

THE GOLDRUSH AND THE ICEBERG - A COMPARISON

Dr. Roger C. Steininger

March 13, 2014

This comparison between the Goldrush and Iceberg gold deposits is the product of reviewing the paper on the Goldrush presented by Barrick (Creel and Bradley, 2013) at the Society of Economic Geologists meeting in Whistler, B.C. (September 2013), and Barrick Gold's Thayer Lindsey Award presentation at the 2014 PDAC. It will be updated from time to time as new information on the two deposits becomes available. At the end of this document is a glossary that defines several of the technical terms used herein to assist those not of the geological persuasion.

REGIONAL SETTING

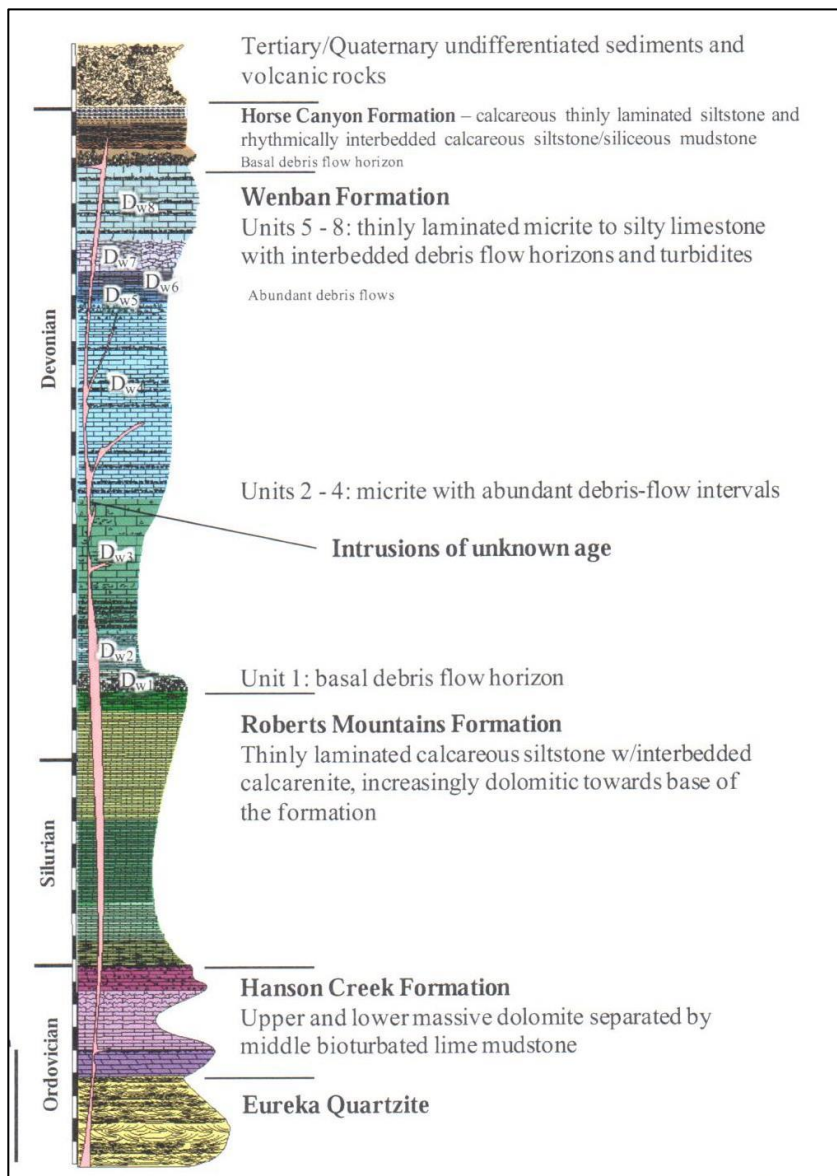
Host rocks and structures are two key elements to the formation of Carlin-type gold deposits (CTGD), once they come in contact with gold-bearing hydrothermal solutions. Structures include faulting and the folding of lithological units. Nevada, and the Cortez area, has an abundance of faults that served as channel-ways for hydrothermal fluids to bring gold-bearing solutions in contact with potential host lithologies. Folding of sedimentary rocks into anticlines developed important sites for gold deposition (most CTGDs occur at, or near, the crests of anticlines) since they are areas of more broken rock, and therefore increased porosity and permeability. The most important lithologies for hosting gold mineralization are carbonates that are not pure limestones and have a shaley component and/or contain debris-flow horizons. These lithologies were typically deposited on the continental margins, along the continental slope. This is a region where impure limestone commonly formed and since it is a slope environment debris-flows can also develop. A modern day analog would be the eastern and southern North American continental margin. The Cortez area was such a geological environment during the early to middle Paleozoic Era. Both Goldrush and Iceberg, and the other Cortez area gold deposits, occur in this geological setting. The rocks and structures that developed in the Cortez area are all conducive for hosting large CTGDs.

DEPOSIT GEOLOGY

LITHOLOGIES

GOLDRUSH

Figure 1-Stratigraphy of the Cortez area (after Creel and Bradley, 2013)



About 90% of the gold mineralization found to date is in the Devonian Wenban Formation (Dw) with the remainder in the Devonian Horse Canyon Formation (Dhc). The most important gold-bearing horizon is the middle Wenban (Unit 5 in Figure 1), a unit characterized by a fossiliferous

debris-flow. The second most important gold-bearing horizon is the contact between the Dhc and Dw (upper part of Unit 8 in Figure 1), which is a zone that is strongly disrupted by shallow dipping faulting, extending upward into debris-flows in the Dhc. Both of these horizons contained good primary porosity and permeability, and therefore are excellent hosts for gold mineralization. A good marker horizon in this sequence is Unit 4 which contains abundant fossils that have been replaced by calcite giving the rock a “salt and pepper” appearance.

ICEBERG

The early interpretation of the lithological sequence at Iceberg (from oldest to youngest) was the Devonian McColley Canyon, Denay, Devils Gate, and Horse Canyon formations, and Tertiary volcanic rocks. Certainly these units are exposed in the eastern part of the property. The gold-bearing rocks at Iceberg are Wenban and Horse Canyon formations. The characteristic Unit 4 of the Wenban was observed in two of the three several NuLegacy drill holes, which is a good marker unit.

Unit 5, the debris flow that is commonly silicified and hosts much of the gold at Goldrush is very difficult to identify in drill chips, and therefore it could only be interpreted that this unit was immediately above Unit 4 at Iceberg, and mineralization in RHB13-017 is likely Unit 5. Mineralization in holes RHB12-006 and RHB12-008 appear to be in lower Dhc and the top of the Dw. Recognizing the distinctive Unit 4 in the Iceberg chips is a significant step forward in identifying the lithologies intersected in the drill holes, and where the holes are in the stratigraphic sequence.

The Dhc is a characteristic lithology throughout the Cortez area and is potentially a good host for gold mineralization. Dhc is common throughout the Iceberg area. Above the Dhc is a volcanic unit that is interpreted as an older sequence of Tertiary volcanic flows and volcanoclastic sediments that may correlate with the 35 Ma dacite in Coal Canyon to the west (Steininger, 2013a). This unit is overlain by a thin veneer of 14 Ma Northern Nevada Rift basalts. The older volcanics contain gold mineralization at Iceberg, but no gold has been detected in the younger basalts.

STRUCTURE

GOLDRUSH

Mineralization is closely associated with the crest and along the eastern side of a doubly plunging north-northwest trending anticline that is a few hundred meters wide and traceable for a few kilometers along strike. The west limb has a shallow dip and the east limb has a

steeper dip. The two most common fault orientations on the property are north-northwest and east-northeast. At least one of the east-northeast faults is post-gold mineralization and down-drops the southern portion of the deposit. Despite several years of robust exploration programs, the conduits for hydrothermal fluid flow that brought the gold-bearing solutions into the Devonian host rocks have yet to be identified.

ICEBERG

Since drilling at Iceberg is reverse circulation, identification of fault zones is mostly conjectural, but surface mapping and cross section compilations indicated that the two most common orientations are north-northwest and east-northeast. The ages of these faults and their relationship to gold mineralization are not known at this time.

East dipping carbonate rocks crop out to the east of the Iceberg deposit, which produced the initial interpretation that these units dipped to the east within the gold deposit. Two holes drilled from the same site (RHB13-13 and 14) developed the interpretation that at least some of the carbonates dip to the west. If so, this strongly suggests that a north-northwest striking anticline is present and closely associated with the Iceberg deposit. Re-logging of the drill holes and a reinterpretation of the geology cross sections is in progress to confirm the possible anticline and to redefine the lithologies using the criteria outlined by the Barrick examination of the NuLegacy drill chips.

ALTERATION

GOLDRUSH

Initial hydrothermal alteration of the gold event was the removal of carbonate, which produced collapse breccias, and increased porosity and permeability, which improved the host rock potential. Only minor gold mineralization appears to have been associated with this stage of alteration. The northern part of the deposit contains a later influx of quartz that silicified the rocks, which also seems to have increased brecciation. The main stage of the gold mineralization followed silicification. In the eastern and southern parts of the deposit there is less silicification with the gold occurring principally in the decalcified limestones, with associated remobilized carbon. Since oxidation only extends to approximately 350 meters, much of the deposit is unoxidized and the gold is associated with sulfides, principally pyrite. In typical CTGDs, as is the case at Goldrush, gold bearing pyrite occurs as arsenic rich rims on diagenetic pyrite giving the sulfide its characteristic fine-grained “sooty” appearance.

ICEBERG

Typical CTGD alteration is present at Iceberg, including decalcification, silicification, brecciation, remobilized carbon, and gold-bearing pyrite. At this juncture there is insufficient information to outline the details of the alteration associated with the Iceberg deposit. This will be developed as part of the chip relogging program.

The Iceberg deposit, as currently known, is entirely oxidized (depth of oxidization is at least 250 meters). While there are a few deeper intercepts of gold-bearing pyrite, the extent and grade of this material is not known and at this point is not included as part of the Iceberg deposit.

MINERALIZATION

GOLDRUSH

There is strong lithological control to gold distribution, principally in the Dw debris flows of Unit 5 and at the Dw/Dhc contact. Decalcification and at least some of the silicification appear to be early events and preceded the major influx of gold mineralization. The higher gold grades appear to be closely associated with the more intensely faulted and folded areas, but as noted above the conduits for hydrothermal fluid flow have not been identified.

Barrick has resumed definition drilling, but have yet to outline the margins of the Goldrush deposit or its connection to the original ET Blue discovery. The deposit does not out crop and the vast majority of the mineralization is refractory. Barrick has, to date, released the following resource estimate¹.

Resource classification	Metric tons	Grade	Total ounces of gold
Measured	2,696,000 t	0.136 oz/t	367,000
Indicated	63,218,000 t	0.127 oz/t	8,000,000
Inferred	43,183,000 t	0.132 oz/t	5,555,000

ICEBERG

Given the widespread nature of the drilling, the details of the Iceberg gold deposit are not yet well known. Except for a few deeper intercepts of gold-bearing pyrite, all of the gold mineralization encountered is oxidized. Mineralization in the Devonian rocks has all of the characteristics of a CTGD. It also appears that the gold in the overlying volcanics may be of similar age, and is not the young Miocene gold typically found in the Northern Nevada Rift basalts. Drilling has in no way defined the limits of gold mineralization in the Iceberg deposit.

The compilation of 149 historic drill holes and 16 NuLegacy holes drilled in and around the Iceberg deposit indicate the presence of a¹ large tonnage Carlin-type gold deposit that offers a potential exploration target of 90 to 110 million tonnes grading between 0.7 g/t and 1.0 g/t of gold.

More drilling is required to outline the full extent of this deposit. While extensive areas of higher grades have yet to be discovered there are a couple of pieces of data that suggest that better grades may be discovered. The recently drilled hole RHB13-017 encounter 6.1 meters of 5.62 g/t, which is one of the best intercepts at Iceberg to date. Also outlined in Steininger (2013b), there is reason to believe that poorly collected samples from the historic drilling have severely understated the grade in historic holes.

GEOMETRY OF THE DEPOSITS

GOLDRUSH

As shown on Figure 2 the deposit is elongated and traceable for at least 4 km, up to meters wide, and from 10 to 100 meters thick. Also evident on Figure 2 there are several low-grade areas scattered in and around the higher grade zones. On the two cross sections (Figures 3 and 4) the elongated nature of Goldrush is clear, and on Figure 3 the association with the crest of an anticline is illustrated. The elongated configuration of Goldrush is not typical of a CTGD and indicates that there is strong stratigraphic control to gold distribution.

¹ However, this exploration target, based on reasonable assumptions made from compiled data, should not be construed to reflect a calculated resource (inferred, indicated or measured) under standards of NI 43-101. The potential quantities and grades are conceptual in nature and there has been insufficient exploration to date to define a NI 43-101 compliant resource.

Figure 2-Surface geology and contoured grade times thickness (grams Au times meters of mineralization above a cut-off grade) of Goldrush system (after Creel and Bradley, 2013)

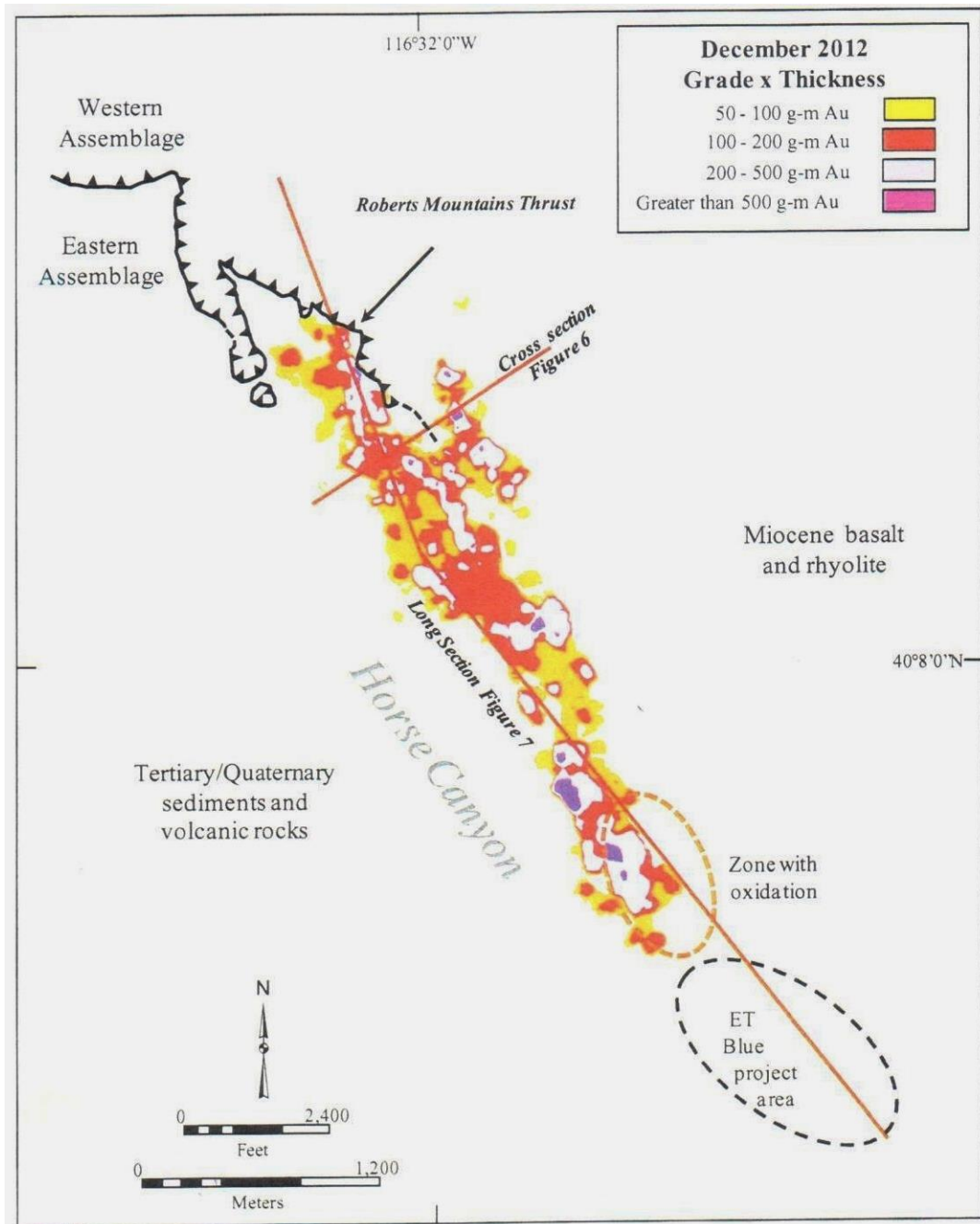


Figure 3-Cross section through northern portion of Goldrush system-location of this section is labeled as "Cross Section Figure 6" on Figure 2 (after Creel and Bradley, 2013)

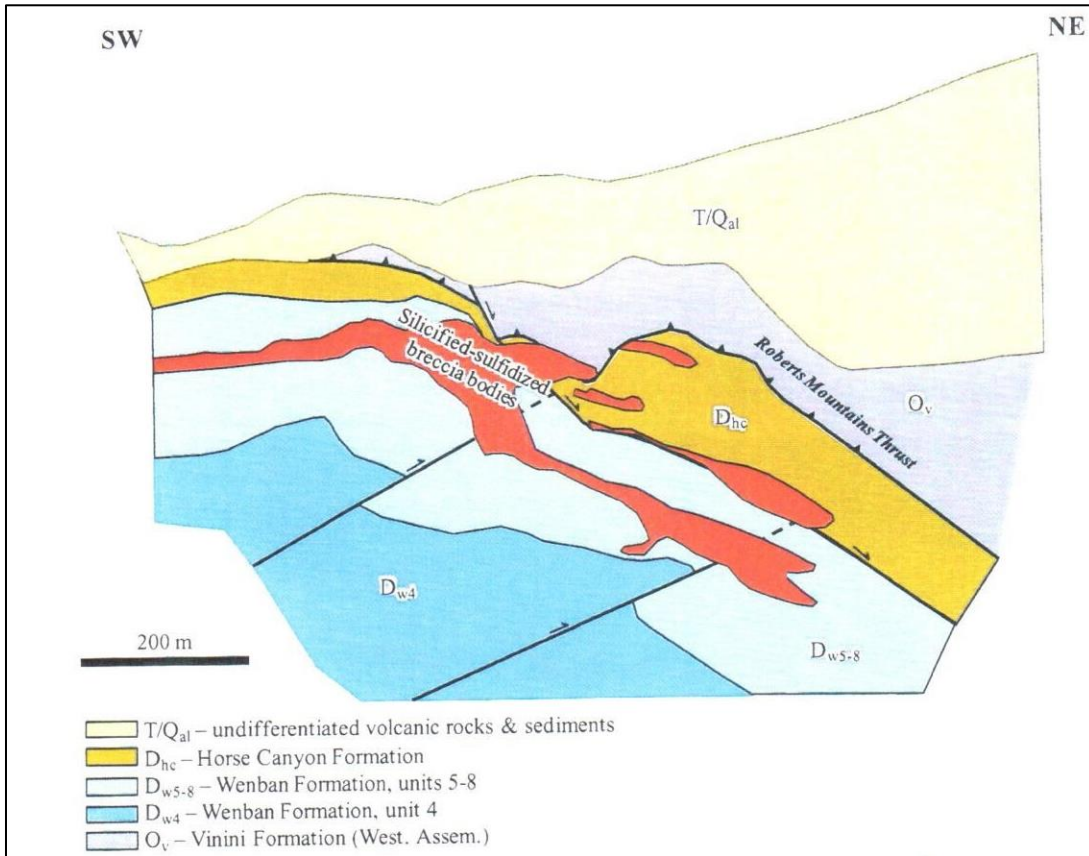
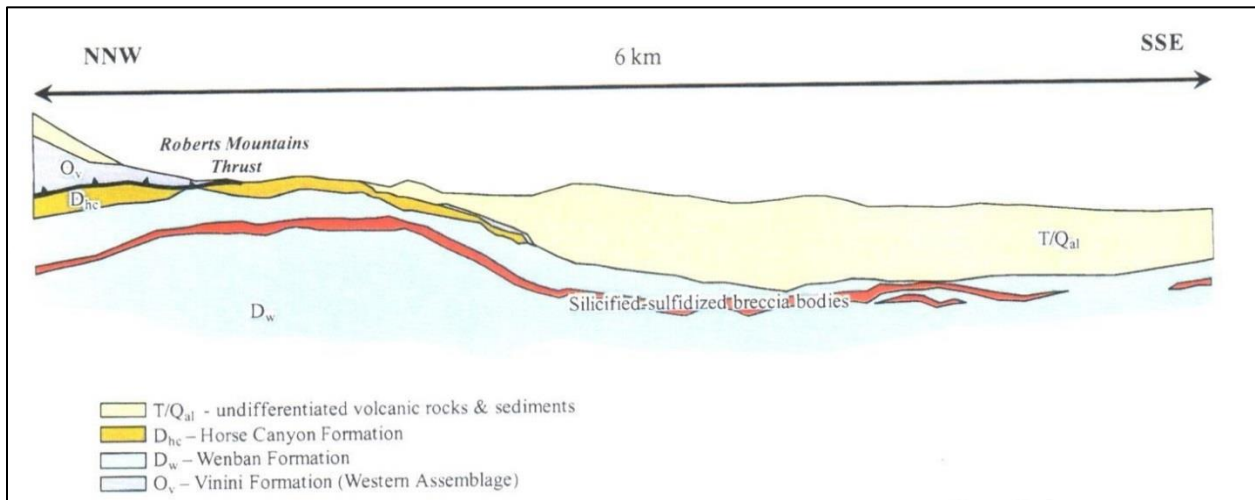


Figure 4-Long section through Goldrush system-this section is labeled as "Long Section Figure 7" on Figure 2 (after Creel and Bradley, 2013)



ICEBERG

Given the wide spaced drilling at Iceberg and given that many of the historic holes were not deep enough to encounter the favorable carbonate horizons, the geometry of the system is not well known. The minimum dimensions using historic and NuLegacy drilling is a zone that is at least 3 km long, 700 meters wide and 50+ meters thick. This mineralized area has a north-northwest trend that is typical of the Cortez area gold deposits. The oxidized mineralization that constitutes the Iceberg deposit is between 70 to 120 meters below the surface and appears to be an elongated continuous mineralized horizon in both the Central and North zones, and likely within the intervening undrilled gap. Therefore, the developing geometry of the Iceberg deposit is very similar to that of Goldrush.

DISCOVERY

GOLDRUSH

Although the Goldrush area has been explored since Homestake's drilling in the late 1960s, it wasn't until recently that the puzzle pieces were assembled to make the discovery. The keys were a better understanding of CTGD geology, particularly in the Cortez area, an open minded reconsideration of previous work, and extensive remapping and relogging of past drilling. This produced a new interpretation of the area's geology and potential for gold mineralization. Barrick also committed the resources (human and financial) to make the discovery.

ICEBERG

While NuLegacy Gold is not as far along as Barrick, we are on a similar track. All of the historic data has been assembled, the area has been remapped, and initial relogs of historic drill chips completed. With a new insight from the Goldrush deposit, a reinterpretation of the geology on cross sections within the deposit area is in progress. This will result in a more focused drilling program for 2014 and 2015 that will concentrate on areas of likely higher gold grades.

CONCLUSIONS

There are several similarities between the Goldrush and the Iceberg gold deposits. The most obvious similarity is that they are both Carlin-type gold deposits with characteristic hydrothermal alteration and geochemical patterns. Both have strong lithological controls, occurring in the same stratigraphic sequence, and display an elongated geometry. The discovery history of both deposits is also very similar, resulting from the reinterpretation of historic drilling and surface geology. The principal difference, at this point, is that Goldrush has a higher grade than Iceberg. Given the limited drilling and the higher grade in hole RHB13-017,

it is conceivable that with additional drilling at Iceberg higher gold grades than presently known will be discovered.

As NuLegacy learns more about Goldrush, that information will be used to guide the exploration at Iceberg. Also, as the existing knowledge of Iceberg is enhanced, it will be compared to what is known about Goldrush, to further guide the exploration on the Red Hill property in general and the Iceberg deposit in particular.

The scientific and technical information contained in this paper has been prepared by Dr. Roger C. Steininger, NuLegacy's Chief Operating Officer, CPG and a qualified person as defined by National Instrument 43-101 *Standards of Disclosure for Mineral Projects*.

CAUTIONARY STATEMENT

This paper contains "forward-looking statements" within the meaning of applicable securities and other laws which, by their very nature, are subject to numerous assumptions, risks and uncertainties which may cause actual results, performance or achievement to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. The presence of mineral resources on the Goldrush deposit is not necessarily indicative of the gold mineralization on the Iceberg deposit. There are currently no known resources or reserves on the Iceberg deposit and, to date, no preliminary economic assessment or other study has been carried out thereon. NuLegacy's proposed exploration programs are exploratory searches for commercial bodies of ore.

GLOSSARY

- Anticline-Sedimentary rocks that have been deformed into an upward arch
- Breccia/brecciation-rocks that consist of fragments that are cemented by a matrix that is commonly different than the fragments. Breccias are formed either along fault zones or by hydrothermal activity. Brecciation is the process that forms breccias.
- Coeval-rocks formed at the same time but in different locations.
- Carbonates-calcium carbonate rich rocks.
- Debris flow-moving mass of rock fragments, or poorly consolidated material, down a slope to be deposited in a location different than its origin.
- Devonian Period-period of geologic time from 400 Ma to 345 Ma, including most of the gold bearing sedimentary rocks in the Cortez area
- Digenetic-As used here, pyrite that formed at approximately the same time as the enclosing rock.

- Hydrothermal-hot waters, as used here that transport metals and altered the rocks that the fluids come in contact with.
- Lithology-used as a descriptive term for rocks
- Ma-as a suffix to an age date meaning million years ago
- Paleozoic Era-geologic time extending from about 570 Ma to 225 Ma, and includes the Devonian Period
- Stratigraphic-A body of rocks recognized as a unit for geological classification
- Tertiary-A geologic period from 65 to 2 Ma
- Volcaniclastic-sedimentary rocks that are eroded volcanic rocks deposited and cemented in layers

REFERENCES

Creel, Kevin D., and Bradley, 2013, Goldrush: Lessons Learned from the Latest Giant Gold Deposit Discovery in Nevada; in *Tectonics, Metallogeny, and Discovery: The North American Cordillera and Similar Accretionary Settings*; SEG Special Publication 17, pp 403-413.

Steininger, Roger C., 2013a, *Thoughts on the Age of Gold Mineralization in the Central Mineralized Zone, Red Hill Property, Eureka County, Nevada*, unpublished NuLegacy Gold Corporation report, March 26, 2013, 3p.

Steininger, Roger C., 2013b, *Iceberg Gold Deposit Resource Estimate*, unpublished NuLegacy Gold Corporation report, August 29, 2013, 5p.

ⁱ As reported by Barrick Gold Corporation as of December 31, 2013