

# **Hog Ranch Gold Property**

ASX Release: 19 July 2022

## **Drilling Update**

#### **Rex Minerals Limited**

ASX: RXM | OTCQB: RXRLF ABN 12 124 960 523

#### **Directors**

Ian Smith, Non-executive Chairman
Richard Laufmann, CEO & MD
Amber Rivamonte, CFO & Executive Director
Gregory Robinson, Non-Executive Director
Andrew Seaton, Non-Executive Director
Kay Donehue, Company Secretary

Ordinary Shares on Issue 592,654,254 Unquoted Options 20,246,667 Hog Ranch Consideration Rights 15,000,000

#### Share Price Activity – June 2022 Quarter

 Low
 12.5c

 High
 28.5c

 Last
 13.5c

Cash & cash equivalent \$49.97M at 31 March 2022

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## **Assay results from Krista Area**

- Rex Minerals Ltd (Rex or the Company) has received the assay results from one (HR22-018) out of seven RC drill holes recently completed at the Krista Project, from within the Company's 100% owned Hog Ranch Gold Property in Nevada, USA.
- Highlights from RC drill hole HR22-018 include:
  - 147.83m @ 0.62g/t gold (Au) from surface (est true width ~104m) including:
    - 45.72m @ 1.06g/t gold from 44.2m (est true width ~32m) and
    - 4.57m @ 2.42g/t gold from 137.16m (est true width ~3.2m).
- The RC drill rig has since moved on to the Cameco and Airport Project area.
- All samples from the Krista drilling program are at the lab with results anticipated over the following 6-8 weeks.

"It's evident we are in a big system, as most of our recent drilling has confirmed.

"Delays in sample turnaround times continue to hamper our progress."

- Richard Laufmann, CEO and MD.



RC drilling at Hog Ranch has been completed over a broad number of target locations at the Krista Project area. This include tests for down dip extensions of historical drilling data and previously untested structures and breccias that are interpreted to be higher grade feeders for the extensive shallow gold mineralisation.

Drill hole HR22-018 was designed to confirm the broad gold mineralisation underneath the historical Krista Open Pit. The historical drilling is vertical and often ended in gold mineralisation.

Hole HR22-018 confirmed further extensions at depth to the known gold mineralisation in addition to a deeper higher grade gold position. This position is interpreted to be related to a feeder structure.

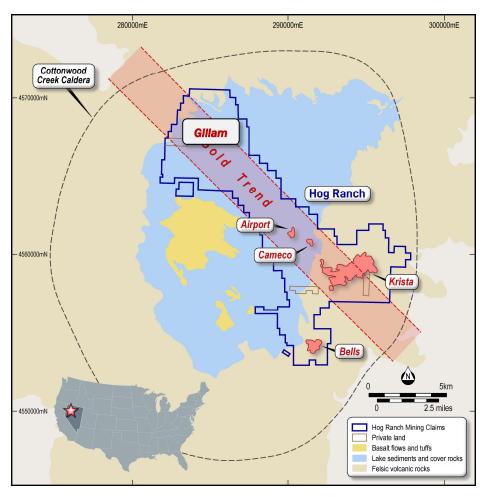


Figure 1: Location of Hog Ranch Property in north-west Nevada.

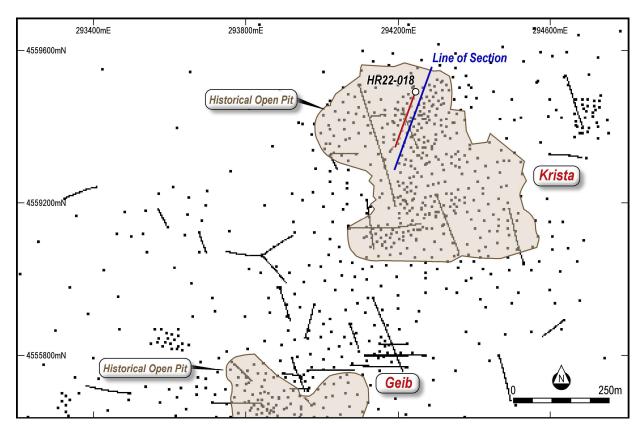


## **Krista Drilling Program**

A total of seven drill holes for just over 1,600m have been completed at Krista. The drill holes were planned to achieve multiple objectives, including confirmation to the continuity of the gold mineralisation around the historical open pits and to test for potential extensions to the gold mineralisation. This includes possible higher grade feeder structures at depth.

Hole HR22-018 (*Figure 2*) was completed at a relatively shallow 45-degree average dip to test for the possible vertically orientated feeder structures. This drill hole went through open pit back fill material (historical low-grade ore) which contained an average grade of 0.49g/t gold. This was followed by a section of relatively high-grade gold mineralisation from the base of the historical open pit which intersected 45.72m @ 1.06g/t gold.

Drill hole HR22-018 achieved all of its key objectives. The results confirmed better than anticipated gold grades from within the back fill material in addition to the primary host rock underneath the historical Open Pit. This was further followed up by a new section of higher-grade mineralisation of 4.57m @ 2.42g/t from 137.16m down hole (*Figure 3*). The estimated true width of both the horizontal and vertical gold mineralisation is approximately 70% of the reported down hole width.

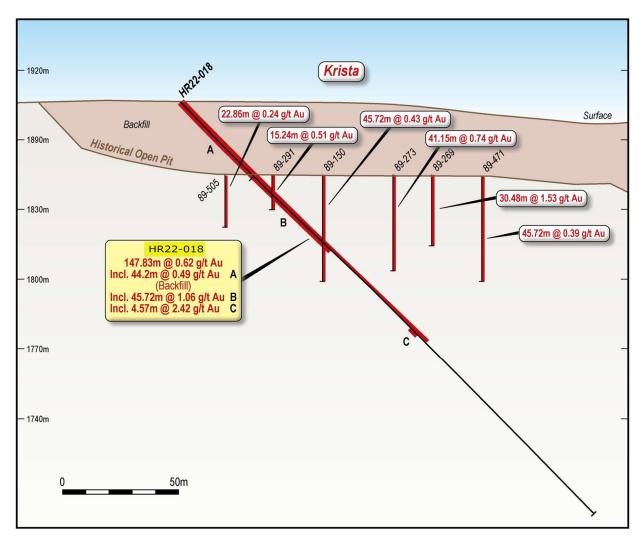


**Figure 2:** Krista plan view RC drill hole relative to the historical Krista and Geib Open Pit mines. Drill Hole HR22-018 was completed underneath the Krista Open Pit.



## **Regional Soil Sampling Program**

In addition to the RC drilling campaign, a large-scale soil sampling campaign is ongoing over the broader Krista Project area. Soil sampling has been completed over the central Hog Ranch Mining Claims including coverage of the broader Airport and Cameco Project locations. Results and analysis for the soil sampling completed to date is anticipated in August.



**Figure 3:** Cross Section of HR22-018 shown relative to the shallow and mostly vertical historical RC drilling information. See Figure 2 for the location of this cross section.

Drill Hole Number	From (m)	To (m)	Down-hole Length (m)	True Width (m)	Average Gold Assay (g/t)	
HR22-018	0.0	147.83	147.83	~104	0.62	
including	44.20	89.92	45.72	~32	1.06	
including	137.16	141.73	4.57	~3.2	2.42	

**Table 1:** Composited gold intersections from drill hole HR22-018. See Figures 2 and 3 for the interpretation of the relative geometry of the gold mineralisation relative to the reported drill hole results. Broader intercepts are reported at either a geological contact close to a lower cut-off grade of 0.2g/t and with internal higher-grade intercepts reported at an approximate lower cut-off grade of 0.5g/t.



This announcement has been authorised for release by the Company's Chief Executive Officer.

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

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### **COMPETENT PERSON'S STATEMENT**

The information in this announcement for the Hog Ranch Property that relates to Exploration Results, Exploration Targets 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 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, 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	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.				
	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	Drilling was completed using Reverse Circulation (RC) drilling utilising double wall drill pipe, interchange hammer and 4¾ inch hammer bits to drill and sample the rock formation.				
Drill sample recovery	Drill sample recovery was found to be variable which is likely to be due to the effects of clay alteration, and occasionally alternating sections of harder siliceous material. With particular reference to the drill holes referenced in this announcement, approximately 40% of all samples were considered underweight (<1kg) with poor sample capture. The low weight samples are typically in clay rich zones and spread between lower-grade and some higher-grade intervals, with no defined bias relative to the gold grade. Despite the poot sample capture in some locations, the distribution of gold is supported by regular gold grades with distinct boundaries throughout the drill hole.				
Logging	The major rock units and alteration characteristics at Hog Ranch were identified from substantial earlier work and technical studies completed largely by Western Mining Corporation (WMC). Based on what was observed from the original paper drilling logs prior to 1986 just prior to the commencement of mining, a standard rock code and alteration code system was established for rock chip and core logging at Hog Ranch (Table 2).				

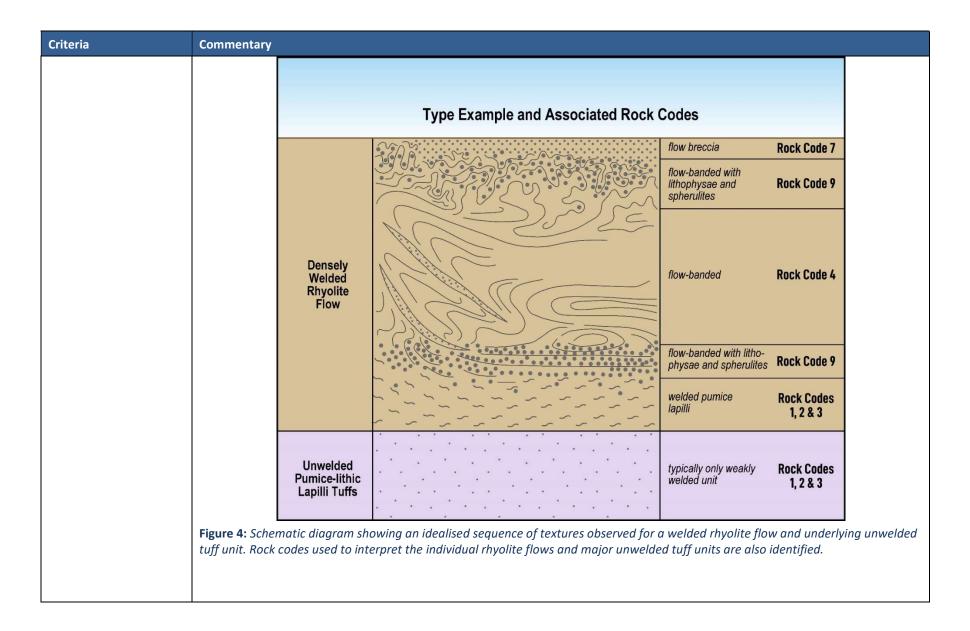
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into the Hog R Table 2: Samp	anch database.	ogging information r			the same logging system for the same logging system is same logging system.
Rock Code	Definition Definition	Alteration Code	Definition	Oxidation Code	Definition
1	Lithic tuff/clastic	1	Silicified	Blank	Oxidised
2	Pumice rich tuff	2	Bleached silica	0	Unoxidised
3	Ash fall tuff	3	Argillic	1	Oxidized Breccia
4	Laminated tuff	4	Opaline	2	Unoxidised Breccia
5	Tuff/rdd qtz grains	5	Sponge	3	Oxidised qtz sul
6	Tuff w/quartz eyes	6	Silica rich w/clay	4	Unoxidized qtz sul
7	Basal bx	7	Clay rich /silica		
8	Clay	8	Bleached argillic		
9	Spheroidal tuff	9	Unaltered		
the major flow The typical tex	banded units.	lite flow and unweld	ed tuff units from wit	hin the Cañon Rhyol	ne the broad boundaries bet ite can be characterised as sl o identified in Figure 4.

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Criteria	Commentary				
Sub-sampling techniques and sample preparation	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 1.52m (5 feet) interval.				
	After collection of the samples and drying at the laboratory (American Assay Laboratory (AAL) in Sparkes, Reno), the samples were initially crushed to 70% passing 2mm before separation of a 250gm sample using a riffle splitter.				
	The crushed 250gm sample was pulverised to better than 85% passing 105 microns and a 30g pulp sub sample was used for the analysis.				
Quality of assay data and laboratory tests	The gold assay information was completed by AAL. AAL is accredited by the Standards Council of Canada (SCC) for specific tests listed in their Scopes of Accreditation to ISO/IEC 17025:2017.				
	The analysis used for all the reported gold assays was fire assay with an ICP-OES finish. Over range gold assays (>10g/t) if present are analysed by Gravimetric (Weighted) finish.				
	AAL routinely includes its own CRM's, blanks and duplicates within each batch of samples. In addition, Rex inserted a large number of its own QA/QC check samples within each batch of samples.				
Verification of sampling and assaying	The RC drilling program included a large number (over 10% of all samples) of QA/QC check samples that were placed throughout the samples. The QA/QC data included a 0.81g/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. After completion of each drill hole, a labelled tag was left at the drill collar position for subsequent survey pick up of the actual collar location.				
	All drill collars from the 2022 drilling program were located using a Trimble ProXRT2 dual frequency L1/L2 GPS receiver 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 is estimated at 20cm.				
Data spacing and distribution	Data spacing down hole is consistent with all the historical RC drilling at 5 feet (1.52m). At Krista, the drilling was designed to test extensions that were below the current known gold mineralisation.				
Orientation of data in relation to geological structure	The bulk of the gold mineralisation is interpreted to be horizontal, with some minor vertical structures that act as the "feeder" structures for the gold mineralisation and can also be mineralised. Most of this historical drilling information is based on vertical drill holes which is appropriate for the dominant horizontal and disseminated gold mineralisation, but at a very poor orientation for the occasional vertically orientated gold bearing structures.				

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Criteria	Commentary
	Drill hole HR22-018 reported in this release was completed at an average dip of 45-degree (± 5 degrees) 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 Hog Ranch Property is in a remote location with no other people present during the drilling program other than the supervising geologist, and the drilling crew. The drill samples were all collected and placed on the ground at each respective drill hole under the supervision of Rex's 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, AAL in Sparkes, Nevada.
	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.
Audits or reviews	No audits or reviews were commissioned for the reported RC drilling program.

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# **Section 2 Reporting of Exploration Results**

Criteria	Commentary						
Mineral tenement and land tenure status	West Incorporated (Platoro Nevada Select Royalty Inc	o) and Nevada Sele and Hog Ranch Mir series of minimun	ct Royalty Inc. The clar nerals Incorporated. The action in the clark incorporated in the clark	aims are subject t The agreement pr	o an underlying a ovides full operati	nderlying title is held in Platoro greement between Platoro, ional control of the Project to Hog op the agreement and the option	
	In August 2019, Rex purcha has 100% ownership of the		-	s purchase of the	private company	Hog Ranch Group, which in turn	
	·			nanaged by the Bu	reau of Land Man	agement (BLM).	
Exploration done by other parties	The mining claims at Hog Ranch are located on open public land managed by the Bureau of Land Management (BLM).  Gold mineralisation at Hog Ranch was first discovered in 1980 after the Project had been initially explored for Uranium. Ferret 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 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 1991. Residual gold production and subsequent rehabilitation commenced soon after the mining operations ceased, all of which was completed by 1994. A summary of the gold production and geological information that was obtained during the mining operations was later summarised in a paper by Bussey (1996) – see Table 3.  Table 3: (after Bussey, 1996) Summary of the historical production (mined) from each open pit based on production blast hole information prior to placement onto the leach 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	
	West Deposit	0.17	0.15	0.045	1.54		
	TOTAL	8.5	7.7	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 prior to the acquisition of the Project by Rex was 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 5).					
	GEOTHERMAL SYSTEM  CO2 , H2S  CO2 , HCl, CO2  High sulphidation Au, Cu  Porphyry Cu (Mo, Au)  Saline magmatic fluid Liquid flow Vapour ascent  Figure 5: (modified from Hedenquist, et al., 2000) Schematic representation of the geological environment for the formation of low sulphidation epithermal deposits.					

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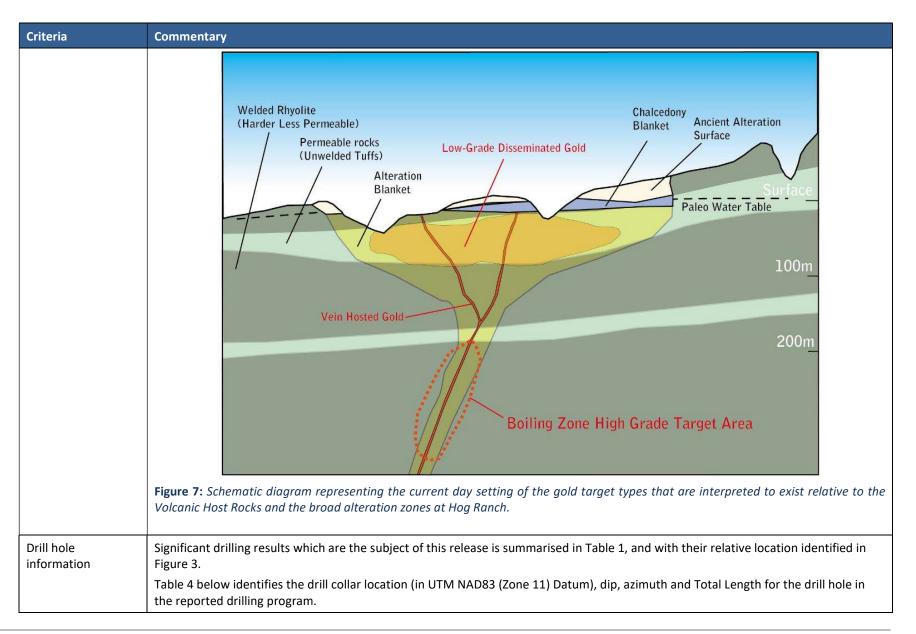
# Criteria Commentary Large zones of advanced argillic alteration, and horizontal layers of quartz ("Chalcedony Blanket") as defined in Bussey, 1996 and which can still be observed in the field today, indicate that the gold deposits were formed very close to a paleo water-table (Figure 6). In addition, evidence from fluid inclusion work indicates 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. Disseminated gold Chlorite-calcite Vein hosted gold Crustified quartz/chalcedony-carbonates Smectite/mixed-layer +/- adularia +/- barite/fluorite Sericite/illite +/- adularia clay +/- chlorite

**Figure 6:** (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 (ie. White and Hedenquist, 1995; Hedenquist, et al., 2000; Sillitoe; R. H., 1993, Corbett, 2002) (Figure 6).
	Some variations exist at Hog Ranch compared to the genetic model postulated in Figure 6 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 into the current landscape and exposed parts of the large alteration system associated with the gold forming event at Hog Ranch.
	As represented in Figure 7, the geological model for the gold mineralisation types at Hog Ranch details two major deposit types, based on the current level of understanding.
	<ol> <li>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</li> </ol>
	2. 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							
	Table 4: Drill Hole location information (UTM NAD83 (Zone 11N) Co-ordinate System)							
	Drill Hole Number	Easting	Northing	Elevation (m)	Dip	Azimuth	Total Length	
	HR22-018	294244	4559492	1906	-45	200	249.9m (820ft)	
Data aggregation methods	In reporting the assay results in Table 1, a nominal cut-off grade of 0.2g/t gold was used or, in some cases, extended into lower grawhere geological continuity of the gold mineralisation is interpreted.							
Relationship between mineralisation widths and intercept lengths	The drilling information reported has an average dip of 45 degrees. The general orientation of the gold mineralisation is interpreted have a horizontal dispersion of the larger scale lower grade gold mineralisation with true widths typically at 70% of the down hole intercept lengths. In some cases there may be narrow high-grade zones which have a sub-vertical orientation with an estimated true width of 70% of the down hole width.  Figure 3 shows a representation of the gold mineralisation relative to the dip of the drill holes.							
Diagrams	See Figures 2 to 3 for summary representation of the drilling results pertaining to this announcement.							
Balanced reporting	All drilling res	All drilling results have been reported in full.						
Other substantive exploration data	through to 19 completed in	Hog Ranch Property has been the subject of extensive exploration and historical drilling, predominantly over the period from 198 through to 1997, in addition to a period of historical mining from 1989 to 1991. Rex has reported drilling information from work completed in 2019 and 2020 by the Company in earlier announcements, including a summary of the historical drilling information which was reported in the Mineral Resource announcement published on 2 September 2019.						
Further work		-	nilable drilling information urther RC drilling is planne			for further go	ld mineralisation at	

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