

Iowa Hill Placer Mine History

The year 1859 saw the first discoveries of placer gold on the Blue River at what became Breckenridge, which drew a rush to the area by 1860. A wave of prospectors staked claims at first along the Blue, then fanned out into tributary drainages, where they found additional deposits of placer gold. Iowa Gulch, located one mile north of Breckenridge on the Blue River's west side, was just such a tributary, and placer miners successfully processed its gravel for gold during the initial rush.

Archival information regarding the first mining in Iowa Gulch is scant, although sources indicate that miners were at work at the gulch's mouth by 1861. It remains uncertain to what extent Iowa Gulch and Iowa Hill were worked during the placer boom, although activity probably slowed or stopped after the boom's collapse.¹

Even though Iowa Gulch's soils and gravel possessed gold, the deposits lay fallow probably during much of the 1860s and 1870s. In 1878 the partnership Adams & Engle were working the gulch and hill, and netted only \$2,600 for their efforts.² The nature of Iowa Hill's gold was to blame for the low yield and for the idle periods. Like other placers on the flanks of the Blue River Valley, Iowa Hill was what was referred to as a bench gravel deposit, characterized by beds of gold-bearing gravel and fine gold distributed through thick soils. The early placer operations at Iowa Hill almost certainly followed convention and employed sluices and long-toms to win gold from the gravel. Such methods were effective for recovering course gold, but were of limited benefit for saving fine gold, even with the addition of mercury in sluice riffles to amalgamate with small gold particles. This primitive technology proved ineffective for Iowa Hill's bench gravel deposits, which could be profitable only through processing in economies of scale.

Two favored methods, pioneered in the California gold fields, were booming and hydraulic mining. Booming was fairly simple, but required capital both to build the necessary infrastructure and acquire sufficient water rights. The booming system relied on a sudden release of water from a reservoir into the placer workings. The rushing torrent loosened and carried gold-bearing material en masse into lengthy sluices, up to one thousand feet in some cases, where riffles and mercury caught the gold. Hydraulic mining involved a high-pressure jet of water squirted from heavy cast iron or brass nozzles known as monitors and little giants. Stout pipes carried the water under great pressure to the monitor from a reservoir far upslope. A worker played the jet against banks of gold-bearing soil, literally blasting the material loose and washing it into sluices. Advanced hydraulic operations used monitors to blast apart gold-bearing soils and booming to send the material into a sluice system.

Probably with this in mind, around 1880 Colonal Alfred J. Ware acquired 460 acres of gold-bearing land extending west from the Blue River over Iowa Hill. Ware had a fairly lengthy history with mining around Summit County, although his experience was limited to hardrock operations. Ware was originally a lawyer in Ohio and came to Colorado in the late 1860s. How he became involved with mining is uncertain, and by 1870 he managed the Comstock Mine on Glacier Mountain, which was one of Summit County's first hardrock operations. He became caught up in the excitement over hardrock gold discoveries in California Gulch in 1872, and finding little actually

¹ Fiester, 1994:28.

² Fossett, 1880:483.

happening, joined the pioneering prospectors who were exploring the San Juan Mountains. He returned to Summit County within several years, then returned to California Gulch with the Leadville boom. The year 1880 found Ware driving wagons and coaches at Leadville, where he apparently also profited from mining ventures. How he turned his attention from hardrock mining to placer operations is unknown, and by around 1880 he was back in Summit County to develop placer properties. The famed geologist Frederick Leslie Ransome credits Ware with being one of the first property owners to mine placer ground on an extensive scale in Summit County, and Iowa Hill was his start.³

By 1883 Ware's operations at Iowa Hill were an unqualified success. Ware financed an infrastructure for both hydraulic mining and booming. Approximately seven miles of ditches delivered enough water to run two monitors and fill two booming reservoirs. Gold collected in 260 feet of sluices, and miners played jets against cut-banks up to 80 feet high. Through this infrastructure, Ware realized an estimated \$300,000. While archival sources make little further mention of Ware's Iowa Hill operations, he probably continued into the mid-1880s, then tuned his attention to the Fuller placer property, which was on a much grander scale.⁴

Iowa Hill came into prominence again during the late 1890s under a different organization. In 1897, a group of investors hired Lemuel Kingsbury to examine and report on Iowa Hill's potential, and his report, released in 1898, gave a favorable outlook. Kingsbury's experience with placer mining is unknown, although he was seasoned in hardrock mining and helped found Highland City around silver mines in the Roaring Fork Valley in 1880. Kingsbury recommended a continuation of Ware's practices, which would require \$22,000 to build the necessary infrastructure. The investors agreed, and Kingsbury set a crew to work mining with hand methods while others began construction. By 1899 at least one monitor was blasting gravel banks, providing profitable results.⁵

By 1904, the Summit Banner Placer Company had control over Iowa Hill and secured Kingsbury, no doubt because of his familiarity with the place, to bring the property back into production. Under Kingsbury's recommendation, Summit Banner spent considerable capital rehabilitating the existing infrastructure and expanding it to permit greater production. Kingsbury laid plans for a fairly advanced hydraulic operation, which consumed most of 1905 to construct. First, crews of workers repaired flumes, cleaned out ditches, and patched repaired leaking dam at the head of the workings. Then, they turned their attention to building Kingsbury's additions. To provide enough water for at least two monitors, workers excavated two reservoirs 3,500 feet southwest and 200 feet higher than the workings in the gulch. One reservoir was designed to retain enough water to power two monitors for an entire day. Workers laid a stout pipeline, the pipes manufactured by the Gold Pan shops in Breckenridge, from the reservoirs to the workings. Additional sluices, four feet wide, were built to recover gold, and an automatic discharge gate was installed at the dam at the workings' head.⁶

One last feature was Kingsbury's clever solution to overcome problems presented by fine, heavy iron particles known as black sand that collected in sluice riffles. At best,

³ Griswold and Griswold, 1996:514; Fiester, 1994:257; Fossett, 1880:491; Henderson, 1926:227; Ransome, 1911:18.

⁴ *Colorado Mining Directory*, 1883:805.

⁵ *Colorado Mining Directory*, 1898:301; "Mining News" *EMJ* 10/21/99 p496; Griswold and Griswold, 1996:562; Kingsbury, 1898.

⁶ "Mining News" *MSP* 7/17/05 p397; "Mining News" *Mining Reporter* 10/20/04 p419; "Mining News" *MSP* 9/9/05 p182.

when workers cleaned black sand from sluices they inadvertently threw away many fine gold particles, which became hopelessly mixed in. At worst, as sluice riffles became clogged with black sand, fine gold particles were washed entirely through. As an unconventional means of saving the fine gold, Kingsbury applied vibrating tables, usually used in hardrock ore concentration mills, to separate the fine gold from the black sand. Vibrating tables featured a slanted tabletop clad with small riffles designed to delicately segregate particles of slightly different specific gravities. At Iowa Hill, Kingsbury's separation facility featured several vibrating tables powered by a motor in a shed near the workings' base. Since the tables were unable to completely separate fine gold, Kingsbury shipped the resultant concentrates to a smelter for final processing.⁷

In 1906 Kingsbury saw Iowa Hill put into production, and success was immediate. Through both hydraulicking and booming, workers processed approximately 4,000 cubic yards of soil per day, valued at \$.15 to \$.20 per cubic yard. In addition to placer gold, the hydraulic monitors exhumed a number of quartzite boulders that featured rare wire gold. Probably because of the success experienced at Iowa Hill, the Summit Banner company made arrangements in late 1906 to buy the Oro Grande Placer, a similar deposit at Dillon, north of Breckenridge. Around the same time, the Summit Banner investors acquired the Buffalo Gold Placer near Dillon and hired Kingsbury as manager there. At Buffalo Gold, Kingsbury effected another precedent-setting use of technology to work low-grade bench gravel deposits in economies of scale. He used steam shovels to scoop gravel and dump it into large sluices for washing in volume.⁸

It remains uncertain how long Summit Banner worked Iowa Hill, but by 1910 the company quit operations. In 1911 R.J. Roatcap leased the property to recover any remaining gold. The duration of Roatcap's operation remains unknown, although it was probably brief because Kingsbury's efficient infrastructure left little gold. Archival sources make no mention of Iowa Hill after 1911, suggesting it saw no further activity.⁹

⁷ "Mining News" *MSP* 9/9/05 p182.

⁸ "Mining News" *EMJ* 7/21/06 p129; "Mining News" *EMJ* 10/13/06 p707; "Mining News" *EMJ* 1/19/07 p160; "Mining News" *EMJ* 6/10/11 p1177; "Mining News" *MSP* 7/7/06 p25.

⁹ "Mining News" *EMJ* 7/15/11 p134.