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Mineral Resource update for the Bells Project at Hog Ranch Nevada, USA

HIGHLIGHTS

- Rex completes updated Mineral Resource estimate for Bells Project (Bells or the Project), situated within the Hog Ranch Property (Hog Ranch) in Nevada, USA (Figure 1).
 - o 24.4Mt @ 0.52g/t Au for 415,000oz
 - Represents a **35% increase** in ounces within the Bells Mineral Resource over the Bells component of the Maiden Mineral Resource reported in September 2019.
- Gold mineralisation at Bells commences at surface, with over 90% of the Mineral Resource at less than 75m beneath the surface.
- Bells is a discrete gold deposit, situated within the southern portion of Hog Ranch. It offers a smaller scale, lower capital project start-up opportunity for Rex.
- The Maiden Hog Ranch Mineral Resource (September 2019) of 830,000oz was made up of the Krista Project (521,000oz) and the Bells Project (309,000oz).
- The global Mineral Resource for Hog Ranch now stands at 936,000oz comprising: 521,000oz Krista (2019) and 415,000oz Bells (2020).

This upgrade comes on the back of excellent RC drill results at Bells (released November 2019), confirming the presence of a continuous "blanket" of shallow gold mineralisation, including the following highlights:

- 25.9m @ 1.18g/t from 6.1m
- 51.8m @ 1.35g/t from 13.7m
- 90m @1.23g/t from 21.3m

Rex Managing Director Mr Richard Laufmann, said: "The Bells Project area was an obvious place to start our initial exploration and economic studies. It was well defined, and offered a smaller scale, project start-up opportunity for Rex, at potentially lower capital than the larger northern Krista Project.

"We are now well advanced with a Scoping Study for Bells and are simultaneously upgrading the Mineral Resource at the larger Krista Project of Hog Ranch," Mr Laufmann said. "We expect to publish the results of these programs this quarter."



Rex Minerals Ltd (Rex or the Company) is pleased to announce an increase to the Mineral Resource estimate for Bells which is situated some 5km away from the larger Krista Project area, on the southern portion of Hog Ranch located in Nevada, USA (Figure 1). Bells is a subset of the earlier Maiden Mineral Resource estimate for the whole Hog Ranch Property (see ASX release dated 2 September 2019).

The Bells area was also mined by WMC as part of its open pit mining and heap leach operations at Hog Ranch which ceased in 1992 (Figure 5).



Figure 1: Location diagram of the Bells Project situated within the larger Hog Ranch Property.





Figure 2: View of the Bells deposit area today, which was mined by WMC at Hog Ranch. Top image is looking north-east. Bottom image is sitting on the Bells deposit looking due south.



Bells Project Mineral Resource Estimate

The Mineral Resource estimate at Bells is based on a large historical drill hole database in conjunction with a recent RC drilling program completed by Rex in late 2019. The recent drilling has enabled the Company to significantly upgrade its understanding of the distribution of gold at Bells relative to its host rock geology. In addition, Rex has been able to compare the new block model against the historical production records to further test the validity of the data which was used to create the updated Mineral Resource.

The geological distribution combined with low costs associated with a heap leach operation both support our selection of the more appropriate cut-off grade of 0.2g/t Au to the Mineral Resource estimate. This is also comparable with other similar open pit and heap leach gold operations in southwest USA.

Classification	Tonnes	Gold Grade	Gold Ounces
Indicated	8.8Mt	0.63g/t	176kozs
Inferred	16.4Mt	0.5g/t	239kozs
TOTAL	24.4Mt	0.53g/t	415kozs

Table 1: Summary results for the Bells Mineral Resource estimate.

Gold grades for Indicated Resources are rounded to two significant figures and gold grades for Inferred Resources are rounded to one significant figure. Some apparent differences in gold ounces may occur due to rounding.

The Mineral Resource at Bells is reported within an open pit shell optimised for heap leach processing, based on a gold price of US\$1,600/oz and a cut-off grade of 0.2g/t gold.

Historically, ore was mined from five pits to the north (at the Krista Project) and one pit to the south (the Bells Project area) for a total of six pits. The Maiden Hog Ranch Mineral Resource, released by Rex on 2 September 2019, included Bells to the south and the Krista Project area to the north.

A number of factors in combination (largely based on the results from the 2019 RC drilling campaign at Bells) have significantly enhanced the Mineral Resource estimate at Bells. Table 2 is a summary of the comparison between the September 2019 Mineral Resource and the updated January 2020 Mineral Resource for Bells at both 0.2g/t and 0.3g/t gold cut-off grades.



Date	Cut-off Grade	Tonnes	Gold Grade	Gold Ounces
September 2019	0.2g/t gold	24.3Mt	0.46g/t	360kozs
January 2020	0.2g/t gold	24.4Mt	0.53g/t	415kozs
Difference		0%	+15%	+15%
September 2019	0.3g/t gold	17.8Mt	0.54g/t	309kozs
January 2020	0.3g/t gold	20.6Mt	0.58g/t	384kozs
Difference		+15%	+7%	+24%

Table 2: Summary results for the September 2019 Mineral Resource estimate compared with theJanuary 2020 Mineral Resource estimate for Bells at both a 0.2g/t and 0.3g/t gold cut-off grade.

The Mineral Resource at Bells (as a subset of the Hog Ranch total Mineral Resource estimate) reported in September 2019 was based on a gold price of US\$1,300/oz and a cut-off grade of 0.3g/t gold. The Mineral Resource at Bells reported in this Announcement was based on a gold price of US\$1,600/oz and a cut-off grade of 0.2g/t gold.

Improvement of the Mineral Resource estimate for Bells was due to the confirmation of significant continuous shallow and higher-grade material that exists very close to the surface throughout the defined deposit area (Figure 3). This is reflected in the observation that over 90% of the Bells Mineral Resource exists within 75m of the surface.





Figure 3: Cross section 4554105mN at Bells (see Figure 7 for plan view location) highlighting the drill hole assay information relative to the defined geological domains.



Geology and Geological Interpretation

The host rocks throughout Hog Ranch are dominated by a series of relatively flat lying (or gently dipping to the west) volcanic rocks which can be broadly separated into two main rock types:

- Welded (often flow banded) rhyolite flow, which is the more competent and less permeable rock type;
- Unwelded volcanic tuffs, which are very soft and more permeable making them more amenable for fluid flow in comparison with the surrounding and more dominantly welded rhyolitic rocks.

The dominant host rocks at Bells are a relatively flat lying welded rhyolite rock which are separated into a number of rock units based on their texture and appearance. The dominant texture observable at Bells is flow banding. There is also the significant presence of a layered section of rock with distinct circular "spherulitic" textures, particularly close to the surface at Bells and closely associated with the higher grade gold mineralisation.

A number of regional structures have been identified at Bells which exist in both a north-easterly and north-westerly direction. These structures appear to cut through the host rock stratigraphy and have had a significant influence on the location of the gold mineralisation.

The gold mineralisation exists parallel to the bedded host rocks and is also observed to extend more favourably in the same direction as the regional structures.

Drilling Techniques

The historical drill hole database at Bells is dominated by vertical RC drill holes with an average depth just over 50m. This historical drill hole database has been augmented with some recent RC drill holes completed in late 2019 by Rex. The total drill hole data used for the Mineral Resource estimate at Bells included 501 historical (pre 1992) RC drill holes in addition to the 10 RC drill holes completed by Rex in 2019.

Sampling and Sub-sampling Techniques

Samples taken for almost all of the historical drilling at Hog Ranch are from RC drill chips which have been sampled over 5ft intervals. Discussions with geologists from WMC indicated that in general, the samples were dry and minimal water was encountered in the shallow RC drill holes. Normal industry standards for RC drilling and sampling are believed to have been followed for the historical drilling activities.

The 2019 RC drill holes at Bells were similarly sampled at 5ft intervals, as is general industry standard throughout Nevada.

Sample Analysis Method

Internal reports by Ferret Exploration identified that the samples from the RC drilling were completed using atomic absorption (AA) analysis by an external Laboratory (Barringer Resources) in Sparks, Nevada. After the drilling by Ferret Exploration and prior to the commencement of mining in 1986, the procedure changed, with all samples assayed by fire assay. Information from WMC geologists noted that the exploration RC drilling samples were sent to an external laboratory (Geochemical Service Inc.) based in Sparks, Nevada for fire assay analysis.

Drilling completed by Cameco (from 1994 to 1997) in addition to subsequent drilling by Seabridge (2001) was sent to the American Assay laboratory in Sparks, Nevada. Original assay sheets from the majority of these drill holes have been reviewed by the author and match the information in the drill hole database. Drilling completed by both Romarco (2004) and ICN Resources Ltd (ICN) (2009) are reported in NI43-101 reports respectively (Walker, 2005; Baker, 2010), who both state that their samples were analysed using fire assay at the ALS laboratory in Reno.

Samples from the 2019 RC drilling at Bells completed by Rex was also completed by ALS in their Laboratory based in Reno. The ALS laboratories in North America are accredited by the Standards Council of Canada (SCC) for specific tests listed in their Scopes of Accreditation to ISO/IEC 17025:2005.

The analysis used for all the 2019 RC drilling gold assays was fire assay with an atomic absorption (AA) finish (noted as method Au-AA23 in the standard schedule of Services from ALS Global).

Estimation Methodology

The block model was created using VulcanTM software with a parent cell block size of $10m(X) \times 10m(Y) \times 10m(Z)$. For reference, the historical bench heights were typically at 20ft in height (6m). The inverse distance squared (ID²) method was used to estimate gold only and estimates were constrained within the interpreted geological domains.

Up to three estimation passes with increasing search neighbourhood size were run for all domains. 5ft assay composites were used and estimation applied composite length weighting. Geostatistical analysis was performed using Snowden Supervisor. Top-cuts were applied for the block estimation for each of the defined geological domains individually. The top-cut defined was based on the disintegration approach of log probability plots and in each case the defined limit to the main population of data was above the 99th percentile.

In addition to the application of a top-cut, there was a "high-yield" restriction applied to the assay results that were top-cut. The high yield restriction limited the influence of these high-grade assay results to a $5m(X) \times 5m(Y) \times 5m(Z)$ area.

Classification

The Bells Mineral Resource estimate has been broken down into two categories.

Indicated Mineral Resource Classification

The gold mineralisation that has been classified as an Indicated Mineral Resource has the following attributes:

- is restricted to where the general geology and continuity of the gold mineralisation can be reasonably interpreted away from the historical Bells open pit.
- has been confirmed from modern drilling in the 2019 RC drilling program at Bells completed by Rex.
- has been interpolated within the first pass which are defined in Section 3 Estimation and modelling techniques.

Inferred Mineral Resource Classification

The Inferred Mineral Resource classification was adopted where the geology could be reasonably interpreted, and drill hole information identified a reasonable level of continuity within the shallow low-grade gold mineralisation up to a maximum distance 100m from any drill hole (pass three, see Section 3 – Estimation and modelling techniques).

Cut-off Grade

The Bells Mineral Resource is reported at a cut-off grade of 0.2g/t gold within a US\$1,600/oz open pit shell.

Mining and Metallurgical Methods and Parameters

An optimised open pit was developed on the Bells block model. Within this open pit optimisation, a cutoff of 0.2g/t gold was applied, and the Mineral Resource was then reported inside the pit above this cutoff. The optimised pit shell was based on a US\$1,600/oz gold price, US\$5.0/oz refining charge, 80% processing recovery, 45 degree wall angles, mining opex cost of US\$3.37 per mined tonne and a



processing/G&A cost of US\$6.79 per ore tonne based on estimates provided by the processing and engineering firm KCA & Associates out of Reno, Nevada.

Overview

Introduction

Hog Ranch is situated in north-west Nevada with year-round access via a series of highways and wellmaintained gravel roads from the nearest main city of Reno (**Figure 4**). The Property comprises 347 unpatented mining claims for a total area of approximately 2,800Ha.

Rex has reviewed the nature, and the possible extent, of the shallow gold mineralisation based on the records from the historical mining and a large historical drill hole database. This has identified a very large low-grade gold system, predominately at grades below the historical mining cut-off grade of approximately 0.7g/t. At the time the mining operations ceased at Hog Ranch, the gold price was averaging close to US\$330/oz.



Figure 4: Regional location diagram of the Hog Ranch Property, Nevada USA.



History

Gold mineralisation at Hog Ranch was first discovered in 1980 as part of a Joint Venture between Noranda Exploration and Ferret Exploration. After a few years of exploration and economic analysis by Ferret Exploration, a consortium made up of Western Goldfields, Geomax (Parent Company of Ferret Exploration) and Royal Resources ultimately provided the funding to commence gold production in 1986 via open pit mining and heap leach methods under the name of Western Hog Ranch Inc.

After approximately 18 months of production, the Project was subsequently sold to WMC, who purchased 100% of Hog Ranch in early 1988. WMC commenced a significant exploration effort, drilling over 1,600 RC holes, a series of additional deep diamond drill holes and further detailed studies during the life of the operation which continued until 1992 (**Figure 5**). Residual gold production and subsequent rehabilitation commenced soon after the mining operations ceased, all of which was completed by 1994.

Post-mining explorers at Hog Ranch have had small exploration campaigns relative to the exploration effort that occurred prior to and during the mining period. Cameco U.S. Inc was the first company to look in more detail under the cover rocks to the west towards an earlier discovery called the Airport Zone.

The next series of exploration efforts changed focus towards the potential for vein hosted gold mineralisation at greater depths underneath the shallow lower grade gold mineralisation. This exploration target type was investigated to a limited extent by Seabridge Gold Inc., followed by Romarco Minerals Inc. and then ICN, who all completed some further mapping, data compilations and subsequent diamond and RC drill testing.



Figure 5: Aerial photo of the Hog Ranch Operation in 1989. View is looking south.



For more information about the Company and its projects, please visit our website <u>https://www.rexminerals.com.au/</u> or contact:

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COMPETENT PERSONS STATEMENT

Mineral Resources, Exploration Target and Exploration Results

The information in this announcement for the Hog Ranch Property that relates to Exploration Results, Exploration Target or Mineral Resources is based on, and fairly reflects, information compiled by Mr Steven Olsen who is a Member of the Australasian Institute of Mining and Metallurgy and an employee of Rex Minerals Ltd. Mr Olsen is also a shareholder of Rex Minerals Ltd. Mr Olsen has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Olsen consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Forward-Looking Statements

This announcement contains "forward-looking statements". All statements other than those of historical facts included in this announcement are forward-looking statements. Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. However, forward-looking statements are subject to risks, uncertainties and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by such forward-looking statements. Such risks include, but are not limited to, copper, gold and other metals price volatility, currency fluctuations, increased production costs and variances in ore grade or recovery rates from those assumed in mining plans, as well as political and operational risks and governmental regulation and judicial outcomes. The Company does not undertake any obligation to release publicly any revisions to any "forward-looking statement".



JORC Code, 2012 Edition – Table 1 Report

Section 1 Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	Samples taken for almost all of the historical drilling at Hog Ranch are from RC drill chips which have been sampled over 5ft intervals. There are indications (but not common) from the paper logs of certain samples which were wet due to problems with clay, where water injection was required. Discussions with geologists from WMC indicated that in general the samples were dry and minimal water was encountered in the shallow RC drill holes.
	For the 2019 drilling program at Bells, which equates to 10 holes out of the total of 511 RC drill holes in the Drilling Database from the Bells area, the following sample techniques were followed:
	Sample intervals were taken over 5 foot intervals (1.52m) which were collected after separation of the sample using a rotary splitter situated at the base of the cyclone. The sample was split into three exit points for the following: primary sample, duplicate sample and remaining rejected material from which, a sample of rock chips were collected for geological logging. Water is injected at the head of the drill string at the hammer to supress dust.
	The individual drill rod length is 10 feet. After the addition of a new drill rod (after the collection of two 5 foot samples) the total return column is flushed to prevent spill over and contamination into subsequent samples down the drill hole. The rods would routinely be held static and flushed for a period of 4 to 5 minutes after the addition of each drill rod. The time taken to flush the return column is considered more than adequate to prevent contamination for subsequent samples given the relatively short total length of all the drilling completed in the reported RC drilling program.
	It was noted by the senior driller on site that there was some level of variability in the required pressure for drilling as a result of changing rock conditions from hard to soft. This is geologically interpreted to be a result of some sections of hard siliceous material that exist throughout the predominantly soft host rock material. This change in rock conditions can in some cases result in uneven sampling if not managed well by the senior driller controlling the pressure down the drill hole.
	Regular standards and blanks including pulp standards and unrecognisable waste rock blanks were routinely placed throughout the samples for each drill hole. A review of the results from all standards and blanks did not identify any evidence that there was contamination between samples as a result of the sampling techniques conducted at the drill rig. Sample weights collected as the primary sample typically exceeded 2.0kg which were subsequently pulverised to produce a 30g charge for fire assay at the laboratory.
Drilling techniques	The drill hole database at Bells is dominated by vertical RC drill holes with an average depth of 52m. Normal industry standards for RC drilling and sampling are believed to have been followed for the drilling activities. In 1982, an internal report from Ferret Exploration (Holso, 1982) documented the drilling and sampling procedure which states as follows:



Criteria	Commentary
	 <i>"Reverse-circulation drilling was selected as the samples provided would most nearly duplicate core. Lost circulation problems are also more easily overcome with this type of equipment. It was intended that all drilling be done with air injection only, but some water was required to penetrate thick clay units which caused drilling difficulties. Sloughing hole and accumulation of sample around the drill string annulus caused severe problems, especially early in the program in the deeper holes."</i> For the 2019 RC drilling Campaign at Bells, Drilling was completed using Revere Circulation (RC) drilling utilising double wall drill nine interchange hammer and 4% inch hammer bits to drill and sample the rock formation.
	No diamond drilling results were used as part of the updated Mineral Resource estimate at Bells.
Drill sample recovery	The paper logs available from the historical drilling at Hog Ranch all identify the locations where there was poor or no sample recovery for each drill hole. It has been observed from reviewing the recovery comments in the paper logs that there is a distinct change after 1985. The early drill logs completed by Ferret indicate poor recoveries and at least one sample interval, or more, where no samples were taken in almost every drill hole. In many cases these are logged as voids. However, there does not appear to be any other evidence for the presence of large voids at Hog Ranch, and these sections are more likely to be poor sample return at locations where the rock is strongly altered and clay rich.
	There is a risk with many of these early holes, that the sections which are more favourable for hosting gold mineralisation have been lost due to poor sample recovery. The unwelded tuff units are more permeable which allows for greater fluid movement during a hydrothermal event. This has resulted in significant clay alteration and also more favourable gold mineralisation within these zones.
	It is possible with the RC drilling that some of the soft and more mineralised zones have been lost and this could result in an underestimation of the Mineral Resource.
	The 2019 RC drilling program at Bells has provided further evidence that there was sample loss within clay rich mineralised locations based on comparisons between the modern RC drilling against the historical RC drilling.
	There was often found to be variable recovery which is considered to be due to the effects of clay alteration, and occasionally alternating sections of harder siliceous material. Up to 20% of all samples taken were undersized at less than 2kg in weight, considered to be a result of material washed away around structures and locations with significant clay alteration.
	It is the view of the competent person that significant drilling expertise is required at Bells to maintain control over the sample recovery to ensure that there is a relatively even amount of sample collected. There is a significant risk that some sections of the higher-grade clay rich material will be lost or under-represented within a regular 5 foot sample interval if the RC driller is not experienced with these types of ground conditions
	The RC drilling crew employed for the reported drilling program were an experienced team and were diligent with regard to the maintaining a regular sample size, however, there is some chance with the results that the variability of the ground conditions have resulted in some sections of clay rich material close to narrow structures underrepresented.



Criteria	Comm	entary							
Logging	The m studie to 198 and co the sa For all establ Table which	ajor rock u s complete 6 just prior pre logging me logging drilling pos ished which 3: Sample makes up	nits and alteratio d largely by West to the commence at Hog Ranch. Fo system for entry st 1986 (including n simplified the a legend for drill he 80% of the drill he	n chara ern M ement r the p into th g the 20 bility to bility to bility to bility to	acteristics a ining Corpo of mining, urpose of o ne Hog Ran D19 drilling o classify th ging inforn tabase.	at Hog Ranch wer pration. Based on , a standard rock consistency with the database. ; program) the fol ne major rock typ nation recorded	re identif what wa code and this earlie llowing ro es, altera from 198	ied from substantial ear as observed from the ori I alteration code system er system, the 2019 RC c ock codes and alteration ation zones and the wea 6 up to 1991 by Wester	lier work and technical iginal paper drilling logs prior was established for rock chip drilling program also adopted codes (Table 3) were thering profile. rn Hog Ranch and WMC,
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Criteria	Commentary				
	Type Example and associated Rock Codes				
	Densely				
	Rhyolite Flow Rock Code 4				
	tow-banded with lithophysae and spherulities Rock Code 9				
	Rock Code 1,2 & 3 Typically only weakly welded unit				
	Unwelded pumice-				
	lithic Lapilli Tuffs				
	Figure 6: Schematic diagram showing an idealised sequence of textures observed for a welded rhyolite flow and underlying unwelded tuff unit. Rock codes used to interpret the individual rhyolite flows and major unwelded tuff units are also identified.				
	The more dominant welded rhyolite flows typically extend for kilometres. Therefore, they can be modelled and interpreted with a relatively broad drill spacing.				
Sub-sampling techniques and sample preparation	The sampling approach used for the historical RC drilling during the initial exploration period by Ferret Exploration was documented in an internal report by Holso, 1982, which reported the following:				
	"Sample return from the drill hole was recovered through a cyclone type sampler. This sample was then split through a coarse splitter to approximately half of its volume. Further hand splitting through a riffle splitter was repeated until two four to five- pound samples were obtained. These were bagged in plastic with one sample intended for analysis while the other was retained for storage. Samples were taken over five-foot drilling intervals. In cases of insufficient sample, a full-size sample was slighted or omitted. When drilling with water injection through clays generally only one sample was collected. This sample was essentially a grab sample with uniformity attempted visually as it was found to be impractical to split such material."				



Criteria	Commentary
	It is considered that the above procedure was largely followed for the bulk of the drilling at Hog Ranch, with 5-foot samples from RC drilling making up over 99% of the drill hole database.
	The sub-sampling and sample preparation for the 2019 RC drilling at Bells is summarised as follows:
	Drill cuttings were discharged from the cyclone into a rotating splitter. Cuttings exit the splitter into three exit points with both a primary and secondary field sample collected directly into a sample bag which was fitted onto a collection bucket. A small portion of the rock chips for each 5 foot interval was placed into chip trays for record keeping and geological logging. This process was repeated for each interval, with the sample bags replaced after each 1.52 meter (5 feet) interval.
	After collection of the samples and drying at the laboratory (ALS Reno), the samples were initially crushed to 2mm before separation of a 1kg sample using a riffle splitter.
	The crushed 1kg sample was pulverised to better than 85% passing 75 microns and a 30g pulp sub sample was used for the analysis.
Quality of assay data and laboratory tests	Internal reports by Ferret Exploration identified that the samples from the RC drilling were completed using atomic absorption (AA) analysis by an external Laboratory (Barringer Resources) in Sparks, Nevada. A report by Holso in 1982 states the following:
	"Sample preparation and analysis were performed by Barringer Resources in SparksAtomic absorption (AA) analysis was used as it was cheaper than fire assay and appeared to give reliable results. Barringer routinely fire assayed samples greater than 0.03 ounces per ton gold as checks on the AA analysis. These values were not reported but copies of some worksheets that were obtained indicate reasonable compliance with AA values. At the completion of the program nearly all second splits of samples with gold values greater than 0.01 ounces per ton" (0.34g/t) "were fire assayed by Hunter Mining Laboratory in Sparks."
	After the drilling by Ferret Exploration and prior to the commencement of mining in 1986, the procedure changed, with all samples assayed by fire assay. Information from WMC geologists noted that the exploration RC drilling samples were sent to an external laboratory (Geochemical Service Inc.) based in Sparks, Nevada for fire assay analysis. Geochemical Service Inc. no longer exists.
	Drilling completed by Cameco (from 1994 to 1997) in addition to subsequent drilling by Seabridge (2001) was sent to the American Assay laboratory in Sparks, Nevada. Original assay sheets from the majority of these drill holes have been reviewed by the author and match the information in the drill hole database.
	Drilling completed by both Romarco (2004) and ICN (2009) are reported in NI43-101 reports respectively (Walker, 2005; Baker, 2010), who both state that their samples were analysed using fire assay at the ALS laboratory in Reno.
	Romarco also undertook some re-assaying of the Seabridge drill core, which, in essence confirmed the presence of some high- grade structures from this drill core, with some apparent influence from coarse gold interpreted as the main cause for variations in the assay results (Walker, 2005).



Criteria	Commentary
	The 2019 RC drilling at Bells was also completed by ALS in their Laboratory based in Reno. The ALS laboratories in North America are accredited by the Standards Council of Canada (SCC) for specific tests listed in their Scopes of Accreditation to ISO/IEC 17025:2005.
	The analysis used for all the reported gold assays was fire assay with an atomic absorption (AA) finish (noted as method Au-AA23 in the standard schedule of Services from ALS Global).
	ALS in reno routinely include its own CRM's, blanks and duplicates within each batch of samples. In addition, the Company inserted a large number of its own QA/QC check samples within each batch of samples.
Verification of sampling and assaying	Original paper logs where available for the historical drilling were compared and reviewed against the information within the Hog Ranch drill hole database. The paper logs typically recorded any sampling or core recovery issues when encountered, and also reported the assay results returned for each interval sampled. For the dominant drilling campaigns completed by Ferret Exploration, Western Hog Ranch Company Inc (Western) and WMC, there are available paper logs for 30% or more of the recorded drill holes (Table 5).
	The 2019 RC drilling program at Bells included a large number (over 20% of all samples) of QA/QC check samples that were placed throughout the samples. The QA/QC data included a 0.9g/t pulp standard, a 0.38g/t pulp standard, a blank pulp standard and a barren rock (unrecognisable) all spread throughout each sample submission.
	All QA/QC samples were returned within reasonable error limitations and there was no evidence to suggest that the assay results contained any contamination or systematic errors in either the sampling process or the assaying process at the laboratory.
Location of data points	Drill hole collar co-ordinates are recorded in UTM NAD83 (Zone 11N) within the Hog Ranch database. Historical collar coordinates have been converted into this datum over various stages and have been validated based on the following:
	 Discussions with personal from the time period that WMC was operating have confirmed that qualified mine surveyors picked up the drill hole locations after the completion of the various drilling campaigns. The drill holes were originally surveyed in a local mine grid, (which is related to and referenced to the NAD27 state plane), until at least the completion of the drilling by Cameco in 1996. The location of the Romarco and ICN holes can still be identified on the ground and from recent satellite imagery, which have confirmed their reported location in the drill hole database. The bulk of the pre-2000 drill hole collars were originally surveyed into a mine grid which is which is related to and referenced to the NAD27 state plane – Nevada West. The mine grid is the same as the state grid less 2,000,000ft in the northing direction and a slight rotation of 0.55 degrees clockwise around the Leadville benchmark on Hog Ranch Mountain, which was apparently the origin point of the mine grid.



Criteria	Commentary
	 The requirement to rotate the mine grid for the accurate placement of the drill hole collars was estimated by work completed by Romarco who completed the collar transformations in the database (Bob Hatch pers comm). The investigations completed by Romarco included locating the old drill holes and using a handheld GPS to confirm the accurate transformation of the drill hole collar information. The author has reviewed this transformation process with Bob Hatch and compared the locations of the drill hole collar positions against satellite imagery which can identify the disturbance associated with the bulk of the drill hole data in the Hog Ranch database. The author has also replicated the conversion process and compared the drill hole data from the database with information from the paper drill logs for each of the drilling campaigns where paper drill logs are available. A review of the current and historical topography in addition to remnant sites of disturbance relative to the drill hole collar hole collar information also indicate that the drill hole collars have been translated correctly. The validation process identified 82 drill holes in the Hog Ranch database. These drill holes do not correspond with any signs of disturbance and appear to be incorrectly located in the drill hole database. These drill holes and all other drill holes with dubious collar co-ordinates were removed from the drill hole database (rejected drill holes) for the Mineral Resource estimate due to the apparent errors in their drill collar positions.
	capable of 10cm/4in accuracies. Data collected is post processed using GPS data files from the UNAVCO, Vya Nevada base station located approximately 18 miles from the project site. Accuracy based on the distance from the base station are estimated at 20cm.
Data spacing and distribution	Data spacing is overwhelmingly at 5ft (1.5m) down hole from both the historical drilling and the 2019 RC drilling program. Accordingly, a composite length of 1.5m (5ft) was chosen.
	The drilling data and associated Mineral Resource in the Bells area are located on the side of a hill, with most of the drilling information and the defined gold mineralisation extending at predominantly lower levels from the crest of the historical mining (Bells pit) towards the south, west and to the north of the historical mining.
	The Indicated portion of the Mineral Resource exists almost solely within an area at Bells which has a drill spacing of less than 25m.
	The Inferred Mineral Resource at Bells extends beyond the limits of the constrained Indicated Mineral Resource, with drill spacing typically at close to 50m, and at a maximum of 100m away from a drill hole.
	The Inferred Mineral Resource at Bells does not exceed 500m away from the historical mining in the south, west and northerly directions. Figure 7 identifies the spread of drilling information available for Bells with the 25m spaced drilling and 50m spaced







Criteria	Commentary
	The 2019 RC drilling at Bells was completed at a 60-degree angle to accommodate the presence of largely horizontally dispersed gold mineralisation and occasional gold intersection that relate to a narrow vertical structure.
Sample security	The Bells project is in a remote location with no other people present during the drilling program other than the supervising geologist, the drilling crew and occasional visits by Rex management. The drill samples for the 2019 RC drilling program were all collected and placed on the ground at each respective drill hole under the supervision of the Rex geologist. At the end of the program, the samples were collected and placed directly into a sample collection truck under the custody of the independent laboratory, ALS Reno.
	Based on the known chain of custody of the samples and generally low-grade nature of the drilling results, there is no evidence to suggest that any of the samples were interfered with in any way.
	No assessment has been made with regard to the transport and security of the samples taken during the various stages of historical drilling at Hog Ranch. Given the mostly broad low-grade assays that exist in the database, the results from the historical mining and the ability to reconcile the RC drilling database against the gold produced from the historical mining, the author does not consider that there was any issue associated with the transportation and security of the samples that exist in the Hog Ranch database.
Audits or reviews	An important and unique aspect of the Hog Ranch Property is the information that is available from the historic mine activities, which reportedly produced approximately 200,000ozs of gold. The reconstruction of the historical open pits were compared against the reported mining information for each location as a method of reviewing and validating the data in the Hog Ranch database.
	A review and discussion with regard to the block model created for the Bells Mineral Resource estimate compared with the reported mining figures is provided in the Section 3 Table under the Criteria - Discussion of Relative Accuracy/Confidence.
	No other specific audit or review was conducted other than the validation checks by the author documented earlier (with regard to the sample preparation, analysis and security) for the information in the Hog Ranch drill hole database.



Section 2 Reporting of Exploration Results

Criteria	Commentary					
Mineral tenement and land tenure status	The Project is made up of 347 unpatented mining claims located in Washoe County, Nevada. The underlying title is held in Platoro West Incorporated (Platoro) and Nevada Select Royalty Inc. The claims are subject to an underlying agreement between Platoro, Nevada Select Royalty Inc and Hog Ranch Minerals Incorporated. The agreement provides full operational control of the Project to Hog Ranch Minerals Inc., with a series of minimum expenditure and activity commitments required to keep the agreement and the option to acquire 100% of Hog Ranch in good standing. In August 2019, Rex purchased a 100% interest in Hog Ranch via its purchase of the private company Hog Ranch Group, which in turn has 100% ownership of the company Hog Ranch Minerals Inc.					
					Hog Ranch Group, which in	
Exploration done by other parties	 Gold mineralisation at Hog Ranch was first discovered in 1980 after the Project had been initially explored for Uranium. Ferree Exploration was the first company to actively pursue the gold potential at Hog Ranch, leading to some initial Mineral Resource estimates and some mining Proposals. A consortium made up of Western Goldfields, Geomax (parent Company of Ferret Exploration) and Royal Resources ultimately provided the funding to commence gold production at Hog Ranch in 1986 via oper mining and heap leach methods under the name of Western Hog Ranch Inc. After approximately 18 months of production, the Project was subsequently sold to WMC, who purchased 100% of Hog Ranch early 1988. WMC commenced a significant exploration effort, drilling over 1,600 RC holes, a series of additional deep diamon drill holes and further detailed studies during the life of the operation which continued until 1991. Residual gold production at subsequent rehabilitation commenced soon after the mining operations ceased, all of which was completed by 1994. A sumr 				ored for Uranium. Ferret e initial Mineral Resource t Company of Ferret og Ranch in 1986 via open pit nased 100% of Hog Ranch in additional deep diamond esidual gold production and appleted by 1994. A summary	
paper by Bussey (1996) – see Table 4 Table 4: (after Bussey, 1996) Summary of the historical production (mined) from each open pit based on produc					sed on production blast hole	
	information prior to placer	nent onto the lead	ch pads.			
	Deposit/Resources	Tons (Mt)	Tonnes (Mt)	Gold (oz/ton)	Gold (g/t)	Comments
	Bells	1.18	1.07	0.041	1.4	Found first, mined last
	East Deposit	1.00	0.91	0.038	1.3	
	Krista Deposit	4.64	4.21	0.036	1.23	Largest deposit
	Geib Deposit	1.28	1.16	0.033	1.13	
	139 Deposit	0.23	0.21	0.028	0.96	Local visible gold
		0.1/ 9 E	0.15 77	0.045	1.54	
	IUIAL	ō. ɔ	1.1	0.036	1.23	



Criteria	Commentary
	Post-mining explorers at Hog Ranch have had small exploration campaigns relative to the exploration effort that preceded and was ongoing during the mining period. Cameco was the first company to look in more detail under the cover rocks to the west towards an earlier discovery called the Airport Zone. Cameco's drilling effort did intersect significant gold mineralisation and proved the evidence for further potential of shallow gold mineralisation at Hog Ranch under the cover rocks on the western side of the property. The next series of exploration efforts changed focus towards the potential for vein hosted gold mineralisation at greater depths underneath the shallow lower grade gold that was the focus of earlier exploration and mining. This led to a number of companies starting with Seabridge and followed by Romarco and then ICN, all of which completed some further mapping, data compilations and subsequent diamond and RC drill testing. The latest exploration effort at Hog Ranch has included two (2) lines of 2D seismic, completed by Hog Ranch Minerals Inc., which were completed as a precursor to a planned 3D seismic survey, again in an attempt to uncover the location of potential high grade vein hosted gold mineralisation at depth.
Geology	The geological setting, alteration and characteristics of the gold mineralisation defined at Hog Ranch all provide strong evidence that Hog Ranch is a low sulphidation epithermal style of deposit which formed close to the surface (Figure 8).
	low sulphidation epithermal deposits.



Criteria	Commentary
	Large zones of advanced argillic alteration, and horizontal layers of quartz ("Chalcedony Blanket") as defined in Bussey, 1996 and which can still be observed in the field today, indicate that the gold deposits were formed very close to a paleo water table (Figure 9).
	In addition, evidence from fluid inclusion work indicate that the shallow gold mineralisation at Hog Ranch formed very close to the paleosurface at the time that the gold mineralisation was deposited. The fluid inclusion work also implies a depth of formation to be less than 200m from the paleosurface, with approximately 100m of erosion of the paleosurface to the current topography also implied from modelling of the data obtained from the fluid inclusion work (Bussey, 1996).
	Within the northern mineralised zone and within the series of historical open pits, it was noted that the alteration and gold mineralisation was more favourably emplaced along more permeable unwelded tuff rocks. The unwelded tuff units, where present close to the historical surface, have created a favourable environment for the formation of an extensive shallow "blanket" of bedding parallel gold mineralisation.
	Kallinite +/- alunite +/- native S - opaline vilica (stean-heated alteration) Pelossurface Chalcedory Blanket Objectione Bibling Diseminated gold Diseminated gold Vein hosted gold Vein hosted gold Vein hosted gold Chorite-calcite +/- epidote
	Figure 9: (modified after Hedenquist et al., 2000) Schematic representation of the boiling zones within a low sulphidation
	epithermal deposit of the type interpreted to be similar to how the gold mineralisation formed at the Hog Ranch Property.



Criteria	Commentary
	The hydrothermal fluids that have resulted in both the alteration and gold mineralisation are interpreted to have been linked to a deep-seated source via a series of faults which acted as the plumbing system required to bring the mineralising fluids up to the paleosurface at Hog Ranch. This model of emplacement and formation for shallow epithermal gold mineralisation is similar to many epithermal deposits worldwide as documented by many authors (i.e. White and Hedenquist, 1995; Hedenquist, et al., 2000; Sillitoe; R. H., 1993, Corbett, 2002) (Figure 9).
	Some variations exist at Hog Ranch compared to the genetic model postulated in Figure 9 which is largely due to the physical characteristics of the host rocks. One key feature at Hog Ranch is that the shallow gold mineralisation has permeated more favourably along the unwelded tuff horizons at a position which is within 100m vertically beneath the paleo water-table.
	In addition, a separate target type is interpreted to exist in association with quartz-adularia veins at depth, within an interpreted boiling zone where very high-grade gold mineralisation may have developed. The position for this target type is speculated to exist at a depth of over 200m beneath the paleo water-table and down to a limited, but undetermined depth.
	Since the deposition of gold, surface weathering effects have cut the current landscape into and exposed parts of the large alteration system associated with the gold forming event at Hog Ranch.
	As represented in Figure 10 , the geological model for the gold mineralisation types at Hog Ranch details two major deposit types, based on the current level of understanding.
	 Extensive shallow and low-grade gold mineralisation within 100m of the paleo water-table, which has favourably extended along the more porous unwelded tuff units; and Higher grade quartz-adularia vein hosted gold mineralisation within feeder structures underneath this large system, which would have most likely developed at over 200m beneath the current day surface over a position known as the boiling zone.







Criteria	Commentary						
Drill hole information	There are multiple genera programs. In summary, T Original drill logs have also from drilling completed by 98% of the drill hole data Table 5: Summary list for	tions of drillin able 5 provide o been source y Ferret Explor oase at Hog Ra the number o	g that have been s for a list of the k d, as identified in ation, Western He nch. of drill holes comp	completed known drill Table 5 , wi og Ranch, N Dieted by t	at Hog Ranch wit holes that were c ith examples of dr WMC and Camecc he historical own	h multiple owners a ompeted each year ill logging and assa o, whose drilling car ers of Hog Ranch s	and management of these by the various operators. y information available npaigns make up for over Ince its discovery in 1980.
	Available paper drill logs	used to valida	te the drill hole d	latabase ar	e listed against e	ach year.	1
		Year	Company	Total # Holes	# Holes with Paper Logs	% Paper Logs	
		Unknown	Unknown	5	0	0	
		1980	Ferret	7	0	0%	
		1981	Ferret	14	14	100%	
		1982	Ferret	67	67	100%	
		1983	Ferret	43	43	100%	
		1984	Ferret	101	50	50%	
		1985	Ferret	202	0	0%	
		1986	Western	162	158	98%	
		1987	Western	289	31	11%	
		1987	Western	86	10	12%	
		1988	WMC	431	62	14%	
		1989	WMC	776	284	37%	
		1990	WMC	252	0	0%	
		1991	WMC	138	138	100%	
		1994	Cameco	16	16	100%	
		1995	Cameco	27	27	100%	
		1996	Cameco	13	9	69%	
		1997	Gold Valley	14	0	0%	
		2001	Seabridge	8	8	100%	
		2004	Romarco	9	0	0%	
		2009	ICN	18	0	0%	
		2019	Rex	10	10	100%	
		TOTALS		2688	917	34%	



Criteria	Commentary
	Where available, the original paper drill logs have been used to define the geology and validate the assay results and other drill hole information in the drilling database. From a total of 2,688 drill holes in the Hog Ranch database there were a total of 511 validated drill holes that were used in the Bells Mineral Resource estimate for a combined total length of 26,734.5m.
Data aggregation methods	No weighting average techniques or grade truncations have been reported in this release, and thus, this section is not material to this report on Mineral Resources. In reporting the Mineral Resource, a cut-off grade of 0.2g/t gold was used.
Relationship between mineralisation widths and intercept lengths	The bulk of the drilling information is from vertical RC drill holes (~90%) which is close to perpendicular to the dominantly flat lying stratigraphy and bedding parallel alteration and dispersed low-grade gold mineralisation. Therefore, most of the drill intercepts are close to the true width of the mineralisation defined in the Mineral Resource estimate.
	There are some narrow, vertical high-grade veins that do occur throughout the project which are at a very poor angle to the dominant drilling direction. Restrictions have been placed on the high-grade drill intercepts (reflecting this interpretation) to ensure that their influence is limited, particularly given this Mineral Resource estimate is focused on defining the shallow lower grade and horizontally dispersed gold mineralisation.
Diagrams	Figure 11 to Figure 16 below, are cross sections of the gold mineralisation relative to drill hole intersections and the block model used to define the Mineral Resource estimate within the Bells area. The cross sections shown in Figure 11 to Figure 16 are referenced in Figure 7.















Criteria	Commentary
Balanced reporting	The large drill hole database at Bells forms the bulk of the geological information with regards to the Mineral Resource estimate.
	Reporting of the database has been limited to information which is both relevant to the prospects of Bells or limited to the key highlights that relate to a specific target type or key piece of geological evidence relevant to the Project.
	Whilst not all details with regard to the drill hole database and other exploration information have been documented in this report, it is considered that an unbiased and appropriate level of reporting has been summarised for a balanced and informed view with regard to the current level of understanding of the gold mineralisation at Hog Ranch and more specifically for Bells as defined in this announcement.
Other substantive exploration data	In addition to the information provided in this report, explorers at Hog Ranch have at various stages completed significant soil sampling and geochemical analysis in addition to a number of geophysical surveys. A detailed description and analysis of the more regional exploration information is beyond the scope and focus of this document.
	A combination of the geophysics (magnetics plus other) data and satellite imagery reflect the well-established understanding with regards to the very large alteration system at Hog Ranch. In addition, based on the most recent collation of the exploration information completed by geologists at Pacific Rim Mining Corp, there remains numerous untested targets and anomalies for the two main types of gold mineralisation as discussed in Section 2 - Geology of this table.
Further work	There are two distinct target types at Bells which could lead to a commercially viable option for the development of a new gold project.
	Shallow low-grade gold mineralisation
	Similar to the earlier mining operation, the shallow dispersed gold mineralisation remains as a potential target, with a higher gold price and a relatively low-cost structure now potentially allowing for the economic extraction of the much larger and lower grade gold mineralisation.
	A basic assessment of the current economics for a new large-scale heap leach operation at Hog Ranch implies that a cut-off grade of 0.2g/t or lower could be used for gold prices in excess of US\$1,500/oz. The existing database has identified that the bulk of the gold mineralisation exists in the 0.2g/t to 1.0g/t range and it can also be observed that larger and more consistent bodies of gold mineralisation exist at this cut-off grade in comparison to a 0.7g/t or higher cut-off grade which is close to the cut-off grade applied historically.
	The opportunity now exists to consolidate and further validate the existing drilling database in addition to broadly drill testing the extensions to the large alteration system for evidence of further low-grade gold mineralisation. The Inferred and Indicated Mineral Resource estimate and further extensions to the defined Mineral Resource provide an indication of the scale of gold mineralisation that could be uncovered for consideration as part of a new gold operation at Hog Ranch.



Criteria	Commentary
	Deeper high-grade vein hosted gold mineralisation
	In addition to the shallow gold mineralisation, there remains a significant high value target type at depth which is common within similar styles of epithermal gold deposits throughout Nevada. The Sleeper and Midas gold deposit are examples of the target type which could occur in the right environment at deeper levels, underneath the shallower flat lying and lower grade gold mineralisation at Hog Ranch.
	This target type has interested many of the earlier explorers, due to its very high value in the event of a discovery similar to the Sleeper or Midas deposits. However, a combination of limited drill testing and the inability to easily predict the location of the favourable structures at depth has resulted in only limited success to date for this style of deposit.
	It is therefore considered that a more effective and efficient approach to testing the deeper vein hosted gold is to apply geophysical methods (such as 3D seismic), to refine the likely location of the more favourable structures for this target type prior to further drill testing of this significant and high value target type.



Section 3 Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	The information obtained for the drill hole data at Hog Ranch was contained within an Access Database. This database was originally compiled by earlier explorers who acquired the Hog Ranch Project post the period of active mining. Most of the data was compiled by exploration geologists working for Romarco, ICN and subsequently Pacific Rim.
	Rex has completed a number of validation steps to test the integrity and accuracy associated with the data that exists within the database, largely based on comparisons against the original paper drilling logs and other data that are available.
	In summary, the assay data, rock codes, alteration and other information in the drill hole database were reviewed and validated as follows:
	 Approximately 16% of the drill holes in the database are from the drilling completed by Ferret Exploration from 1980 up until 1986. Most of this drilling was located originally around the Bells area followed by the discovery and drilling of the northern deposits (around the West, 139, Geib and Krista pit locations). The author has been able to sight 40% of the original paper drill logs for the drilling that was completed by Ferret Exploration to assist with validating the drilling over this period. The standard rock codes (which appear to have been adopted after 1985) were not used by Ferret Exploration in their drill logs sighted by the author. Some logs did have a rock code assigned, in addition to a description made for each interval to describe the rock type and any other observable features. Assay results were handwritten onto the paper logs in ounces per tonne, which have been checked against the assay information in the database. All assay results appear to have been entered and converted correctly based on the information available from the paper logs completed by Ferret Exploration. By the time Western took control in 1986, a standardised approach to the core logging was established for the major rock types and alteration. The drilling completed by Western during 1986 and 1987 represents around 20% of the drill hole information in the database. Approximately 33% of the paper drill logs for drilling completed by Western were available to validate the drilling information over this period. Similar to Ferret Exploration, the assay information was handwritten onto the paper drill logs in ounces per ton for all drill logs that have been reviewed by the author. The bulk of the drilling in the database was completed by WMC from 1988 up to 1992 representing 60% of the drill holes in the Hog Ranch database. The drilling by WMC covered prospects all over the Hog Ranch Property as part of their regional exploration effort. Paper logs for 31% of the drilling completed by WMC have been si
	as per the codes identified in the Western paper logs. Note: Over 96% of the drill hole information in the database is from drilling completed between 1980 and 1992. Subsequent
	explorers were focused on either gold mineralisation out to the west underneath shallow cover rocks (Cameco/Gold Valley) or
	looking for deeper high-grade feeder vein hosted gold mineralisation underneath the shallow dispersed gold mineralisation that was exploited during the mining operations at Hog Ranch.



Criteria	Commentary
	 Cameco completed 56 drill holes from 1994 up until 1996, with an additional 16 holes completed by Gold Valley who was in a Joint Venture with Cameco in 1997. Combined, these drill holes were focussed on the discovery of new gold mineralisation underneath shallow cover rocks on the western portion of the Hog Ranch Property, close to, but not as far west as, the Airport zone. The author has been able to sight over 60% of the drill logs from this period of drilling, including some of the original laboratory assay sheets from American Assay Laboratory in Sparks, Nevada. Seabridge completed eight (8) diamond drill holes in 2001 searching for deeper vein hosted gold. Significant sections of this diamond core are still preserved in a storage shed close to Winnemucca in addition to the original drill logs and laboratory assay sheets being available. Seabridge was very selective with the sampling of the drill core and large sections remain unsampled. In addition, some re-sampling of the core, where there was reported significant mineralisation, was re-sampled and reported in an NI43-101 report by Walker (2004). All the information available from the Seabridge core in the drill hole database appears to be correct based on validation checks by the author. Further drilling was completed in 2004 and 2009 by Romarco and ICN Resources respectively which represent approximately 1% of the drill holes in the Hog Ranch database combined. The original drill logs for these holes have not been sighted. However, both drilling campaigns were reported separately within an NI43-101 reports (Walker, 2004; Baker, 2010). The assay results were reported to have been completed at the ALS laboratory in Reno by fire assay.
Site visits	The author has visited the Hog Ranch Project on multiple occasions throughout 2019, which included inspections of the rehabilitated open pits from the previous mining activities and observations during the 2019 RC drilling program at Bells. In addition, inspections and interviews were completed at Kappes Cassidy and Associates (KCA) site office and testing facilities who completed the original column leach tests for Hog Ranch prior to mining and also discussions with technical staff and management who were working for WMC at Hog Ranch during the time it was actively operating as an open pit and heap leach operation.
Geological interpretation	Regional Geology
	The geology of north-eastern Nevada is dominated by extensive volcanic rocks related to extensional tectonism of mid Miocene age. The Volcanic rocks in the region include the Summit Lake Tuff, Soldier Meadow Tuff and the Canon Rhyolite, all of which have been dated at between 16Ma and 15Ma.
	Closely associated with this volcanism is a series of gold deposits over a broad area known as the northern Nevada epithermal district, which includes bonanza grade gold deposits such as the Sleeper and Midas gold deposits. These epithermal deposits are interpreted to be genetically related to the Yellowstone Hot Spot (Saunders et. al., 2008) which can be traced from Northern Nevada in an east-north-easterly direction up to its present-day location in Wyoming (Figure 17).











Criteria	Commentary
	Local Geology Hog Ranch is located within a broad basin known as the Cottonwood Creek basin, with the associated host rocks related with the Cottonwood Creek Volcanic Centre (CCVC), which is made up of volcanic and volcaniclastic rocks. The volcanic rocks regionally are referred to as the Cañon Rhyolite which are overlain by volcaniclastic rocks referred to as the High Rock Sequence. The Cottonwood Creek basin is approximately 30km long in a north-south direction and 20km wide in an east-west direction. The bulk of the historical mining and defined gold mineralisation at Hog Ranch exists on the eastern margin of the Cottonwood Creek basin.
	 Stratigraphy The Hog Ranch Property is hosted predominantly in a thick sequence of volcanic rocks of the Cañon Rhyolite and a thin sequence of overlying volcaniclastic rocks of the High Rock sequence. The High Rock sequence is composed of volcanic sandstones, tuffaceous fluviolacustrine tuffs and diatomite (Bussey, 1996). Most of the High Rock sequence was deposited on an erosion surface which cuts into the Cañon Rhyolite, and locally interfingers with the uppermost flows of the Cañon Rhyolite. The Cañon Rhyolite is composed of a series of unwelded bedded tuffs and welded flow-banded rhyolite tuffs. Diamond drilling completed during the mining operations by WMC reported the Cañon Rhyolite to be over 1,000m in thickness (Bussey, 1996). The type model for the Cañon Rhyolite, which is the dominant host rock to the gold mineralisation at Hog Ranch, can be found at local mountain outcrops where parts of the Cañon Rhyolite are exposed. In the example shown In Figure 19, there is a feeder dyke leading up to the welded Rhyolite flow, from which a welded Rhyolite layer extends for over 2km in all directions. At Hog Ranch, the drilling has not identified the location of any feeder dykes and the broad stratigraphy is based solely on relatively flat lying alternate layers of Welded Rhyolite Flows and Unwelded Tuffs. It is typical for the large welded Rhyolite flows to extend for many kilometres at Hog Ranch and the surrounding area.







Criteria	Commentary
	The major flow banded units can be identified over a large area, extending in some cases for kilometres. Locally at the mine site, Bussey (1996) identified a number of flow banded units that could be traced in drill holes around the historical open pits (Figure 20). Locally, the oldest defined flow is the White Mountain Flow which extends underneath the historically mined open pits. A significant zone of unwelded tuff exists between the White Mountain Flow and the next well-defined flow called the Geib/Leach Pad Flow. Further to the south, the Bells deposit is hosted in almost solely a large spherulitic to flow banded welded Rhyolite rock. There is a not enough information at this stage to link the Bells flow to the other defined flows around the northern open pits. Discussions and geological review of the original drill logs where available have enabled a broad geological interpretation to be developed of the major welded flow banded units as described by Bussey (1996), over a large section of the Hog Ranch Project where drilling information with rock codes were available.
	Bells HOG RANCH MOUNTAIN WEST GEIB KRISTA EAST JK RIDGE
	Figure 20: (after Bussey, 1996) Summary Stratigraphy of the Hog Ranch Property including interpreted continuity of the major flow units between the major project locations.



Criteria	Commentary
	Structure
	Bussey (1996) has identified the key structural orientations based on information gathered from the mine pits. There are three dominant structural trends which appear to influence the local geology and gold mineralisation (Figure 21).
	dykes and vent alignments predominant vein orientation horizontal slickensides Inferred Strain Ellipse
	Figure 21: (modified after Bussey, 1996) Interpreted strain ellipse identified at Hog Ranch based on the known structures, veins and dykes mapped during the life of the mining operation.
	In summary, the defined structural orientations defined by Bussey (1996) have the following attributes:
	 The north-east striking faults move in a horizontal direction and often have gold mineralisation orientated in this direction dispersed around a tight structure. The intersection of this fault with other faults appear to have a strong influence on where the higher-grade gold mineralisation exists.
	2. The northerly trend is mostly filled with dykes and lines up with the broad regional trends that appear to have a more regional influence on the gold deposits. The volcanic vents that formed to create the host rocks line up in a north-south direction and often the gold mineralisation appears to exist as stacked loads which line up in a northerly direction.
	3. The north-west trending faults were identified as the orientation which host a number of narrow high-grade veins. These veins are possibly in a favourable orientation for development of high-grade vein hosted gold in feeder structures at depth in addition to some small high-grade sections at shallow levels.



Commentary		
Later explorers are reported fr	s have also identified a set of faults that strike at aroun rom mapping completed by Baker in 2009 at Hog Ranc	nd 70 ⁰ to 90 ⁰ or close to due east (Baker, 2010). These faults ch.
Alteration		
The alteration on X-Ray Powe broad alteration main source of 1995; Sillitoe, S	characteristics of the host rock and associated gold m ler Diffraction (XRD) analysis of over 291 samples from on pattern defined at Hog Ranch appears to be reflecti hydrothermal fluids for a low-sulphidation deposit as 1993).	ineralisation have been well defined in Bussey (1996), based n various drill holes throughout the property. In general, the ve of the alteration mineralogy and zonation away for the s defined by many authors, including (White and Hedenquist,
In total, nine a dominated by includes the buarea of 4km ² (I	Iteration assemblages were defined in Bussey (1996), quartz, adularia, various clay minerals, alunite and op ulk of the historical open pits covers an area of approx Bussey, 1996)	which are summarised in Table 6 . The alteration mineralogy aline silica. Alteration in the northern Hog Ranch region which imately 20km ² , and to the south at the Bells deposit covers a
Table 6: (after	Bussey, 1996) Description of alteration assembla	ges in the Hog Ranch district. *Minerals in bold type of
Table 6: (after <i>definitive for t</i>	Bussey, 1996) Description of alteration assembla he given assemblage.	ges in the Hog Ranch district. *Minerals in bold type a
Table 6: (after definitive for t Abbreviation	Bussey, 1996) Description of alteration assembla the given assemblage. XRD Mineralogy	ges in the Hog Ranch district. <i>*Minerals in bold type a</i> Comments
Table 6: (after definitive for t Abbreviation None	Bussey, 1996) Description of alteration assembla the given assemblage. XRD Mineralogy Alkalie feldspar, cristobalite	ges in the Hog Ranch district. <i>*Minerals in bold type a</i> Comments Devitrified, aphyric rhyolite, unaltered
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Criteria	Commentary
	The gold mineralisation can occur in the flow banded (welded) rhyolite units as well as the unwelded bedded tuffs and the overlying volcaniclastic rocks. High grade mineralisation is found in narrow quartz-adularia veins that were usually surrounded by large halos of lower grade material with only minor veining. The disseminated zones of mineralised rock had a flat tabular distribution (bedding parallel) which were best developed in unwelded bedded tuff units. The only exception to this is at Bells, which is dominated by a thick welded rhyolite unit. This is due to a lack of unwelded bedded tuffs for the fluids to more easily permeate, which differs from the northern area, where there are more extensive unwelded bedded tuff units.
Dimensions	The overall dimensions of the gold mineralisation created in the Hog Ranch block model were reviewed against the broad dimensions and distribution of gold identified throughout the drill hole database and also the gold distribution that is reflected in the historical open pits as reported by Bussey (1996). Higher grade mineralisation (over 1.7g/t Au) as defined in the report by Bussey is typically restricted between 50 and 100m where some level of continuity is observed. At lower grades, the gold mineralisation is identified in both the drill holes and from the historical mining to extend for hundreds of metres horizontally, up to a maximum of 400m, but is restricted to narrower intervals vertically, ranging typically from 20m up to a maximum depth extent of approximately 60 to 80m. This is also reflected in the block model as observations of the grade distribution in cross section (Figure 11 to Figure 16) and various horizontal slices appear to mimic the expected distribution of the gold mineralisation as documented within this report.
Estimation and modelling techniques	The parameters and modelling technique for the Hog Ranch block model are based on the current understanding of the geology and shallow gold mineralisation largely from documentation in Bussey (1996). In addition to further discussions held directly with Steven Bussey of Western Mining Services who worked as a geologist for WMC at the Hog Ranch mine during its operating life. Block Size A parent cell block size of 10m x 10m x 10m was used for the Hog Ranch bock model. The dimensions of the block size were chosen taking into consideration the nature of the gold mineralisation, the relative drill spacing available over the bulk of the Inferred Mineral Resource estimate (typically at 50m x 50m or less) with 1.5m (5 feet) samples down hole, and consideration of the likely mining method of open pit mining with bench heights of 10m or less. For reference, the historical bench heights were typically at 20ft in height (6m). Interpolation Method
	It was considered that with the current drill spacing at Hog Ranch and the rapid changes that can often exist naturally for a gold deposit of this nature, that there is a preference to bias the allocation of grade to the nearest neighbour and thus reduce the influence of assay information that is a greater distance away from the individual blocks. Therefore, the ID ² method of interpolation was chosen, utilising the following criteria for the search ellipse and also the restrictions as defined in the cut-off parameters for the higher-grade assay results.



Criteria	Commentary					
	Inverse distance squared (ID ²) to the parent block size was used to estimate gold (Au) only.					
	Search Ellipse Parameters					
	The search ellipse selected was based on the overall geometry and distribution of gold mineralisation that was documented in Bussey, 1996. There is a distinct preferential trend to the higher grade and lower grade gold mineralisation which is interpreted to be parallel to controlling structural features throughout Hog Ranch.					
	his dominant trend is in a north-easterly direction, where mineralisation appears to extend for between 100m to over 300m in ome sections). Perpendicular to this trend, there is reduced but still significant dispersion of gold mineralisation which is typically restricted to 50m but can extend in some cases to over 100m.					
	In the vertical direction, there is a strong control on the gold mineralisation which is broadly parallel to the stratigraphy, and the gold mineralisation has a much greater limitation to its distribution in a vertical direction.					
	The following search ellipse parameters were chosen for the sections of block model which could be defined as an Inferred Mineral Resource. The search used radius proportional weighting.					
	Pass One:					
	Vertical direction 10m,					
	 North-east direction 40m (orientated at 40 degrees), 					
	 North-west direction 30m (orientated at 310 degrees). 					
	Pass Two:					
	Vertical direction 15m,					
	 North-east direction 60m (orientated at 40 degrees), 					
	 North-west direction 45m (orientated at 310 degrees) 					
	Pass Three:					
	Vertical direction 20m,					
	 North-east direction 100m (orientated at 40 degrees), 					
	 North-west direction 75m (orientated at 310 degrees). 					
	Grade cutting or capping					
	Of particular concern with regard to the grade interpolation within the block model was to limit the influence of high-grade assay results which are more likely to be related to vein hosted vertical structures that are known to have a very small area of continuity. This higher-grade population of data is not considered to be part of the more continuous lower grade and horizontally dispersed gold mineralisation which is the focus of the Mineral Resources estimate.					
	To effectively review the data populations based on the current level of geological understanding at Hog Ranch, the assay data for					



Criteria	Commentary
	each modelled rock unit was reviewed individually. The summary statistical analysis was completed using Snowden SUPERVISOR software. The data for each population was taken from the composites created in Vulcan on 1.524m (5ft) intervals and coded relative to the appropriate geological domain.
	Log histograms and cumulative log-probability plots
	Statistical information was separated into the broad geological domains that could be modelled and identified from the historical technical information and matched with the information in the drilling database. The major rock units, which have distinctly separate physical properties and relationships to the gold mineralisation, were modelled in line with the stratigraphy identified by Bussey (1996, see Figure 20). Figure 11 to Figure 16 provide an example in cross section of the modelled geological units within the Bells block model for each Domain. A brief description of each domain is as follows:
	Domain 200 - Bells Project Upper High-Grade Zone
	There is a relatively consistent "shallow blanket" of higher-grade gold mineralisation (consistently above 0.5g/t) which corresponds well within a defined section of relatively flat rocks that have a distinct texture known as a spherulitic texture. This texture often develops at the tops and bottoms of individual volcanic rocks representing a possible position where there could exists a boundary between separate volcanic events.
	The hydrothermal fluids which transported and later deposited the gold mineralisation are interpreted to flow more favourably through breaks in the rock and through more permeable sections of the Volcanic host rocks. The spherulitic host rocks are interpreted to either represent a more permeable host rock and/or also contain a significant break or unconformity which developed in this position due to there being a contact or unconformity between volcanic flows.
	Domain 210- Bells Project Lower High-Grade Zone
	At depth there is a distinct continuous section of high-grade gold mineralisation (nominally above 0.5g/t) which has significant support over a large number of drill holes, particular in the northern part of the Bells deposit (Figure 13 and Figure 15). The overall dip of the gold mineralisation matches the trend of the stratigraphy, however, there is no specific rock unit or unconformity that has been identified to date which matches this high-grade domain.
	Domain 100 - Bells Project Low Grade Zone
	Surrounding the "high-grade" domains, there is a distinct "halo" of lower grade gold mineralisation which often cuts off abruptly at around 0.2g/t into locations which the grade distribution is mostly at less than 0.1g/t or at below detection levels. The dispersion is parallel to the interpreted bedding within the host rocks which fluid flow interpreted to have permeated into the surrounding rocks away from the high-grade zones or away from more permeable layers of the host rock.
	Cumulative log-probability plots for the samples used within the Bells Mineral Resource estimate are shown in Figure 23 to Figure 25 for each of the defined geological domain respectively. Data is displayed by domain for values above 0.05ppm Au which















Criteria	Commentary					
	Top-cut values applied to each geological domain					
	Top-cuts were applied for the block estimation for each of the defined geological domains individually. The top-cut defined was based on the disintegration approach of log probability plots whereby the high-grade tail starts to break away from the main population of data. In each case the defined limit to the main population of data was above the 99th percentile. A summary of the top cut values applied to the January 2020 Mineral Resource Estimate at Bells are shown in the table below.					
		Domain Code	Top Cut value (Gold g/t)			
		100	4.5			
		200	5.0			
		210	5.5			
	yield restriction has limited the influence of these high-grade assay results to a 5m x 5m x 5m area. The discretisation steps in the X, Y and Z direction were set to 5 within the 10m x 10m x 10m parent block. The basis to apply a high yield restriction is due to the interpretation that the bulk of these higher-grade assay results are associated with narrow vertically oriented structures and veins which have a very small area of continuity. It was noted from the historical mining information that there is at least one example of high-grade drill hole assay(s), which carried significant weight within an historical Resource prior to mining. Eventual mining to this region identified that the high-grade assay results were related to only a very small region and did not have a significant lateral extent, resulting in significantly less ounces mined than originally predicted. This example, plus the understanding of the high-grade assay results that typically relate to vertical vein hosted gold mineralisation, is the basis for applying the top cut and high-yield restriction on all assay results that exist above the determined top-cut value for each respective domain.					
Moisture	Tonnes have been es	timated on a dry basis.				
Cut-off parameters	The Mineral Resource is reported at a cut-off grade of 0.2g/t gold within a US\$1,600/oz open pit shell. Within the Mineral Resource estimate there is a sufficient volume of material above a 0.2 g/t gold cut-off to support an open pit mine.					
Mining factors or assumptions	The area defined around the historical open pit mines was reviewed to check for continuity of the gold mineralisation within a particular geological horizon. Where continuity away from the historical open pits could be reasonably interpreted, the gold mineralisation defined over this area was then assessed for its potential to exist within an open pit design at some point in time in the future.					



Criteria	Commentary				
	was applied, and the Mineral Resource was then reported inside the pit above this cut-off. The optimised pit shell was based on a US\$1,600/oz gold price, \$5.0/oz refining charge, 80% processing recovery, 45 degree wall angles, mining opex cost of US\$3.37 per mined tonne and a processing/G&A cost of US\$6.79 per ore tonne based on estimates provided by the processing and engineering firm KCA & Associates out of Reno, Nevada.				
Metallurgical factors or assumptions	There is substantial information from the results of the Historical mining and earlier large-scale test work which all indicate that gold recoveries from the major rock units should exceed 80%.				
	KCA, who are a specialised metallurgical testing and design engineering firm based out of Reno, Nevada, completed a number of studies leading up to the commencement of mining at Hog Ranch in 1986. The most significant test results that were completed and reported were from large 10t samples of the two major ore types sourced from two trial open pits in 1986.				
	The samples taken were reported from two separate pits. The sample in Pit No.1 was classified as mostly welded ash, considered by the author to represent the dominant rock type in the region which is the flow-banded welded rhyolite. The sample from Pit No.2 was reported to be partially welded and laminated rock with sections of very soft clay material. This is taken by the author to represent the often clay rich and more altered unwelded rhyolite material, or partially mixed material.				
	The material for the test work was crushed and agglomerated as per the design parameters that were established from earlier test work prior to being placed into 20ft high columns with leaching and testing completed over time to understand the leaching characteristics for both ore types.				
	The results from this test work identified the following based on head grades that are higher than what is currently contemplated in the Inferred Mineral Resource:				
	 Gold recovery from Pit No.1 was 80% in 80 days Gold recovery from Pit No.2 was 90% in 63 days of leaching (KCA, 1986) 				
	Historical Production Recoveries				
	A review of the results from the historical mining indicate that the recoveries for the life of the project were less than 70% (i.e. 200,000ozs recovered for just over 300,000ozs reportedly placed on the leach pads). However, discussions with some of the operators at the mine and indications from some internal reports have highlighted that this was largely a result of (potentially below cut-off) run-of-mine ore being placed on the leach pads, which was noted in earlier reports to have much lower recoveries, in the order of 50% or less. WMC stopped the practice of placing run-of-mine ore on the leach pad soon after they acquired the Hog Ranch operation in early 1988. Table 8 below shows the reported material mined and gold recovered when WMC operated and reported production from Hog Ranch, after removing the run-of-mine material.				



Criteria	Commentary								
	Table 8: Annual Gold Production information taken from WMC annual reports. WMC annual reports were based on the Australian financial year, which covered the period from 1 July through to 30 June the following year								
	Financial Year	88/89	89/90	90/91	91/92	92/93	93/94	94/95	TOTAL
	Ore treated (kt)	1,047	454	566	863	536	0	0	3,466
	Grade (g/t Au)	1.33	1.41	1.43	1.34	1.62	-	-	1.40
	Gold (kg) in ore	1,393	640	809	1,156	852	-	-	4,850
	Gold (ounces) in ore	44,775	20,583	26,025	37,184	27,399	-	-	155,966
	Gold (ounces) produced	31,850	17,311	20,538	25,413	23,070	7,405	4,590	130,177
	Recovered Grade	0.95	1.19	1.13	0.92	1.34			
	Implied Recovery	71.10%	84.10%	78.90%	68.30%	84.20%	-	-	83.46%
Environmental factors or assumptions	The Hog Ranch Property has experienced open pit and heap leach mining previously as is considered under the context of this report. Although the historical mining was rehabilitated over 25 years ago, the Project property has changed little since this time. A full review of the environmental factors that may impact on the potential viability of a new mining operation at Hog Ranch is beyond the scope of this report. The current information available and reviewed by the author indicates that there are no known new environmental impediments or liabilities with regard to a potential mining operation as of the effective date of this report. Therefore, no additional environmental factors or assumptions were made in addition to the overall mining cost assumptions that were applied to the open pit optimisation.								
Bulk density	A number of diamond drill holes that were completed by Romarco and Seabridge have been preserved and are under cover in a warehouse close to the township of Winnemucca, Nevada. Selective samples were taken from this drill core which represent the major rock units which host the gold mineralisation.								
	Density measurements for	these rock	samples wer	e taken at t	he ALS labor	atory in Ren	o. The met	hod for testi	ng was:
	Bulk density was determined on core samples, after coating with paraffin before analysis. The core sample was weighed and then slowly placed into a bulk density apparatus which is filled with water. The displaced water is collected into a graduated cylinder and measured. From the data, the bulk density is calculated as follows:								
	Density =	Weight of	sample (g)/V	olume of w	ater displace	d (cm³)			
	The paraffin wax	density is co	mpensated	for when de	termining th	e final bulk d	density valu	е.	
	In addition to the laboratory standard bulk density results presented in Table 9 , a larger number of bulk density measurements were completed from the available drill core using water displacement as the method to determine the bulk density. The results								



Criteria	Commentary						
	from this work identified an average density of 2.2 tonnes per cubic metre for the welded rhyolite based on 44 samples located from 13m to 100m below the surface, and an average density of 1.7 tonnes per cubic metre for the unwelded tuff rocks for 10 samples located from 5m to 100m beneath the surface. The recorded rock units have been largely separated and modelled as either a welded rhyolite flow or an unwelded tuff. However, it is recognised that there are some minor variations internal to the major rock boundaries where some minor welded rocks or less altered rocks may exist within the broadly defined Unwelded Tuff. Table 9: Summary of density measurements for various rock samples taken from available diamond drill core at Hog Ranch						
	Rock Type	Rock Description Depth (m) Gold Assay (g/t)					
		Unwelded altered and weathered Tuff	10.2	0.10	1.52		
		Stg altered unwelded Tuff unit	50.2	0.03	1.61		
	Unwelded Luff	Stg altered unwelded Tuff unit	146.0	0.01	1.30		
		Altered unwelded (to partial welded) Tuff unit	183.5	0.34	2.19		
	Average				1.66		
		Oxidized and argillised flow banded Rhyolite	22.0	0.02	1.81		
		Altered and mineralised flow banded Rhyolite	41.1	0.72	2.28		
	Welded Rhyolite Flow	Altered welded Rhyolite Flow	53.3	0.38	2.24		
		Altered and mineralised Flow Banded Rhyolite	60.2	1.10	2.38		
		Relatively fresh flow banded Rhyolite	304.3	0.06	2.29		
	Average				2.20		
	 On balance, based on the currently available information for the density of the rocks, the following density values were used for the two broad categories of rock types that have been defined in the geological model: Unwelded tuff was allocated a density of 1.7 tonnes per cubic meter Welded rhyolite flow was allocated a density of 2.2 tonnes per cubic meter 						
Classification	A unique aspect of the Hog Ranch Property is the historical mining which can be used to confirm significant details with regard to the geology, alteration and associated gold mineralisation. The available literature, based on the geological findings from the extensive exploration effort by WMC during the period that the gold mineralisation at Hog Ranch. Recent drilling and the resulting re-interpretation and reconciliation with the historical mining records have enabled Rex to place a higher level of confidence on a significant portion of the Mineral Resource based on the following criteria.						



Criteria	Commentary							
	Indicated Mineral Resource Classification							
	 The gold mineralisation that has been classified as an Indicated Resource has the following attributes: is restricted to where the general geology and continuity of the gold mineralisation can be reasonably interpreted away from the historical Bells open pit has been confirmed from modern drilling in the 2019 RC drilling program completed by Rex and, has been interpolated within the first pass which are defined in Section 3 – Estimation and modelling techniques. 							
	Inferred Mineral Resource Classification							
	The Inferred classification was adopted where the geology could be reasonably interpreted, and drill hole information identified a reasonable level of continuity within the shallow low-grade gold mineralisation up to a maximum distance away from any drill hole of 100m (pass three, see Section 3 – Estimation and modelling techniques).							
	Given the general confidence in the geology and gold mineralisation in the locations classified as an Inferred Mineral Resource, it is considered that only minimal validation drilling would be required to further upgrade the currently defined Inferred Mineral Resource into an Indicated Mineral Resource.							
	A further constraint was applied to the block model for the purpose of defining the Mineral Resource at Bells based on the following:							
	 An optimised open pit was developed on the Hog Ranch block model. Within this open pit optimisation, a cut-off of 0.2g/t gold was applied, and the Mineral Resource was then reported inside the pit above this cut-off. The optimised pit shell was based on a US\$1,600/oz gold price, \$5.0/oz refining charge, 80% processing recovery, 45 degree wall angles, mining opex cost of US\$3.37 per mined tonne and a processing/G&A cost of US\$6.79 per ore tonne based on estimates provided by the processing and engineering firm KCA & Associates out of Reno, Nevada. 							
Audits or reviews	No independent audit or review has been undertaken of the updated Mineral Resource estimate for the Bells Project which is the subject of this announcement.							
Discussion of relative accuracy/confidence	The estimation from the block model which is the basis for the Bells Mineral Resource has been reconciled against the reported historical production. A similar exercise was also undertaken as part of the review of accuracy with regard to the 2019 Mineral Resource estimate at Bells.							
	The reconciliation relative to the defined block model has improved considerably with the difference in tonnes, grade and total ounces all improving. The relative difference for both the tonnes and grade is now at less than 5%, with the variation to the total ounces at approximately 8% when compared against the production reported by Bussey (1996) (see Table 10).							



Criteria	Commentary				
	Table 10: Comparisons between the tonnes and grade reported for the Bells deposit from the historical production (Bussey,1996) against the Block Model estimation (using a cut-off grade of 0.7g/t) and based on the parameters and informationprovided in this report.				
	Source	Tonnes	Grade	Ounces	
	Reported Historical Production	1,070kt	1.41g/t gold	~48kozs	
	Block Model Estimate	1,116kt	1.45g/t gold	~52kozs	
	Difference	4%	3%	~8%	
	A combination of both the recent RG of the block model, particularly with inferred from the surrounding drillir model close to the historical mining Where drill spacing is increased or r Inferred, up to a maximum of 100m significant proportion of the Minera will be required to further converted	econciliation has provided signific corical mining where grade and ge idence is reflected in the change f certain, the remainder of the bloc hole. The Bells deposit is relativel erred category, it is considered th neral Resource into an Indicated N	cant confidence in the accuracy eological continuity can be to the classification for the block ck model has been classified as y well defined and although a nat minimal confirmation drilling Mineral Resource.		



References

Allard, G., Mian, N., Drossulis, K., Smith, K., 1987, Development of the Hog Ranch Mine Washoe County, Nevada: Internal company report prepared for Western Hog Ranch Company Inc.

Baker, D., 2010. NI43-101 Technical Report, 2010 Technical Report on the Hog Ranch Property: Report prepared for ICN Resources Ltd.

Bussey, S.D., Taufen, P. M., Suchomel, B. J. and Ward, M. 1993. Soil and stream sediment geochemical dispersion over the Bells deposit, Hog Ranch Mine, Washoe County, Nevada: F.W. Dickson and L.C. Hsu (eds) Geochimical Exploration 1991, J. Geochem Explor., v 47, pp 217-234.

Bussey, S. D., 1996. Gold mineralisation and associated rhyolitic volcanism at the Hog Ranch District, northwest Nevada: Geology and Ore Deposits of the American Cordillera: Geological Society of Nevada Symposium Proceedings, 1996, pp 181-207.

Corbett, G. 2002, Epithermal Gold for Explorationists: AIG Journal, Applied Geoscientific practice and research in Australia. Paper 2002-1, April.

Hedenquist, J. W., Arribas R., A., and Gonzalez-Urien, E., 2000, Exploration for Epithermal Gold Deposits: Reviews in Economic Geology, v. 13, pp 245-277.

Holso, S. 1982, Progress Report, Hog Ranch Project, Washoe County, Nevada: Internal company report prepared for Ferret Exploration Company Inc.

John, D. A., 2001, Miocene and Early Pliocene Epithermal Gold-Silver Deposits in the Northern Great Basin, Western United States: Characteristics, Distribution, and Relationship to Magmatism: Economic Geology, v. 96, pp 1827-1853.

Kappes, Cassiday and Associates, 1986, Hog Ranch Nevada, June 1985 Bulk Pit Samples 20ft Column Leach Tests_Final Report January 1986: Internal company report prepared for Ferret Exploration.

Marsden, H., and Baker, D., 2009. Geological and Geochemical Report on the Hog Ranch Project: Internal company report prepared for ICON Industries Ltd.

Ponce, D. A., and Glen, J. M. G., 2002, Relationship of epithermal gold deposits to large-scale fractures in Northern Nevada: Economic Geology, v. 97, pp. 3-9.

Saunders, J. A., Unger, D. L., Kamenov, G. D., Fayek, M., Hames, W. E., Utterback, W. C., 2008, Genesis of Middle Miocene Yellowstone hotspot-related bonanza epithermal Au-Ag deposits, Northern Great Basin, USA: Minerallium Deposita, DOI 10.1007/s00126-008-0201-7

Sillitoe, R. H. 1993, Epithermal Models: Genetic types, Geometric controls and Shallow Features: GAC Special Paper 40, Mineral Deposit Modeling. pp 403-417.

Smith, R. L., 1960. Zones and Zonal Variations in Welded Ash Flows: Geological Survey Professional Paper 354 – F. United States Department of the Interior, Geological Survey. pp. 149-159.

Walker, W. W., 2003, Summary Report on the Hog Ranch Gold Project, Washoe County, Nevada: Internal company report prepared for Romarco Minerals Inc.

Walker, W. W., 2004, Summary Report on the Hog Ranch Gold Project, Washoe County, Nevada: Internal Technical report prepared for Romarco Minerals Inc.

White, N. C. and Hedenquist, J. W., 1995, Epithermal Gold Deposits, Styles, Characteristics and Exploration: Published in SEG Newsletter, 1995, No. 23, pp. 1, 9-13



Competent Persons Consent Form

Pursuant to the requirements of ASX Listing Rules 5.6, 5.22 and 5.24 and Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

Report Name Mineral Resource Estimate – Report for the Hog Ranch Property, Nevada, USA

Company Name Rex Minerals Ltd (REX)

Name of the Deposit/Property Hog Ranch Gold Property, Nevada, USA

Date of the Report 29 January 2020

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Steven Richard Olsen



Statement

I, Steven Richard Olsen, confirm that I am the Competent Person for the Report and:

- I have read and understood the requirements of the 2012 Edition of the Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code 2012 Edition, having over five years' experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a member of the Australasian Institute of Mining and Metallurgy (membership number 207675) and the Australian Institute of Geoscientists (membership number 7014).
- I have reviewed the Report to which this Consent Statement applies.

I am an employee of Rex Minerals Ltd and have prepared the documentation for the Hog Ranch Gold Property in Nevada, USA on which the report is based for the period ending 31 August 2019.

I declare an interest in the Property as a shareholder of Rex Minerals and vendor of Hog Ranch Group which was acquired by Rex Minerals on 20 August 2019.

I verify that the Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to Exploration Targets and Mineral Resources.

Consent

I consent to the release of the Report and this Consent Statement by the Directors of Rex Minerals Ltd.

Steven Richard Olsen Date: 29 January 2020

Member - AusIMM (membership number 207675) and, Member - AIG (membership number 7014)

Signature of Witness

Kay Donehue Level 6, 1 Collins Street, Melbourne VIC 3000 Name and address of Witness