TABLE 6.7. Districts, Mines, and Prospects of Mineral County, Nevada

Name	Location	Commodity	Ownership	Discovery and history	Production	Workings	Geology	References
Silver Star District								
Annet group.	Several miles east of Marietta.	Barite.			None.	80-foot tunnel and several open cuts.	Barite in series of parallel veins; average width 6 feet.	Vanderburg (1937, p. 43–44).
Badger (Woodchuck?).	T. 5 N., R. 32 E.	Silver, lead.			$75,000.	300-foot adit.	Pyrite, galena, sphalerite, and chalcopyrite occur in breccia that strikes N. 70° W. ,dips steeply north in quartzite; silver:lead ratio 1:1.	W. F. Foshag (written communication, 1956); Hill (1915, p. 181).
Bernie and Bernie 2, 3.	T. 5 N., R. 34 E.	Tungsten.	L. B. Spencer, Mina, Nev.		None.	250-foot drift.	Drift in metavolcanic rocks of the Excelsior formation, face of drift nearly to Silver Dyke quartz vein system in August 1956.	
Birdsong.	T. 5 N., R. 33 E.	Gold, silver, lead.				200-foot drift, 50-foot shaft.	Quartz vein 2 inches to 2 feet thick in sandstone(?) strikes N. 60° W., dips 80° SW. Vein contains galena, anglesite, and cerussite.	Hill (1915, p. 180–181).
Black Hawk.	T. 5 N., R. 33 E.	Silver, lead.					Argentiferous galena in vertical vein striking N. 60° W. This property reportedly on continuation of Birdsong vein.	Hill (1915, p. 181).
Black Jack.	T. 6 N., R. 35 E.	Manganese, tungsten.		1916, by C. W. Ward.	Minor shipment of Mn in 1916.	Shallow pits and trenches.	Tungsten-bearing psilomelane, pyrolusite, and wad associated with calcite, gypsum, quartz, and chalcedony in fissure-filling veins a fraction of an inch to 2 feet thick in chert of the Excelsior formation; locally up to 3.5 percent WO_3.	
Defender, Dough God, Pine Crow 1.	T. 4 N., R. 32 E.	Tungsten.			Minor(?).		Disseminated scheelite in tactite interlayered with hornfels near a granitic contact; tactite masses few feet to 25 feet thick and exposed for strike length of few hundred feet; grade up to 2 percent WO_3 locally.	
Dispozitch (Disposish).	T. 5 N., R. 34 E.	Silver, lead, gold(?), copper.			$15,000.		4-foot-thick shear zone striking N. 70° E. and dipping 30° N. between granitic rock and quartzite(?); minerals include argentiferous galena, chalcopyrite, pyrite, linarite, brochantite, limonite, minium, chrysocolla, malachite, wad, and bindheimite, and occur in quartz stringers in the shear zone and disseminated in the sericitized wall rock.	W. F. Foshag (written communication, 1956).
Douglas group of veins (includes Grassi, Mary, Hardluck, Orphan Boy, Juniper, Snow Ball, Gem, Pepper, Roosevelt, Little Chief, Bounce, Oriole, and New Party veins). These properties constitute the Gold Range district.	T. 6 N., R. 34 E.	Gold, some silver.		1893, by T. Pepper, E. Grassi, D. J. Robb.	$500,000 (1893–1903). Total production about $2,000,000 according to Ferguson, Muller, Cathcart (1954).	Numerous adits and shafts on the several veins. Principal development on Bounce veins.	East-trending veins from a fraction of an inch to 13 feet thick consist of white, sugary quartz, adularia, and some calcite; veins contain gold and silver (Bounce, Snow Ball, Juniper, Mary, and New Party are examples). In another type, exemplified by the Roosevelt, free gold is present in crushed, hydrothermally altered andesitic rock.	Hill (1915, p. 176–179); Vanderburg (1937, p. 71); Ferguson, Muller, Cathcart (1954).
Endowment mine.	T. 5 N., R. 33 E.	Silver, lead.		Early 1860's.	Variously reported as: $1,500,000 (Lincoln); $150,000 (Vanderburg); and $75,000 (1877–1885) (Couch and Carpenter).	800-foot tunnel, 300-foot winze from tunnel and several other winzes.	Two veins whose width varies from several inches to 6 feet, and which strike southeast to east and dip south about 45° occur in quartzite, conglomerate, and argillite. Oxidized ores contain silver minerals with associated cerussite, smithsonite, and copper carbonates; the oxidized ore consists of galena, sphalerite, pyrite, and chalcopyrite.	Hill (1915, p. 176, 179–180); Lincoln (1923, p. 154); Vanderburg (1937, p. 42–43); Couch and Carpenter (1943, p. 106).
4-D group.	T. 4 N., R. 32 E.	Uranium?	Homer E. and Mildred G. Behm.			Older workings include incline on a steep N. 75° E. structure; newer workings, open cuts, gentle incline 100 feet long and 50-foot shaft.	Several small quartz veins strike N. 30° to 40° W., steep dip, also zones of alteration in the granitic wall rock of the newer open cuts; radioactivity only about twice background in the newer inclined shaft.	
General Tungsten Corporation.	14 miles southwest of Mina.	Tungsten.			Minor in late 1920's and early 1930's.	Two adits totaling 900 feet, a short shaft, and several open cuts.	Gold, silver as well as scheelite in quartz of the Silver Dyke vein system.	Vanderburg (1937, p. 74).
Moho mine.	T. 5 N., R. 34 E.	Gold, silver.		1903.	$75,000	One 1,200-foot tunnel, several shorter ones, and several shafts, deepest is 300 feet—about 3,500 feet of total workings.	Series of veins average 4 feet in width, dip 70° SE., strike N. 30° to 45° E. in metavolcanic rocks of the Excelsior formation; one vein traceable for 1 mile; ore is brecciated, bleached, silicified andesitic tuff in which chief values are free gold with some silver, and also lead in form of cerussite.	Vanderburg (1937, p. 40–42).
Pine Crow.	T. 4 N., R. 32 E.	Tungsten.					Wolframite and scheelite occur as high-grade streaks in quartz nodules in gouge in a fault that strikes north, and dips steeply west, and contains up to 6 inches of quartz and 5 feet of gouge.	
Red Stone 1 to 6? (Neva-Cal Mining Enterprise).	T. 5 N., R. 32 E.	Uranium.	E. T. Smith, Marietta, Nev.		None.	Open cuts.	Meta-torbernite(?) in north(?)-striking stringers in granitic rock.	
Rip Van Winkle.	T. 5 N., R. 33 E.	Silver(?), lead.					Crushed zone 2 to 4 feet thick striking N. 50° W., dipping 60° SW. that contains galena and cerussite.	Hill (1915, p. 181).
Rutty group.	1½ miles north of Marietta.	Gold.		1910, by Joe Rutty, Marietta, Nev.		Total of about 4,000 feet includes 4 adits.	Small, munchy ore bodies occur in fractures in limestone, values chiefly in gold.	Vanderburg (1937, p. 43).
Silver Dyke.	T. 5 N., R. 34 E.	Tungsten.	Joe Kauffman, Mina, Nev.	1916, by C. W. Noble.	$1200,000 (1916–1938).	Several thousand feet of workings on several levels.	The Silver Dyke veins consist of fine-grained quartz, which is mostly massive at depth but comby or banded near the surface and in part pseudomorphic after tabular calcite. The veins, first worked for silver, contained near the surface a very finely divided telluride mineral in porcelain-like banded quartz, with a little free gold. At shallow depth this ore gave place to ore containing scheelite. The veins are chiefly in rocks of the Excelsior and Dunlap formations, and in diorite of unknown age, but intermediate volcanic rocks of probable post-Esmeralda age are also cut.	Kerr (1936, p. 8–67); Ferguson, Muller, Cathcart (1954); Vanderburg (1937, p. 74–75); Couch and Carpenter (1943, p. 107).
Silver Gulch.	T. 5 N., R. 33 E.	Silver, lead.			Few thousand dollars.	3 adits totaling 500 feet.	Barite stringers in chert conglomerate contain argentiferous tetrahedrite and galena, also brochantite and linarite.	W. F. Foshag (written communication, 1956).
Silver Moon 36.	T. 4 N., R. 32 E.	Uranium.	W. M. Patterson, Lakeport, Calif.			Small open cuts and one short adit.	Thin, limonite-stained quartz veins in granitic rock; fraction of inch thick and several inches to 2 feet long; material from pods cause a count as high as 0.7 mr/hr (background of 0.03 mr/hr).	
Sunday claims.	T. 5 N., R. 32 E.	Uranium.	(8 co-owners, mostly from the southern California area.)	October 1954.	None.	Small pits.	Numerous iron-stained seams in Tertiary andesite breccia; seams locally carry euhedral crystals of meta-torbernite. Counts as high as 0.2 mr/hr near faces with meta-torbernite crystals (pit background is 0.06 mr/hr).	
Tungsten Dike group.	Uncertain.	Tungsten.				190-foot adit, short shaft, and several open cuts.	Gold and silver as well as scheelite in quartz of the Silver Dyke vein system.	Vanderburg (1937, p. 75).
.....	T. 4 N., R. 32 E.	Uranium?			None.	Open cuts and extensive bulldozer scraping.	Copper-stained quartz veins and stringers in clastic rocks of the Dunlap formation. No radioactive material or abnormal radioactivity was observed.	
.....	T. 4 N., R. 32 E.	Uranium.			None.	Open cuts.	Small quartz stringers few inches wide, several feet long, exposed in road cut; these iron-stained stringers are locally radioactive. (Counts as high as 0.2 mr/hr, background 0.03 mr/hr). Stringers strike N. 60° W., and dip steeply.	
.....	T. 5 N., R. 34 E.	Sericitic clay.			A least 15,000 tons.	Open cuts.	Hydrothermal alteration has formed finely divided sericitic clay in andesite, probably along one or more faults.	Vanderburg (1937, p. 77).

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TABLE 6.8. Districts, Mines, and Prospects of Mineral County, Nevada

Saline Playa Deposits and Properties Not in Districts

Name	Location	Commodity	Ownership	Discovery and history	Production	Workings	Geology	References
Saline Playa Deposits								
Double Springs Marsh.	8 miles east of Schurz. T. 13 N., Rs. 29, 30 E.	Sodium carbonate.		About 1898, Occidental Alkali Co. produced a considerable amount of high-grade soda.	Unknown.	Surface operations.	Elliptical dry lake; 500 acres covered with saline deposit averaging 6 inches in thickness. Average composition of surface materials: sodium carbonate, 20 percent; sodium bicarbonate, 25 percent; sodium sulfate, 15 percent; sodium chloride, 10 percent; water, 15 percent; sand and insolubles, 15 percent.	Vanderburg (1937, p. 27–29).
Rhodes Salt Marsh (Virginia Marsh).	T. 5 N., R. 35 E.	Sodium chloride, borax, sodium sulfate.		First worked in 1860's, when exploited for salt which was shipped by camel to Virginia City for use in extracting silver and gold from the Comstock ores. In 1870's borax was discovered and much "cotton ball" (ulexite) was recovered until discovery of more easily recovered deposits at Death Valley. Also prospected for potash but content of brines too low. In late 1920's and early 1930's sodium sulfate produced from mirabilite and thenardite.	Salt production unknown. Borax: 1884–1888, $87,000. Sodium sulfate; 1932–1934, $113,000.	Surface operations.	Saline playa deposit containing halite, ulexite, mirabilite, thenardite, potash, trona, and glauberite.	Vanderburg (1937, p. 64–66); Couch and Carpenter (1943, p. 106).
Teels Marsh.	8 square miles in two townships, south of Marietta. T. 4 N., Rs. 32, 33 E.	Sodium chloride, borax.		First worked in 1860's for salt for chlorination plants at Aurora, Comstock, and Candelaria. About 1872 borax found by F. M. and J. P. Smith (first discovery of borax in Nevada); borax produced steadily until 1892 when Death Valley deposits discovered.	Salt production unknown. Borax: $855,000 (1875–1891).	Surface operations.	Playa deposits containing chlorides, sulfates, carbonates, bicarbonates, and borates of sodium and potassium. Magnesia and lime present in small amounts.	Vanderburg (1937, p. 77–78); Couch and Carpenter (1943, p. 107).
Properties Not in Named Mining Districts								
Copper King 1 to 12.	T. 3 N., R. 33 E.	Copper.	John Hiser, Andy Drumm; Fallon, Nev.			Adit with stopes to surface along a 300-foot segment of the adit.	Three or four 1- to 4-foot-thick, copper-stained quartz veins and breccia layers over a 100-foot width; veins and breccia layers parallel bedding in chert, limy standstone, and limestone of Ordovician age.	
Hefler Tungsten mine (Homestead, Hilltop, and Hillside claims).	T. 6 N., R. 26 E.	Tungsten.	W. J. Hefler, G. L. Birks; Reno, Nev.		Few tons of ore shipped in 1953.	70-foot adit, and several small pits and trenches.	Tactite zone up to 3 feet thick appears to lie along a fault in meta-andesite; strikes somewhat east of north and dips nearly vertical; scheelite present in minor amounts.	
Lucky Four.	T. 11 N., R. 30 E.	Tungsten.			Small production in late 1930's and early 1940's.	Two shallow shafts, several hundred feet of drifts, and number of shallow pits and trenches.	Disseminated scheelite in tactite replacing limestone near a granitic contact; maximum grade 1 percent WO_3.	
Poinsettia property.	T. 11 N., R. 33 E.	Mercury.	V. S. Baxter, Fallon, Nev.	1929(?).	None.	175-foot drift and other level workings, as well as small pits, and a shaft.	Cinnabar occurs in high-grade lenses and veinlets in and adjacent to a fault zone that strikes N. 65° W. and dips 85° N. Pyrite, chalcedony, gypsum, sulfur, and clay associated with the cinnabar; country rock is altered andesitic tuffs and other volcanic rocks.	Bailey and Phoenix (1944, p. 132–133).
Qualley mine (Excelsior Mountain Co., Amalgamated Copper Co.).	T. 5 N., R. 31 E.	Tungsten, copper.	G. A. Peterson, Hyman Werner.	Original location in 1882, relocated for Cu in 1903.	None.	1,900-foot drift and other level workings, as well as small pits, and a shaft.	Ore zone 1 to 10 feet thick along a mineralized fault that contains pyrite, chalcopyrite, and thin seams of scheelite in quartz and hornfels gangue; country rock is calc-hornfels, siliceous hornfels, and dioritic rocks.	Lincoln (1923, p. 157).
Walker Lake prospect.	T. 12 N., R. 28 E.	Iron.	Mrs. Bessie Sutter, Hawthorne, Nev.		None.	Several small pits and 50-foot adit.	Magnetite in veinlets and small bunches scattered through a large area of epidotized metavolcanic rock, probably localized in part along faults.	Reeves, Shawe, Kral (1958).
"Giroux barite."	T. 3 N., R. 34 E.	Barite.	L. D. and R. J. Giroux.		Some production in 1956.	Open pit.	Across a 40-foot-width barite and some chert for a strike length of at least 300 feet (N. 80° W., 55° to 60° SW.); to the west the barite thins and strings out; country rock is Ordovician chert.	
Unknown.	T. 12 N., R. 31 E.	Tungsten.			None.	Small open pits.	Minor amounts of scheelite in tactite in an inclusion of limestone, 50 by 200 feet in exposed area, in granitic rock.	
Regan mine.	T. 12 N., R. 27 E.	Gypsum.			Some production, amount unknown.	Open pit, 200 to 300 feet across, 30 feet deep.	Gypsum, apparently a bedded deposit, associated with limestone, shale, chert, and epidotized diorite; probably Excelsior in age, but relations uncertain. Gypsum may be several hundred feet thick, but extent apparently limited.	

TABLE 6.5. Districts, Mines, and Prospects of Mineral County, Nevada

Name	Location	Commodity	Ownership	Discovery and history	Production	Workings	Geology	References
Regent District								
Eagle mine.	T. 13 N., R. 33 E.	Gold.		1882, by A. A. Woodruff.	$50,000 (estimate of Schrader).	Crosscut at least 750 feet long.	Two quartz veins striking northwest, 3 and 20 to 30 feet thick, respectively, dip steeply and contain much barite as well as gold in iron-stained parts.	F. C. Schrader (written communication, 1956).
Foster prospect.	18 miles east of Schurz. T. 13 N., R. 31 E.	Iron.	Steve and Lee Foster, Schurz, Nev.		None.	Several small adits and pits; old shaft 256 feet deep on a copper prospect, inaccessible.	Mostly magnetite with some hematite along contact between limestone and diorite.	Reeves, Shawe, Krai (1958).
Happy Return.	3½ miles northeast of Rawhide.	Antimony.	A. F. Techel, W. R. Techel, Rawhide, Nev.; J. Martense, H. Katsdever, Reno, Nev.		Small.		Vein up to 1 foot thick in granitic rock strikes N. 80° E., dips 65° N. over a known length of 90 feet. U. S. Bureau of Mines samples contained 6.8 to 10.8 percent Sb.	D. E. White (written communication, 1956).
Highland group.	?	Barite.			Small shipments of gold and silver have been made from this property, as well as at least 9,000 tons of barite that was shipped in 1929–1930.	Three shafts, 2 adits; deepest shaft is 200 feet and workings total about 3,500 feet.	Barite occurs in fissure vein ranging in width from 6 inches to 8 feet; vein can be traced on surface for 2,700 feet.	Vanderburg (1937, p. 29).
Hooper No. 1.	T. 13 N., R. 32 E.	Tungsten.		During World War I.	About 5,000 units in late 1930's and 1940.	100-foot shaft, 200-foot drift, and extensive stopes between drift and surface.	Scheelite-bearing tactite developed from limestone along bend in granitic contact; in area of much faulting.	
Hooper No. 2.	T. 13 N., R. 32 E.	Tungsten.			Minor.	110-foot inclined shaft, 140-foot drift and short winze.	Workings follow tactite layer in hornfels that strikes N. 40° E. and dips 60° S.; tactite is 1 to 10 feet thick, and scheelite is erratically distributed within the layer.	
Kenyon Claims?	T. 13 N., R. 33 E.	Quartz crystals (optical quality).	Tom Kenyon Estate, Ira Kenyon, Executor, Fallon, Nev. (1943).		Unknown, if any.	Numerous prospect pits.	Quartz vein no more than 4 feet thick with crystals as much as 6 inches by 12 inches; some smaller fragments are of optical quality. Vein nearly parallels surface and prospect pits have been dug through it to prospect underlying garnet-epidote tactite for scheelite.	
King Claims (Donnelly group).	T. 13 N., R. 34 E.	Gold, silver.	Mrs. Fred Donnelly, Hawthorne, Nev.	Minor strike in 1926 brought 100 men into the district, but no important development; production very minor.		Several shafts, and other scattered workings.	Quartz veins of unknown attitude in volcanic rocks of the Excelsior formation; individual veins, small and low grade; with values in Au, Ag as well as Pb and Cu.	Vanderburg (1937, p. 39–40).
Nevada Scheelite Mine.	T. 13 N., R. 32 E.	Tungsten.	Nevada Scheelite Corp., subsidiary of Kennametal Inc.	1930, by W. H. Leonard.	277,000 units (1937 through 1956).*	Shaft to 500 feet with 6 levels, about 6,000 feet of workings plus stopes.	Scheelite-bearing tactite bodies as much as 50 feet thick occur along contact between limestone and granitic rock; much tactite is oxidized to a rock rich in limonite that locally contains several percent of WO_3 in the form of ferritungstite.	
Rawhide: Properties in vicinity of town of Rawhide include: Morning Star, Rawhide Victor, Seminole-Regent, Mascot, Bullskin Mountain 1, Silver Zone, Bethania, Black Eagle, Poor Boy, Wash Vein, Gold Reef, Royal, Flynn, and Nevada New Mines.	All properties close to Rawhide. T. 13 N., R. 32 E.	Gold, silver.		Discovered in 1906; rush in 1908 brought 4,000 people to Rawhide, no large mines developed, most production from leasing operations (as many as 50 at a time in early days).	$1,000,000 Au; $450,000 Ag (1908–1935).	Many miles in aggregate from many workings. Schrader in his field notes (written communication, 1956) reports 17 miles of workings from Nevada New Mines.	Quartz veins and lodes in kaolinized rhyolite. Ore minerals, native gold alloyed with silver, argentite, and cerargyrite. Veins generally strike N. 30° W. to N. 30° E. and dip moderately to steeply to southwest and northwest. Some gold recovered by dry wash placer method south and southwest of Rawhide.	Lincoln (1923, p. 151–152); Vanderburg (1937, p. 58–61).
Rawhide tungsten property (Crescent, Elizabeth, Nugget, Oscar, Last Hope claims).	T. 14 N., R. 32 E.	Tungsten.	W. H. Strand, Fallon, Nev.; R. H. Sheehy, Carson City, Nev.	1947, by W. H. Strand.		400-foot adit and small pits.	Scheelite occurs sparsely in tactite replacing limestone intruded by granitic rocks; mostly low-grade, but locally as much as 0.4 percent WO_3.	
Rovada Mining Co.	4 miles south of Rawhide Hot Springs.	Gold.			Small shipments in 1936.			Vanderburg (1937, p. 29).
Scheelite Extension mine.	T. 13 N., R. 32 E.	Tungsten.	Corwin and Rush Mining Co.		A few hundred units.	200-foot shaft and several hundred feet of workings on 5 levels.	Scheelite sporadically distributed in tactite associated with marble and calc-hornfels in a tabular inclusion in granitic rock; scheelite also present locally in quartz stringers in nearby granitic rock.	
Stockton property.	T. 13 N., R. 31 E.	Mercury.	W. W. Stockton.	1929.	None.	165-foot adit.	Disseminated cinnabar and cinnabar veinlets in rhyolite tuff where it is patchily altered to opalite.	
Sunnyside (Great Eastern).	T. 13 N., R. 33 E.	Gold, silver.	Tom Kenyon (1936).	1874, by R. Flynn.	Occasional shipments in mid-1930's.		Free gold, horn silver, argentite, chrysocolla, and malachite in quartz in Excelsior formation(?) near granitic rock.	Vanderburg (1937, p. 29), F. C. Schrader (unpublished field notes).
Yankee Girl.	T. 13 N., R. 32 E.	Tungsten, formerly gold, copper.	Leo and Eugene Grutt (early 1940's).	1907, Gould.	Minor.	200-foot drift, short raises, and winzes.	Drift explores a series of marble xenoliths along a contact of hornfels and granitic rock; locally as much as 1 percent of scheelite sporadically distributed.	

*Production figures published with permission of Nevada Scheelite Corp.

TABLE 6.6. Districts, Mines, and Prospects of Mineral County, Nevada

Name	Location	Commodity	Ownership	Discovery and history	Production	Workings	Geology	References
Santa Fe District								
Atom-Lorna.	T. 7 N., R. 34 E.		F. O. and H. C. Gilbert, Percy Coleman; Luning, Nev.			Inclined shaft, and considerable workings.	Pyrite, galena, sphalerite in limestone.	
Blue Jacket Claims.	3½ miles west of U. S. Highway 95, 1 mile south of Luning.	Tungsten, copper.		Originally a copper prospect.	None.	Short inclined shaft.	As many as 6 tactite layers, each 1-foot thick, over a width of 50 feet in limestone that is intruded by a fine-grained granitic rock. Locally scheelite is present in small amounts; chrysocolla, azurite, and malachite, as well as pyrite also are present; much iron and manganese staining.	
Blue Ribbon 6, 7.	T. 7 N., R. 34 E.	Copper.	C. F. Noble, Mina, Nev.			Line of open pits trace strike for several hundred feet.	Copper-stained and silicified zone, 6 to 10 feet thick, striking N. 60° W., and dipping 60° NE., in limestone of the Luning formation.	
Champion-Anderson group.	T. 8 N., R. 35 E.	Copper.			3,000 tons of 5 percent Cu, (1915–1916).	400-foot shaft and several levels totaling several hundred feet.	Copper carbonate minerals in silicate zone developed in limestone near granitic rocks; ore in irregular chimneys and masses of garnetized rock, and commonly associated with faults where not occurring along granitic rock contact.	Clark (1922, p. 56–57).
Conquest marble placer claim.	T. 8 N., R. 35 E.	Marble (crushed).	Harry Marshall, Colfax, Calif.			Small open pit and crushing plant.	Varicolored marbleized limestone of the Luning formation.	
Copper Chief 1, 2.	T. 7 N., R. 36 E.	Copper?, tungsten?	C. F. Noble, L. E. Cornelius; Mina, Nev.		Unknown.	Abundant bulldozer scrapings and several small inclines and adits.	Tactite with chalcopyrite and oxide copper minerals developed along an irregular contact of limestone and granitic rock; also some tactite developed in limestone some distance from the granitic rock contact.	
Copper Head.	T. 8 N., R. 35 E.	Tungsten?, or copper?	F. A. Notterman, R. Graetz, A. B. England, R. O. Wright.			Adit more than 300 feet long.	Dump material is tactite, rich in epidote, light-colored garnet, and coarse calcite; some copper staining.	
Copper Queen (Emma and St. Patrick claims).	T. 8 N., R. 35 E.	Copper.			Several hundred tons shipped.	Several adits, a shaft, and several small open cuts.	Claims extend for several thousand feet along a tactite zone between granitic rock and limestone; oxide and carbonate copper minerals, as high as 8 percent Cu, locally.	Clark (1922, p. 60–61).
Eagle.	T. 8 N., R. 35 E.	Tungsten.	Bernard York (1952).		Unknown.	400-foot drift with stopes as much as 100 feet high, locally to surface.	Scheelite-bearing tactite up to several feet thick along contact of limestone and granitic rock; tactite traced for at least 1,000 feet along this contact by pits. Contact is northwesterly, dips steeply southwest. Copper staining locally prominent in the tactite.	
Emma.	T. 8 N., R. 35 E.	Tungsten.	R. C. Peterson, Mina, Nev.	(Probably old Copper Queen, Emma claims are part of this property)?	Unknown.	Small pits, an old shaft, and an adit of unknown length.	Scheelite-bearing tactite in marble near a granitic contact, also much copper staining and locally pyrite and chalcopyrite are abundant.	
Giroux group (Calavada?).	T. 8 N., R. 35 E.	Copper.			Small shipment in 1916.	1,000-foot shaft and unknown amount of underground workings.	Tactite and silicate zone at contact between granitic rock and limestone; oxidized ore as deep as shaft, with copper carbonates in heavy limonitic gossan; considerable faulting along the contact zone.	Clark (1922, p. 61).
Hartwick property.	3 miles southwest of Luning.	Antimony.	John Hartwick, Luning, Nev.			Few shallow pits.	Antimony ore in limestone near a granitic contact; ore reportedly runs 20 to 60 percent Sb and carries also gold, silver, and lead.	D. E. White (written communication, 1956).
Houghton-O'Boyle. (Copper King group).	T. 7 N., R. 34 E.	Copper, tungsten.		First located by Houghton as a low-grade copper deposit.	Minor in both Cu and W.	Two inclined shafts, each about 80 feet deep.	Shafts follow silicified zone about 4 to 5 feet thick in limestone; abundant iron stain and stringers and veinlets of quartz. Scheelite scattered and locally up to 4 percent WO_3 in crystals up to ¼-inch long; garnet only locally present.	
Ideal mine.	T. 8 N., R. 35 E.	Copper.				335-foot inclined shaft, and at least 2 levels.	Copper sulfides and carbonates in silicate zone along granitic contact with limestone.	Clark (1922, p. 56).
Iron Butte.	T. 8 N., R. 35 E.	Iron.	C. E. Sullivan and Leland Casey; Mina, Nev.	1950.	None.		Magnetite with some hematite found in tactite and limestone along contact of limestone of the Luning formation and granitic rock; ore zone 50 feet long and 10 to 40 feet wide appears to be a replacement of a favorable bed; a chip sample across 40 feet assayed 58.8 percent Fe.	Reeves, Shawe, Kral (1958).
Iron Gate mine (Saddle, Iron Gate, Velvet claims).*	T. 8 N., R. 35 E.	Iron.	Mark M. Butler (lessee).		8,000 long tons of ore averaging 59 percent Fe (1951–1952).	Open pit.	Hard, dense hematite occurs in replacement bodies and small veins in dolomite of the Luning formation; maximum extent of deposits 1,000 feet by several hundred feet.	Reeves, Shawe, Kral (1958).
Jasper group (Contact).	T. 8 N., R. 36 E.	Tungsten, copper?	C. E. Sullivan, Leland Casey.		Probably none.	Several pits and bulldozer scrapings.	Oxidized Cu minerals in tactite developed from limestone.	
Jeep group.	T. 7 N., R. 34 E.	Copper.	A. C. Wherry, O. M. Mills.		None.	100-foot crosscut to mineralized zone.	Two veins about 50 feet apart, one 6 feet thick and the other 1 foot thick, consist of copper-stained quartz and calcite; both strike about N. 60° E. and dip steeply to the northwest.	
Kay group.	T. 7 N., R. 34 E.	Copper.	G. F. Kleist, E. L. Nelson.			Short adits and shallow pits.	Copper-stained quartz veins up to 1 foot thick, generally concordant with gently dipping limestone.	
Kope Scheelite mine (probably same as Morning Star silver-lead mine).	T. 7 N., R. 36 E.	Tungsten?, silver, iron?				100-foot shaft and connected short adit; another shaft of unknown depth.	Dump material is soft iron-rich and cherty silicified material and marble.	
Mayflower (Mastodon).	T. 8 N., R. 35 E.	Copper.					Contact metamorphic deposit; silicate zone, 75–100 feet wide, contains copper carbonate stringers.	Clark (1922, p. 57).
Santa Fe.	T. 9 N., R. 34 E.	Silver, lead.		1879, had been long abandoned by 1922.	More than $50,000.	300-foot gentle incline, and several hundred feet of workings on several levels.	Fissure vein, 3 to 20 inches wide, in hornblende quartz diorite, strikes N. 60° W., dips 30° NE.; vein material mostly quartz with some pyrite, tourmaline, and silver-lead minerals.	Clark (1922, p. 62–63).
Smith property.	5 miles east of Luning (no road to property).	Antimony.	Chris Smith, Hawthorne, Nev.			Two surface cuts.	Vein 4 feet thick, in dark limestone; 3 feet is low grade, but 1 foot nearest footwall assays 50 to 60 percent Sb. Antimony mineral is stibnite.	D. E. White (written communication, 1956).
Todd mine (Luning Gold mine).	T. 8 N., R. 34 E.	Gold, silver, lead.				150-foot shaft and several hundred feet of workings on Nogal vein. 100-foot incline and additional workings on Red vein.	Nogal vein: Strike N. 60° E., dip 70° SE., 4 inches to 2 feet thick, largely iron- and copper-stained quartz containing cerussite, galena, and tetrahedrite in granitic rock. Red vein: Strike N. 40° W., dip 50° SW., fracture zone in limestone; ore is iron-stained quartz carrying $10 to $40 a ton in Ag and Au (ore is an irregular replacement along the fracture).	
Tungsten Dyke (Poorman and Poorman 1, Eagle Pass, and Storm Cloud claims).	T. 7 N., R. 34 E.	Tungsten.	Marty Vidovich.			Two adits totaling a few hundred feet, and small pits.	Scheelite-bearing tactite stringers in limestone of the Luning formation.	
Wallstreet and Turk mines.	T. 8 N., R. 35 E.	Copper.			$356,000, from 23,000 tons in 1916–1918.	Developed by several adits and 430-foot shaft; total underground workings unknown, but probably about 2 miles.	Fissure vein and breccia zone in limestone; malachite, chrysocolla, azurite, and cuprite occur in easterly-striking 30-foot vein.	Clark (1922, p. 58–59); Couch and Carpenter (1943, p. 106).
Wedge Copper mine.	T. 8 N., R. 35 E.	Copper.				200-foot adit, raise to surface.	Adit follows a silicate zone, 15–20 feet thick, along a contact of limestone with granitic rock; replacement deposits small, and nearly all primary sulfides.	Clark (1922, p. 59–60).
Western Metals Co., Inc.	T. 8 N., R. 35 E.	Tungsten.	Max E. Swanger, Dyer, Nevada.			Shallow open pit 100 by 100 feet.	Scheelite-bearing tactite in lenses several feet thick along favorable beds of limestone away from a discordant granitic contact; limestone strikes N. 80° W., dips 60° NE, granitic contact essentially north-trending.	
Windup claim.	T. 7 N., R. 34 E.	Tungsten.			Unknown, small.	Two inclines totaling 130 feet and a 450-foot adit.	Scheelite disseminated in limestone, along with azurite and malachite.	
York mine.	T. 8 N., R. 35 E.	Tungsten.	Bernard York, Mina, Nev.			Several small pits and adits.	Scheelite-bearing lenses and layers in limestone adjacent to granitic rock contact; some scheelite very coarse.	

*The only mines in operation in Mineral County as of publication date were the Iron Gate and the Sullivan mines, the latter a new mine owned by P. Sullivan and located 24 miles southeast of Luning. Both properties, under lease to W. Austin, were producing small quantities on ore.

TABLE 6.3. Districts, Mines, and Prospects of Mineral County, Nevada
Garfield, Hawthorne, Mt. Grant, and Mountain View Districts

Name	Location	Commodity	Ownership	Discovery and history	Production	Workings	Geology	References
Garfield District								
Bataan, Mabel and Mollie claims (Farrington and Gilbert mine).	T. 7 N., R. 33 E.	Tungsten, copper.		1915–1916, worked for Cu; in 1943 scheelite found by F. and L. Gilbert.	Some Cu produced in 1916?		Disseminated scheelite in tactite and limonitic gossan in sheared limestone; generally low grade: 0.2 to 0.8 percent WO_3.	
Garfield mine (Blue Light, Great Western, Atherton, Eldorado Mining Co.).	T. 7 N., R. 33 E.	Silver, gold, lead.		1882, by Joshua Mass, Amos Everson.	References vary: $550,000 from 1884–1933 (Couch and Carpenter, 1943); more than $6,000,000 from 1880–1887 (Lincoln, 1923); several million in shipping ore (Vanderburg, 1937).	Extensive, about 2 miles, entry by 2,500-foot adit.	Three interlacing veins in volcanic rock and limestone: veins range in thickness from 3 inches to 9 feet.	Lincoln (1923, p. 144); Vanderburg (1937, p. 33); Couch and Carpenter (1943, p. 105).
Mabel mine.	T. 7 N., R. 33 E.	Silver, gold, lead.			$745,000 from 1922–1940.	650-foot shaft and levels at 100-foot intervals.	Much-faulted veins occur along a nearly vertical east-trending shear and range from 3 inches to 3 feet in thickness; veins mostly rusty quartz in chert and quartzite, and contain pyrite, galena, and sphalerite; veins commonly oxidized to cavernous quartz with limonite and cerargyrite, native silver, jarosite, anglesite, chrysocolla, and malachite.	Couch and Carpenter (1943, p. 105); Vanderburg (1937, p. 34–35).
Marble Quarry.	T. 7 N., R. 33 E.	Decorative stone.			Small, if any.	Small open pit.	Marble of Luning formation, quarried for decorative stone.	
Hawthorne District								
Amalgamated Uranium Co. (Carol R. claim).	T. 8 N., R. 32 E.	Uranium.	H. E. and W. R. Lyle, Hayward, Calif. and Hawthorne, Nev.; and D. S. Baker, Mountain View, Calif.	1954 (August).	None.	Open pit and smaller pits and bulldozer scrapings.	Carnotite in stains and streaks chiefly on bedding planes in tuffaceous sandstone underlying basalt. A grab specimen that appeared to be rich in the yellow to orange carnotite contained 0.40 percent U_3O_8 (chem.). (Highest radioactive readings in the pit were 0.6 mr/hr with a background of 0.03 to 0.05 mr/hr).	
Ashby Gold Mines Inc.	T. 7 N., R. 32 E.	Gold, minor silver.	J. H. Miller, H. S. Babbitt, G. A. Ashby; Hawthorne, Nev. (mid-1930's).	1933, by Ashby, operated from 1934–1938.	$38,000 (1934–1937).	Ten steeply inclined shafts, deepest about 200 feet; total of about 2,000 feet of underground workings.	A series of steeply dipping quartz veins from 6 inches to 6 feet thick, strike N. 10° to 35° W., in altered volcanic rocks of the Dunlap formation which are cut by aplite; veins carry free gold, pyrite, and minor silver.	Vanderburg (1937, p. 11–13); Couch and Carpenter (p. 105).
Crystal claim.	13 miles east of Hawthorne.	Barite.			Considerable barite shipped to Pacific Coast in 1916–1919.	Three shallow shafts and trenches.	Nearly vertical barite vein exposed by trenches and open cuts for about 800 feet; width from 3 to 8 feet; barite associated with Cu minerals locally.	Vanderburg (1937, p. 39).
Gypsy claim (Silver Star Tungsten-Copper).	T. 7 N., R. 32 E.	Tungsten.	E. C. and Helen Kaylor (1942).		None.	30-foot adit and small pits.	Small lenses of tactite and pods of quartz and limonite contain scheelite and oxidized Cu minerals; occur in marble at and near a granitic contact. Locally as much as 0.5 percent WO_3 and 2 percent Cu.	
King David prospect.	T. 8 N., R. 32 E.	Iron.	E. Ferretti, Joe Malatesta, William Rea; Hawthorne, Nev.		None.	Remnants of older workings for Cu.	Mainly magnetite and hematite occurring sporadically in limestone over a 150 by 100-foot area (this is an area of limestone, tuff, greenstone, and chert of the Excelsior formation). Jaspery gossan, associated with copper ores, has been prospected for iron.	Reeves, Shawe, Kral (1958).
La Panta.	T. 7 N., R. 32 E.	Gold.		Worked in 1880's.	$300,000 (estimated).	Shaft at least 500 feet, also an inclined shaft, a drift, and a series of stopes to surface from the drift.	Prominent siliceous gossan-like zone up to 30 feet wide is traceable for several hundred feet; strikes N. 25° W., dips 30° to 45° NE. and is parallel to bedding of limestone, which it replaces in irregular fashion; ore is free gold in a gangue rich in iron oxide.	Vanderburg (1937, p. 38); Hill (1915, p. 156–157).
Lemr prospect.	T. 7 N., R. 30 E.	Tungsten, silver.	Thole Lemr, Hawthorne, Nev.	1870's, first worked for silver.	Unknown amount of Ag in 1870's and minor W in recent years.	Small adits and pits are the only recent work; most are old caved silver workings.	Tactite containing scheelite and locally sphalerite and argentiferous galena in inclusion of Excelsior formation(?) in granitic rocks.	
Lowman mine (Mary E. mine).	T. 7 N., R. 32 E.	Antimony, lead(?)	A. B. Lowman, Glendale, Calif.; L. M. Beard, Hawthorne, Nev.		42 tons of 7 percent antimony ore in 1932.	Inclined shaft, 100 feet long, a vertical shaft, and short adit.	Quartz vein in limestone and volcanic rocks of the Dunlap formation; vein strikes north and dips 40° E.; chief ore mineral is bindheimite.	D. E. White (written communication, 1956).
Lucky Boy (Mountain King).	T. 7 N., R. 30 E.	Silver, gold, lead.	J. H. Miller, Hawthorne, Nev. (1936).	1906, by G. E. Pritchard while working on Lucky Boy Road.	$1,000,000 (1907–1911).	950-foot shaft, 6,400-foot adit and about 2 miles of other workings and several shafts.	Vein from 4 inches to 8 feet wide in irregular fracture, strikes N. 80° to 85° E., and dips 65° to 70° S. in greenstone and marble of the Excelsior formation near granitic intrusive contact. Ore in small lenses and large shoots; minerals include tetrahedrite, galena, sphalerite, argentite, pyrargyrite, and pyrite; oxidized minerals chiefly linarite and brochantite. Abundant antimony-bearing minerals encountered in one adit.	Hill (1915, p. 153–155); D. E. White, (written communication, 1956).
Malatesta claims?	T. 7 N., R. 32 E.	Quartz crystals (optical quality).	Joe Malatesta, Hyman Werner, G. A. Peterson (1943).		Minor, if any.	Numerous prospect pits.	Quartz veins from several inches to 2 feet thick cut a shear zone along a contact between granitic rocks and limestone of the Luning formation. Largest quartz crystals are 3 inches by 8 inches.	
Maxine claims.	T. 7 N., R. 32 E.	Copper.			None.	A 35-foot shaft and a 170-foot crosscut under the shaft.	Two northeast-striking veins, 40 feet apart are up to 6 feet thick; where veins are thickest they contain breccia of country rock in matrix of quartz.	
Pamlico.	T. 7 N., R. 31 E.	Gold, silver.		Active in 1870's and 1880's; minor placer activity in canyon below mine in 1912.	$500,000 (estimated pre-1915).	Several inclined shafts, and several miles of workings; also adits and shafts satellitic to the main Pamlico area.	Veins of quartz and iron oxide in volcanic and clastic rocks of the Excelsior formation; strike N. 30° E. to N. 30° W., dip 40° to 70° NE. and SE.; maximum width 24 feet; free gold as nuggets and wires, and argentiferous galena.	Hill (1915, p. 156–157); Vanderburg (1937, p. 38–39).
Wamsley mine.	T. 6 N., R. 32 E.	Silver?			Unknown.	Two short shafts.	Granular quartz veins in sandstone and conglomerate of the Dunlap formation contain argentiferous bindheimite, which occurs as disseminated grains and as light-brown or bright yellow-orange resinous masses in streaks and lenses.	
Mount Grant District								
Big Indian mine.	T. 7 N., R. 29 E.	Gold.	Julia Ward, Reno, Nev. (1935).		$100,000.	Several adits and numerous shallow shafts.	Chiefly gold-quartz fissure veins in granodiorite; ore also contains chalcopyrite and pyrite.	Vanderburg (1937, p. 45–46).
Bismark 1, 2.	8 miles southwest of Hawthorne(?).	Antimony.					Mineralized area 350 by 50 feet to a depth of as much as 150 feet in granitic rocks, and andesite of the Excelsior formation. Owner reports 48–60 percent Sb from picked ore.	D. E. White (written communication, 1956).
Cory mine.	South Fork, Cory Canyon.	Silver.	Sam Kelso, Hawthorne, Nev. (1936).	In 1870's.	$200,000 (1884–1885).	Several tunnels and shallow shafts totaling about 3,000 feet.	Chiefly silver minerals in fissure veins in granitic rock.	Vanderburg (1937, p. 46); Couch and Carpenter (1943, p. 105).
Grant Mountain Gold mine (Murray placer mine).	T. 8 N., R. 28 E.	Gold (placer).		1906.	$8,000 (1933–1935?).	Trenches.	Placer gold in old upland channel on granitic terrane; largest nugget had a value of $30.	Vanderburg (1937, p. 44–45).
Nevada Cons. Mines and Selling Co.	Cat Canyon, about 7 miles northwest of Hawthorne.	Gold, copper.		Early 1880's.	Unknown.	1,500 feet in three tunnels.	Shear zone, 25 to 100 feet thick, strikes east, and contains quartz, pyrite, and chalcopyrite; country rock is granodiorite.	Hill (1915, p. 156).
Star prospect.	T. 9 N., R. 28 E.	Gold.					Veins of quartz carrying abundant limonite with chrysocolla and visible free gold; ore said to contain as much as $150/ton in Au. Country rocks are volcanic rocks of the Excelsior formation.	W. F. Foshag (written communication, 1956).
Unknown.	Cory Creek canyon.	Molybdenum.				Several open cuts.	Molybdenite reportedly occurs in the granitic rocks of Cory Canyon.	Vanderburg (1937, p. 46).
Mountain View (Granite, Reservation) District								
Mountain View and Granite area.	T. 13 N., R. 27 E.	Gold, silver.		1904, by William Wilson; additional claims located in 1906; in 1908 small stamp mill at Mountain View.	Small, $4,500 (1909).	Adit several hundred feet long and other workings.	Quartz and iron oxide veins in dioritic and granitic rocks; main veins are: Mountain View—1–2 feet thick, largely sericitized country rock, quartz with hematite and sulfur. Big Twenty— few inches to 4 feet thick, iron-stained quartz. Both of these veins are in granodiorite and trend easterly.	Vanderburg (1937, p. 44); Hill (1915, p. 132–133).
Northern Light mine.	T. 12 N., R. 28 E.	Copper.			Some during World War I.	Two shafts and several hundred feet of workings.	Oxidized ore containing malachite, azurite, native copper, antlerite, and cuprite was the shipping product; remaining ore is chiefly sheared limestone impregnated with pyrite and some chalcopyrite and bornite.	
Yerington Mountain Copper Co. (Beach Vein, Black Mountain Copper Co.?).	T. 13 N., R. 27 E.	Copper.		Operating in 1912.	$29,000 (1916–1917).	Tunnel over 650 feet.	Vein in crushed granodiorite is 8 to 25 feet thick, strikes N. 50° E. and underground the strike shifts to 35° E., dips 60° to 70° SE. Underground the massive vein splits into several parts, largest of which is 3 to 4 feet thick; minerals include pyrite, chalcocite, and copper carbonates; selected ore carried 10 to 15 percent copper and some silver	Lincoln (1923, p. 147); Couch and Carpenter (1943, p. 105); Hill (1915, p. 131–132).

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TABLE 6.4. Districts, Mines, and Prospects of Mineral County, Nevada

Name	Location	Commodity	Ownership	Discovery and history	Production	Workings	Geology	References
Pilot Mountains District								
Allen mine (Spring).	T. 6 N., R. 36 E.	Mercury.	Estate of E. Allen, Mina, Nev.	1919, by E. Allen.	48 flasks (to 1943).	Two adits totaling about 500 feet.	Cinnabar associated with calcite, pyrite, and clay localized along faults in sandstone.	Bailey and Phoenix (1944, p. 119); Phoenix and Cathcart (1952, p. 165).
Belleville mine.	T. 6 N., R. 35 E.	Gold.		1928, by Charles Woodruff.	$27,000 (1932–1933); $276,000 (1917–1938, tailing).	Five adits, longest 900 feet, total about 3,000 feet.	Two veins containing free gold in a gangue of quartz, calcite, and manganese oxide in metavolcanic rock of the Excelsior formation; some pyrite and sphalerite seen with the calcite and quartz on the dumps.	Vanderburg (1937, p. 54); Couch and Carpenter (1943, p. 107).
Betty mine (Betty and Messenger, Red Wing).	T. 6 N., R. 36 E.	Mercury.	H. Betty, E. Messenger; Mina, Nev.	Before 1918.	(Included with Inman production).	Several levels of workings totaling about 600 feet and a stope to surface.	Cinnabar forms high-grade lenses in porous fault breccia and fills small fractures in broken chert.	Bailey and Phoenix (1944, p. 119–120); Phoenix and Cathcart (1952, p. 168).
Cardinal mine (Towner and Ott, Harris).	T. 6 N., R. 36 E.	Mercury.	L. V. Cornelius and son, Mina, Nev.	1929, by J. C. Ott and J. Towner.	133 flasks to 1943.	About 650 feet of workings.	Cinnabar with quartz and calcite fills cracks and fissures in chert, and is also found in breccia and gouge along a fault.	Bailey and Phoenix (1944, p. 120–121); Phoenix and Cathcart (1952, p. 167).
Coveney prospect.	T. 6 N., R. 36 E.	Mercury.			6 flasks.	Less than 100 feet.	Cinnabar occurs in gouge in a fault in limy shale.	Phoenix and Cathcart (1952, p. 162).
Desert Scheelite.	T. 6 N., R. 37 E.	Tungsten.	C. F. Thompson, Mina, Nev. and C. W. Taylor, Tonopah, Nev. (early 1940's).			Two open cuts, several small trenches and pits, and minor underground workings.	Low-grade scheelite-bearing tactite averages 50 feet in width and exposed for 700 feet; generally restricted to favorable beds, but also along cross-fractures.	
Drew mine (Bugg and Drew, Farnham and Drew, Red Devils).	T. 6 N., R. 36 E.	Mercury.	Mrs. E. Drew Wagoner, Mina, Nev.	Probably in 1914, by H. Farnham and Al Drew.	About 1,000 flasks.	Inclined shaft caved about 10 feet down, and three levels from shaft.	Scarlet, earthy cinnabar in limy shale and limestone; the ore is in replacement bodies and also contains stibiconite, valentinite, quartz, calcite, sphalerite, calamine, and bindheimite.	Bailey and Phoenix (1944, p. 121–122); Phoenix and Cathcart (1952, p. 160–162).
Fletcher prospect.	T. 6 N., R. 36 E.	Mercury.	Fred Fletcher, Mina, Nev.		Minor, if any.	Total of 150 feet.	Workings explore highly broken chert, shale, and altered volcanic rocks of the Excelsior formation (Phoenix and Cathcart saw no cinnabar on the property.)	Phoenix and Cathcart (1952, p. 168).
Garnet mine.	T. 6 N., R. 37 E.	Tungsten.	Consolidated Uranium Mines, Inc., Salt Lake City, Utah.		About 130 units by 1943.	Open pit, short incline from floor of pit, and several other small pits.	Scheelite-bearing garnet tactite formed from limestone adjacent to small granitic sills; pyrite and sphalerite also found; locally WO_3 content as much as 1 percent.	
Gunmetal mine.	T. 6 N., R. 37 E.	Tungsten.	Consolidated Uranium Mines, Inc., Salt Lake City, Utah.	Around World War I.	Unknown.	Three open pits and about 1,000 feet of underground workings.	Scheelite-bearing tactite has replaced limestone beds, near and adjacent to granitic rocks; most of the tactite bodies are gently dipping.	
Hasbrouck property (B and B).	T. 6 N., R. 36 E.	Tungsten.		1929.	None.	Several small pits and a 40-foot inclined shaft.	Cinnabar occurs in a barite gangue associated with quartz, calcite, azurite, and malachite along bedding shears and a small fault in conglomerate.	Bailey and Phoenix (1944, p. 123).
Hitt mine.	T. 6 N., R. 36 E.	Mercury.	Bert Hitt, Mina, Nev.	1929, by Hitt.	46 flasks to 1943.	Two adits totaling about 400 feet.	Cinnabar, associated with calcite, manganese oxides, and clay is disseminated in fault gouge, along bedding planes in sandstone, filling cracks and disseminated in sandstone.	Bailey and Phoenix (1944, p. 123–124); Phoenix and Cathcart (1952, p. 165–166).
Inman mine (Summit Springs, Crystal Quick, Red Wing group).	T. 6 N., R. 36 E.	Mercury.	Fred Inman, Tonopah, Nev.	1916, by Carl Reik, Ed Messenger.	109 flasks (1921–1941), includes Betty production.	750 feet of workings and stopes.	Cinnabar forms high-grade crystalline pods along a fault and fills fractures in chert on both sides of the fault; also some workings explore a placer of small cinnabar nuggets concentrated in gravel on chert bedrock.	Bailey and Phoenix (1944, p. 124); Phoenix and Cathcart (1952, p. 167–168).
Keg prospect.	T. 6 N., R. 36 E.	Mercury.	A. J. Anderson, L. B. Spencer (1941).	Before 1917.	Few flasks.	75-foot inclined shaft, and about 50 feet of adits.	Powdery cinnabar occurs with calcite and wad in and near a small fault in limy shale.	Bailey and Phoenix (1944, p. 124–125); Phoenix and Cathcart (1952, p. 162).
Lakeview Chong Wong, Jong Wong).	T. 6 N., R. 36 E.	Mercury.		1919, by Jong Shore Wong.	Small.	Total of 350 feet in three levels, plus several small pits.	Cinnabar occurs in alluvium as scattered crystals and fragments, as well as in cracks and veinlets associated with calcite, and disseminated in limestone; calcite, barite, and pyrite are associated with the cinnabar.	Bailey and Phoenix (1944, p. 125); Phoenix and Cathcart (1952, p. 162–163).
Lost Steers mine.	T. 6 N., R. 36 E.	Mercury.	A. J. Anderson, L. B. Spencer (1941).	1913, by Thomas Pepper and Charles Keough.	450 flasks to 1941.	Glory hole (40 by 25 by 30 feet) with small adjoining crosscuts.	Cinnabar associated with stibnite, stibiconite, valentinite, calcite, quartz, and barite occurs as crystals in calcite veinlets in limestone, as an earthy variety filling cracks and cavities in limestone, as crystals in fault gouge, and as crystals replacing stibnite.	Bailey and Phoenix (1944, p. 126); Phoenix and Cathcart (1952, p. 159–160).
Mammoth mine (Lucky's Boy, Easter).	T. 6 N., R. 36 E.	Mercury.	Earle R. Wilson, Gabbs, Nevada.	1929(?), by Ed. Mace.	52 flasks to 1942.	Two adits, about 400 feet in length, are connected by a stope and raise.	Cinnabar occurs with clay in gouge in faults and with calcite in veinlets in country rock adjacent to faults.	Bailey and Phoenix (1944, p. 127); Phoenix and Cathcart (1952, p. 163–164).
Mina Development Co. mine (Cinnabar King, Booth Wardell, Seitz, Mina Mercury, Mina Merc).	T. 6 N., R. 36 E.	Mercury.	A. J. Anderson, L. B. Spencer, Mina, Nev. (1941).	1913, by T. Pepper and C. Keough; worked intermittently from 1920 to 1940 (1,800 flasks), high-grade ore body developed in 1940–1941 (1,200 flasks).	3,000 flasks.	About 5,000 feet on seven levels; lower levels now flooded.	Cinnabar, associated with stibnite, stibiconite, valentinite, pyrite, barite, and quartz occurs as pods replacing limestone in calcite stringers, as films on slickensided fault surfaces, and disseminated in fault gouge.	Bailey and Phoenix (1944, p. 127–129); Phoenix and Cathcart (1952, p. 158–159).
Montezuma mine.	East foothills of Pilot Mts.	Turquoise.			Unknown, probably minor.	Number of irregular pits and short tunnels.	Turquoise in veinlets and nodules up to 1 inch thick in decomposed volcanic(?) rock; most is too poor grade for gem stones.	Vanderburg (1937, p. 55).
Moser Mercury mine (Moser Nos. 1, 2).	T. 6 N., R. 36 E.	Mercury.	Carl Moser, Gardena, Calif.		Unknown, small if any.	Two short inclines, several short adits, and small trenches.	Specimens in small ore pile indicate that cinnabar apparently occurs as 1- to 2-inch stringers in limestone.	
Pine Tree.	T. 6 N., R. 36 E.	Copper.	L. E. Cornelius and C. F. Noble, Mina, Nev.	Prior to 1905; small shipment in 1917.	Small.	500-foot adit, 340-foot inclined shaft, several trenches and open pits.	Small, irregular pods and lenses of secondary copper minerals erratically distributed in breccia of a thrust fault; malachite, azurite, chrysocolla, tenorite, chalcanthite in veinlets and coatings on fractures, cavities; pyrite and iron oxide associated.	
Redwing prospect (Seitz property).	T. 6 N., R. 36 E.	Mercury.	G. J. Barry, Los Angeles, Calif.	1935, by Younkin and Seitz.	About 30 flasks.	Six small pits, three short adits, and a short shaft.	Cinnabar occurs with quartz and calcite in fault gouge and fills cracks and fissures in locally silicified limestone.	Bailey and Phoenix (1944, p. 129); Phoenix and Cathcart (1952, p. 165–167).
Reward mine (Kane, Leighton Cinnabar, Sommerfield and Thompson).	T. 6 N., R. 36 E.	Mercury.	D. H. Grey, Jr., C. A. Bonner Estate; San Francisco, California.	1928, by H. H. Leighton and J. T. Kane.	About 530 flasks.	Two adits totaling about 400 feet.	Cinnabar occurs with stibnite, calcite, and barite in fault gouge, as crystals in veinlets in sandstone, and as disseminated grains in sandy limestone lens.	Bailey and Phoenix (1944, p. 129–130); Phoenix and Cathcart (1952, p. 163).
Silver-Tungsten King.	(Near Gunmetal mine?)	Tungsten, copper.	G. G. Thompson, George Zack; Gabbs, Nev. (1943).			Several adits driven in prospecting for Cu about 45 years ago; recent exploration for W consists of few shallow shafts and open cuts.	Copper-stained tactite containing traces of scheelite; occurs along a contact between limestone and granitic rock.	
Sullivan prospect (Black Lizard prospect, Sullivan and Cornelius).	T. 6 N., R. 36 E.	Mercury.	C. E. Sullivan, L. V. Cornelius; Mina, Nev.	1940, by Sullivan.	6 flasks.	Series of trenches and pits explore a northwesterly trend for 135 feet.	Cinnabar occurs in clay in bedding shears and in cracks and fissures in chert; associated with quartz, calcite, pyrite, and pyrolusite.	Phoenix and Cathcart (1952, p. 168–170).

TABLE 6.1. Districts, Mines, and Prospects of Mineral County, Nevada

Bell, Bovard, Broken Hills, and Buena Vista Districts

Name	Location	Commodity	Ownership	Discovery and history	Production	Workings	Geology	References
Bell District								
Blue Bird 1, 2, 3.	T. 8 N., R. 37 E.	Tungsten.	G. R. Billingham, Hawthorne, Nev.		None.	Small open pit.	Scheelite-bearing tactite developed along a contact of limestone of the Luning formation with granitic rocks.	
Cedar Chest and Cedar Chest 1.	T. 8 N., R. 37 E.	Tungsten.	G. A. Peterson, John Dewar.		Unknown, small.	Adit and several small pits.	Scheelite-bearing tactite developed along a contact of limestone of the Luning formation with granitic rocks.	
Clay Peters group.	12 mi. NE of Mina.	Gold, some lead, copper.	Mrs. Clay Peters, Los Angeles, Calif. (1935).		Small.	240-foot shaft, some lateral workings.	Irregular deposit in limestone of the Luning formation, chiefly gold in siliceous gangue, but some Pb and Cu.	Vanderburg (1937, p. 21).
Cute Maid.	T. 9 N., R. 37 E.	?	B. Ward, C. W. Douglas, G. W. Jones, Jack Maddleson.	(Relocated in 1955, but workings much older.)	Unknown.	Inclined shaft over 200 feet, stopes to surface along a length of over 100 feet.	Quartz veins in pre-Esmeralda volcanic rocks (Tertiary) strike N. 25° W., dip 70° SW., no sulphides seen.	
Golden Mile group.	Several miles south of Simon mine.	Gold, some silver, copper.		1902, by Jesse Workman.	Total shipments reportedly 10,000 tons.	Three adits totaling about 1,000 feet, also shallow open cut.	Flat-lying quartz vein in limestone of the Luning formation near a granitic contact; mineralogy unknown, but gold was the predominant metal recovered.	Vanderburg (1937, p. 19).
Harvey-Taylor group.	1½ miles west of Simon.	Gold, silver.	J. A. Ashby, Hawthorne, Nev. (1936).			About 500 feet total.	Quartz vein, 2 to 6 feet thick in Tertiary andesite exposed for 650 feet and dips 50°.	Vanderburg (1937, p. 21).
Lou prospect.	T. 9 N., R. 37 E.	Mercury, formerly gold.	J. Costa (1943).	1939 ?, by Costa.	Several flasks of Hg.	About 150 feet total.	Cinnabar occurs along a vertical north-trending fault in altered and silicified Tertiary volcanic rocks. Pyrite-bearing quartz veins have previously been mined for gold.	Bailey and Phoenix (1944, p. 117).
Mina Gold mine.	T. 8 N., R. 37 E.	Gold ?			Small.		Calcite and quartz vein 2 to 4 feet thick strikes N. 35° W., dips 15° to 25° NE., in pre-Esmeralda volcanic rocks.	Knopf (1921, p. 382).
Olympic mine (OMCO).	T. 9 N., R. 37 E.	Gold, silver.		1915, by J. P. Nelson; most active from 1918 to 1931; small resurgence from 1937 to 1939.	$800,000.	225-foot inclined shaft, total of about 3,000 feet of workings on 3 levels.	Vein of quartz and silicified rhyolite strikes N. 20° W., dips 40° W., flattens at depth and reverses to 25° E. dip; vein 1 to 7 feet thick and contains no visible metallic minerals; country rocks are pre-Esmeralda volcanic rocks, probably rhyolitic.	Knopf (1921, p. 377–382). Couch and Carpenter (1943, p. 104).
Simon silver-lead mine (Nevada mine).	T. 8 N., R. 37 E.	Silver, lead, zinc.		In 1879 gossan discovered, in 1919 sulfide ore found beneath gossan, 1921 to 1927 most productive period, some production as late as 1947.	$740,000.	Two shafts, deepest is 800 feet; about 5 miles of underground workings on 7 levels.	Galena and sphalerite enclosed in dark, fine-grained quartz in a replacement of limestone of the Luning formation localized along an alaskite dike and in a pipelike mass. Alaskite is intruded along the contact between a Tertiary(?) keratophyre and limestone of the Luning formation; ore bodies are complexly faulted.	Knopf (1921, p. 370–376). Vanderburg (1937, p. 17).
Unknown.	T. 8 N., R. 38 E.	Tungsten ?				Several open pits, trenches, adits, and shafts; all small.	Abundant tactite and calc-hornfels developed in limestone of the Luning formation; no nearby granitic rocks.	
Bovard District								
Golden Pen.	T. 11 N., R. 32 E.	Gold, silver.	Richard Cowles, Reno, Nev. (1936).	Early 1908.	$24,000, 1915–1916; according to W. F. Foshag (written communication, 1956), considerable high-grading during operations for which obviously there is no tax record.	250-foot shaft, an adit, and several thousand feet of workings.	Quartz vein 3–8 feet thick separated from walls of post-Esmeralda (?) volcanic rocks by alunite sheets 3 inches to 1 foot thick. Mineralogy unknown, but enriched zone extends 250 feet below surface.	Vanderburg (1937, p. 57–58); Couch and Carpenter (1943, p. 104).
Lone Star group.	T. 11 N., R. 32 E.	Gold, silver.	E. M. Mims, Sacramento, Calif. (1936).	1908, by Mims.	$25,000. $75,000; W. F. Foshag (written communication, 1956).	550-foot shaft, a 250-foot shaft, and 1,000 feet of underground workings.	Geologic conditions similar to Randall property except rhyolite also present. Property is on the Gold Pen vein, which dips steeply NE., and locally is 100 feet thick with much included wall rock material.	Vanderburg (1937, p. 58).
Randall property (Nevada Rand, Rand, Bovard mine, Koegel mine).	T. 11 N., R. 32 E.	Gold, silver.		1908, by Al Bovard and others.	$50,000. $100,000; W. F. Foshag (written communication, 1956).	450-foot shaft and 1,500 feet of workings on 4 levels.	Quartz veins in sheared andesite(?), some silver is alloyed with gold and some occurs as cerargyrite and argentite; rich ore occurs in lenses in iron and manganese-stained quartz gangue; ratio of gold to silver, 1:30.	Vanderburg (1937, p. 55–56).
Broken Hills District								
Broken Hills mine (Silver Trailer group adjoins Broken Hills mine).	T. 14 N., R. 35 E.	Silver, lead.		1913, by James Stratford and Joseph Arthur. Sold in 1920 to Broken Hills Silver Corp.; several small companies involved later, but operations ended in 1920's. Relocated in 1936 by G. M. Lerchen.	$75,000 by Broken Hills Silver Corp., and $15,000 by later lessees.	Broken Hills shaft, 600 feet; Belmont shaft, several hundred feet, and about 6,000 feet of underground workings.	Two veins, strike N. 30° W., dip steeply west and are from 18 inches to 2 feet thick; veins filled with crushed volcanic rock and small amount of quartz; rich silver ore (as much as 100 oz/ton) occurs in bunches in veins. Silver-lead ore also occurs in stock-work lenses in the andesite outside the vein, also some disseminated pyrite and chalcopyrite in the wall rock.	Vanderburg (1937, p. 23).
Kaiser mine (Baxter mine).	T. 14 N., R. 34 E.	Fluorspar.	Kaiser Aluminum and Chemical Corp.	1928, by V. S. Baxter, almost continuous operation until mining operations ceased in February 1957.	$190,000 from 1935–1940. 24,000 tons of acid and metallurgical grade fluorspar, 1941 to 1946. From 1952–Feb. 1957, 123,741 tons @ 38 percent CaF_2.*	6 shafts to a maximum depth of about 600 feet; more than 9,000 feet of workings on 6 levels.	Fluorspar fills fissures and interstices in a fault zone from 2 to 18 feet in width and over 1,800 feet in strike length; strike N. 50° E., dip 50° NW.; pinch and swell common. Country rocks are intermediate and felsic rocks that resemble post-Esmeralda volcanic rocks elsewhere in the county.	Thurston (1946); Matson and Trengove (1957).
Buena Vista District								
Lucky Susan.	T. 1 N., R. 32 E.	Uranium.		Early 1950's.	None.	Small pits and trenches.	Samarskite and euxinite(?) in pegmatite in granitic rock.	
Montgomery Summit Property.	T. 1 N., R. 32 E.	Mercury.	James Houghton, J. L. Newson.	1940, earlier was a gold prospect.	None.		Veinlets of cinnabar with pyrite, quartz, and chalcedony in north-trending shear in post-Esmeralda volcanic rocks.	Bailey and Phoenix (1944, p. 132).
Noguez prospect.	T. 3 N., R. 31 E.	Mercury.	J. G. H. Noguez, Mount Montgomery (1943).	1940, by Noguez.	A few flasks.	Three adits totaling 500 feet, a glory hole, and several pits and trenches.	Cinnabar in veinlets, and as a coating on boulders in crush zone of fault in silicified Tertiary tuff; gypsum and sulfur occur locally in moderate amounts.	Bailey and Phoenix (1944, p. 131–132).
Tip Top mine (in part in Esmeralda County).	T. 1 N., R. 33 E.	Gold, silver.			$130,000 by 1918.	About 1,000 feet total.	Two veins near contact of andesite with rhyolite (both Tertiary and presumably post-Esmeralda) were mined for gold and silver.	Lincoln (1923, p. 140).
Wild Rose (Mt. Montgomery, Red Rose, Starlight group).	T. 1 N., R. 33 E.	Mercury.	J. E. Renfro (1943).	1916, by Morris brothers, largely exhausted by 1918, relocated and abandoned several times.	133 flasks to 1943.	Two adits totaling 1,100 feet, raise and stope and 2 glory holes with several raises in upper adit.	Cinnabar disseminated along hanging wall of fault and in clay gouge of fault, which is in Tertiary rhyolite that is locally silicified along this northeast-trending fault.	Bailey and Phoenix (1944, p. 74–75).
	T. 1 N., R. 33 E.	Fluorspar.	W. W. Overholser, A. M. Perry; Fernley, Nev.		Unknown.	2 short adits, trestle to haul ore down canyon.	Fluorite and calcite veins up to 18 inches thick in post-Esmeralda intermediate volcanic rocks; strike north and dip steeply east to vertical; fluorite is purplish.	
	T. 1 N., R. 32 E.	Tungsten, also gold, silver.			Unknown.	Unknown amount of underground work, and abundant bulldozer scrapings.	Scheelite-bearing tactite developed from marble; also locally a gossan-like ferruginous capping over Paleozoic sedimentary rocks (Cambrian?) that was explored for Au and Ag.	
——— (an extension of producing area in Esmeralda County).	Tps. 1, 2 N., Rs. 33, 34 E.	Diatomaceous earth.			None.	Numerous prospect pits and trenches.	Diatomaceous layers in the Esmeralda formation.	

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TABLE 6.2. Districts, Mines, and Prospects of Mineral County, Nevada

Candelaria and Fitting Districts

Name	Location	Commodity	Ownership	Discovery and history	Production	Workings	Geology	References
Candelaria District								
Argentum Mining Co. (Includes old Northern Belle and Holmes).	T. 4 N., R. 35 E.	Silver.	C. E. Earl, agent of company in Mina, Nev.	1864, activity markedly decreased after 1883.	$6,700,000–$10,000,000. In mid-1950's rerunning of 20,000 to 30,000 tons of dump material; average of 6 oz. Ag per ton.	1,365-foot shaft and several miles of workings.	Highly oxidized manganiferous silver veins, several hundred feet in strike length and few feet wide, broken by complex fissures.	Knopf (1922 p. 18); Couch and Carpenter (1943, p. 104–105).
Lucky Hill mine.	T. 3 N., R. 35 E.	Silver.		Old mine, but not much work prior to 1920.	$250,000.	425-foot adit, inclined shaft to 270 feet with 2 levels.	Two veins in chert, felsite, and argillite; both strike approximately east and dip 65° to 70° N.; highly oxidized ore is soft, friable, and black to reddish; as much as 15 to 25 oz. Ag./ton.	Knopf (1922, p. 20–22).
Mount Diablo.	T. 3 N., R. 35 E.	Silver.			$2,200,000 from 1871–1891.	Vertical shaft to 100 feet, and an incline below this; judging from huge dumps, workings must be extensive.	Ore bodies occur as narrow, echelon lenses in argillite and felsite; oxidized ore is manganiferous, limonitic, siliceous material; more siliceous than average of district.	Knopf (1922, p. 19–20); Couch and Carpenter (1943, p. 105).
New Potosi mine (Potosi, Peterson).	T. 3 N., R. 35 E.	Silver, lead, antimony, gold.	G. A. Peterson, Mina, Nev.	Patented in 1870's, run by Peterson since 1947, leased since 1952, active in 1956.	Since 1947, 11,000 tons, as high as 10 oz. Ag, 10 percent Pb, 6 percent Sb, and ½ oz. Au/ton.	Extensive.	Ore is jamesonite, bindhemite, galena, and pyrite.	
Petrol claims (Candelaria Exploration Co.).	T. 3 N., R. 35 E.	Silver, lead.	T. R. W. Francis Figg-Hoblyn, J. S. Maclean; Santa Barbara, Calif.	One of the old mines of the district.	Unknown.	300-foot crosscut, a 135-foot drift on vein, and a winze being sunk in summer of 1956.	Vein strikes N. 40° W., dips 60° NE., about 8 feet wide, ore reportedly 2 feet wide.	
	Several miles northwest of old camp of Columbus.	Turquoise, variscite.		1908, by A. L. Dees, E. Murphy.	1,000 lbs. since 1916.	Surface, small trenches?	Veinlets along joints and fissures in limestone and shale. Veinlets range from knifeblade thickness to maximum of ¼ inch.	
Fitting District								
Acme Copper mine.	6 miles north of Acme.	Copper, silver.					The copper minerals, chrysocolla, malachite, and azurite occur in stringers and small lenses replacing limestone along bedding planes near granitic rocks; cerargyrite (?) also present.	Lincoln (1923, p. 144).
Bismark.	T. 8 N., R. 32 E.	Aluminous minerals.					Quartz-alumina rock replacing metavolcanic rock in two masses; one 140 by 180 feet, and another 140 by 40 feet in outcrop area.	
Black Butte prospect.	T. 9 N., R. 33 E.	Iron.	J. Malatesta, E. Ferretti, W. C. Schuman, W. Rea; Hawthorne, Nev.		None.		Contact metamorphic deposit of magnetite and small amount of hematite in limestone of the Luning formation that has been silicified by a granitic intrusive. Only small lenses of high-grade ore. Much tactite contains magnetite, but in small quantities. A sample across a 40-foot width, near center of a 600-foot long north-trending mineralized zone, contained 40 percent Fe.	Reeves, Shawe, Kral (1958).
Black Horse prospect.	T. 9 N., R. 33 E.	Iron.	H. A. Peterson, Hawthorne, Nev.		None.	Bulldozer scrapings.	Iron-rich zone about 200 feet wide and 500 feet long along a contact of limestone of the Luning formation and granitic rock; much dark garnetiferous tactite; richest ore contains 40 percent Fe over a 15-foot width.	Reeves, Shawe, Kral (1958).
Chiatovich group.	T. 9 N., R. 30 E.	Bentonitic clay.	Keith Montgomery, Hawthorne, Nev.		4,900 tons.	Bulldozer scrapings and pits.	Clay layers in the Esmeralda formation.	
Deep Mines.	T. 8 N., R. 31 E.	Aluminous minerals.			None.	Trenches and pits.	Quartz-alumina rock developed from metavolcanic rock in two areas; one is 40 by 40 feet, the other is 140 by 110 feet.	
Dover and Green Talc (Donnelly Andalusite mine).	T. 9 N., R. 31 E.	Aluminous minerals.	Mrs. E. Donnelly, J. Stockton, W. Rea and E. Rea; Hawthorne, Nev.	1929, by B. H. Donnelly.	Unknown (at least 450 tons of andalusite rock).	Open pits and 200-foot shaft.	Replacement bodies of aluminous minerals in metavolcanic rocks of the Excelsior formation. Minerals: quartz, andalusite, corundum, diaspore, halloysite, sericite, pyrophyllite, pyrite, hematite, epidote, and several rare minerals. Area of replacement as large as 400 by 230 feet.	Vanderburg (1937, p. 30).
Dry Gulch claims.	T. 9 N., R. 32 E.	Tungsten.	D. D. Allphin, Hawthorne, Nev.	1954.	Small, if any.	Small pits, bulldozer scrapings.	Scheelite-bearing tactite and pods of wollastonite developed along a granitic contact in limestone layers in metavolcanic rocks of Excelsior formation.	
Gillis prospect (Gillis Iron Nos. 1, 2).	T. 9 N., R. 33 E.	Iron.	R. L. Crews, Hawthorne, Nev.	1952.	None.	Several prospect pits and bulldozer scrapings.	Ferruginous zone consisting of opal, chalcedony, limonite, hematite, and magnetite in marbleized limestone of the Luning formation; highest grade material is 52 percent Fe.	Reeves, Shawe, Kral (1958).
Hawaiian group.	5½ miles northeast of Thorne. T. 9 N., R. 31 E.	Gold, silver.		1906, by Ryan.	None.	50-foot shaft, some surface cuts.	Prominent outcrop from 150 to 600 feet in width traceable for 1,000 feet; abundant silicification and samples carry low values in gold and silver, as well as minor Cu and Mn (probably this outcrop is the iron-stained dike that crosses the Rawhide road in Ryan Canyon).	Vanderburg (1937, p. 33).
Holiday Uranium mine (Holiday and Falcon claims).	T. 8 N., R. 33 E.	Uranium, thorium.	Edward Goldberg, Bremerton, Wash.		None.	Short adit, raise to surface, small pits.	Radioactive material, chiefly thorite, huttonite, and urano-thorite concentrated along fracture planes, and disseminated in gouge and bleached rock in zone of fractured, faulted, and hydrothermally altered granitic rock.	
Iron Crown prospect.	T. 9 N., R. 33 E.	Iron.	John Dewar, Mina, Nev; F. E. Sturdevent, Luning, Nev.		Several carloads in 1952.	Pit.	Magnetite occurs along an intrusive contact of limestone of the Luning formation and granitic rock; the ferruginous contact zone is irregular and up to 20 feet thick and about 400 feet long. A chip sample across 15 feet contained 58 percent Fe.	Reeves, Shawe, Kral (1958).
Last Chance.	T. 9 N., R. 32 E. (central part).	Iron.	E. Ferretti, W. C. Schuman, W. Rea, and J. Malatesta.		None.		Magnetite in limestone included in granitic rock; magnetite occurs as veinlets and lenses replacing the limestone; largest body 55 by 40 feet in outcrop area.	Reeves, Shawe, Kral (1958).
Montreal mine.	T. 8 N., R. 32 E.	Silver.			$1,500,000 (probably too high).			Lincoln (1923, p. 143).
Silver Chief mine.	12 miles north of Luning.	Silver.					Silver ore said to occur at a contact of rhyolite with granite.	Lincoln (1923, p. 144).
Silver King mine.	2 miles northwest of Acme.	Silver, lead.			$500,000 (probably high).			Lincoln (1923, p. 143).
	T. 8 N., R. 33 E.	Uranium.				100-foot adit, small pit.	Granitic rock in an ore pile taken from small pit has a radioactivity of as much as 3 mr/hr; the background in the pit is 0.05 to 0.1 mr/hr; in the adit radioactivity locally as much as 0.2 mr/hr with a background of 0.02 mr/hr.	
	West side of Winwan Flat.	Graphite.		1916, J. A. Kelly of Rawhide.	None.	Several open cuts, now caved.	Graphite occurs as veins in granite.	Vanderburg (1937, p. 32).
	22 miles northeast of Hawthorne on north slope of Gillis Range.	Mica.					Muscovite in three parallel veins dipping about 45°. The veins range in width from 12 to 20 inches. Country rock is granite. Sheets too small for sheet mica, probably suitable only for grinding, according to Vanderburg.	Vanderburg (1937, p. 31).