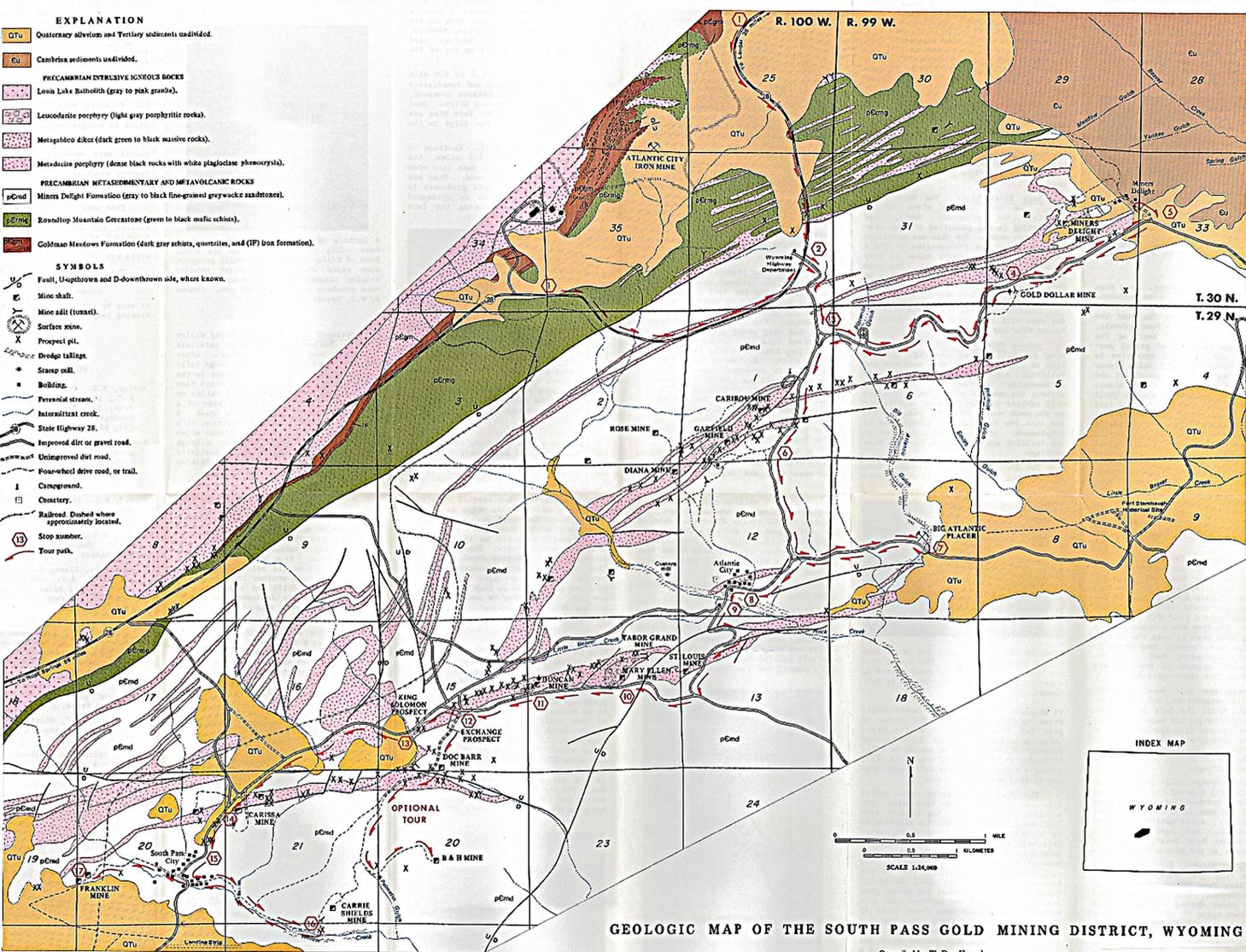


EXPLANATION

- Quaternary alluvium and Tertiary sediments undivided.
- Cambrian sediments undivided.
- PRECAMBRIAN INTERLIVE IGNEOUS ROCKS
- Lonsi Lake Batholith (gray to pink granite).
- Leucocratic porphyry (light gray porphyritic rocks).
- Metagabbro dike (dark green to black massive rocks).
- Metacidic porphyry (dense black rocks with white plagioclase phenocrysts).
- PRECAMBRIAN METASEDIMENTARY AND METAVOLCANIC ROCKS
- Miners Delight Formation (gray to black fine-grained grey-wacke sandstones).
- Rosebud Mountain Gneiss (green to black mafic schists).
- Goldman Meadows Formation (dark gray schists, quartzites, and (IF) iron formation).

SYMBOLS

- Fault, Upthrown and D-downthrown side, where known.
- Mine shaft.
- Mine adit (tunnel).
- Surface mine.
- Prospect pit.
- Dredge tailings.
- Scavo sill.
- Building.
- Perennial stream.
- Intermittent creek.
- State Highway 28.
- Improved dirt or gravel road.
- Unimproved dirt road.
- Four-wheel drive road, or trail.
- Cemetery.
- Railroad (dashed where approximately located).
- Stop number.
- Tour path.



GEOLOGIC MAP OF THE SOUTH PASS GOLD MINING DISTRICT, WYOMING

Compiled by W. Dan Huseel
1984

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The South Pass District, located on the southeastern tip of the Wind River Range, includes the historic gold camps of Atlantic City, South Pass, Miners Delight and Lewiston (not shown on the map but located several miles southeast of Atlantic City). Gold was initially discovered here along the Sweetwater River in 1842. Over the next 25 years, prospecting and development were limited to a few small placer operations because of Indian hostilities. However, during the summer of 1867, placer gold was traced upstream to what was later known as the Carinae Lode, near the head of Willow Creek, a discovery that led to a gold rush. Three gold camps were established -- South Pass City, Atlantic City, and Miners Delight. By 1869, hundreds of people were prospecting and mining in the district and as many as 2,000 people were living in the camps. In 1871, twelve stamp mills were operating in the district, but by 1872, South Pass City was nearly deserted.

The closure of several of the mines was apparently due not to the lack of mineralization, but to mine flooding problems, milling problems, mismanagement, inexperienced miners, stock frauds, and legal problems.

Since the early gold rush, a few attempts have been made to reopen some of the more promising mines. Gold ore has been produced sporadically since 1879, but only in limited tonnage.

Although gold-bearing rock of similar tenor to that at the outcrop was reported to continue at depth, none of the mines in the district extended more than 400 feet below the surface. Essentially, only the near-surface portions of the veins have been prospected. Total gold production for the district is estimated at 325,000 ounces.

The South Pass District is underlain by Precambrian sedimentary and volcanic rocks which formed part of a widespread system of layered rocks more than three billion years ago. Between 2.7 and 3.3 billion years ago, these rocks were intruded by granitic rocks. Prior to the intrusion by granitic magmas, the early sedimentary and volcanic rocks were folded, sheared, and metamorphosed. Additional folding, faulting, and contact metamorphism occurred during the intrusion of the granitic magmas.

Much later (about 100 million years ago), the Wind River Mountains were uplifted, piercing the overlying Paleozoic and Mesozoic sedimentary blanket. Later erosion stripped much of the Tertiary cover, reexposing the Precambrian rocks.

The majority of the district's mines lie in gabbroic schist along a northeast trending sheared metagabbro. This trend extends from South Pass City through Atlantic City and north to Miners Delight.

A major portion of the district is underlain by the Miners Delight Formation, a layered sequence of metasedimentary and metavolcanic rocks deposited more than three billion years ago. The Miners Delight Formation is mostly feldspathic and micaceous greysacks, conglomerate, mica schist, mafic flows, and gabbroic schist. During the first-stage folding of these rocks, northeast trending shear zones developed in structurally competent metagabbro and in the less competent schist and greysacks. The shears were developed conformable to the strike of bedding and folding in the schists. Following shearing, quartz veins developed, resulting in fissure filling and replacement of some of the fractured country rock. Quartz gangue was later partially replaced by arsenopyrite and gold.

Later-stage faults acted as conduits for late-stage quartz veins containing some disseminated copper and gold, but these occurrences were of little economic interest. Ore shoots are commonly localized at vein intersections or splits, or near the crests of anticlinal folds.

Locally, the veins contained oxidized,

near-surface-enriched ores which were somewhat leached at depth. The tenor of the veins in the district was reported to range from zero to 10.6 ounces of gold per ton and to average 0.32 to 0.80 ounce per ton.

For more information on the history and geology of this important gold district, see the references listed on the reverse.



Lense-shaped (boudinage) gold-quartz veins underground in the South Pass District. (Photo by W. Dan Huseel, 1983.)

WARNING! THESE MINES ARE UNSTABLE AND DANGEROUS. YOU ARE ADVISED NOT TO TRESPASS AND NOT TO ENTER ANY OF THESE MINES!

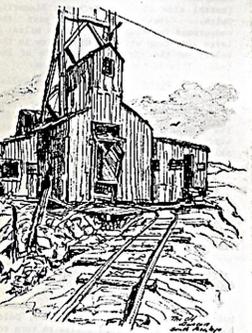
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THE GEOLOGICAL SURVEY OF WYOMING
Gary B. Glau, State Geologist

PUBLIC INFORMATION CIRCULAR No. 23

TOUR GUIDE
to the
GEOLOGY AND MINING HISTORY
OF THE
SOUTH PASS GOLD MINING DISTRICT
FREMONT COUNTY, WYOMING
by W. Dan Huseel



ROAD LOC

Discussion
The historic South Pass gold mining district is located on the tip of the Mine River Mountains, 30 miles south of Lander, 50 miles north of Farrow, and 90 miles north of Rock Springs.

Driving north from Farrow or Rock Springs, the Mine River project above the horizon and become more and more majestic and rugged as they are approached along the Highway 28. The road is mostly to the north, these snow covered, glacier eroded peaks provide extraordinary scenery along the roadside of State Highway 28.

This road log of the South Pass mining district begins along State Highway 28 within 1.5 to 2 miles of the Atlantic City area. When you arrive at the turnoff or south, waste rock (spoil piles) from the Atlantic City iron ore open pit mine is visible on the northwest side of the road before the turnoff.

Atlantic City Iron Ore Mine. The Atlantic City iron ore mine is a gigantic open pit mine surrounded by extensive waste piles. The mine was operated by the Atlantic City Iron Ore Company and shipped by rail to the Geneva Steel Works at Provo, Utah. From 1962 to 1983, this mine was operated by U.S. Steel. Core samples from the mine indicate an average of one per year during full production. About 90 million tons were produced while the mine was in operation from 1900 to 1,200 feet at the mine site.

The ore occurs as a black, hard, dense, highly magnetic rock with regularly alternating iron-rich, low-silica and silica-rich, low-iron layers. The Atlantic City iron ore is known for its iron formation and has been greatly thickened by complex folding and faulting. The thickness of the formation varies from 100 to 1,200 feet at the mine site.

Atlantic City Turnoff. The Atlantic City turnoff is well marked, but is identified by a small sign on the east side of Highway 28 directly across from the Atlantic City Iron Ore Company shop. The road to Atlantic City is well graded and traveled. Turn onto the road, cross the cattle guard, and head southeast. Rock on either side of the road are dark gray to black metagreywacke (dark mica-quartzite) of the Miners Delight Formation. The road switches back to the right.

Turnoff to Miners Delight. At 0.5 to 0.6 mile from the Atlantic City turnoff, the road forms a "T" turn left (east). At 0.3 mile from the "T", a Bureau of Land Management campground lies on the left side of the road. The road is 140 feet wide. Continue straight past the campground for another 1.3 to 1.4 miles; a large mine dump is visible on the valley on the right (south) side of the road. This is the Gold Dollar Mine.

Gold Dollar Mine. The Gold Dollar Mine was developed from a north trending drift (it is actually a fault zone) in the waste rock of the Miners Delight Formation. The tunnel is 1,300 feet long and cuts through the waste rock. The waste rock is a silty quartzite, recently collected from the prior to intersecting sulfide-stained quartz veins in metagreywacke. All of the rock types intersected by the mine workings are present on the mine dump. Immediately to the west of the mine dump is a large concrete foundation of a historic stamp mill which was constructed to extract gold from the Gold Dollar quartz veins.

WARNING! DO NOT ENTER ANY OF THESE HISTORIC MINE WORKINGS AS THEY ARE UNSAFE AND UNDER THE HOODS FALLS PRIVATE PROPERTY.

Continue east along the Miners Delight road. One mile from the Gold Dollar Mine, the road starts to turn to the right, there is a dirt road to the left which you should follow to the northwest over your shoulder. As soon as

you turn onto this road, the remains of the historic Miners Delight cemetery are visible on the left (west). Continue on this road to the west, you are blocked to the west by a traffic. From here, the miners Delight ghost town is a short walking distance down the road.

Miners Delight Ghost Town. The town of Miners Delight consisted of the Miners Delight Mine and the Spring, Yankee, and Mosdor Gulch placers. According to available reports, the Miners Delight mining was the richest in the entire South Pass District. Although no production records are available, estimates are that the Miners Delight Mine may have produced as much as 63,500 ounces of gold. The Meadow Gulch, Yankee Gulch, and Spring Gulch placers were unusually rich and are estimated to have produced 53,000, 26,500, and 1,600 ounces of gold, respectively. The source of the placers gold is not known, but should lie far to the northwest of the Miners Delight ghost town.

During the boom days in 1869, the town of Miners Delight consisted of some thirty or more buildings. The town was abandoned after the gold played out between 1882 and 1907. The Miners Delight mine headframe is nearly one half mile west of the ghost town. As at many of the mines in South Pass, ore grade gold values were obtained from silty quartz veins within the zone of oxidation at the surface where the gold was free milling. The ore was crushed, beneficiated to pellets, and shipped by rail to the Geneva Steel Works at Provo, Utah. From 1962 to 1983, this mine was operated by U.S. Steel. Core samples from the mine indicate an average of one per year during full production. About 90 million tons were produced while the mine was in operation from 1900 to 1,200 feet at the mine site.

From Miners Delight, the tour doubles back to the west to intersect the Atlantic City road. At the Atlantic City road, turn left (south), and in 0.3 to 0.4 mile, look for a second Bureau of Land Management campground on the right (west) side of the road. Continue on another 0.5

Headframe of the Miners Delight Mine, thought to be the largest gold producer of the South Pass District. (Photo by W.D. Hausel, 1981.)

Caribou Mine. The decaying headframe of the Caribou Mine is visible on the north side of the ridge in the foreground. The Caribou Mine produced an estimated 26,300 ounces of gold from quartz veins in metagreywacke and metagreywacke of the Miners Delight Formation. The tunnel is 1,300 feet long and cuts through the waste rock. The waste rock is a silty quartzite, recently collected from the prior to intersecting sulfide-stained quartz veins in metagreywacke. All of the rock types intersected by the mine workings are present on the mine dump. Immediately to the west of the mine dump is a large concrete foundation of a historic stamp mill which was constructed to extract gold from the Gold Dollar quartz veins.

The Garfield Mine, a few hundred yards west of the Caribou, may have produced as much as 21,000 ounces of gold. It was reported in 1870 that the Garfield shaft reached a depth of 140 feet. The Diana Mine, one quarter mile west of the Garfield and not visible from the Atlantic City road, was developed on quartz veins in close association with arsenopyrite (a silver, metallic, arsenic-iron mineral) in a quartzite. It was estimated that the gold ore averaged 0.77 ounces per ton and ran as high as three ounces of gold per ton, indicating that some gold still remains.

The Rose Mine (also not visible from the Atlantic City road) produced an estimated 760 ounces of gold during its operation.

Continue south on the Atlantic City road. In another three quarters of a mile, the road forms another "T". Turn left (west) and follow the road for 0.2 mile and at a distance of 0.8 to 0.9 mile, the road crosses Big Atlantic Gulch.

Placer gold mining operation along Big Atlantic Gulch. (Photo by W.D. Hausel, 1981.)

Big Atlantic Gulch Placer. Less than a thousand ounces of gold were extracted from the Big Atlantic Gulch placer prior to 1900. Left (north) of the road are some recent workings in stream gravels, and to the north and south of the road are mounds of dirt and gravel produced from a gold dredging operation in the 1930's. The Big Atlantic Gulch placer mine provides an excellent example of the difference between lode and placer mines. The lode mine previously discussed (Gold Dollar, Caribou, etc.) were developed into hard rock that was in place, whereas this placer mine occurs in unconsolidated stream gravels which have been transported and carried downstream from their original source. One and one quarter miles further east down the road is the Fort Stambush historic site. Fort Stambush was constructed to provide protection from

Indians for the historic old gold mines and towns. Very little remains of the historic fort. Double back and turn left (south) on the "T" in the road, and enter Atlantic City.

Atlantic City. In 1983, Atlantic City had numerous private cabins, limited hotel facilities, a bar, two cafes, a supper club, and a population of less than 100 citizens. During the gold rush in the late 1860's and early 1870's, Atlantic City was a boom town with as many as 500 people. The town was a typical early mining camp with more saloons than eating houses. The first brewery ever built in Wyoming was constructed here. It is the famous "French" quarter of town, miners could purchase just about anything.

Following the gold boom, Atlantic City began to deteriorate and was almost a ghost town until the late 1930's when U.S. Steel Corporation had begun construction of the Atlantic City iron ore mine, a large open-pit mine with a 2.150 mile private railroad from the mine south to the Union Pacific mainline at Winton Junction, just north of Atlantic City.

Continue through Atlantic City. On the right (north) side of the road is the Atlantic City Mercantile, which remains pretty much the same as it was at the turn of the century. A few hundred feet past the Mercantile, the road turns left (south), crosses Rock Creek, and splits into two roads of the Miners Delight Mine. Rock Creek Placer. Rock Creek, which is visible from just about anywhere in Atlantic City, runs through the town and ends in the southeast. Some gold was mined from this creek during the early gold rush, and then again in later years. From 1933 to 1941, a gold dredging operation reportedly recovered as much as 11,500 ounces of gold. Approximately three million cubic yards of gravel were processed that produced 0.3 ounces of gold and 1921 that the gold ore averaged 0.77 ounces per ton and ran as high as three ounces of gold per ton (1947 prices). Seventy-five cubic yards of gravel was found one to three feet above bedrock.

Some of the richest gravel occurred about one mile southeast of Atlantic City near a large fault that crosses the Atlantic City road.

Richer gravel was reported 3 to 3.5 miles south of Atlantic City where a large diabase gabbro dike intersects Rock Creek. This area was mined in 1951 and the gold reportedly averaged 55 cents a "yard" with some areas as high as \$1 dollar per cubic yard (gold at \$35.00 an ounce).

Continue straight ahead (south) from the Miners Delight turn to the switchbacks out into the ridge. At the top of the ridge, 0.9 mile to one mile from the West of Atlantic City, the road turns right to the right (west). In another half mile, the Mary Ellen headframe will come into view on the right (north) side of the road.

Mary Ellen Mine. The Mary Ellen Mine, like most of the mines in the district, is privately owned, and trespassing is not permitted without consent of the owner. The mine was developed by a shaft at the intersection of 460'W and 100'E trending quartz veins in gray lauscaudite porphyry intrusives. The gold reportedly averaged 0.4 ounce per ton on this ore shoot. Total mine production was estimated to be 6,400 ounces.

Continue west for 0.5 to 0.6 mile and the road will be adjacent to the historic Duncan Mine and Mill.

Duncan Mine and Mill. The Duncan Mine and Mill are on the right (north) side of the road. The mine workings and buildings are unstable and not safe (trespassing is strictly prohibited unless accompanied by a guide). You are well advised to stay in your vehicle and on the main road. From the road, you can see that the bearing is tilted, due to subsidence. In other places, portions of the building are collapsing into the mine workings.

The Duncan Mine was developed into gold-bearing quartz veins and shear zones

graduated with free milling gold. The silver to gold ratio of the ore was 2-to-1, the highest in the entire district. Much of the silver probably occurs as microscopic particles disseminated in arsenopyrite. Only 260 ounces of gold were mined from this property with possibly twice as much silver.

Return back to the Exchange prospect (Stop 12).

Exchange Prospect. From the Exchange prospect, turn left (west) on the graded road towards South Pass City. At 0.2 to 0.3 mile, the roadcut exposes graphitic schist and several small quartz veins. The left (south) side of the road, a portal (tunnel) was blasted into the contact

View of the Duncan Mine and Mill from the Little Beaver Creek road. The Duncan Mine was developed into gold-bearing quartz veins. (Photo by W.D. Hausel, 1981.)

in metagabbro dikes and lauscaudite plugs. Prior to 1900, only about 800 ounces of gold had been produced from the mine. Later production included 2,150 ounces between 1911 and 1913, 76 ounces in 1936, 52 ounces in 1952, and 763 ounces in 1953, giving a total of approximately 3,860 ounces of gold with some silver.

gradually turns left (west) heads to South Pass City.



Custom stamp mill along Rock Creek north-west of Atlantic City. The piles of gravel are the tailings from the mill. The Rock Creek water produced during a 1933 to 1941 gold dredging operation. (Photo by W.D. Hausel, 1981.)

Optional Tour (Four-wheel-drive vehicle ONLY). The optional tour follows the road to the far left (south). The Doc Barr Mine is 0.3 to 0.4 mile from the turnoff and is surrounded by several small mine dumps. The host rock is metagreywacke, and only about 900 ounces of gold were mined from this property. Continue on the jeep trail following Palmetto Gulch to the south. At 1.0 to 1.2 miles from the Doc Barr property, the trail turns hard to the left and continues another 0.4 mile to 0.5 mile before terminating at the B&H Mine. This property is located at the intersection of two well developed shear (fracture) zones in metagreywacke. Quartz veins follow the shear zones and intersect a few feet to the east of the shaft.

While the north-south vein contains pyrite (fool's gold) and arsenopyrite, the east-west vein was reported to be high

primary crushers, then carried on a conveyor belt to the mill, which is on your far right. The gold occurs in quartz veins that occupy shear zones which trend N70'E (nearly parallel to the road) and have near-vertical dips. These veins are 2 to 6 feet wide and from 20 to 300 feet of drifts and crosscuts on five levels. The ore averaged 0.32 ounce of gold per ton and ran as high as 4.7 ounces per ton. Trespassing is prohibited without the owner's permission!

South Pass City. Follow the road for another 0.4 to 0.5 mile into South Pass City. Turn left (west) from the Caribou Mine to where the reconstructed South Pass City historical site is located. South Pass City was founded during the 1867 gold rush. As many as 3,000 people lived here during the height of the rush. Several buildings and a museum have been renovated in an attempt to capture some of the grandeur of the early mining history. Across Willow Creek, behind the reconstructed buildings, is a battery of five stamps. These stamps were used to pulverize the ore from the quartz veins and free the gold for amalgamation with mercury, which was then recovered from the amalgam.

Use of these stamps in mills resulted in the term, "stamp mill." Many early miners and prospectors wrote about

the constant rumbling of these stamp mills, which echoed throughout the camps and towns.

of graphitic schist and metagabbro. This adit is part of the King Solomon prospect; it runs back into the hills for a very short distance and intersects a wallow mine (shaft). On the right side of the road, a large, rounded reddish iron-stained boulder lies adjacent to a prospect pit on the road-out.

Doc Barr Mine. At 0.3 to 0.4 mile from the Exchange prospect and immediately after passing the King Solomon prospect, the road crosses Big Herman Gulch. Some of the workings from the Doc Barr Mine are visible at the base of the ridge in the foreground to the south.

Carissa Mine and Mill. Continue on the road. In another 1.5 miles, the Carissa Mine and Mill will come into view on the left side of the road. This was one of the two leading gold producers in the district and produced an estimated 53,000 ounces of gold during the late 1860's to early 1870's.

A battery of ten stamps south of South Pass City historic site, on the south bank of Willow Creek. Many early prospectors wrote about the constant thunder coming through the gold camps as these rock crushers pulverized gold ore. (Photo by W.D. Hausel, 1981.)

Optional Tour (footpath along Willow Creek). Follow the trail which parallels the north bank of Willow Creek. After walking 0.9 mile, you will see large tailing piles in Willow Creek adjacent to the beaver ponds. At one mile from South Pass City, a jeep trail goes up the valley on the left. This trail is just east of a tiny cabin located across Willow Creek. A few feet from your present position is a carved adit. Farther up the hillside adjacent to the jeep trail there is a large mine dump at the mouth of a partially caved adit known as the Carrie Shields Mine.

Carrie Shields Mine. These workings are badly caved and unsafe. The Carrie Shields adit follows a N60'W trending shear zone in metagreywacke for 100 feet, then crosscuts 25 feet to the southeast and intersects a narrow quartz vein one to two feet wide from that intersection, the drift follows the vein on the MD'E trend for at least another 150 feet. The vein along this drift was stoped to the surface. Evidence indicates that 850 ounces of gold were extracted from this vein.

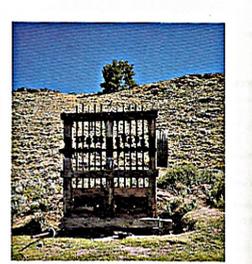
Caribou Mine. The decaying headframe of the Caribou Mine is visible on the north side of the ridge in the foreground. The Caribou Mine produced an estimated 26,300 ounces of gold from quartz veins in metagreywacke and metagreywacke of the Miners Delight Formation. The tunnel is 1,300 feet long and cuts through the waste rock. The waste rock is a silty quartzite, recently collected from the prior to intersecting sulfide-stained quartz veins in metagreywacke. All of the rock types intersected by the mine workings are present on the mine dump. Immediately to the west of the mine dump is a large concrete foundation of a historic stamp mill which was constructed to extract gold from the Gold Dollar quartz veins.

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Entrance to the Carrie Shields gold mine along Willow Creek. Rocks at the mine floor, intensely fractured metagabbro, are very unstable. (Photo by W.G. Albert, 1983.)

South Pass City with Carissa Mine and Mill in the background. (Photo by W.D. Hausel, 1983.)

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A battery of ten stamps south of South Pass City historic site, on the south bank of Willow Creek. Many early prospectors wrote about the constant thunder coming through the gold camps as these rock crushers pulverized gold ore. (Photo by W.D. Hausel, 1981.)

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South Pass City with Carissa Mine and Mill in the background. (Photo by W.D. Hausel, 1983.)

Drive back through South Pass City, and continue straight through the intersection, paralleling Willow Creek. At about 0.4 mile from the intersection, park your vehicle, cross Willow Creek, and walk up the hillside to the west. After crossing the railroad tracks (note the rounded reddish iron-stained boulder covering the cross-ties - these are iron ore tailings from the Atlantic City iron ore mine), you will see a group of shafts and mine dumps. This is the Franklin Mine.

Franklin Mine. The Franklin Mine produced 13,860 ounces of gold from quartz veins in metagreywacke. This area has been extensively invaded by pinkish granitic dikes and pegmatites. A sample of quartz veins from the mine dump was recently assayed one half ounce per ton. Careful examination of quartz vein samples is sometimes rewarded by finding visible

This ends the tour of the South Pass gold mining district. After you have visited the district, if you have any questions or rock samples that you would like examined, please feel welcome to write to:

The Geological Survey of Wyoming
Box 3008, University Station
Laramie, Wyoming 82002

or stop by and see us on the University of Wyoming campus in Laramie.

SUGGESTED READING

Baylor, R.W., Proctor, P.D., and Condie, K.C., 1973, Geology of the South Pass Area, Fremont County, Wyoming: U.S. Geological Survey Professional Paper 793, 39 p.

Blackstone, D.L., Jr., 1971, Travelers guide to the geology of Wyoming: Geological Survey of Wyoming Bulletin 55, 90 p.

Hausel, W.D., 1980, Gold districts of Wyoming: Geological Survey of Wyoming Report of Investigations 23, 71 p.

Hausel, W.D., 1982, Ore deposits of Wyoming: Geological Survey of Wyoming Preliminary Report 19, 39 p.

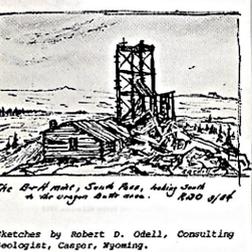
Hausel, W.D., Glass, G.B., Lagodon, D.R., Ver Ploeg, A.J., and De Bruin, R.H.F., 1979, Wyoming mines and minerals map: Geological Survey of Wyoming NS-5, scale 1:500,000.

Hausel, W.D., and Harris, R.E., 1983, Metallogeny of some Wyoming deposits: Colorado Mining Association Yearbook, p. 46-63. (Reprinted 1983: Geological Survey of Wyoming Reprint 44, 18 p.)

Hoover, L.M. (editor), 1960, South Pass, 1868: James Chisholm's Journal of the Wyoming Gold Rush. University of Nebraska Press, 244 p.

Root, F.K., 1977, Minerals and rocks of Wyoming: Geological Survey of Wyoming Bulletin 56, 84 p.

Wyoming Recreation Commission, 1976, Wyoming a guide to its scenic assets: Big Horn Rock Company, 327 p.



The Doc Barr Mine, South Pass, July 1900 view from the original photo area.

Sketches by Robert D. Odell, Consulting Geologist, Casper, Wyoming.