

#### ASX Code: AIV

Issued Capital 215,502,577 ordinary shares (AIV)

# **Market Capitalisation**

\$1.293M, 2<sup>nd</sup> July 2024, \$0.006

# **Directors**

Min Yang (Chairman, NED) Mark Derriman (Managing Director) Geoff Baker (NED) Dongmei Ye (NED) Andrew Bald (NED)

# About ActivEX

ActivEX Limited is at the forefront of mineral exploration, committed to uncovering high-value mineral resources.

With a steadfast dedication to sustainability and innovation, ActivEX aims to deliver enduring value for its shareholders and positively impact the communities in which it operates.

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# Uranium and Rare Earth Elements (REE) Targets Identified at

# Gilberton Gold Project, North Queensland

Highlights:

- Significant Uranium and REE pXRF geochemical analyses received at the Horseshoe Hill and Oratava Prospects from recent soil surveys. These results have been combined with historic surficial geochemistry and drilling results to generate targets for further exploration
- Total Rare Earth Oxides (TREO) from rock chips up to 1.6% at Oratava
- Previous RC drilling identified up to 1m @ 1,014 ppm U<sub>3</sub>O<sub>8</sub> from 116m
- Hydrothermal-related REE mineralisation with secondary iron enrichment observed
- AIV is an active gold explorer having completed in excess of 6,300m of RC and diamond drilling from 2021 to 2022 in the vicinity of the historic Mt Hogan Gold Mine(ASX announcement titled:" Additional High Grade Shallow Gold Intercepts at Mt Hogan" dated at 16/8/2022). Infill and extensional drilling are currently being planned.

ActivEX Limited (ASX: AIV) ("ActivEX" or "the Company"), is pleased to announce the discovery of significant Uranium (U) and Rare Earth Elements (REE) mineralisation at the Horseshoe Hill and Oratava prospects, respectively, located within the Gilberton Gold Project in North Queensland (Figure 1). The surface pXRF program was conducted with point spacing ranging from 100m x 100m to 200m x 200m, covering a total area of 5.45 km<sup>2</sup> (Figure 2).

#### **Uranium Mineralisation:**

Historical uranium exploration focused on the radiometrically anomalous Mesoproterozic Mt Hogan Granite, particularly the southern margin where the granite is in contact with Palaeoproterozoic Metasediments (Figures 2 to 4). Drilling by CRAE and Bondi Mining in the late 1970s and 2008 respectively to the east of the Historic Mt Hogan Gold mine and at the Horseshoe Hill Prospect identified the area as potentially hosting uranium mineralisation associated with the structural deformation of the granite and metasediments. AIV believes uranium mineralisation has been introduced during the cooling phases of the Mt Hogan Granite as it was emplaced into a sequence of metasediments through fluid remobilisation. The Mt Hogan Granite and adjacent metasediments are considered potential hosts to uranium mineralisation.

Notable uranium oxide results from ActivEX's exploration include (Figure 4):

#### Rock chips

- MHR111: 520 ppm U<sub>3</sub>O<sub>8</sub>
- MHR112: 394 ppm U<sub>3</sub>O<sub>8</sub>
- MHR367: 274 ppm U<sub>3</sub>O<sub>8</sub>
- MHR466: 283 ppm U<sub>3</sub>O<sub>8</sub>
- MHR203: 321 ppm U<sub>3</sub>O<sub>8</sub>
- MHR204: 610 ppm U<sub>3</sub>O<sub>8</sub>

#### **RC Drilling**

- AMH012: 1m @ 340 ppm U<sub>3</sub>O<sub>8</sub> from 29m
- AMHR036: 4m @ 666 ppm  $U_3O_8$  from 105m, and 1m @ 1,014 ppm  $U_3O_8$  from 116m
- AMHRC025: 1m @ 259 ppm  $U_3O_8$  from 71m
- The exploration result (Figure 4) shows the uranium potential in the area and guides further exploration activities.



Mark Derriman the Managing Director commented: "We have long considered the Gilberton Project to be prospective for critical minerals in addition to the defined gold potential and with the current push to identify Critical Mineral Resources the Company embarked on a detailed review of all exploration to date. The review highlighted the potential for REE, uranium and base metal mineralisation and we embarked on a soil sampling program using the Company's Niton pXRF. We are pleased with the initial phase of critical minerals exploration and the significant REE and Uranium geochemical/geological targets generated".

#### **REE Mineralisation**

The Oratava REE target (Figure 2) has been defined through a combination of ActivEX's previous rock chip sampling assays (*ASX announcement titled "Eight Mile Creek Lodes - Exploration Results" dated 12/12/2016*) and the recent surface geochemical analysis using portable Niton X-ray fluorescence (pXRF) technology, which is able to detect five of the REE ie Cerium (Ce), Lanthanum (La), Neodymium (Nd), Praseodymium (Pr), and Yttrium (Y). This integrated approach has provided a distinctive surficial REE geochemical signature for the Orotava target (Figure 2).

A series of possibly hydrothermally emplaced gossanous quartz veins at the Oratava Prospect have elevated levels of REE from AIV's rock sampling with the adjacent soils also showing elevated REE in the recent pXRF soil sampling, with significant REE levels detected in soils through pXRF analysis. (Figure 5).

Several rock samples (Figures 6 and 7) exhibit bright yellow and red limonite/goethite staining that further highlights the presence of oxidised iron minerals. A limited number of geochemical rock assays show elevated concentrations of heavy REE, particularly in sample GBR047, with a TREO of 1.6%.

#### **Correlation Between Pb and Au Soil Anomalies**

Detailed geological and geochemical studies by AIV over a number of years have highlighted a significant correlation between lead (Pb) and gold (Au) within the project area. This correlation suggests that Pb can serve as a pathfinder element for Au mineralisation, aiding in the identification of prospective gold targets (*ASX announcement titled "Percyvale Corridor, Gilberton - Exploration Results" dated 04/07/2016*)

The recent surface pXRF work program has potential gold targets based on elevated Pb as part of the pXRF soil sampling (Figures 8 & 9). The Company will undertake further detailed analysis and mapping of the identified Oratava REE target and the Cosmopolitan West, General Gordon, and Horseshoe Hill gold targets.

#### Next Steps:

- Detailed Mapping and Sampling: Expand the current sampling program to delineate the extent of mineralisation.
- **Geophysical Surveys**: Conduct geophysical surveys to identify further targets for exploration.
- **Drilling Program**: Plan and execute a drilling program to test the depth and continuity of the identified mineralisation.

This announcement is authorised by the Board of ActivEX Limited

For further information contact: Mr Mark Derriman, Managing Director

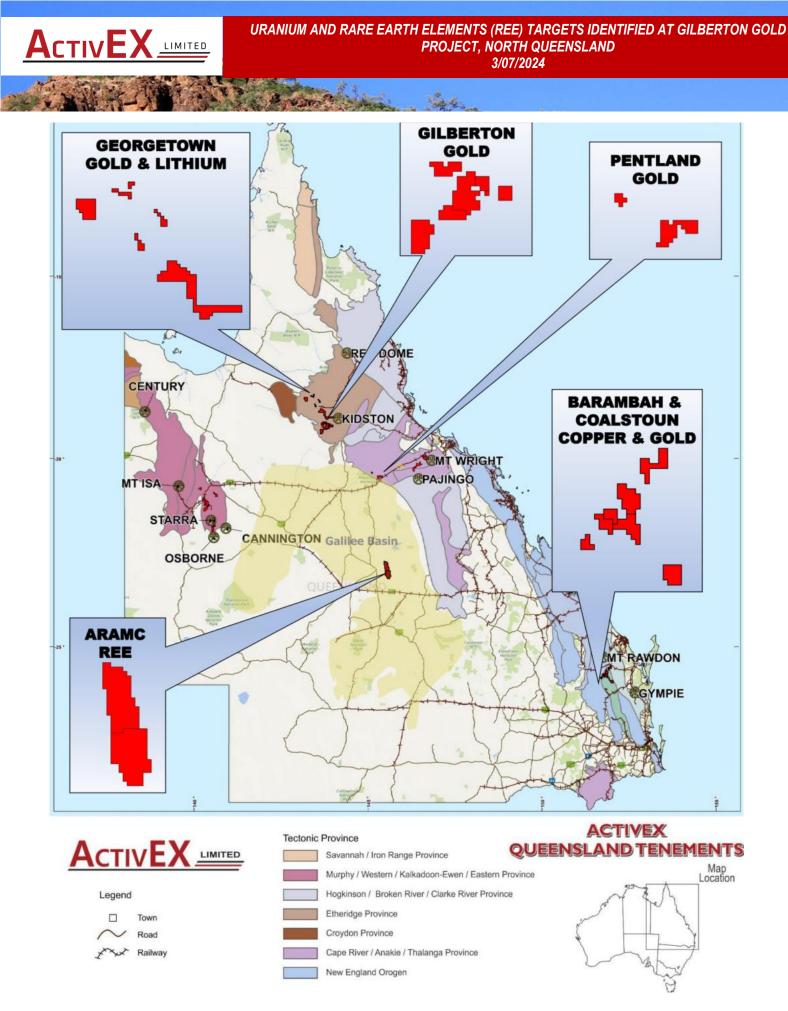


Figure 1. ActivEX Limited Queensland Projects and tenements



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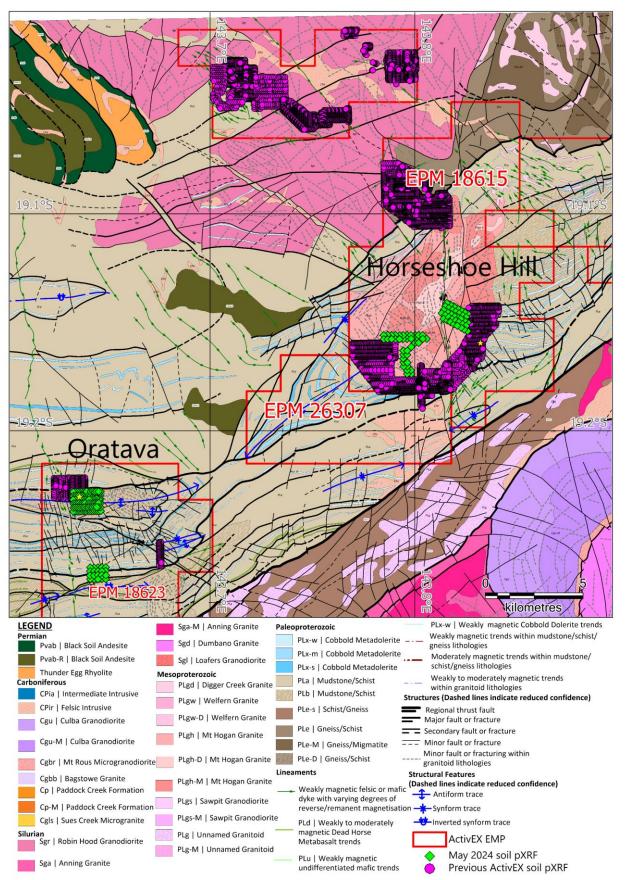


Figure 2. Oratava and Horseshoe Hill Prospects with pXRF soil grids and interpreted geology



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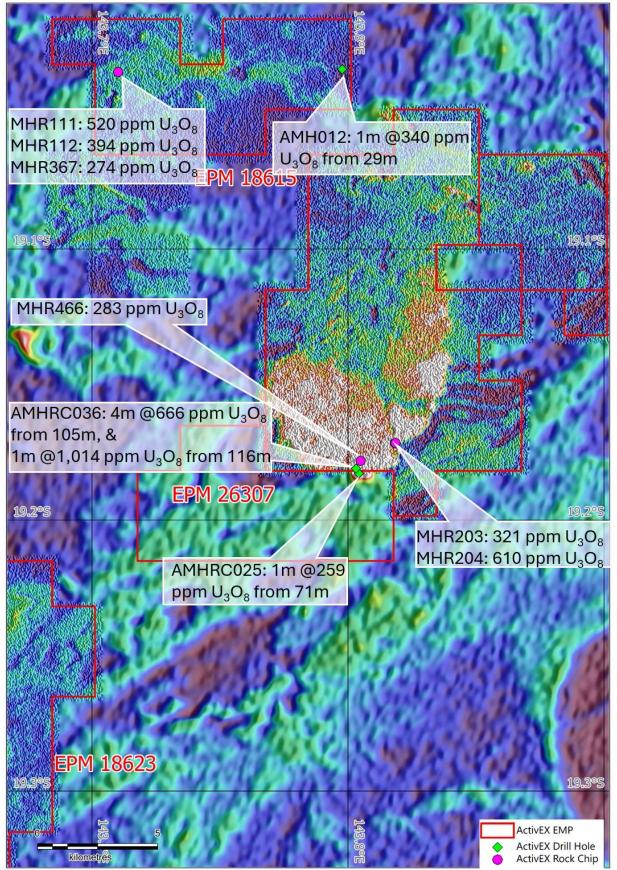


Figure 3. ActivEX Uranium exploration results (surface rock chip (MHR) and downhole assays(AMHR & AMH )on uranium radiometric image



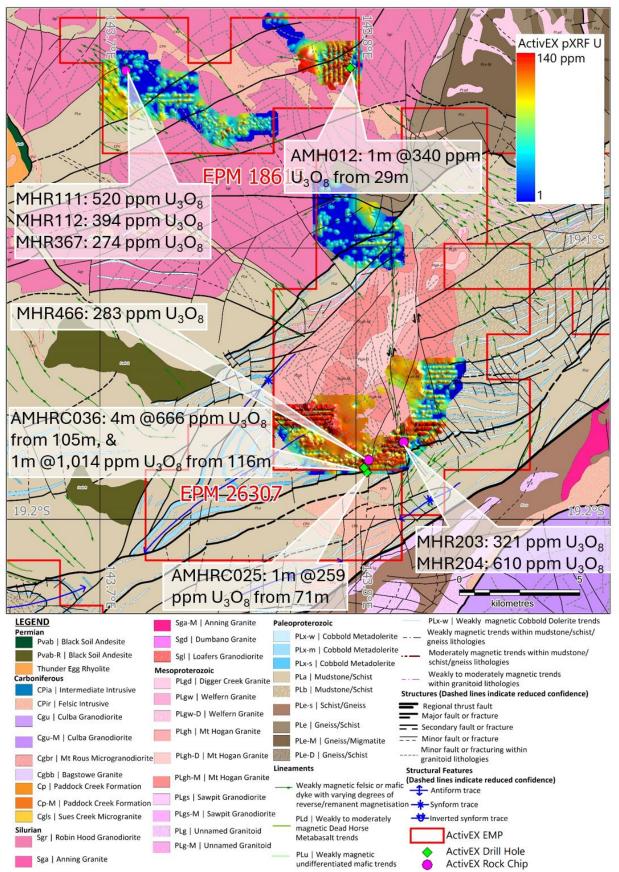


Figure 4. ActivEX Uranium exploration results (surface soil pXRF, rock chip (MHR) and downhole assays(AMHRC & AMH) on interpreted geology



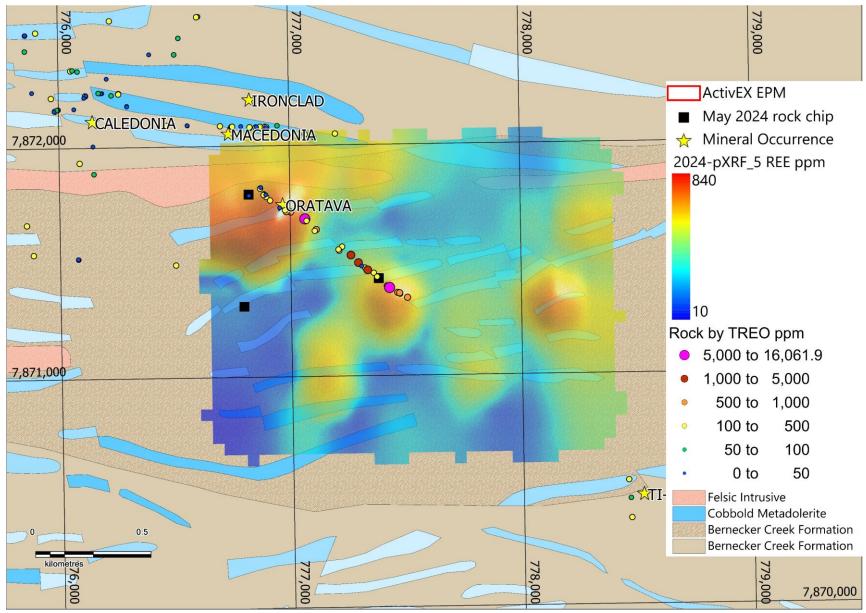


Figure 5. Oratava Rare Earth Element (REE) target defined by previous ActivEX rock chip sample assays and recent pXRF program (pXRF 5 REE =Cerium (Ce) + Lanthanum (La)+ Neodymium (Nd)+ Praseodymium (Pr)+ Yttrium (Y)



URANIUM AND RARE EARTH ELEMENTS (REE) TARGETS IDENTIFIED AT GILBERTON GOLD PROJECT, NORTH QUEENSLAND |3/7/2024



Figure 6. GBR047. Vein quartz with medium to coarse-grained textures brecciated infilled with fine-grained low-temperature silica - 16,061ppm TREO





Figure 7. GBR056, Gossanous quartz/ironstone vein with yellow/red iron oxide (limonite/goethite?) alteration - 5,073ppm TREO



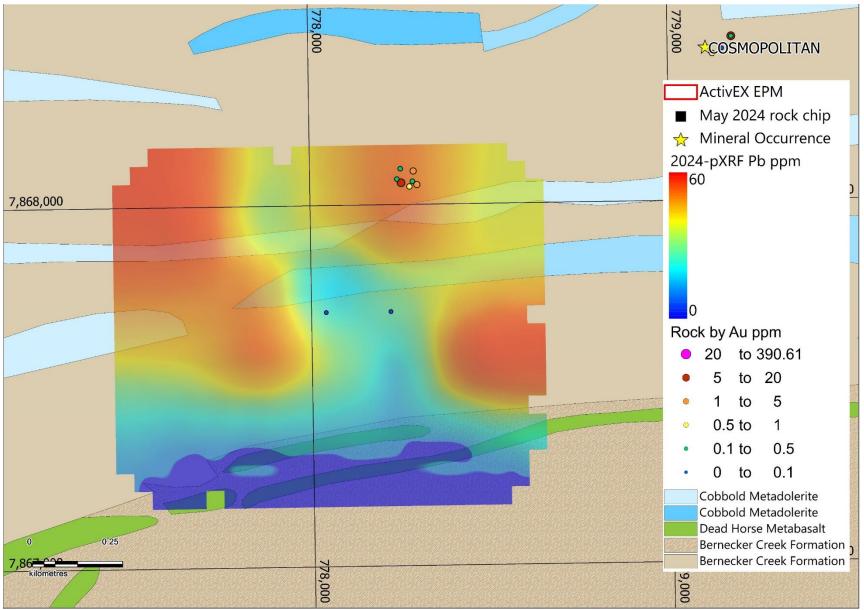


Figure 8. Cosmopolitan West gold target defined by previous ActivEX rock chip sample assays and recent pXRF program



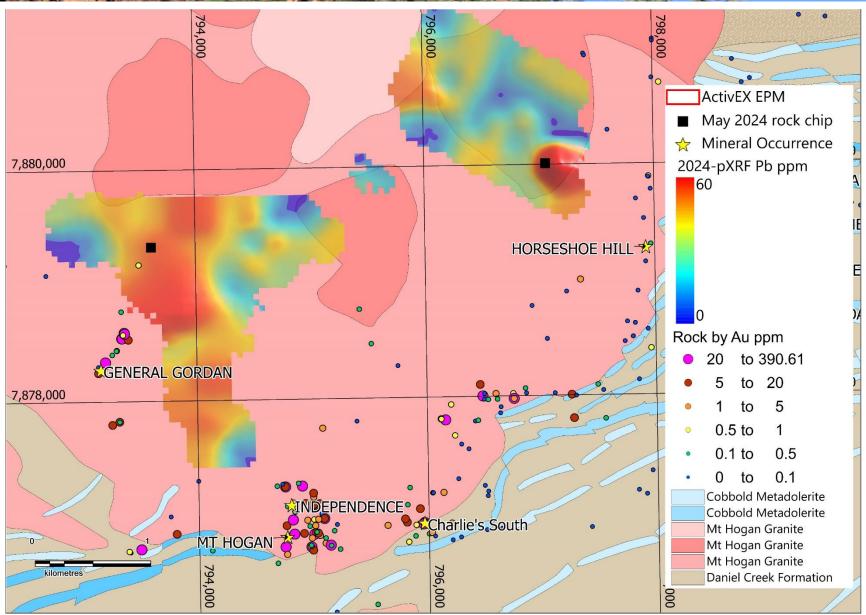


Figure 9. General Gordan and Horseshoe Hill gold targets defined by previous ActivEX rock chip sample assays and recent pXRF program



#### Declarations under 2012 JORC Code and JORC Tables

The information in this report which relates to Exploration Results is based on information reviewed by Mr. Mark Derriman, who is a member of The Australian Institute of Geoscientists (1566) and Mr. Xusheng Ke, who is a Member of the Australasian Institute of Mining and Metallurgy (310766) and a Member of the Australian Institute of Geoscientists (6297).

Mr. Mark Derriman and Mr. Xusheng Ke have sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activities 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. Mark Derriman and Mr. Xusheng Ke consent to the inclusion of his name in this report and to the issue of this report in the form and context in which it appears.

#### Previous Disclosure - 2012 JORC Code

Information relating to Mineral Resources, Exploration Targets and Exploration Data associated with previous disclosures relating to the Gilberton and Georgetown Gold Project in this report has been extracted from the following ASX Announcements:

- ASX announcement titled "Welcome Prospect Exploration Results" dated 01/06/2016
- ASX announcement titled "Percyvale Corridor, Gilberton Exploration Results" dated 04/07/2016
- ASX announcement titled "Gilberton Gold Project Carbon Copy Exploration Results" dated 14/10/2016
- ASX announcement titled "Eight Mile Creek Lodes Exploration Results" dated 12/12/2016
- ASX announcement titled "Additional High Grade Shallow Gold Intercepts at Mt Hogan" dated 16/8/2022

Copies of reports are available to view on the ActivEX Limited website www.activex.com.au. These reports were issued in accordance with the 2012 Edition of the JORC Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.



# **JORC Code**, 2012 Edition – Table 1 report

# Section 1 Sampling Techniques and Data

ACTIVEX LIMITED

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Soil samples were collected at spacing 100*100m to 200*200m.</li> <li>Random rock samples were collected.</li> <li>Two Niton XL3t-950 portable X-Ray Fluorescence (pXRF) soil geochemical surveys were conducted.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	No drilling reported.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	No drilling reported.
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	No drilling reported.
Sub-sampling techniques	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> </ul>	<ul> <li>Rock samples obtained using geo-pick and collected in calico bag.</li> <li>The nature and quality of the sample preparation is considered appropriate for the mineralisation style.</li> </ul>



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# URANIUM AND RARE EARTH ELEMENTS (REE) TARGETS IDENTIFIED AT GILBERTON GOLD PROJECT, NORTH QUEENSLAND |3/7/2024

Criteria	JORC Code explanation	Commentary
and sample preparation	<ul> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>The samples sizes are appropriate for the material being sampled.</li> <li>Soil and rock samples analysed by to ALS Global, Townsville laboratory.</li> <li>Assays were conducted using standard procedures and standard laboratory checks, by method of ME-MS61r</li> <li>The nature and quality of the sample preparation is considered appropriate for the mineralisation style.</li> <li>The samples sizes are appropriate for the material being sampled.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>The nature and quality of the assaying and laboratory procedures used is considered appropriate for the mineralisation style.</li> <li>Portable XRF sampling carried out using a Niton XL3t-950 handheld XRF analyser on 'Mining' mode, using three filters, each with 40 second duration to give a total analysing time of 120 seconds.</li> <li>Handheld XRF analyses are considered to be partial assays.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Geochemical data generated by the portable XRF instrument are checked and verified by the Project Geologist</li> <li>Lab data is integrated into a Company Access database.</li> <li>All results were verified by Senior Management</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Location of rock chip samples was recorded by handheld Garmin GPS device.</li> <li>Co-ordinates are recorded in grid system MGA2020, Zone 54.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Soil samples taken at 100 to 200 metre spacings, on lines 100 to 200 metres apart, no compositing of samples.</li> <li>Rock samples were collected at random spacing and distribution</li> </ul>
Orientation of data in	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	<ul> <li>The portable XRF sampling grid is designed to determine effectiveness of XRF geochemistry at delineating historic rock chip anomalies.</li> </ul>



Criteria	JORC Code explanation	Commentary
relation to geological structure	<ul> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	Rock samples collected at points of geological interest
Sample security	The measures taken to ensure sample security.	<ul> <li>The Niton XL3t-950 handheld XRF analyser generates unique identifier fields to accompany analysis data which cannot be tampered with in any way and is backed up by ActivEX staff to ensure data traceability.</li> <li>Rock samples were packed into polyweave bags for transport.</li> <li>Samples were transported to the ALS Global Townsville laboratory by ActivEX personnel</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>The Niton XRF analyser is checked against five or more standards of varying compositions, prior to, and after operation each working day.</li> <li>The instrument is calibrated annually.</li> </ul>

# **Section 2 Reporting of Exploration Results**

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>EPM18623 Gilberton is 100% owned by ActivEX Limited.</li> <li>EPM 18623 form part of the ActivEX Gilberton Gold Project, which also includes EPM 18615, 26232, and EPM 26307; all 100% owned by ActivEX Limited. See Figure 1 for location.</li> <li>The Gilberton Gold Project tenements were granted under the Native Title Protection Conditions. TheEwamian People are the Registered Native Title Claimant for the Project area.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Numerous companies have carried out surface exploration programs in the Gilberton Gold Project area and several occurrences have had limited (and mainly shallow) drill testing. The most recent exploration in the area was carried out by Newcrest Mining, who conducted extensive grid soil sampling, local ground geophysical surveys, and limited diamond drilling.</li> <li>For additional information, refer to the ActivEX website (http://www.activex.com.au/gilberton-gold.php).</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The geology of the Project area is dominated by Proterozoic metamorphics and granites, with local midPalaeozoic intrusions, fault-bounded Devonian basins, and Early Permian volcanics and intrusions of the Kennedy Association.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>The main units occurring within the Project area are:</li> <li>Metamorphic units of the Proterozoic Etheridge group consisting mainly of calcareous sandstone, siltstone, shale, limestone units of the Bernecker Creek and Daniel Creek Formations; basic metavolcanics, metadolerite and metagabbro of the Dead Horse Metabasalt and Cobbold Metadolerite; gneiss and schist of the Einasleigh Metamorphics in the north east of EPM 18623.</li> <li>Siluro-Devonian Robin Hood Granodiorite in the north of the tenement area.</li> <li>Late Devonian sediments of the Gilberton Formation in two fault-bounded structures in the central project area, consisting of pebbly coarse sandstone grading to coarse arkosic sandstone and polymict conglomerate.</li> <li>A north-west trending group of Early Permian volcanics considered to be related to the Agate Creek Volcanic Group (basalt, andesite, rhyolite, agglomerate, ignimbrite, minor interbedded siltstone and air-fall tuff), in the south west of EPM 18623.</li> <li>Carboniferous – Permian intrusive rhyolites as small outcrops associated with the Early Permian Agate Creek Volcanics, and as a more extensive east-west trending intrusion and network of dykes in the north, around the Lower Percy gold field.</li> <li>Mesozoic sandstones and pebble conglomerates, occurring mainly in the north west of the tenement area, and forming dissected plateaux and mesas.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	Drilling data is not being reported.
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> </ul>	No data aggregation applied.



# URANIUM AND RARE EARTH ELEMENTS (REE) TARGETS IDENTIFIED AT GILBERTON GOLD PROJECT, NORTH QUEENSLAND |3/7/2024

Criteria	JORC Code explanation	Commentary
	<ul> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	Drilling data is not being reported.
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	Refer to enclosed maps and diagrams.
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.</li> </ul>	Drilling data is not being reported.
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul> <li>Refer to body of report for additional geological observations.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	Refer to body of report for further work plans.