

# Carlin: Where the Train Stops ... and the Gold Rush Begins

By Dan Oancea

**N**evada and Gold are words that go together like “peaches” and “cream.” Official [estimates](#) indicate that total world gold production since the beginning of civilization has been 4.97 billion troy ounces and total Nevada production is 3% of that, which ranks young Nevada as one of the earth’s primary gold-producing regions.

Nevada, like every piece of land, has a story to tell—the geological story of becoming a mountain or desert, a plain or a canyon. Also to be told is the story of its people, people that loved and hated, searched for gold and [silver](#), waged wars, and finally settled and founded [ranches](#) and cities.

A million years ago, the land that we call Nevada stretched for hundred of miles before it gently touched the majestic snow-capped mountains. Rivers and lakes left behind by the huge glacial melt provided for [Pleistocene megafauna](#). Giant sloths, camels, elephants and woolly mammoths competed for resources in an area also haunted by saber-toothed tigers, giant lions, big hyenas and dire-wolves.

Ten to fifteen thousand years ago, the first party of men penetrated the area. The brave hunters and gatherers left their marks, and their tools and weapons, which were dropped on the shores of many lakes, now riddle the landscape. There are flints, obsidian knives, darts and [atlatls](#), a fearsome device that uses leverage to attain great velocity in throwing spears and was capable of bringing down a large mammoth.

A few thousand years later, more modern humans settled down and started agricultural enterprises; they also mined turquoise and salt. Their dwellings evolved into what the world would later acknowledge as the enigmatic [Anasazi](#) ruins. Nevada’s [Lost City](#) experienced glorious days prior to being mysteriously abandoned.

The subsequent inhabitants of the area—[Paiute](#) and other Indian tribes—were encountered by the first white [explorers](#) to set foot in Nevada: the Spanish priest Francisco Garces in 1776, and the 1826 expeditions of the British Peter Ogden of the Hudson Bay Company and of the legendary American trapper [Jedediah Smith](#), then came Kit Carson, the Donner party and John C. Fremont.

In 1850 Mormons became the first white settlers of the state. The 1860 [Paiute War](#) cleared the way for further settlement and mining.

The secession of the southern American states and the discovery of the silver-gold lode of [Comstock](#) facilitated Nevada’s reaching statehood in 1864. The West came into being riding on the back of successive mineral rushes. In those early days, silver was king in the young state of Nevada.

Central Pacific Railroad reached [Elko County](#) in 1868 and the cities of [Carlin](#), Elko and Wells were established. The Wild West became history on December 5, 1916, the date when the

nation’s last horse-drawn stage robbery and murder took place in Jarbridge Canyon, Elko County, Nevada.

Gold has also been found by old-timers close to the city of Carlin but in limited quantities only. Later on, in 1907, placer deposits were also discovered but, being too small, they didn’t stir any excitement.

Grazing cattle and sheep flocks herded by [Basque](#) immigrants took over the stage as mining rushes subsided. The land’s vastness and emptiness and the herders’ total isolation created in them the condition known as being “struck by sagebrush,” which caused them to avoid contact with strangers. Their nickname for Ruby Mountain was “mata hombres,” which means “Man-killer mountain.”

There is a special breed of men—ones that built nations, won wars, advanced science or built financial empires. [Col. William Boyce Thompson](#) (1869-1930) is one of them—an American mining engineer, self-made capitalist, financier, philanthropist and founder of what would turn out to be one of the most successful mining enterprises ever.

In 1921, the colonel founded [Newmont Mining Corporation](#). The name came from “New York,” the city in which he made most of his money and Montana his birthplace. The company was intended to hold mineral and oil assets. For the gold mining part, the company acquired its first gold mine in 1929 — California’s Empire State Mine.

Back in [Nevada](#), in the late 1930s O.W. Vanderburg stumbled upon a large mass of silicified iron-stained material—the Getchel outcrop. The outcrop had been sampled many times before but the prospectors would only crush and pan the material, which was the norm in those days. As no ‘color’ would show up in the pan they would simply walk away. Vanderburg sent samples to the lab and assays indicated the presence of gold even though it wasn’t visible in the pan. He also noted that several of Nevada’s large gold mines were hosted by sedimentary rocks and at the same time they were of the disseminated type.

In 1960, Ralph Roberts, another [U.S.G.S.](#) geologist, who was doing a great deal of regional work came up with the idea that in central Nevada rocks have been pushed horizontally about 80 km to the east in what was called the [Roberts Mountain Thrust](#).

The 1961 year has to be remembered not only as the year of the failed Bay of Pigs Invasion but also as the year of one of the most important [U.S.](#) gold discoveries.

Geology deals with concepts and ideas as much as with rocks and minerals. In order to advance the science and be able to find the next deposit in an area that it is well known and situated on a beaten path one needs dreamers and analytical minds as much as determined characters able to pack a mule and go out to live the dream.



**An old Wild West mining cart with cast iron wheels and wooden frame.**

[John Livermore](#), a Newmont geologist, was one of that special breed of people. He tried to put the geological puzzle's pieces together and theorized that more sedimentary hosted disseminated type deposits might be found along the thrust fault line. Then he persuaded Newmont's management to let him take on a prospecting, mapping and sampling project along the newly inferred Robertson thrust. He got field support from Alan Coope, a young Newmont geologist.

Advised by the manager of one of the local gold mines they started to prospect the Blue Star mine area. The fact that a couple of old properties located next to the inferred thrust zone have been known to contain some gold values determined their decision to go into high alert. Detailed mapping and sampling followed. A hammer and a canvas bag would suffice. Soon they started to realize that there is a correlation between decent gold values and jasperoids.

It was at Popovich Hill that they finally obtained consistent low gold values, values that normally wouldn't stir anybody's interest. But they were placed in the right geological setting and it looked as if these values could validate their model.

Ralph Roberts was invited to have a look and confirm that their hill lies on the assumed thrust zone, which he did. Subsequently, John invited his supervisors to come and see what they had: a few very low gold values scattered all over the place and a bag of dreams. Undeterred, he seriously asked them to allow him to stake the area. Unimpressed—the low gold price might have had a bearing on the situation too—the management guys gave them the nod anyway. The area thus staked by John and his colleagues turned out to be one of a kind, nothing but the world renowned Carlin gold deposit.

At that time low gold prices prevented Newmont from developing its discovery, which in any case shaped very fast into an initial 3 million ounces deposit. In 1965 the deposit went into production and the city of Carlin gained its slogan: "Where the Train Stops . . . and the Gold Rush Begins".

At the same time, a new era was beginning for Newmont, which grew from a medium-sized company into a major international mining company. In Nevada alone, it employs over 2,800 people.



**Large open cast gold mine.**

John Livermore went to Canada where he continued to work for Newmont. Later on he pursued an independent career that brought him many satisfactions and many more Nevada deposit discoveries.

The [Carlin-type deposits](#) occur as clusters in dark carbonate rocks that have the appearance of coal. Hot acidic hydrothermal fluids dissolved the carbonate creating a sponge-like structure with voids subsequently filled by silica, sulphur and submicron gold. The mineralized fluids origin remains a disputed topic amongst passionate geologists.

As more similar gold deposits have been discovered, the area shaped into a southeast to northwest 80-km long and 8-km wide belt that holds more than 20 major gold operations, and it is considered to be the most prolific goldfield in the Western Hemisphere—the Carlin trend. Giant open pits produce 1 to 5 grams per tone gold ore while underground operations mine a richer 7 to 10 grams per tone ore. As of 2002, the Carlin-type deposits of northern Nevada were considered to having produced over 50Moz gold.

[Newmont](#) owns and controls almost 8,000 square kilometers of land, having all of its mines grouped on a stretch of land which straddles the Interstate 80 and is delineated by Winnemucca on the west and Carlin on the east.

Newmont's Eastern Nevada Operations include the now famous [Carlin mine](#) and several other surface and underground operations, and leaching and milling facilities. Their Western Nevada Operations are located on the Valmy trend and include surface mining and leaching operations—Twin Creeks and Phoenix—and the remote Midas gold-silver underground operation.

Almost 150 years after a prospector and his burro triggered the first mineral rush, the gold treasures of the Carlin trend are far from being exhausted by mines that riddle a land that has already provided so much for development. [Ranches](#) and mines, desert flies and casinos, wild mustangs and 240 tons haul-trucks. They all share the vast and out-of-this-world beauty of Nevada. ■

## Links and References

- Anasazi - <http://en.wikipedia.org/wiki/Anasazi>
- Atlatl - <http://en.wikipedia.org/wiki/Atlatl>
- Basque - <http://www.cowboyshowcase.com/basque.htm>
- Carlin city - [http://en.wikipedia.org/wiki/Carlin%2C\\_Nevada](http://en.wikipedia.org/wiki/Carlin%2C_Nevada)
- - Carlin mine, Gold Quarry (photo) - <http://www.geomineinfo.com/images/Gold%20Quarry%20-%201.JPG>
- Carlin-type deposits - [http://www.agiweb.org/geotimes/apr06/feature\\_GoldOrigins.html](http://www.agiweb.org/geotimes/apr06/feature_GoldOrigins.html)
- Col. William Boyce Thompson - [http://en.wikipedia.org/wiki/William\\_Boyce\\_Thompson](http://en.wikipedia.org/wiki/William_Boyce_Thompson)
- Comstock Mines - [http://en.wikipedia.org/wiki/Comstock\\_Lode](http://en.wikipedia.org/wiki/Comstock_Lode)
- Elko County - [http://www.nevadaobserver.com/History%20Of%20Elko%20County%20\(1912\).htm](http://www.nevadaobserver.com/History%20Of%20Elko%20County%20(1912).htm)
- Gold - <http://www.infomine.com/commodities/gold.asp>
- Gold production estimates - <http://www.nbmng.unr.edu/dox/mi/06.pdf>
- Jedediah Smith - [http://en.wikipedia.org/wiki/Jedediah\\_Smith](http://en.wikipedia.org/wiki/Jedediah_Smith)
- John Livermore - [http://content.cdlib.org/xtf/view?docId=kt796nb3xp&brand=oac&doc.view=entire\\_text](http://content.cdlib.org/xtf/view?docId=kt796nb3xp&brand=oac&doc.view=entire_text)
- Lost City Museum - <http://comnett.net/~kolson/>
- Nevada - <http://en.wikipedia.org/wiki/Nevada>
- Nevada Bureau of Mines and Geology - <http://www.nbmng.unr.edu/>
- Nevada history (explorers) - <http://www.city-data.com/states/Nevada-History.html>
- Newmont Mining Corp. - [http://www.infomine.com/index/companies/NEWMONT\\_MINING\\_CORP.html](http://www.infomine.com/index/companies/NEWMONT_MINING_CORP.html)
- Paiute War - <http://www.xphomestation.com/pautewar.html>
- Pleistocene Megafauna - [http://en.wikipedia.org/wiki/Pleistocene\\_megafauna](http://en.wikipedia.org/wiki/Pleistocene_megafauna)
- Ranches - <http://www.guestranches.com/cottonwood/>
- Roberts Mountain Thrust (picture linked to text)- <http://www.nbmng.unr.edu/slides/show.php?f=mmo&&n=20.jpg>
- Silver - <http://www.infomine.com/commodities/silver.asp>
- U.S.A. - <http://www.infomine.com/countries/unitedstates.asp>
- USGS - <http://www.usgs.gov/b>

Click here for full list of links: <http://go.mining.com/july08-a11>



**CostMine**  
Your Cost Data Resource Center

[www.costmine.com](http://www.costmine.com)

Mining Cost Services • Equipment Cost Calculator • Mining Compensation Reports

CostMine Division - InfoMine Inc. 2008 - [www.infomine.com](http://www.infomine.com)

# HARD ASSETS



## Investment Conference

STOCKS | FUTURES | OPTIONS | WARRANTS | BONDS | ETFs | FUNDS

**LAS VEGAS HARD ASSETS INVESTMENT CONFERENCE**  
**SEPT. 9-10, 2008 • MANDALAY BAY RESORT & CASINO**

### Position Your Portfolio for the Next Big Market Moves!

Join us at the Las Vegas Hard Assets Investment Conference and learn how to ride the highs and lows of this volatile market. This FREE conference will provide two full days of:

- First-hand insight on profitable mining stocks.
- Stock picks and investment advice from the most reputable newsletter writers.
- Opportunities to engage with executives from leading firms.
- Strategies to take advantage of the distress in financial assets.
- Opportunities to network with like-minded investors to learn their secrets.

#### Speakers include:



John Doody



Dennis Gartman



Elliott Gue



Al Korelin



Jim Letourneau



Ian McAvity



Tom O'Brien



Danielle Park



Lawrence Roulston



Jay Taylor

**PRE-REGISTER TODAY FOR FREE ADMISSION!**

**WWW.IICONF.COM • 800-282-SHOW • INFO@IICONF.COM**