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T 1300 822 161 (Australia) T +61 3 9068 3077 (International) P PO Box 3435 Rundle Mall South Australia 5000 E rex@rexminerals.com.au W www.rexminerals.com.au

# 56.4m @ 2.12g/t gold on new structure at emerging Airport Project at Hog Ranch

## Thick and high-grade intersection less than 55m below surface and outside existing resource

Rex Minerals Ltd (Rex or the Company) has received additional assay results from its recently completed six-drill hole program testing 3D IP targets at its Airport Project within the Company's 100% owned Hog Ranch Gold Property in Nevada, USA.

The new intersection of **56.4m @ 2.12g/t gold** from 54.9m down hole in hole HR21-012 has confirmed the discovery of a new highly-mineralised structure west of the existing Mineral Resource at Airport. The intersection contains two higher-grade intervals of:

- 12.2m @ 3.86g/t gold from 57.9m
- 4.6m @ 8.61g/t gold from 88.4m.

Previously reported intersections from the six-hole program at Airport included (see ASX release 26 July 2021):

- 114m @ 0.64g/t gold, from 94.5m in hole HR21-010 including 36.6m @ 1.4g/t from 143.3m
- **111.3m @ 0.83g/t gold,** from 7.6m in hole HR21-008 including **13.7m @ 2.27g/t** from 18.3m.

The drilling program at Airport was designed to test several targets generated by modelling of new 3D IP data, which included confirming possible extensions to the known Airport structure and the testing of three new structures.

The findings from this drilling program are extremely encouraging and point to further largescale gold mineralisation at the known Airport structure (see Figure 1 and ASX release 26 July 2021) as well as the discovery of significant gold mineralisation on two newly-interpreted structures.

Rex Minerals' CEO and Managing Director, Richard Laufmann, said: "Two new discovery holes from three new targets is an outstanding result from a drill program testing targets generated by our 3D IP survey. This six-hole program, testing a 20ha area at the Airport Project, gives us solid evidence that the Airport Project area can grow to become another significant deposit at Hog Ranch."

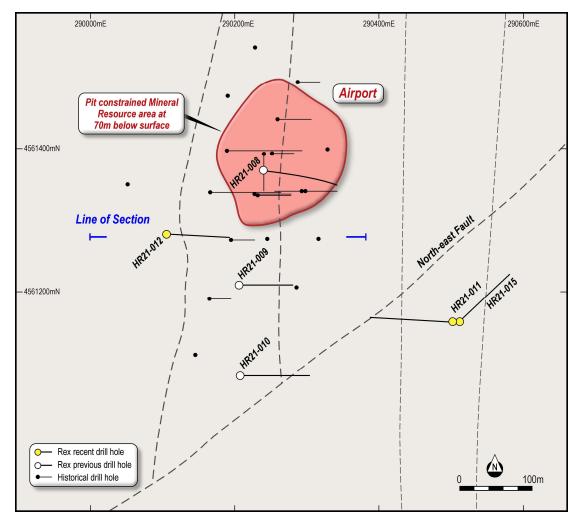


# **Airport Drilling Results**

Following the completion of a new 3D IP survey over Airport in early 2021, a six-hole RC drilling program was planned to test the central position of the known Airport structure and to test three new separate target positions on newly-interpreted structures based on the 3D IP data (Figure 1).

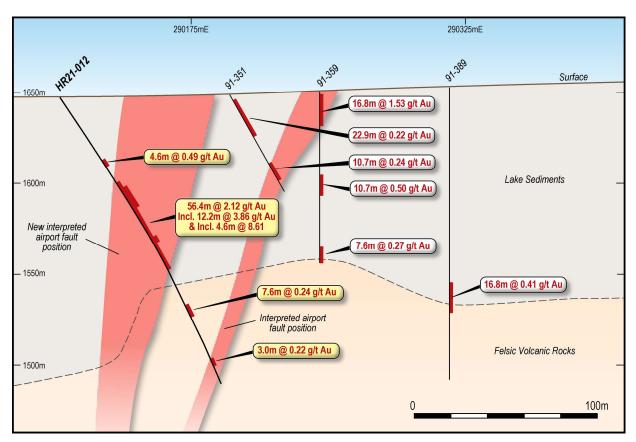
All assay results have now been received from this drilling program. Holes HR21-010 and HR21-012 were successful in confirming gold mineralisation on two new structures. Hole HR21-008 confirmed and extended the central position of Airport.

The most significant result from this drilling program was from drill hole HR21-012 which appears to have intersected significant broad gold mineralisation across a newly-interpreted north-south trending and steeply dipping fault (Figures 1 & 2).



**Figure 1:** Plan view of the drill holes from the Airport area relative to the existing Mineral Resource estimate of 60Koz (see ASX release 23 March 2021) – dashed lines represent interpreted structures based off recently acquired geophysical 3D Induce Polarisation (IP) data.





*Figure 2:* Cross section view (see Figure 1 for location) highlighting the drilling results from hole HR21-012 relative to the surrounding historical drilling information.

Drill Hole Number	From (m)	To (m)	Down-hole Length (m)	True Width (m)	Average Gold Assay (g/t)	Average Silver Assay (g/t)
HR21-008	7.6	118.9	111.3	~96	0.83	11.37
including	18.3	32.0	13.7	~12	2.27	22.62
including	89.9	100.6	10.7	~9	1.44	21.48
HR21-009	0.0	10.7	10.7		0.53	0.69
HR21-009	57.9	74.7	16.8		0.65	8.48
HR21-009	93.0	126.5	33.5		0.2	2.52
HR21-010	94.5	208.8	114.3		0.64	9.16
including	143.3	179.8	36.6		1.4	19.5
including	166.1	176.8	10.7		3.01	33.04
HR21-012	54.9	111.3	56.4		2.12	23.9
including	57.9	70.1	12.2		3.86	57.5
including	88.4	93	4.6		8.61	23.82
HR21-011	189	201.2	12.2		0.33	2.85

**Table 1:** Composited gold intersections from recent RC drilling at Airport. Estimated true widths are based on interpreted dip of gold mineralisation where surrounding drill hole information is available.



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:

Kay Donehue

Company Secretary

- T 1300 822 161 or +61 3 9068 3077
- E 'rex@rexminerals.com.au'

Media and Investor Relations: Gavan Collery

- **T** +61 419 372 210
- E 'gcollery@rexminerals.com.au'

# **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

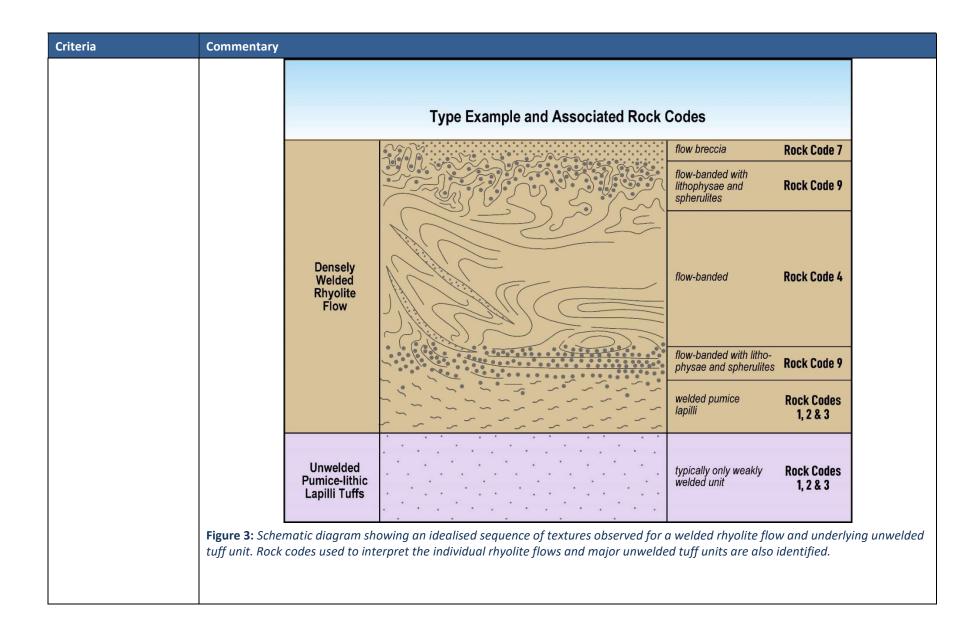
## Section 1 Sampling Techniques and Data

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 2% of all samples from Airport 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.
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).
	For the purpose of consistency with this earlier system, the 2021 RC drilling program also adopted the same logging system for entry into the Hog Ranch database.



Criteria	Commentary	Commentary							
		<b>Table 2:</b> Sample legend for drill hole logging information recorded from 1986 up to 1991 by Western Hog Ranch and WImakes up 80% of the drill hole database.							
	Rock Code	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	v banded units.	lite flow and unweld	ed tuff units from wit	hin the Cañon Rhyoli	ne the broad boundaries l ite can be characterised a identified in Figure 3.			

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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) were also 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 0.88g/t pulp standard, a 0.41g/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 2021 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 Airport, the drilling was designed to test new features that were 100m to 300m away from 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.



Criteria	Commentary
	The 2021 RC drilling at Airport reported in this release was completed at an average dip of 60-degree ( <u>+</u> 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.



## Section 2 Reporting of Exploration Results

Criteria	Commentary							
Mineral tenement and land tenure status	The Project is made up of 1,035 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.						
	The mining claims at Hog R	anch are located o	n open public land m	nanaged by the Bu	reau of Land Mar	nagement (BLM).		
Exploration done by other parties	<ul> <li>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.</li> <li>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.</li> <li>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.</li> </ul>							
	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 4).
	Figure 4: (modified from Hedenquist, et al., 2000) Schematic representation of the geological environment for the formation of low

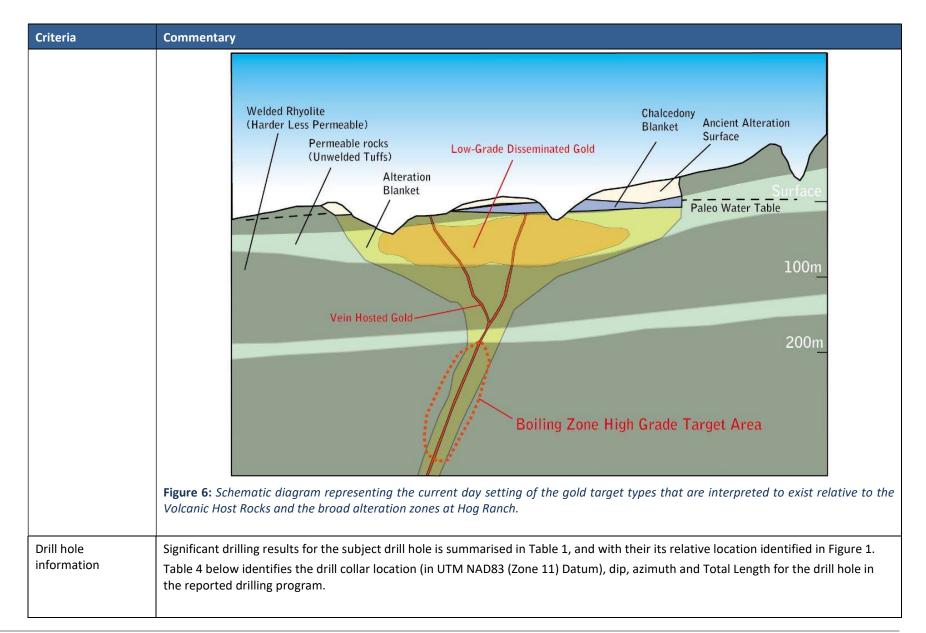


Criteria	Commentary
	Large zones of advanced argillic alteration, and horizontal layers of quartz ("Chalcedony Blanket") as defined in Bussey, 1996 and which can still be observed in the field today, indicate that the gold deposits were formed very close to a paleo water-table (Figure 5). In addition, 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.
	Figure 5: (modified after Hedenquist et al., 2000) Schematic representation of the boiling zones within a low sulphidation epithermal



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 5).
	Some variations exist at Hog Ranch compared to the genetic model postulated in Figure 5 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 6, 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	Easting	Northing	Elevation (m)	Dip	Azimuth	Total Length		
	Number								
	HR21-008	290238.02	4561369.41	1644.07	-60	90	250m (820ft)		
	HR21-009	290207.13	4561209.45	1650.87	-60	90	170.7m (560ft)		
	HR21-010	290208.95	4561081.66	1654.52	-60	90	224m (735ft)		
	HR21-011	290503.42	4561159.21	1660.75	-50	270	227m (745ft)		
	HR21-012	290103.87	4561282.09	1645.52	-55	90	181m (595ft)		
	HR21-014	291877.67	4560799.08	1702.79	-45	270	250m (820ft)		
	HR21-015	290510.18	4561158.27	1660.82	-50	45	238m (780ft)		
Relationship between mineralisation widths and intercept lengths	have a sub-ve Figure 2 show	The drilling information reported has an average dip of 60 degrees. The general orientation of the gold mineralisation is interpreted t have a sub-vertical orientation which has a true width of ~85% relative to the down hole intercept lengths. Figure 2 shows a representation of the gold mineralisation relative to the dip of the drill holes.							
Diagrams	See Figures 1	and 2 for summary	representation of the dri	illing results pertaining	to this a	nnouncemer	it.		
Balanced reporting	All drilling res	ults have been rep	orted 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 1981 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		-	able drilling information l ther RC drilling is planned			or further go	ld mineralisation at de	pth, a	