deposits in the El Paso Limestone.	Black Mountain is restricted to include only RGR deposits in the Black Mountain area. Mineral Hill deposits are in the Organ Mountains district.
DIS026, Brickland	Doña Ana	industrial minerals	1900s	1900–present	<$10,000,000	limestone, silica, brick clay, shale	—	clay, sedimentary	American Eagle Brick pit consists of marine shales and siltstone of Lower Cretaceous age.	American Eagle Brick pit in production since 1979
DIS027, Doña Ana Mountains	Doña Ana	metals	1900	1900	$5,000	Cu, Au, Ag	Mn	volcanic-epithermal, carbonate-hosted Pb-Zn (Cu, Ag) replacement, carbonate-hosted Pb-Zn (Cu, Ag) replacement	Veins at the contact of silicified rhyolite and altered Oligocene-Eocene Cleofas andesite.	—
DIS028, Iron Hill	Doña Ana	metals	1930s	?	<$10,000	Fe	Cu, Mn	sedimentary iron deposits, carbonate-hosted Pb-Zn (Cu, Ag) replacement	Lenticular iron-replacements, breccia cement, and cavity fillings in Pennsylvanian-Permian limestones.	—
DIS029, Northern Franklin Mountains	Doña Ana	metals	1914	1914	$1,000	Ag, Pb, jarosite	F, Ba, clay	RGR, sedimentary	Veins filling faults in Silurian Fusselman Dolomite and along contact with overlying Devonian Canutillo Formation. Minor replacement deposits. Copiapo jarosite deposit is epithermal.	—
DIS030, Organ Mountains	Doña Ana	metals	1830s (perhaps as early as 1797)	1849–1972	$4,000,000	Cu, Au, Ag, Pb, Zn, U, F, Ba, Bi	Mo, Te, W, Sn, Mn, Fe, Be, asbestos, REE in stream sediments, garnet	GPM, carbonate-hosted Pb-Zn, copper-lead-zinc skarn, polymetallic veins, porphyry copper-molybdenum, Vein and replacement deposits in Proterozoic rocks, RGR, carbonate-hosted manganese replacement, fluorite veins	Zoned replacement and vein deposits in Paleozoic limestones and dolomites surrounding Tertiary Organ batholith. Inner zone consists of gold-pyrite veins, grading outward to zinc replacement deposits, to lead-silver, and finally to fluorite. Vein deposits in faults and fissures of Proterozoic granite. Silver-bearing pegmatites in Organ batholith. Mineralization, geochemical analyses, and alteration suggests presence of copper-molybdenum porphyry deposits.	Includes deposits in the Mineral Hill, Gold Camp, Modoc, South Canyon, Texas and Bishop's Cap areas/districts of File and Northrop (1966) due to similar geology by McLemore et al. (1996c).
DIS031, Potrillo Mountains	Doña Ana	metals	1883	?	<$1,000	Cu, Au, Ag, Pb	Ba, F, limestone, marble, Mn	RGR	Small replacement bodies and veins in Permian Hueco Formation localized by faults.	—
DIS032, Rincon	Doña Ana, Sierra	metals	1918	1918–2002	$12,000–100,000	Mn, Ba, U, V, travertine, bentonite	F, W, Cu, Pb, Zn, Ag, Th, Be	epithermal manganese, RGR, Rio Grande Rift Cu-Ag (U) vein, carbonate-hosted manganese replacement, carbonate-hosted Pb-Zn (Cu, Ag) replacement, travertine	Barite, fluorite and manganese deposits. Trace amounts of silver and galena in barite deposits at Palm Park.	Metals produced 1918–1953. includes Derry district of File and Northrop (1966) because of similar geology and overlapping boundaries.
DIS033, San Andrecito	Doña Ana, Sierra	metals	1890s	1914–1930	$23,000	Cu, Ag, Pb, talc	Ba, F, Fe, W	RGR, Vein and replacement deposits in Proterozoic rocks, sedimentary iron, talc	Veins filling faults in Cambrian Bliss Formation and Ordovician El Paso and Montoya Groups. Veins and replacement deposits in Lead Camp Limestone. Veins in Proterozoic rocks.	Historic resource of 6,500 short tons talc remaining
DIS034, San Andres Canyon	Doña Ana	metals	1900	1900–1904	<$1,000	Cu, Pb	Ag, Au, Ba, F	RGR	Irregular replacement deposit in Silurian Fusselman Dolomite adjacent to a high-angle normal fault.	—

District Id, District or Prospect Area (highlighted)	County	Major commodity catergory	Year of Discovery	Year of Initial Production-Year of Last Production	Estimated Cumulative Production (all commodities)	Commodities Produced	Other commodities	Types of Deposits	Description	Comments
DIS035, Tonuco Mountain	Doña Ana	metals	1900	1919–1935	$77,200–386,000	Ba, F, Mn	U, Fe, travertine	fluorite veins, carbonate-hosted manganese replacement, RGR, travertine	Fluorite veins along faults.	—
DIS036, Tortugas Mountain	Doña Ana	metals	1900	1919–1943	$200,000–1,000,000	F, Mn, Ba	travertine	RGR, carbonate-hosted manganese replacement, travertine	Fluorite-calcite veins along faults.	—
DIS037, Calumet	Eddy	metals	1900s	?	<$2,000		Cu, Pb, Zn, Ag, Au	MVT, sedimentary copper	Irregular replacement deposits along the limestone-dolomite interface in algal-reef deposits at or near the contact between the Seven Rivers and Yates Formations.	File and Northrop (1966) recognize a Guadalupe Mountains district in Otero County, but no evidence of mineral deposits in that exact area.
DIS038, Carlsbad potash	Eddy, Lea	industrial minerals	1925	1931–present	>$15,000,000,000	potash, salt	halite, clay	potash, salt	Potash-bearing evaporites occur in Ochoan (Permian) marine rocks in the Delaware Basin. United Salt Corp. acquired a solar evaporation salt plant near Carlsbad in 1962, where salt is harvested on a 2,600 acre salt lake after the sun has evaporated the water from the brine.	112,054,218 short tons potash produced 1951–2014. Estimated potash reserves >553 million short tons. Intercontinental Potash Corp. announced the discovery of the Ocha Potash Project in Lea County.
DIS040, Lone Eagle	Eddy	metals	1905	1905–1956	$8,000	Cu, Ag	U, Au, Fe	sedimentary-copper, MVT, sandstone uranium, sedimentary-copper	Stratabound sedimentary-copper deposits in sandstone along an anticlinal feature within the Permian Yates Formation.	File and Northrop (1966) recognize a Guadalupe Mountains district in Otero County, but no evidence of mineral deposits in that exact area.
DIS041, Red Lake	Eddy	metals	unknown	1900s	$1,000	Cu, Ag	Pb, Zn	MVT	Secondary Cu-Pb-Zn mineralization in collapse breccias in the Permian Rustler Formation.	—
DIS039, Two Ladies	Eddy	metals	1900s	1900s	$1,000	Pb	Zn, Ag, Fe	MVT	Replacement of carbonate and open-space filling in collapse breccia in brecciated dolomite of the Permian Yates Formation.	—
DIS042, Alum Mountain	Grant	industrial minerals	1893	1900–1945	<$1,000,000	meerschaum, clay, Au, Ag, alum	Cu, Pb, Zn, Ga	volcanic-epithermal, advanced argillic alteration, alunite	Highly altered Oligocene andesite with shows of precious metals associated with acid-sulfate alteration.	An estimated 2 million pounds of meerschaum was shipped from the Meerschaum mine (NMGR0223)
DIS044, Black Hawk	Grant	metals	1881	1881–1960	>$1,000,000	Au, Ag, Cu, Pb, F, W	Co, Ni, U, Bi, Mo, Ba, Zn, REE, garnet, Fe, Mn	polymetallic vein, pegmatite, placer tungsten, placergold	Veins filling fissures and faults in Proterozoic quartz-diorite gneiss and granite near the contact with Upper Cretaceous-Tertiary Twin Peaks monzonite-porphyry stock.	—
DIS045, Bound Ranch	Grant	metals	unknown	1900	$ 32,000–$162,000	W, F	Au, U, Ba, REE	fluorite veins, Laramide vein	Veins with gold filling faults and fissures in Proterozoic granite.	—
DIS046, Burro Mountains	Grant	metals	1871, earlier mining by Spanish and Indians	1879–present	>$2,000,000,000	Au, Ag, Cu, Mo, Pb, Zn, F, W, Mn, Bi, U, turquoise	Te, Be, Fe, REE, mica	placer gold, porphyry copper, polymetallic vein, episyenites (metasomatites), epithermal manganese, pegmatite, tungsten veins, volcanic-epithermal vein	Porphyry copper deposit in early Eocene quartz-monzonite porphyry of Tyrone. Polymetallic veins filling fissures and shears in Proterozoic granite adjacent to the Tertiary stock. Minor gold placer deposits. Episyenites contain REE, TH, and U.	In 2015, 84 mill pounds Cu produced and 13 million metric tons leaching reserves of 0.42% Cu at Tyrone (NMGR0084).
DIS048, Cap Rock Mountain	Grant, Hidalgo	metals	1917	1917–1959	$2,000	Mn, F	Be	epithermal manganese, fluorite veins	Manganese and fluorite veins in volcanic rocks.	—
DIS049, Carpenter	Grant, Sierra	metals	1891	1891–1969	$1,360,000	Au, Ag, Cu, Pb, Zn	F, W, Be, Ba, Nb, Ta, U, garnet	carbonate-hosted Pb-Zn, skarn, pegmatite, volcanic-epithermal vein	Veins filling faults in Ordovician Montoya Formation and Silurian Fusselman Dolomite. Some deposits also localized along andesite dikes.	—
DIS043, Central	Grant	metals	1858	1902–1969	>$60,000,000	Cu, Pb, Au, Ag, Zn, V, Fe, limestone	W, Mo, Te, Ba, asbestos, U, In	polymetallic vein, placer gold	Veins filling faults and locally replacement deposits in favorable beds at depth. Gold placers.	Includes Fierro Manganese district of File and Northrop (1966).
DIS050, Chloride Flat	Grant	metals	1870	1873–1946	$13,000,000	Au, Ag, Cu, Pb, Mn, Fe	Zn	carbonate-hosted Ag-Mn	Replacement deposits in Silurian Fusselman Dolomite near the contact with overlying Devonian Percha Shale.	Historically the Chloride Flat district was included as part of the Central district. $5 million produced 1871 to 1893.
DIS051, Copper Flat	Grant	metals	1890	1927–1947	>$120,000	Cu, Au, Ag, Pb, Zn, Fe, limestone	Mn, asbestos	Pb-Zn and Cu skarn, sedimentary	Skarn and replacement deposits in Pennsylvanian Oswaldo Formation adjacent to the lower Tertiary Copper Flat stock.	—
DIS052, Cora Miller	Grant	metals	1880	1885–1941	<$10,000	Cu, Au, Ag, Pb	Mn	volcanic-epithermal	Fissure quartz veins in rhyolite ash-flow tuff, associated with Schoolhouse Mountain caldera ring fraction zone.	—
DIS053, Eureka	Grant, Hidalgo	metals	1871	1878–1961	$1,590,000	Au, Ag, Cu, Pb, W, Zn, As, turquoise	Be, Te, Bi, Mo, Ba, F, U, garnet	polymetallic vein, Pb-Zn and Cu skarn, placer gold, sandstone uranium	Skarn and replacement deposits in limestone of the Cretaceous U-Bar Formation adjacent to a Cretaceous-Tertiary monzonite stock.	—

District Id, District or Prospect Area (highlighted)	County	Major commodity catergory	Year of Discovery	Year of Initial Production-Year of Last Production	Estimated Cumulative Production (all commodities)	Commodities Produced	Other commodities	Types of Deposits	Description	Comments
DIS054, Fierro-Hanover	Grant	metals	1850	1880–1982	>$2,000,000,000	Au, Ag, Cu, Pb, Zn, Fe, F, Mn, limestone, garnet	Ge, Be, Bi, Cd, As, Mo, asbestos, U	Pb-Zn and Cu skarn, polymetallic vein, porphyry copper, carbonate-hosted Mn, sedimentary	Skarn deposits chiefly in the Tierra Blanca Member of the Mississippian Lake Valley Limestone and the Pennsylvanian Oswaldo Formation adjacent to granodiorite porphyry of the Paleocene Hanover-Fierro pluton, commonly localized by faults	Historically the Fierro-Hanover district was included as part of the Central district. The Cobre deposit (NMGR0033) contains 16 mill metric tons of mill reserves at 0.53% Cu and 62 mill metric tons of leaching reserves at 0.31% Cu (in 2015).
DIS055, Fleming	Grant	metals	1882	1882–1948	$320,000	Cu, Au, Ag, Pb, Zn, Mn, F	Fe	polymetallic vein, fluorite veins	Irregular oxidized bodies in Cretaceous Beartooth Quartzite. Veins filling fissures in Proterozoic granite.	Historically the Fleming district was included as part of the Central district.
DIS056, Georgetown	Grant	metals	1866	1866–1985	$3,500,000	Ag, Pb, Au, Cu, Zn	Bi, F, Ba, Mn	carbonate-hosted Ag-Mn	Irregular oxidized bodies in Silurian Fusselman Formation localized by contact with overlying Devonian Percha Shale and Paleocene-Eocene granodiorite-porphyry dikes.	—
DIS057, Gila Fluorspar	Grant	industrial minerals	1880	1880–1979	$470,000–2,350,000	F	Ba, Au, Ag, Cu, U, Pb, Zn, Mo	volcanic-epithermal, fluorite veins	Miocene fluorite veins in altered andesite and latite with minor amounts of precious metals. Acid-sulfate alteration is older than veins.	—
DIS058, Gold Hill	Grant, Hidalgo	metals	1884	1886–1941	>$200,000	Au, Ag, Cu, Pb, W, F, Be, REE	U, Th, Ta, Ba, Mn, Nb, Bi	polymetallic vein, placer gold, epithermal Mn, pegmatite	Veins in Proterozoic granite and at the contact of Proterozoic hornblende gneiss with granite. Gold placers along Gold Hill Canyon.	—
DIS059, Lone Mountain	Grant	metals	1871	1871–1950	>$30,000	Au, Ag, Pb, Mn, Cu, Fe, limestone	U, Bi	carbonate-hosted Ag-Mn, skarn, porphyry copper, sedimentary	Carbonate-hosted deposits filling fissures in Silurian Fusselman Dolomite. Drilling indicates skarn in Paleozoic limestones and porphyry copper deposits at depth.	Historically, the Lone Mountain district was included as part of the Central district.
DIS060, Malone	Grant	metals	1884	1884–1961	$300,000	Cu, Au, Ag, Pb, Zn, F	Bi, perlite, U, Mn	polymetallic vein, placer gold, fluorite veins	Veins filling faults in Proterozoic granite and at the contact of granite and Proterozoic mafic dikes.	—
DIS061, Northern Cooks Range	Grant	metals	unknown	1948–1953	$630,000–3,150,00	Ag, Pb, F	Zn	carbonate-hosted Pb-Zn, fluorite veins, RGR	Veins in faults and breccia zones in Silurian Fusselman Dolomite near the contact with overlying Devonian Percha Shale. Granodiorite contains disseminated fluorite.	—
DIS062, Piños Altos	Grant	metals	1800	1860–1997	>$11,000,000	Cu, Au, Ag, Pb, Zn, Fe, meerschuam	W, In, Be, Ba, asbestos	Pb-Zn and Cu skarns, polymetallic vein, placer gold	Veins filling fissures in Piños Altos stock, Late Cretaceous diorite porphyries and andesite breccias. Replacement deposits in Pennsylvanian Magdalena Group limestones. Gold placers derived from lodes.	Metals produced 1860–1957. Historically, the Piños Altos district was included as part of the Central district. Latest production averaged 5.2% Cu, 7.46 oz/ton Ag and 0.017 oz/ton Au. Includes Juniper district of File and Northrop (1966).
DIS063, Ricolite	Grant	metals	pre1940	1940s	$150,000–800,000	Mn, F, ricolite	Fe, U, asbestos, magnesite, serpentine	dimension stone, epithermal manganese, fluorite veins, talc	Ricolite (banded mixture of serpentine, talc, and chlorite) found in Proterozoic granite and metadiabase. Fluorite veins.	—
DIS064, San Francisco	Grant, Catron	metals	1960s	—	$0	—	Au, Ag, Cu, Mo, Sb, Mn	volcanic-epithermal	Oligocene to Miocene quartz veins. Gold placer deposits produced along San Francisco River in Arizona.	No reported production. Possible unreported placer gold production.
DIS065, Santa Rita	Grant	metals	1800	1801–present	>$2,000,000,000	Cu, Au, Ag, Mo, Fe, limestone, sulfuric acid	Zn, Pb, Sb, Be, Te(?), U	porphyry copper, Cu skarns	Porphyry copper deposit in early Eocene Santa Rita quartz-monzonite stock. Copper skarns associated with porphyry. Gold and silver as by-product of copper production.	Historically, the Santa Rita district was included as part of the Central district. Largest Cu, Au, and Ag producer in the state. In 2015, 314 mill pounds Cu produced and 93 mill metric tons of mill reserves of 0.56% Cu and 73 mill metric tons leaching reserves of 0.3% Cu at Santa Rita
DIS066, Steeple Rock	Grant	metals	1860	1880–2014	$10,000,000	Au, Ag, Cu, Pb, Zn, F, Mn	Mo, clay, alunite, U, Be, Ba, Te	volcanic-epithermal, epithermal Mn	Miocene vein deposits filling faults in Oligocene volcanic rocks. Base-metals increase with depth. Acid-sulfate alteration is older than the veins.	Summit mine (NMGR0459) on standby.
DIS067, Telegraph	Grant	metals	1881	1885–1951	$164,000–800,000	F, Cu, Au, Ag, Pb, Zn, Mn	U, Th, Ba, REE	Vein and replacement deposits in Proterozoic rocks, polymetallic vein, volcanic-epithermal veins, disseminated Y-Zr deposits in alkaline rocks, epithermal manganese, fluorite veins	Veins filling faults and fissures in Proterozoic granite and Cretaceous Beartooth Quartzite.	—

District Id, District or Prospect Area (highlighted)	County	Major commodity catergory	Year of Discovery	Year of Initial Production-Year of Last Production	Estimated Cumulative Production (all commodities)	Commodities Produced	Other commodities	Types of Deposits	Description	Comments
DIS068, White Signal	Grant	metals	1880	1880–1968	$100,000–230,000	Cu, U, Au, Ag, Pb, Bi, F, Ra, garnet	Th, Zn, Nb, Ta, turquoise, Be, REE, Ba, mica, Te	polymetallic vein, placer gold, pegmatites, episyenites (metasomatites) porphyry copper	Veins filling faults and fissures in Proterozoic granite and along the contact between granite and early Tertiary rhyolite dikes.	Gold placers found in T20S, R14-16W. District includes Gold Lake copper-molybdenum ±gold) porphyry deposit (NMGR0478).
DIS069, Pastura	Guadalupe	metals	1900	1916–1969	>$2,750,000	Cu, Ag, Au, Pb	U	sedimentary-copper	Stratabound sedimentary-copper deposits in sandstones of Triassic Santa Rosa Formation and Permian Grayburg–Queen Formations.	—
DIS070, Santa Rosa	Guadalupe	industrial minerals	1900s	1930–1939	$200,000	bituminous sand	U	sandstone uranium, sedimentary	Bitumin (asphalt) and uranium in sandstone.	—
DIS071, Bueyeros	Harding	metals	?	—	$0	—	Au, U	volcanic-epithermal, sandstone uranium	Gold assays reported in quartz stringers in basalt north and west of Bueyeros.	No production. Included as a district by McLemore and Chenoweth (1989).
DIS072, Gallegos	Harding	metals	?	—	$0	—	Cu, Au, Ag	sedimentary-copper, placer gold	Gold placers reported in gravels of Ute Creek. Stratabound sedimentary-copper deposits reported in Triassic rocks.	No production. Included as a district by North and McLemore (1986).
DIS073, Polita No. 2	Harding	uranium	1950s	1955	$1,000	U, V	—	sedimentary-uranium	Uranium in Morrison Formation sandstone.	—
DIS086, Animas	Hidalgo	metals	1880	1940–1949	$320,000	Cu, Au, Ag, Pb, siliceous flux	F, Mn, fire clay	carbonate-hosted Pb-Zn, epithermal Mn, volcanic-epithermal	Replacement deposits in Pennsylvanian-Permian Horquilla Limestone localized by minor faults.	—
DIS085, Antelope Pass	Hidalgo	industrial minerals	1902	1902–2000	>$200,000	fire clay, Mn	W, F, Au	sedimentary, hydrothermal clay, volcanic-epithermal vein	Fire clay mined 1902–2000 for use in smelters from Paleozoic shale. Minor fluorite and manganese veins in andesite.	$150,000–$200,000 produced 1902–1965.
DIS074, Antelope Wells-Dog Mountains	Hidalgo	uranium	1950s	1954	<$100	Mn, guano	U	epithermal Mn, guano, travertine, volcanic-epithermal vein, volcanogenic uranium	Epithermal veins, travertine, and cave deposits of guano are in the Alamo Hueco, White, and Dog Mountains.	Year of discovery prior to 1954.
DIS075, Apache No. 2	Hidalgo, Grant	metals	1879	1880–1956	$107,000	Au, Ag, Cu, Pb, Zn, Bi	W, Ge, Be, Mo, F	carbonate-hosted Pb-Zn, skarn, volcanic- epithermal	Oligocene skarn, carbonate-hosted replacement and polymetallic vein deposits in limestones adjacent to Oligocene monzonite porphyry. Oligocene sulfide vein deposits filling faults in Tertiary volcanic rocks.	—
DIS076, Big Hatchet Mountains	Hidalgo	metals	1917	1917–1919	$2,000	Ag, Pb, Zn	Cu	carbonate-hosted Pb-Zn	Small replacement bodies in along faults the Pennsylvanian-Permian Horquilla Limestone.	Indicated resource of 4,500 tons of 3.2% Pb, 2.2% Zn, and 0.4 oz/ton Ag.
DIS077, Brockman	Hidalgo	industrial minerals	early 1900s	early 1900s–1999	$1,000,000	silica	—	sedimentary	Silica sand from the Mojado Formation for smelter flux.	—
DIS078, Fremont	Hidalgo, Luna	metals	1860	1880–1951	$17,000	Cu, Pb, Zn, Au, Ag, U, V	Bi, F, Ba, Mn	volcanic-epithermal vein, carbonate-hosted Pb-Zn	Veins filling faults in limestone and Cretaceous Howell's Ridge Formation. Veins along faults in Tertiary intrusive rocks.	—
DIS079, Gillespie	Hidalgo	metals	1880	1905–1970s	$100,000	Au, Ag, Cu, Pb, F, Mn	W	volcanic-epithermal veins	Veins filling fissures in Oligocene Oak Creek Tuff and Pennsylvanian-Permian Horquilla Limestone.	—
DIS082, Lordsburg	Hidalgo	metals	1854	1870–1999	>$60,000,000	Cu, Pb, Zn, Au, Ag, F, perlite, pumice, silica flux	Ge, Be, Mo, Ba, Te, asbestos, Mn	polymetallic vein, placer gold, porphyry copper	Veins filling faults and in the contact zone between Late Cretaceous andesite flows and granodiorite-porphyry intrusive.	—
DIS266, Lordsburg Mesa	Hidalgo, Grant	uranium	1985	—	$0	—	U	surficial uranium	Geophysical and geochemical anomalies indicate a chemical trap for surficial uranium.	No production. Included as a district by McLemore and Chenoweth (1989).
DIS083, McGhee Peak	Hidalgo	metals	1894	1894–1956	<$1,500,000	Cu, Pb, Zn, Au, Ag	Te, Mo	carbonate-hosted Pb-Zn (Cu, Ag) replacement, copper-lead-zinc skarn, porphyry copper	Replacement and skarn deposits in limestone adjacent to dikes and sills of Oligocene felsic rocks. Minor veins in Cretaceous-Tertiary volcanic rocks. Porphyry copper deposit in the subsurface.	—
DIS084, Muir	Hidalgo	metals	?	1940s–1952	$90,000–$400,000	F, Ag,	Pb, Cu, Au, Sb, Mn, clay, perlite	epithermal Mn, fluorite veins, volcanic-epithermal	Volcanic-epithermal veins in Tertiary andesite with minor gold and silver. Fire clay and perlite present.	—
DIS080, San Simon	Hidalgo	metals	1875	1897–1955	$1,950,000	Cu, Pb, Zn, Au, Ag, W, Sb, Mn	Bi, Be, F, U, REE	carbonate-hosted Pb-Zn (Cu, Ag) replacement, copper-lead-zinc skarn, fluorite veins, tungsten skarns, pegmatite	Veins and replacement deposits in limestone adjacent to Oligocene quartz monzonite.	—
DIS081, Steins Pass	Hidalgo	metals	1875	1875–1953	$500,000	Cu, Au, Ag, Pb, Zn, Mn	Fe	epithermal manganese, volcanic-epithermal vein	Veins filling faults and fissures in Oligocene volcanic rocks.	—

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DIS087, Silver Tip	Hidalgo	metals	1930	—	$0	—	Au, Ag, Pb, Mo, Zn, Bi, Ba, F, Te	volcanic-epithermal vein	Veins in kaolinized rhyolitic ash-flow tuff along rhyolite dikes within ring fracture zone of Geronimo Trail caldera.	No production. Exploration drilling in the 1970s. Included as a district by North and McLemore (1986).
DIS088, Sylvanite	Hidalgo	metals	1871	1902–1957	$315,000	Au, Ag, Cu, Pb, As, W	Sb, Zn,Te, Ge, Be, Mo, Bi, Ba, F, Co, asbestos	Pb-Zn and Cu skarns, Laramide vein, placer gold	Skarn deposits in Cretaceous Hell-To-Finish Formation adjacent to Cretaceous-Tertiary quartz monzonite. Veins filling faults in monzonite and along the contacts of Cretaceous-Tertiary dikes and their host rocks. Gold placers reported.	—
DIS089, Ancho	Lincoln	industrial minerals	1900	1902–1922	$10,000	gypsum, clay	—	sedimentary	Bedded gypsum and clay in Artesia Group.	Brick plant operated in 1902–1922.
DIS091, Capitan Mountains	Lincoln	metals	1911	1960s–2000	$500,000	Fe, U, Mn, coal	Th, REE, Cu, Au, Ag, Be, asbestos, F, garnet	GPM	Iron vein deposits in Tertiary granite and iron skarn deposits in Permian sedimentary rocks adjacent to Tertiary granite.	—
DIS090, Estey	Lincoln	metals	1900	1900–1910	$10,000	Cu, Ag	U	sedimentary-copper	Stratabound sedimentary-copper deposits in arkoses and limestones of the Permian Abo Formation.	—
DIS092, Gallinas Mountains	Lincoln, Torrance	metals	1881	1909–1955	$211,000–311,000	Au, Ag, Cu, F, Fe, Zn, REE, Pb	U, Th, Te, Mo, asbestos	GPM, sedimentary-copper, placer gold	Veins filling fissures and breccia zones in Permian Yeso Formation and Tertiary trachyte porphyry and syenodiorite. Stratabound sedimentary-copper deposits in Permian Yeso Formation. iron skarn deposits in Permian sedimentary rocks adjacent to Tertiary intrusions.	—
DIS093, Jicarilla	Lincoln	metals	1850	1850–1957	$165,000	Au, Ag, Fe, Cu, Pb	Zn, Mo, Ni, Co, U, Te	GPM, placer gold	Vein and disseminated deposits in Oligocene monzonite to syenogabbro porphyry. Skarn deposits in limestone beds of the Permian San Andres Formation adjacent to Oligocene intrusions. Placer gold deposits.	—
DIS094, Macho	Lincoln	metals	1930s	1930s	$1,000	Fe		sedimentary iron, GPM--iron skarn	Iron in sedimentary rocks and skarns.	—
DIS095, Nogal-Bonito	Lincoln	metals	1865	1865–1965	$300,000	Au, Ag, Cu, Pb, Zn	Mo, Te	GPM, placer gold, porphyry molybdenum (tungsten)	Gold placers. Ag-Pb-Zn (±Au, Mo) and Ag-Au fissure veins, gold-bearing breccia pipes, and porphyry molybdenum-copper deposits in Sierra Blanca volcanic and intrusive rocks.	Gold placer production 1865–1908, $250,000 placer gold by 1910.
DIS096, Schelerville	Lincoln	metals	late 1800s	?	$10,000	Au, Ag, Cu, Pb	—	GPM	Veins localized along contacts between Tertiary volcanic rocks and Tertiary diorite and syenite dikes.	—
DIS098, Tecolote Iron	Lincoln	metals	1900	1915–1999	$24,000	Fe	—	GPM	Iron skarn deposits in Permian sedimentary rocks adjacent to Tertiary intrusions.	PGE reported but not confirmed (McLemore et al., 1989)
DIS099, White Oaks	Lincoln	metals	1850	1850–1953	$3,100,000	Au, Ag, Cu, Pb, W, Fe	Te, U, asbestos	GPM, placer gold	Mineralization filling faults and breccias in Oligocene monzonite, monzonite porphyry, lamprophyre dikes, and volcanic rocks and Cretaceous Mesaverde Group. Minor placer deposits.	—
DIS100, Black Mountain	Luna	industrial minerals	?	?	$1,000	scoria, basalt	—	igneous	Scoria and black cinder is reported at Black Mountain.	No production.
DIS101, Burdick-Bisbee Hills	Luna	industrial minerals	1950s	1950s–present	$50,000	agate, quartz	—	igneous	Veins of agate and quartz crystals are found in rhyolitic ash-fall tuff and tuffaceous sandstone	—
DIS102, Camel Mountain-Eagle Nest	Luna , Doña Ana	metals	?	—	$0	—	Au, Ag, Pb, Zn, F, Mn	volcanic-epithermal veins, carbonate-hosted Pb-Zn, carbonate-hosted Ag-Mn, copper-lead-zinc skarn	Carbonate-hosted and skarn deposits in Cretaceous limestone near Tertiary intrusions.	No production.
DIS103, Carrizalillo	Luna	metals	1890s	1980s–1948	$1,000	Cu, Pb, Ag, Au, agate, geodes, U	Mn, W, Zn, Mo, perlite	volcanic-epithermal, RGR, carbonate-hosted Pb-Zn (Cu, Ag) replacement, gems, igneous, sedimentary	Veins filling faults related to rhyolite doming. Some veins localized by rhyolite dikes cutting andesite.	—
DIS104, Cooks Range Manganese	Luna	metals	?	?	$1,000	Mn	F	epithermal manganese	Epithermal manganese vein deposits occur throughout the southern Cooke's Range.	—

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DIS105, Cooks Peak	Luna	metals	1876	1876–1965	$4,200,000	Cu, Au, Ag, Pb, Zn, F, Mn	U, Ba, Fe, asbestos	carbonate-hosted Pb-Zn, carbonate-hosted Mn, epithermal manganese, fluorite veins, polymetallic vein	Replacement deposits in Silurian Fusselman Dolomite localized near the contact of Devonian Percha Shale adjacent to the Cooke's Peak granodiorite stock.	—
DIS253, Deming	Luna	metals	?	—	unknown production amount	Mn, clay (bricks)	stone	sedimentary, mills	A small quantity of bricks were made from clay deposits in Deming prior to 1937. Adobe bricks also were produced. Three mills have operated in Deming. Manganese stockpile.	—
DIS106, Florida Mountains	Luna	metals	1876	1880–1965	$107,000	Cu, Pb, Zn, Au, Ag, Mn, F, agate, Zn	Ba, Ge, Fe, REE, dolomite	fluorite veins, epithermal manganese, carbonate-hosted Pb-Zn (Cu, Ag) replacement, carbonate-hosted Mn, volcanic-epithermal vein, disseminated Y-Zr deposits in alkaline rocks, RGR, sedimentary	Veins filling faults in Rubio Peak Formation, Silurian Fusselman Dolomite, and Proterozoic hornfels and quartz syenite.	American Magnesium LLC is exploring for high magnesium dolomite.
DIS107, Fluorite Ridge	Luna	industrial minerals	1907	1909–1954	$930,000–4,650,000	F, Mn, agate	Ba	RGR, epithermal Mn, fluorite veins, sedimentary, travertine	Most of the fluorite veins and fissures occur along faults and fractures; the largest veins occur at intersections of fault and fracture zones.	Ten mines and prospects have produced 87,533 short tons of fluorspar, with 76,000 short tons derived from the Greenleaf and Sadler mines
DIS108, Little Florida Mountains	Luna	metals	1915	1918–1951	$210,000–780,000	Ba, F, Mn, agate, geodes, clay		RGR, epithermal Mn, fluorite veins, igneous, volcanic-epithermal vein	Epithermal fluorite and manganese veins along faults in fanglomerate and Tertiary volcanic rocks	—
DIS109, Old Hadley	Luna	metals	1880	1880–1929	$10,000	Cu, Pb, Zn, Au, Ag	Te, Ba, alunite, Ga	volcanic-epithermal, advanced argillic alteration, alunite	Veins filling fissures paralleling faults in Eocene-Oligocene Macho pyroxene andesite	—
DIS110, Red Mountain	Luna	industrial minerals	—	—	$0	—	Mn, crushed stone	igneous	Epithermal manganese, crushed rock	No production, new prospect area
DIS111, Snake Hills	Luna	industrial minerals	—	—	$0	—	Au, jasperoid	carbonate-hosted Pb-Zn (Cu, Ag) replacement	Mineralized jasperoids	No production, new prospect area
DIS112, Taylor Mountain	Luna	industrial minerals	1979	1979–2000	$185,000	Fire clay, stone	—	clay, igneous	Clay is quarried at Lucretia quarry (NMLU0375).	—
DIS113, Tres Hermanas	Luna	metals	1881	1885–1957	$600,000	Cu, Pb, Zn, Au, Ag, Mn	U, W, Ge, Be, F, Fe, travertine, garnet	copper-lead-zinc skarn, polymetallic vein, carbonate-hosted Pb-Zn (Cu, Ag) replacement, travertine	Replacement and skarn deposits in Mississippian Escabrosa Limestone and Lower Pennsylvanian limestone adjacent to Tres Hermanas quartz-monzonite stock.	—
DIS114, Victorio	Luna	metals	1870s	1880–1959	$2,330,700	Cu, Pb, Zn, Au, Ag, W	Be, U, Fe, F, Mo, asbestos, As	carbonate-hosted Pb-Zn (Cu, Ag) replacement, W-Be contact-metasomatic deposits, porphyry Mo-W (?), polymetallic vein	Replacement and vein deposits localized by faults in Silurian Fusselman Dolomite. Gulf Mineral Resources, Inc. delineated a stratiform Mo-W-Be deposit.	Measured and indicated resources (NI43-101) are estimated as 39,400,550 short tons of 0.11% Mo and 0.11% W (for 2014)
DIS115, Ambrosia Lake subdistrict (Grants district)	McKinley	uranium	1950	1951–2002	$4,000,000,000	U, V, Mo	Se	sandstone uranium, limestone uranium, uraniferous collapse-breccia pipe	Sandstone uranium deposits in Jurassic Morrison Formation. Limestone uranium deposits in Todilto Formation. Small breccia pipes.	A subdistrict of the Grants uranium region.
DIS116, Chaco Canyon subdistrict (Grants district)	McKinley, San Juan	uranium	1960s	—	$0	—	U, V, Mo, Se	sandstone uranium	Sandstone uranium deposits in Jurassic Morrison Formation.	No production, a subdistrict of the Grants uranium region, exploration drilling in the 1970s. Included as a district by McLemore and Chenoweth (1989).
DIS117, Church Rock-Crownpoint subdistrict (Grants district)	McKinley	uranium	1951	1952–1986	$400,000,000	U, V, Mo	Se, REE, Ti, Nb, Zr	sandstone uranium, limestone uranium, beach placer	Sandstone uranium deposits in Jurassic Morrison and Dakota Formations. Cretaceous beach placer sandstone deposits. Limestone uranium deposits in Todilto Formation.	A subdistrict of the Grants uranium region, this name is used by industry.
DIS120, Nose Rock subdistrict (Grants district)	McKinley	uranium	1960s	—	$0	—	U, V, Mo, Se	sandstone uranium	Sandstone uranium deposits in Jurassic Morrison Formation.	No production, a subdistrict of the Grants uranium region, exploration drilling in the 1970s. Included as a district by McLemore and Chenoweth (1989).
DIS122, Smith Lake subditrict (Grants district)	McKinley	uranium	1951	1951–1985	$300,000,000	U, V, Mo	Se	sandstone uranium, limestone uranium	Sandstone uranium deposits in Jurassic Morrison Formation. Limestone uranium deposits in Todilto Formation.	A subdistrict of the Grants uranium region.

District Id, District or Prospect Area (highlighted)	County	Major commodity catergory	Year of Discovery	Year of Initial Production-Year of Last Production	Estimated Cumulative Production (all commodities)	Commodities Produced	Other commodities	Types of Deposits	Description	Comments
DIS123, Twin Buttes	McKinley	industrial minerals	1900s	present	$10,000	basalt, scoria		igneous, scoria	Scoria and basalt found in volcanic rocks	—
DIS125, Coyote Creek	Mora	metals	1847	1917–1956	$1,000–2,000	Cu, Ag, U, Pb, mica	Se	sedimentary-copper, pegmatite, sandstone uranium, Vein and replacement deposits in Proterozoic rocks	Stratabound sedimentary-copper deposits in arkoses and shales of the Pennsylvanian-Permian Sangre de Cristo Formation.	—
DIS126, Mora	Mora	metals	1870	—	$1,000	Au	Cu, mica, REE, mica	Vein and replacement deposits in Proterozoic rocks, placer gold, pegmatite	Gold in quartz lenses and veins in Proterozoic metasediments. Gold placers derived from lodes. Pegmatites.	—
DIS127, Bent	Otero	metals	1900	1905–1957	$60,000	Ag, Cu	U, Mo	sedimentary-copper, Rio Grande Rift copper-silver (uranium) vein	Copper-silver veins and replacements in Proterozoic diorite and Cambrian Bliss Formation. Stratabound sedimentary-copper deposits in sandstones of the Permian Abo Formation.	—
DIS128, Cornudas Mountains	Otero	metals	?	1990s	<$100	nephline syenite	Ag, Be, Au, U, REE, Th, Nb, Zr, zeolites	GPM, igneous	Fracture-filling veins in Tertiary mafic dikes and alkalic intrusions. The outer zone of the Wind Mountain nepheline syenite was examined for use as a constituent in glass, ceramics, and flatware and for use as an abrasive.	Test shipment of nepheline syenite in mid 1990s by Addwest Minerals Inc.
DIS255, Hueco Mountains	Otero	metals	1950	—	$1,000	limestone	Cu, Ag, Zn, Au, REE, Be	GPM skarn, sedimentary	Small, discontinuous skarns and jasperoids that are low in precious and base metals content.	—
DIS129, Orogrande	Otero	metals	1879	1879–1966	>$2,000,000	Au, Ag, Cu, Pb, W, Fe, turquoise	Mo, Zn, U, Te, asbestos, garnet, Mn	Great Plains margin-iron skarn, Great Plains margin-skarn, placer gold, porphyry copper	Skarn deposits in Pennsylvanian formations adjacent to monzonite–quartz-monzonite stock. Gold placers derived from lode deposits.	259,000 tons Fe ore produced 1878–1966. ~198,000 tons Fe ore produced from rock piles in 2012.
DIS130, Pajarito	Otero	metals	1900s	1952	$100	Fe	REE, Y, Zr, F	Disseminated Y-Zr deposits in alkaline rocks, REE-Th-U veins, replacement iron	Eudialyte, with REE, is the major ore mineral at Parajito Mountain and is disseminated throughout syenite, quartz syenite, and alkali granite.	Historic resource of 2.7 million short tons grading 0.18% Y_2O_3 and 1.2% ZrO_2 was reported during exploration in 1980s. Additional drilling in 2014.
DIS131, Sacramento	Otero	metals	1900	1900–1962	$100,000	Cu, Pb, Au, Ag, Zn, limestone	U, PGE	sedimentary-copper, Vein and replacement deposits in Proterozoic rocks, carbonate-hosted Ag-Mn, syenite/gabbro-hosted Cu-Ag-PGE	Copper and lead deposits with minor silver in sandstones of Permian Abo Formation. In general, the copper ores contain little lead, the lead ores little copper. Veins in Proterozoic rocks. Minor carbonate-hosted Ag-Mn deposits.	—
DIS132, Three Rivers	Otero	metals	1911	1943	$160	Fe	Ba, Cu, Ag, Pb, Zn, REE	replacement iron, volcanic-epithermal vein, GPM	Replacement iron deposits in San Andres Limestone. Small volcanic–epithermal veins in volcanic rocks.	—
DIS133, Tularosa	Otero	metals	1904	1906–1957	$1,000	Cu, Ag, Pb	U, Fe, Mo	sedimentary-copper, replacement iron	Stratabound sedimentary-copper deposits in Permian Abo Formation.	—
DIS134, White Sands	Otero, Doña Ana	industrial minerals	1900s	1900s–1997	>$100,000	gypsum, salt	sodium sulfate, borax	gypsum, salt	Approximately 4.5 billion short tons of 96% pure gypsum is found in the White Sands National Monument. Sodium sulfate is found at Alkali Flats and Lake Lucero.	—
DIS135, Logan	Quay	metals	1950s	—	$0	—	Cu, Ag, U, Au	sedimentary-copper, sandstone uranium	Stratabound sedimentary-copper deposits in shaly sandstone of Triassic Chinle Formation.	No production. Prospect area by File and Northrop (1966).
DIS136, San Jon	Quay	metals	1950s	1954–1956	$1,000	U, V	Cu, Ag, Ba	sedimentary-copper, sandstone uranium	Argentiferous chalcocite nodules and stratabound sedimentary-copper deposits in Triassic Chinle Formation.	Prospect area by File and Northrop (1966).
DIS270, Tucumcari	Quay	uranium	1972	—	$0	—	U, V	sandstone uranium	Uranium in Morrison Formation.	No production. Included as a district by McLemore and Chenoweth (1989).
DIS137, Abiquiu	Rio Arriba	metals	1859	1954	$1,000	U, V	Cu, Ag, Au	sedimentary-copper, sandstone uranium, limestone uranium, placer gold	Stratabound sedimentary-copper deposits in conglomerate and conglomeratic sandstone of the Triassic Chinle Formation.	Probable early Spanish mining, discovered by J.S. Newberry of the Malcomb expedition
DIS275, Apache Mesa	Rio Arriba	industrial minerals	1956	—	$0	—	REE, U, Th, Ti	beach placer	Beach placer sandstone deposits.	—
DIS138, Box Canyon	Rio Arriba	uranium	1950s	1955	$2,000	U, V	—	limestone uranium	Small limestone uranium deposit in Todilto Formation.	—

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DIS139, Bromide No. 2	Rio Arriba	metals	1881	1881–1940	$50,000	Au, Ag, Cu, U	Fe, REE, Th, F, Ba, Mo, Ni, Mn	vein and replacement deposits in Proterozoic rocks, Proterozoic iron formation, REE-Th-U veins, VMS(?)	Veins in Proterozoic Moppin metavolcanic series. Banded iron formation present. Possible VMS deposits (Robertson et al., 1986).	Once part of the larger Headstone district, which included the Bromide No. 2 and the Hopewell districts (Lindgren et al., 1910).
DIS140, Chama Canyon	Rio Arriba	metals	1911	—	$0	—	Cu, U, Ag	sedimentary-copper	Stratabound sedimentary-copper deposits with silver in Permian Cutler Formation.	No production. Included as a district by McLemore and Chenoweth (1989).
DIS149, Chama Placers	Rio Arriba	metals	1848	1848–1938?	<$35,000	Au	—	placer gold	Gold placers were found prior to 1848 in the sand and gravel deposits of the Chama River near the intersection of Canones Creek west of Abiquiu.	—
DIS141, Coyote	Rio Arriba, Sandoval	metals	1911	1956–1957	$4,000	Ag, Cu, U, Pb	—	limestone uranium, sandstone uranium, sedimentary-copper	Stratabound sedimentary-copper deposits in sandstones of the Permian Cutler Formation.	—
DIS142, Cruces Basin	Rio Arriba	metals	1900s	—	$0	—	Ag, Mn, Cu, Be	volcanic-epithermal vein	Silver associated with small deposits of manganese (0.14–6% Mn) along fractures and faults in the Tertiary Conejos quartz latite and underlying Proterozoic gneiss and pegmatites.	no production, extends into Colorado
DIS268. Eastern San Juan Basin	Rio Arriba, Sandoval	uranium	1957	—	$0	—	U, V	sandstone uranium	Sandstone uranium occurrences in San Jose Formation.	no production, exploration drilling in the 1970s, Included as a district by McLemore and Chenoweth (1989).
DIS143, El Rito	Rio Arriba	metals	1933	1933	$1,000	Au	F	placer gold, fluorite veins	Gold placers in sand and gravel deposits in El Rito Creek and Arroyo Seco.	—
DIS144, Gallina	Rio Arriba, Sandoval	metals	1900s	1908–1956	$1,000–2,000	U, V, Cu, Ag, Pb, F	Mn	sandstone uranium, sedimentary, sedimentary-copper	Small copper orebodies are found in fluvial sandstones and adjacent units in the Abo and correlative Cutler Formations.	—
DIS145, Hopewell	Rio Arriba	metals	1880	1881–1940	$400,000	Au, Ag, Cu, Pb	Zn, Fe, REE, Mn	Vein and replacement deposits in Proterozoic rocks, placer gold, Proterozoic iron formation	Veins in Proterozoic Moppin metavolcanic series. Banded iron formation present. Gold placer deposits in gravels of Placer Creek. Possible VMS deposits (Robertson et al., 1986).	Once part of the larger Headstone district, which included the Bromide No. 2 and the Hopewell districts (Lindgren et al., 1910).
DIS147, Ojo Caliente No. 1	Rio Arriba	industrial minerals	1900s	1940s–1965	$5,000	mica	Bi, Nb, REE, garnet	pegmatite, placers	Mica has been produced from zoned pegmatites	—
DIS148, Petaca	Rio Arriba	industrial minerals	1870	1870–1965	$900,000	mica, Nb, Ta, Be, quartz, feldspar, kyanite, REE, U	Sn, Th, Cu, Bi, F, Mo, REE, asbestos, pyrophyllite, garnet	pegmatite, kyanite, sandstone uranium, Vein and replacement deposits in Proterozoic rocks	Mica, feldspar, beryl, uranium, and other commodities have been produced from zoned pegmatites.	—
DIS151, Boyd	San Juan	uranium	1950s	1955	$1,000	U, V	—	sandstone uranium	Uranium in Kirkland calcareous sandstone.	—
DIS152, Carrizo Mountains	San Juan	uranium	1920s	1948–1967	$4,000,000	U, V	—	sandstone uranium	Uranium deposit in Salt Wash Member of Morrison Formation.	A subdistrict of the Shiprock uranium district.
DIS153, Chuska Mountains	San Juan	uranium	1950s	1952–1982	$8,000,000	U, V	Ti, REE, Th, Y, Zr, Fe	sandstone uranium, limestone uranium, beach placer	Uranium deposit in Salt Wash and Recapture Members of Morrison Formation.	A subdistrict of the Shiprock uranium district. Historic resource at Sanostee (NMSJ0088) reported as 700,000 metric tons titanium.
DIS154, Farmington	San Juan	uranium	1950s	1954	$1,000	U, V	REE, Ti, Th, Fe, Nb, Zr	beach placer, sandstone uranium	Beach placer sandstone deposits.	—
DIS159, Toadlena area	San Juan	uranium	1950s	—	$0	—	U, V, Ti, REE, Th, Zr, Nb, coal	beach placer, sandstone uranium	Beach placer sandstone deposits.	No production, a subdistrict of the Shiprock uranium district, exploration drilling in the 1970s, Included as a district by McLemore and Chenoweth (1989).
DIS160, Tocito Dome area	San Juan	uranium	1960s	—	$0	—	U, V	sandstone uranium	Uranium deposits in Morrison Formation.	No production, a subdistrict of the Shiprock uranium district, exploration drilling in the 1970s, Included as a district by McLemore and Chenoweth (1989).
DIS161, El Porvenir	San Miguel	metals	1916	1916	$1,000	Mo, U, mica	Cu, Ag, Au, Th, F, W, Bi, Ta, Nb, mica, REE, asbestos, Be	sedimentary-copper, pegmatite, Vein and replacement deposits in Proterozoic rocks, sandstone uranium	Veins filling fissures in Proterozoic pegmatitic granite. Stratabound sedimentary-copper deposits in Pennsylvanian-Permian Sangre de Cristo Formation.	_

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DIS162, Elk Mountain	San Miguel	industrial minerals	1936	1940	$10,000	Mica, Ta, REE, U	Ag, Pb, Nb, Th, Be, asbestos, garnet	pegmatite, Vein and replacement deposits in Proterozoic rocks, disseminated Y-Zr deposits in alkaline rocks	Pegmatites, quartz veins in Proterozoic metamorphic rocks.	—
DIS163, Las Vegas	San Miguel	industrial minerals	1883	1907	$100,000	limestone, brick clay	Au, Cu, U	placer gold, sedimentary, sandstone uranium	Gold placer deposits near Las Vegas. Includes potential sandstone uranium deposits in Las Vegas basin.	—
DIS164, Rociada	San Miguel, Mora	industrial minerals	1900	1945–1946	$1,000	mica, Li, REE, Ta	Cu, Pb, Ag, Au, Zn, U, Mo, Be, asbestos	pegmatite, sedimentary-copper, Vein and replacement deposits in Proterozoic rocks,VMS	Mineralized quartz veins in Proterozoic granite. VMS deposits in graywacke. Stratabound sedimentary-copper deposits in sandstone of Pennsylvanian-Permian Sangre de Cristo Formation.	—
DIS165, Sabinoso	San Miguel	metals	1950s	1956	$1,000	U, V	Cu, Ag	sandstone uranium, sedimentary-copper	Stratabound sedimentary-copper-uranium deposits in sandstones of the Triassic Chinle Formation.	—
DIS166, Tecolote	San Miguel	metals	1879	1900–1955	$25,000	Cu, Pb, Be, Ta, REE, Nb, Fe	U, V, mica, feldspar, Ta, REE, Th, Mo	pegmatites, sedimentary-copper, Vein and replacement deposits in Proterozoic rocks	Stratabound sedimentary-copper deposits in sandstone. Placer gold deposits in Glorieta Sandstone along Pecos River between Sena and Villanueva. Pegmatites.	Priest mine (NMSM0074) supplied mica for windows to Spanish settlements. $15,000 metals produced from district, $10,000 produced from Priest mine.
DIS167, Willow Creek	San Miguel	metals	1883	1927–1944	$40,000,000	Cu, Pb, Zn, Au, Ag	asbestos, mica	placer gold, Vein and replacement deposits in Proterozoic rocks, VMS	VMS deposits in metamorphosed sequence of Proterozoic subaqueous volcanic and volcaniclastic sedimentary rocks. Also disseminated VMS deposits. Placer deposits.	The Pecos mine was the largest lead and zinc producer in New Mexico from 1927 to 1939 and is one of the top 10 lead and zinc producers in New Mexico.
DIS168, Cochiti	Sandoval	metals	1880	1893–1963	$1,400,000	Ag, Au, Cu, Pb	U, Te, Fe, Zn, perlite, Mn	volcanic-epithermal veins	Miocene to Pliocene veins filling faults and fissures in Tertiary andesite flows, flow breccias, rhyolite and quartz monzonite stock.	One of the first cyanide mills in New Mexico was built at Albermarle mine
DIS169, Collins-Warm Springs	Sandoval	uranium	1950s	1957–1959	$10,000	U, V	—	sandstone uranium	Uranium deposits in Morrison Formation	—
DIS170, Cuba Manganese	Sandoval	metals	1926	1942–1959	$250,000	Mn	U	epithermal Mn	Manganese is found in shales and sandstones of the San Jose Formation in small discontinuous bodies.	Most manganese mined out.
DIS267, Dennison Bunn	Sandoval	uranium	1979	—	$0	—	U, V	sandstone uranium	Sandstone uranium deposits in Jurassic Morrison Formation.	No production, exploration drilling in the 1970s, Included as a district by McLemore and Chenoweth (1989).
DIS273, Hagan Basin	Sandoval	uranium	1970	—	$0		U, V, Se, Mo	sandstone uranium	Uranium-selenium deposits in Galisteo Formation.	No production. An estimated 800,000 lbs resoures at grade 0.09% U_3O_8. Included as a district by McLemore and Chenoweth (1989).
DIS172, Jemez pumice	Sandoval, Rio Arriba, Santa Fe	industrial minerals	1950	1950–present	$31,000,000	pumice, diatomite, sulfur	perlite, travertine	pumice, diatomite, perlite, travertine, sulfur	Commercial pumice is in the Otowi Member of the Bandelier Tuff and the El Cajete Pumice. In 1953–1954, a small amount of diatomite was mined in the Santa Fe Group.	—
DIS173, Jemez Springs	Sandoval	metals	1849	1928–1937	$4,000	Cu, Ag, Au, Pb	U, S	sandstone uranium, sedimentary-copper, travertine, placer gold, sulfur	Stratabound sedimentary-copper deposits in sandstone, siltstone, and limestone of the Permian Abo Formation.	Combined with Jemez Sulfur district.
DIS174, La Ventana	Sandoval	uranium	1884	1904–1983	$2,600,000	U, V, coal, humate	Se	sandstone uranium, coal, humate	Uranium deposits in shale and coal (Dakota Formation).	—
DIS175, Mesa Portales	Sandoval	uranium	1950s	—	$0	—	U, V	sandstone uranium	Uranium deposits in Ojo Alamo Sandstone.	No production, exploration drilling in the 1970s, Included as a district by McLemore and Chenoweth (1989).
DIS176, Nacimiento	Sandoval, Rio Arriba	metals	1880	1880–1975	$1,500,000	Cu, Ag, Au, Pb, Zn	U, V, Mn	sedimentary-copper, sandstone uranium, Vein and replacement deposits in Proterozoic rocks, travertine, volcanogenic uranium	Stratabound sedimentary-copper deposits in sandstones of the Triassic Chinle Formation. Minor deposits in sandstones and limestones of Permian Abo Formation and Pennsylvanian Madera Formation. Some veins in shear zones in Proterozoic quartz monzonite.	Possible mining by early Spanish explorers and/or Pueblo Indians.
DIS177, Ojito Spring	Sandoval	uranium	1960s	—	$0	—	U, V	sandstone uranium	Uranium deposits in Morrison Formation	No production, Included as a district by McLemore and Chenoweth (1989).

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DIS178, Placitas	Sandoval, Bernalillo	metals	1860s	1904–1961	$2,400	Cu, Ag, Au, Pb, Zn	Ba, F, Fe	RGR, sedimentary-copper, Vein and replacement deposits in Proterozoic rocks, placer gold	Veins in faults and fissures in Proterozoic Sandia Granite and metamorphic rocks and Pennsylvanian Madera and Sandia Formations. Copper, barite, and silver in Chinle Formation. Small gold placer deposits reported in arroyos.	Spanish mining in 1500–1600s
DIS179, White Mesa	Sandoval	industrial minerals	1950s	1960–present	>$20,000,000	gypsum	—	gypsum	Gypsum in the Todilto Formation	—
DIS180, Cerrillos	Santa Fe	metals	1680s	1879–1957	$2,620,000	turquiose, Cu, Ag, Au, Zn, clay	Mo, Fe, U,	GPM-vein, porphyry copper, sandstone uranium, volcanogenic uranium	Veins filling shear zones and faults in Oligocene intrusions, Espinaso Volcanics, and Cretaceous Mancos Shale. A small copper porphyry at depth.	Possibly mined as early as 700 AD by Pueblo Indians; one of the oldest mining districts in U.S.
DIS182, El Cuervo Butte	Santa Fe	metals	1950s	—	$0	—	Ba, Pb, Ag	RGR	Veins along fault in Permian Yeso Formation and Glorieta Sandstone.	No production. Included as a district by North and McLemore (1986).
DIS183, Glorieta	Santa Fe	metals	1900	1900–1905	$5,000	Cu, Ag, Pb, Fe	V, U, Au,	replacement iron, sandstone uranium, sedimentary iron, sedimentary-copper, Vein and replacement deposits in Proterozoic rocks	Stratabound sedimentary-copper deposits in the Pennsylvanian–Permian Sangre de Cristo Formation. Minor copper-quartz veins in Proterozoic schist and amphibolite.	—
DIS184, La Bajada	Santa Fe, Sandoval	uranium	1900s	1914–1966	$310,000	scoria, U, V, Cu, Ag, Mn	Te, Mo, Zn, Co, Ni, Fe, zeolites	epithermal manganese, igneous, Rio Grande Rift copper-silver (uranium) vein	Base-metal (with silver and uranium) veins filling a fault that cuts Oligocene Cieneguilla Limburgite and Espinaso Volcanics.	La Cienega district of File and Northrop (1966) combined with La Bajada because of overlapping boundaries.
DIS185, Nambe	Rio Arriba, Santa Fe, Mora	industrial minerals	1900s	?	$10,000	Nb, Be, mica	Cu, REE, garnet	pegmatite	Pegmatites in Proterozoic metamorphic rocks.	Aspen Mountain district of File and Northrop (1966) combined with Nambe because of overlapping boundaries.
DIS186, New Placers	Santa Fe	metals	1839	1839–1968	$5,750,000	Au, Ag, Cu, Pb, Zn, Mn, garnet	W, Mo, Fe, Te	GPM, placer gold	Skarn deposits in limestone adjacent to Tertiary San Lorenzo quartz monzonite stock, Castle Rock quartz monzonite and rhyolite dikes. Also veins filling fissures in porphyry and Madera Formation and placers derived from the lode deposits.	—
DIS187, Old Placers	Santa Fe	metals	1828	1828–1986	>$4,000,000	Au, Ag, Cu, Pb	W, Fe, Te,	GPM, placer gold, porphyry copper	Mineralization filling faults in Tertiary monzonite stock and adjacent Cretaceous Mesaverde Formation. Disseminated mineralization in breccia (Mesaverde Formation and latite porphyry clasts) associated with latite sills and dikes. Gold placers derived from lodes.	One of the earliest gold rushes in western U.S. in 1828.
DIS188, San Jose	Rio Arriba, Santa Fe	uranium	1950s	1957	$1,000	U, V	pyrophyllite	sandstone uranium	Uranium deposits in the Tesuque Formation.	Defined by location of uranium occurrences, NURE anonmalies, faults, and outcrop of Tesuque Formation
DIS189, Santa Fe	Santa Fe, San Miguel	metals	1880s	1956–1957	$1,000	Ag, Cu, Mn, mica	Pb, Zn, W, Au, Mo, asbestos	Vein and replacement deposits in Proterozoic rocks, placer gold, VMS	Disseminated VMS deposits in Proterozoic schist and phyllite.	Jones Hill (NMSF0148) contains >5 million short tons of ore (0.89% Cu, 1.98% Zn, 0.21% Pb, 20 ppm Ag, and 2 ppm Au) (histroic resource).
DIS272, Santa Fe Manganese	Santa Fe	metals	1917	1917	$1,000	Mn	—	manganese	Manganese.	—
DIS190, Caballo Mountains	Sierra	metals	1881	1909–1960	$430,000–1,750,000	Pb, F, Mn, Au, Ag, Fe, Cu, U, Mo, V	Th, Ba, REE, W, Nb, Ti, PGE, Be, Zn	Vein and replacement deposits in Proterozoic rocks, carbonate-hosted Pb-Zn (Cu, Ag) replacement, carbonate-hosted silver-manganese (Pb) replacement, episyenites (metasomatites), epithermal manganese, fluorite veins, igneous, placer gold, RGR, Rio Grande Rift copper-silver (uranium) vein, sandstone uranium, sedimentary, sedimentary iron, sedimentary-copper, syenite/gabbro-hosted Cu-Ag-PGE	Veins filling faults and jasperoids throughout range. Stratabound sedimentary-copper deposits in Permian Abo Formation. Veins in Proterozoic granite. Copper-silver veins cutting Proterozoic granite and overlying Paleozoic sedimentary rocks. Episyenites in Proterozoic rocks.	—

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DIS191, Chloride	Sierra, Catron	metals	1879	1879	$20,000,000	Ag, Cu, Pb, Zn, Au, Sn, zeolite	F, Be, Mo, Ba, gem, Sb, Te, V, U, Mn	Laramide skarn, placer gold, placer tin, tin veins, volcanic-epithermal vein, zeolites	Miocene veins filling faults in Tertiary andesite and latite flows, andesitic lahars, volcaniclastic sediments, and Pennsylvanian Madera Limestone. Amethyst (gemstone) found.	St. Cloud Mining Co. (a subsidiary of Imagin Minerals, Inc.) operates the largest zeolite mine in the U.S. at the Stone House mine (NMSI0915) and contains 18.3 million short tons of reserves with a yearly capacity of 100,000 short tons.
DIS192, Cuchillo Negro	Sierra, Socorro	metals	1879	1880	$205,000	Cu, Pb, Zn, W, Fe, Ag, U, F	garnet, clay, Mo, Au, Be, Sn, asbestos, Te, Mn, zeolites	carbonate-hosted Pb-Zn (Cu, Ag) replacment, copper-lead-zinc skarn, Mo-W-Be contact-metasomatic deposits, placer tin, sedimentary-copper, tin veins, volcanic-epithermal vein	Skarn deposits in Pennsylvanian Madera Limestone near the contact with monzonite porphyry of the Cuchillo Mountain laccolith. Minor skarn deposits associated with rhyolite dikes. Stratabound sedimentary deposits in Abo Formation.	—
DIS274, Engle	Sierra	uranium	—	—	$0	—	U, Mn	sandstone uranium	Small sandstone uranium occurrences.	no production
DIS193, Fra Cristobal	Sierra, Socorro	metals	1685	—	$1,000	Mn	Cu, Pb, Zn, Au, Ag, F, Ba, REE, U, guano, gypsum	Vein and replacement deposits in Proterozoic rocks, epithermal manganese, sandstone uranium, RGR, sedimentary-copper, episyenites (metasomatites)	Veins filling faults in Proterozoic granite. Carbonate-hosted Au-Ag and epithermal manganese deposits are found in carbonate rocks. Gypsum deposits also are found in the Yeso Formation.	First mining claim in New Mexico filed by Pedro de Abalos on March 26, 1685.
DIS195, Grandview Canyon	Sierra	metals	1896	1907–1920	<$20,000	Au, Cu, Ag, Pb	Te	RGR, sedimentary-copper, Vein and replacement deposits in Proterozoic rocks	Veins filling fissures and faults in Proterozoic schist. Veins and replacements filling faults along bedding planes in Lead Camp Limestone.	Combined with Sulphur Canyon district of File and Northrop (1966) because of overlapping boundaries and similar geology
DIS196, Hermosa	Sierra	metals	1879	1879–1956	<$2,000,000	Au, Pb, Cu, Zn, Ag	Mo, Sb	carbonate-hosted Pb-Zn (Cu, Ag) replacment, carbonate-hosted silver-manganese (Pb) replacment	Veins filling fault zones in Silurian Fusselman Dolomite and Ordovician Cutter and Aleman Formations. Replacement deposits in Silurian Fusselman Dolomite near the contact with overlying Devonian Oñate Formation.	—
DIS197, Hillsboro	Sierra	metals	1877	1877–1982	$8,500,000	Ag, Cu, Au, Pb, Zn, Mn, V, Mo	Mo, Te, As, W, asbestos, Fe	carbonate-hosted manganese replacement, carbonate-hosted Pb-Zn (Cu, Ag) replacment, carbonate-hosted silver-manganese (Pb) replacement, Laramide skarn, polymetallic vein, placer gold, porphyry copper	Veins filling faults in Late Cretaceous andesitic flows. Porphyry copper deposit in Late Cretaceous Copper Flat quartz-monzonite stock. Minor skarn and replacement deposits in Fusselman Formation. Gold placer deposits derived from lodes.	Copper Flat (NMSI0610) has 113 million short tons at 0.30% Cu, 0.009% Mo, .096 g/t Au, and 1.93 g/t Ag (NI43-101 reserves).
DIS198, Hot Springs	Sierra	metals	1930	1934–1956	$70,000	Cu, Pb, Ag, Mn	U, Cu	carbonate-hosted manganese replacement, carbonate-hosted silver-manganese (Pb) replacement, RGR	Veinlets and disseminated deposits in limestone and dolomite of the Ordovician Bat Cave Formation and sandstone of the Cable Canyon Sandstone Member. Barite-galena veins in Aleman Formation limestone.	—
DIS199, Kingston	Sierra	metals	1880	1880–1957	$6,600,000	Pb, Cu, Zn, Mn, Ag, Au	W, Sb, U, pumicite	carbonate-hosted Pb-Zn (Cu, Ag) replacment, carbonate-hosted silver-manganese, sedimentary-copper, volcanic-epithermal vein	Replacement and vein deposits in Silurian Fusselman Dolomite localized by faults and the contact with Devonian Percha Shale. Minor vein deposits in other Paleozoic and Proterozoic rocks.	—
DIS200, Lake Valley	Sierra	metals	1878	1878–1957	$5,400,000	Ag, Mn, Pb, Cu, Au, limestone	Mo, V, As, Sb	aggregate, carbonate-hosted silver-manganese (Pb) replacment	Oxidized replacement deposits in Mississippian Lake Valley Limestone, the most important of which are near a fault contact with Tertiary Mimbres Peak Rhyolite.	—
DIS201, Macho	Sierra	metals	1879	1879–1977	$679,000	Au, Ag, Pb, Cu, Zn	V, Mn, Ba, Mo	advanced argillic alteration, alunite, carbonate-hosted silver-manganese (Pb) replacment, volcanic-epithermal vein	Tertiary veins filling breccia zones and fissures in Tertiary Macho Andesite. Carbonate-hosted Pb-Zn replacement deposits found in drill core in the Fusselman Dolomite at depth of 3,795 ft.	—
DIS202, Pittsburg	Sierra	metals	1901	1902–1968	$220,000	Au, Ag	—	placer gold	Gold placer deposits in Quaternary gravels derived from small Proterozoic vein deposits in the Caballo Mountains.	—

District Id, District or Prospect Area (highlighted)	County	Major commodity catergory	Year of Discovery	Year of Initial Production-Year of Last Production	Estimated Cumulative Production (all commodities)	Commodities Produced	Other commodities	Types of Deposits	Description	Comments
DIS254, Salado Mountains	Sierra	industrial minerals	1970	—	$0	Fe	Cu	pegmatite, RGR, Vein and replacement deposits in Proterozoic rocks	Fluorite in jasperoids and marble along five parallel faults. Pegmatites and veins found in Proterozoic rocks.	No production. Minerals Exploration Department of Midwest Oil Corp. discovered a deposit containing 3.27 million short tons of fluorite grading 17.6% CaF_2.
DIS203, Salinas Peak	Sierra	metals	1655	1935–1948	<$5,000	Ag, Cu, Au, Pb, Zn, F	Bi, Mo, Ba,	replacement iron, RGR, Rio Grande Rift copper-silver (uranium) vein, sedimentary iron	Veins in Paleozoic limestone and near the unconformable contact between Proterozoic granite and overlying Cambrian Bliss Formation. Veins in Proterozoic granite.	Bearden Canyon and Goodfortune Creek districts of File and Northrop (1966) combined with Salinas Peak because of similar geology.
DIS194, San Mateo Mountains	Sierra, Socorro	metals	1900s	—	$10,000	Au, Ag, U	Sn, Sb, V, Mo, Cu, F, Pb	placer gold, placer tin, volcanic-epithermal vein	Veins in faults and fissures in Tertiary andesite, andesite breccia, and rhyolite tuff and flows.	
DIS204, Taylor Creek	Sierra, Catron	metals	1918	1919–1969	$7,000–8,000	Sn, Mn, kaolin	Be, garnet, Fe, zeolites	advanced argillic alteration, alunite, epithermal manganese, hydrothermal kaolin, placer tin, rhyolite-hosted tin, tin veins	Tin found in miarolitic cavities within rhyolite, thin veins and veinlets cutting rhyolite, disseminations in rhyolite, and tin placer deposits. Several altered areas contain kaolin deposits.	At least 137,763 lbs of concentrate grading 15–60% tin produced. Kline Mountain clay deposit is estimated to contain more than 200 million tons of kaolin (non 43–101 historic resource). In 1969, 900 short tons were mined for absorbent.
DIS205, Tierra Blanca	Sierra	metals	1885	1885–1972	$270,000	Ag, Cu, Pb, Zn, Au, W	Te, asbestos, perlite	carbonate-hosted silver-manganese (Pb) replacment, sedimentary iron, volcanic-epithermal vein	Vein and replacement deposits in Silurian Fusselman Dolomite near the contact with Devonian Percha Shale. Some veins in Tertiary rhyolite.	No production 1955–1970.
DIS206, Abbe Spring	Socorro	metals	1870	1904	$1,000	Cu, Pb, Ag	Ba, Zn	volcanic-epithermal vein	Veins filling faults between Triassic Chinle Formation and Cretaceous Dakota Sandstone. Mineralized faults in Eocene Baca Formation.	—
DIS207, Bear Mountains	Socorro	metals	1983	—	$0	—	Ag, Sb, Zn, Cu	volcanic-epithermal vein	Veins in Oligocene La Jara Peak Basaltic Andesite along the Hells Mesa fault.	no production
DIS209, Cat Mountain	Socorro	metals	1870	—	$1,000	Ag, Cu, Au	F, Ba, W, U	volcanic-epithermal vein	Veins filling fissures in Oligocene Spears Formation and Permian Abo Formation. Also disseminated copper-silver mineralization in Oligocene Rockhouse Canyon Tuff.	—
DIS210, Chupadera Mountains	Socorro	metals	1900s	—	$0	—	—	volcanic-epithermal vein, carbonatite, REE-Th-U veins, Vein and replacement deposits in Proterozoic rocks	Fracture-filling zones in Proterozoic schist. Carbonatites.	no production
DIS211, Chupadero	Socorro	metals	1800s	1959–1960	<$1000	Cu, Ag	U, Ba, F, Pb	Rio Grande Rift copper-silver (uranium) vein, RGR, sedimentary-copper, Vein and replacement deposits in Proterozoic rocks	Sedimentary-copper deposits in Pennsylvanian Moya sandstone. RGR deposits in Precambrian granite and limestone.	—
DIS212, Council Rock	Socorro	metals	1881		$1,000	Pb, Fe, Ag	Ba, Mn, F, Cu, Zn, U	volcanic-epithermal vein	Veins filling faults in Oligocene Spears Formation. Highest grades at fault intersections.	Possible early Spanish workings.
DIS213, Hansonburg	Socorro	metals	1872	1872–1957	$1,700,000	Ag, Cu, Pb, Au, Zn, Fe, Ba	F, V, Mo	RGR	Veins and irregular bodies filling open spaces in karstified Council Springs Member of the Pennsylvanian Madera Limestone.	Combined with Carthage district of File and Northrop (1966) because of similar geology.
DIS214, Hook Ranch-Riley	Socorro	uranium	1950s	1954–1961	$40,000	U, V	coal	sandstone uranium, volcanic-epithermal vein, volcanogenic uranium	Roll-type sandstone uranium deposits are found along a paleosol formed at the top of the Crevasse Canyon Formation, just below the Eocene Baca Formation.	—
DIS215, Hop Canyon	Socorro	metals	1880	1913–1941	$1,000	Au, Ag, Cu, Pb	Zn, Ba, U, Fe	volcanic-epithermal vein	Veins in fissures and faults in Oligocene Hells Mesa Tuff, Sawmill Canyon Formation, and along rhyolite and mafic dikes cutting Hells Mesa Tuff.	—
DIS216, Jones	Socorro	metals	1900	1942–1943	$1,000	Fe	asbestos, zeolites	GPM-Fe skarn	Skarn deposits in Yeso limestone adjacent to monzonite dikes.	—
DIS217, Joyita Hills	Socorro	metals	1880	1915	$1,000	Ag, Pb, F	Cu, Ba, Mn	Rio Grande Rift copper-silver (uranium) vein, RGR, sandstone uranium	Veins in fissures in Proterozoic gneiss and along the contact of Proterozoic rocks with Oligocene volcanic rocks and Pennsylvanian and Permian sedimentary rocks.	—

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DIS218, Ladron Mountains	Socorro	metals	1868	—	$503,500	U, V, Cu, Pb, F, Mn, Ag	Zn, Ba, Mo, W, Au	Rio Grande Rift copper-silver (uranium) vein, RGR, Vein and replacement deposits in Proterozoic rocks, placer gold	Veins filling fissures in Proterozoic Capirote granite and Proterozoic metasediments. Copper-uranium veins along fault between Santa Fe Group sedimentary rocks and Capirote granite at the Jeter mine (NMSO0023).	—
DIS219, Lemitar Mountains	Socorro	metals	1880	—	$1,000	Cu, Pb, Ba, Ag, Mn, U	F, Zn, Ti, Nb, REE, Th	carbonatite, episyenites (metasomatites), REE-Th-U veins, RGR, Vein and replacement deposits in Proterozoic rocks	Veins with minor replacement along the unconformable contact of Proterozoic rocks and overlying Paleozoic sedimentary rocks, along the contact of Proterozoic mafic dikes intruding granite, associated with Ordovician carbonatite dikes, and in fissures in Paleozoic limestone.	—
DIS220, Luis Lopez	Socorro	metals	1910s	1942–1958	$276,000	Mn, Fe	Au, Ag, Zn, Pb, W, Ni, Co, Ba	epithermal manganese, volcanogenic uranium	Miocene to Pliocene manganese veins in Tertiary volcanic rocks.	—
DIS221, Magdalena	Socorro	metals	1866	1866–1970	>$46,000,000	Zn, Pb, Cu, Ag, Mn, Au, perlite	F, Ba, W, V, Mo, asbestos, garnet	carbonate-hosted Pb-Zn (Cu, Ag) replacment, volcanic-epithermal vein	Skarn, replacement, and vein deposits in Mississippian Kelly Limestone and in Pennsylvanian Sandia and Madera Formations associated with Tertiary Nitt stock.	Includes the Kelly mine, which is known for world-class smithsonite specimens. In 1904–1928, the district produced 42% of Zn and 34% of Pb mined in New Mexico.
DIS222, Mockingbird Gap	Socorro, Sierra	metals	1900	1934–1941	$4,000	Pb, Ba, F, Ag	Cu, Zn	Rio Grande Rift copper-silver (uranium) vein, RGR, Vein and replacement deposits in Proterozoic rocks	Veins filling faults between Proterozoic granite and quartzite and Paleozoic sedimentary.	—
DIS223, North Magdalena	Socorro	metals	1863	1957	$1,000	Ag, Pb, Ba, Cu, Au	V, Zn	carbonate-hosted Pb-Zn (Cu, Ag) replacement,volcanic-epithermal vein	Veins filling faults and fissures in Oligocene La Jara Peak Basaltic Andesite.	—
DIS230, Ojo Caliente No. 2	Socorro	metals	1900s	—	$1,000	Cu, Ag, Pb, U?	Au, Mn, Be	volcanic-epithermal vein, volcanogenic Be	Volcanic-epithermal veins and beryllium-bearing veins filling fissures in Tertiary andesite-latite flow in an intensely altered area.	The Beryllium Group, LLC controlled the Apache Warm Springs Be deposit in 2001–2002, drilled, and reported a resource of 43,060 short tons of Be.
DIS224, Rayo	Socorro	metals	1900s	1900s	$1,000	Ag, Cu	U, V	sedimentary-copper	Stratabound sedimentary-copper deposits in sandstones of the Permian Yeso Formation.	—
DIS225, Rosedale	Socorro	metals	1882	1882–1981	$500,000	Au, Ag	F, U, Cu, Mn	volcanic-epithermal vein, placer gold	Veins in faults cutting Oligocene South Canyon Tuff. Gold placers.	—
DIS226, San Jose	Socorro	metals	<1900	1900–1946	$40,000	Au, Zn, Pb, Cu, Ag	Mo, Mn	advanced argillic alteration, alunite, volcanic-epithermal vein, volcanogenic uranium	Veins in faults cutting Oligocene Spears Formation and Vicks Peak Tuff. Acid-sulfate alteration older than veins.	—
DIS227, San Lorenzo	Socorro	metals	1901	1901	$1,000	Cu, Ag	Au, U	sandstone uranium, volcanic-epithermal vein, volcanogenic uranium	Veins filling faults in middle Tertiary andesite.	—
DIS228, Socorro	Socorro	metals	1950s	1955–1963	$70,000	U, V	Cu	Rio Grande Rift copper-silver (uranium) vein, sandstone uranium	Uranium veins along faults.	—
DIS229, Socorro Peak	Socorro	industrial minerals	1867	1867–present	$11,000,000 (also $18,000,000 from smelter)	Ag, perlite, Pb, kaolin	Ba, F, W, V, Au, As, Br, Mn, Mo	volcanic-epithermal vein, perlite, smelter	Miocene veins filling faults in Miocene Socorro Peak Rhyolite and underlying Popotosa Formation. Some veins also cut Pennsylvanian Sandia and Madera Formations. Perlite only active mine in 2015.	Silver produced 1867-1900. Perlite produced 1949-2015. Possible pre-1867 Spanish workings. Billings smelter produced $18 million worth of Pb, Ag, Au. Socorro perlite mine was one of the first perlite mines in the US when it opened in 1949.
DIS231, Water Canyon	Socorro	metals	1868	1904–1956	$10,000	Cu, Pb, Au, Ag	Zn, Mn	carbonate-hosted Pb-Zn (Cu, Ag) replacment, volcanic-epithermal vein	Veins in volcanic rocks and skarn and replacement deposits in Mississippian Kelly Limestone. Veins filling faults between Proterozoic and younger rocks.	—
DIS232, La Cueva	Taos	uranium	1950s	—	$0	—	graphite, U, Be, mica, REE, Th, Au, Cu, Zn	Vein and replacement deposits in Proterozoic rocks, pegmatite, REE-Th-U veins	Quartz veins in Proterozoic granite.	no production
DIS233, La Virgen	Taos	metals	1826		$0		Cu, Ag, Pb, Zn, Au	VMS	VMS deposits in Proterozoic schists.	no production
DIS234, M.I.C.A.	Taos	industrial minerals	1959	1959–2004	$9,000,000	mica	—	mica	Mica produced from Proterozic muscovite quartz schist.	Probable early Pueblo Indian production. Reserves exceed 4 million short tons. Property turned over to the Picuris Pueblo.

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DIS235, No Agua	Taos, Rio Arriba	industrial minerals	1948	1950–present	>$10,000,000	perlite, scoria	—	perlite, scoria	Perlite and scoria produced for construction materials.	Includes the Cerro Montosa district of File and Northrop (1966).
DIS236, Picuris	Taos, Rio Arriba	metals	1900	1902–1955	$3,000	Au, Ag, Cu, W, turquoise, Be, Li, Ta, Bi, Nb, mica, feldspar, calcite	U, Sb, Cr, V, Ba, mica, Nb, Sn, sillimanite, kyanite, asbestos, pyrophyllite, garnet	Vein and replacement deposits in Proterozoic rocks, pegmatite, placer gold	Mineralized quartz veins, disseminated mineralization, and oxidized-copper mineralization filling fractures in Proterozoic Ortega Quartzite. Gold placers.	Mined lepidolite in 1919–1930, microlite in 1942–1947, and beryl in 1950–1958 from Harding mine (NMTA0015). Historic resources at Copper Hill (NMTA0014) are estimated at 46,500,000 short tons of 0.42% Cu.
DIS237, Questa	Taos	metals	1866	1918–2014	>$100,000,000	Mo	Be, F, Mn, Fe	alunite, porphyry molybdenum (tungsten)	Porphyry molybedenum deposit. Alunite found in altered areas.	Total production from Questa (NMTA0017) is >106 million short tons Mo with 442,000 contain tons Mo. Log Cabin (NMTA0496) 53,400 contained tons Mo.
DIS238, Red River	Taos, Colfax	metals	1826	1867–1956	>$100,000	Au, Ag, Cu, Pb, Zn, U	Mo, F, Te, Be, asbestos, Mn, Fe	alunite, placer gold, porphyry molybdenum (tungsten), Vein and replacement deposits in Proterozoic rocks, volcanic-epithermal vein	Miocene quartz veins in Proterozoic granitic rocks and Oligocene rhyolite, latite, and andesite of the Latir volcanic field. Along ring-fracture zone of Questa caldera. Gold placer deposits.	Possible Spanish mining prior to 1680. PGE reported but not confirmed (McLemore et al., 1998).
DIS239, Rio Grande Valley	Taos	metals	1600	1902–1935	<$20,000	Au	—	placer gold	Placer gold in the Rio Grande between Red River and Embudo	No significant resources remain.
DIS240, Twining	Taos	metals	1869	1880	$5,000	Au, Ag, Cu	Mo, Pb, Zn, Bi	Vein and replacement deposits in Proterozoic rocks, VMS	Quartz veins and disseminated mineralization in Proterozoic mafic gneiss.	Gold placer discovered 1869 in Rio Hondo.
DIS241, Chupadera Mesa	Torrance	metals	1900	1964–1975	$1,000	Fe	Cu, Ag	GPM (Fe skarn)	Iron deposits, either skarn or hydrothermal, adjacent to monzonite dikes and sills.	—
DIS271, Duran	Torrance	metals	?	—	<$100	Fe	Au	GPM (Fe skarn)	Iron deposits, either skarn or hydrothermal, in Yeso Formation adjacent to monzonite dikes and sills.	—
DIS242, Edgewood	Torrance	metals	?	—	<$1000	Ba	Ag, F, Pb	RGR	Barite-fluorite veins in Pennsylvanian Madera Formation.	—
DIS243, Estancia Salt	Torrance	industrial minerals	1581	1660–1920s	$1,000	salt	U, B, gypsum, Sr, Li, Mg	evaporite, salt, surfical uranium deposits, gypsum	Playa lakes surrounded by gypsum dunes.	Spanish found lakes in 1581. Prior mining by Pueblo Indians.
DIS256, Lobo Hill	Torrance	industrial minerals	1980	1990–present	<$10,000	aggregate	REE, U, Th	aggregate, carbonatite, episyenites (metasomatites)	Carbonatite and episyenites at aggregate quarry.	Limestone production occurred in the 1990s. Episyenites and metamorphic rocks quarried for crushed rock.
DIS244, Manzano Mountains	Torrance, Valencia	metals	before 1960	—	$0	—	Cu, Pb, Ag, Au, gems, talc	Vein and replacement deposits in Proterozoic rocks, gems, talc, volcanic-epithermal vein, VMS	Veins filling faults and shear zones in Proterozoic argillaceous metasediments.	No production.
DIS245, Pedernal Hills	Torrance	metals	?	—	<$1,000	Cu, Ag, Au	Fe, U, Th, REE	episyenites (metasomatites), Vein and replacement deposits in Proterozoic rocks, VMS	Veins filling fissures in Proterozoic granite and greenstones. Episyenites. Possible VMS (Roberts et al. 1986).	Berry mine produced unkown amount of Au, Ag, Cu.
DIS246, Scholle	Valencia, Socorro, Torrance	metals	1902, Spanish likely mined after 1629	1915–1961	$300,000	Cu, Ag, Au, Pb, Ra, limestone	U, V	sandstone uranium, sedimentary-copper, Vein and replacement deposits in Proterozoic rocks	Stratabound sedimentary-copper deposits in the Permian Bursum, Abo, and Yeso Formations. High Ca limestone near Abo Pass.	—
DIS247, Black Mesa	Union	metals	1900	1956	$500	Cu, Ag	U, V	collapse breccia pipe, sandstone uranium, sedimentary-copper	Mineralization in clastic plugs and sandstones in Triassic sandstones.	—
DIS248, Folsom	Union, Colfax	industrial minerals	1903	early 1900s–present	>$10,000,000	scoria	Au	placer gold, scoria	Gold reported in quartz stringers in Tertiary basalt. Small amounts of placer gold in Recent gravels of the Cimarron River valley. Large scoria deposits.	—
DIS269, Northeastern Union County	Union	uranium	1958	—	$0	—	U	limestone uranium	Uraniferous marlstones in Morrison Formation.	No production, Included as a district by McLemore and Chenoweth (1989).
DIS249, Peacock Canyon	Union	metals	?	—	$0	—	Cu, Au, Ag, U	sedimentary-copper	Stratabound sedimentary-copper deposits in sandstones of Triassic Chinle Formation.	No production.
DIS251, Mesa Aparejo	Valencia	industrial minerals	1950s	1961–present	>$1,000,000	travertine	—	travertine	New Mexico Travertine Inc. is currently producing travertine for dimension stone from the Lucero quarry.	—
DIS252, Romero Ranch	Valencia, Cibola	metals	1929	1929–1956	$3,000	Ag, Cu	U	sandstone uranium, sedimentary-copper	Stratabound sedimentary-copper deposits in limestones and conglomerates of Triassic Chinle Formation.	—

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