



## Aurora Tank Gold

### 1m assays yield gold over 100 g/t

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Marmota Limited (ASX: MEU) ("Marmota")

Marmota (ASX:MEU) is very pleased to announce that it has received detailed 1m assay results from the June drilling program at Aurora Tank (extensional + recon). Initial 4m composite results were reported to the ASX on 31 July 2019.

#### 1. Highest 1m intersection ever

The new detailed 1m results from the June 2019 drilling has yielded Marmota's highest ever 1m intersection of **120 g/t gold** (duplicate sample also at **120 g/t**) just 21m from surface [ Hole 19ATAC049 ], surpassing Marmota's previous best 1m intersections at Aurora Tank of **105 g/t gold**<sup>1</sup> (located 120m to the North; 38m from surface) and **93 g/t gold** (located 200m to the NE; 32m from surface).

#### 2. New NW Zone returns high grade gold

The new assays include further excellent 1m intersections including **47 g/t gold** [ Hole 19ATAC051 ], **39 g/t gold** [ Hole 19ATAC065 ] and **22 g/t gold** [ Hole 19ATAC063 ], all located within the new NW zone, as well as multiple intersections exceeding 10g/t [ see Table 1 ]. The new NW zone appears to be over 100m long, and is open in a number of directions [ see Fig. 2 and 3 ].

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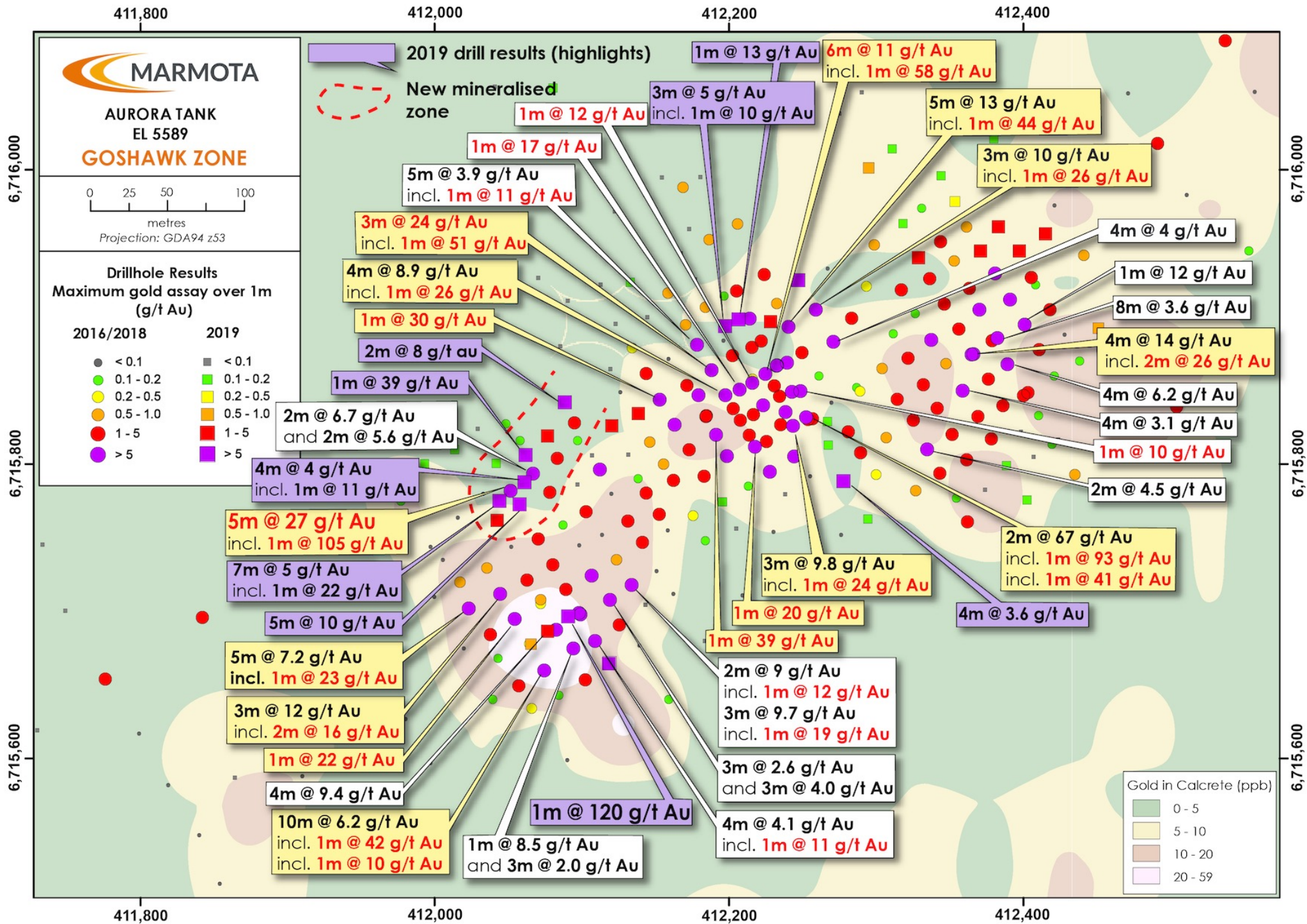
<sup>1</sup> Recently featured in 'Top Drill Intersections per State – Australia – Q1 2019' published by the *RSC Mineral Intelligence Report* (May 2019: p.9 of the RSC Report)

### 3. Reconnaissance Discovery Hole validated

In the 31 July 2019 ASX release, Marmota announced a new discovery hole 19ATAC098 (Two Fingers zone) located about 450m north of the Aurora Tank mineralised zone, reported as **6m @ 3.4 g/t** gold (from 44m to end of hole: ASX:MEU 31 July 2019 ). This hole was drilled to test a biogeochemical target from sampling of Senna shrub leaves [ see Fig. 5 ]. The fresh 1m samples collected and assayed have not only verified the existence of the discovery hole, but (i) have returned significantly higher grades of **4m @ 7.2 g/t**, and (ii) are accompanied by anomalous pathfinder elements suggesting associated primary mineralisation.



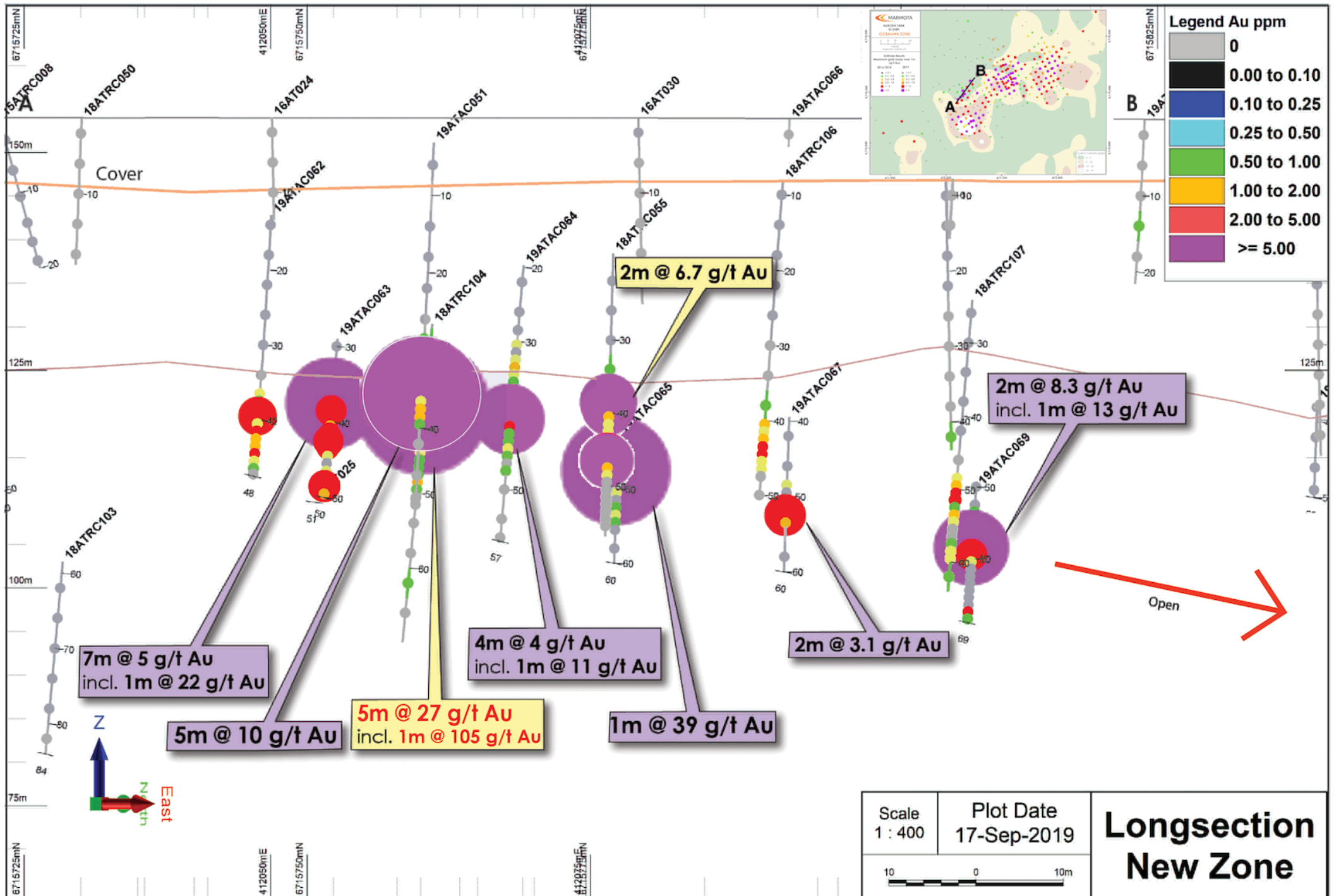
**Figure 1:** The 'Golden' Senna shrub at Hole 98, whose leaves gave rise to drill testing of Hole 98



**Table 1 June 2019 AC drilling**  
**New Significant Gold Intersections > 4 g/t Au (over 1m or larger intervals)**

Hole ID	Easting	Northing	DIP	AZM	EOH	Depth From (m)	Depth To (m)	Intercept Width (m)	Au g/t
19ATAC049	412,089	6,715,696	-60	150	43	21	24	3 m	41.0
<i>including</i>						21	22	1 m	120.0
19ATAC051	412,057	6,715,771	-60	150	50	31	36	5 m	10.0
<i>including</i>						35	36	1 m	47.5
19ATAC065	412,061	6,715,805	-60	150	60	47	48	1 m	39.3
19ATAC063	412,043	6,715,774	-60	150	50	37	44	7 m	5.0
<i>including</i>						37	38	1 m	22.0
<i>including</i>						37	39	2 m	12.7
19ATAC069	412,087	6,715,841	-60	150	69	58	60	2 m	8.3
<i>including</i>						58	59	1 m	13.1
19ATAC120	412,205	6,715,897	-60	150	66	46	48	2 m	7.8
<i>including</i>						47	48	1 m	13.3
19ATAC064	412,060	6,715,787	-60	150	57	38	42	4 m	4.0
<i>including</i>						40	41	1 m	11.2
19ATAC121	412,197	6,715,893	-60	150	66	43	46	3 m	5.0
<i>including</i>						44	45	1 m	10.0
19ATAC098	412,580	6,716,384	-60	150	50	45	49	4 m	7.2
<i>including</i>						45	47	2 m	9.7
19ATAC081	412,278	6,715,787	-60	150	50	14	16	2 m	7.5
19ATAC118	412,248	6,715,924	-60	150	80	70	72	2 m	3.4
<i>including</i>						70	71	1 m	5.6
19ATAC067	412,076	6,715,818	-60	150	60	51	53	2 m	3.1
<i>including</i>						52	53	1 m	4.6
19ATAC106	412,396	6,715,944	-60	150	63	29	30	1 m	2.9
<i>and</i>						32	40	8 m	1.5
<i>including</i>						34	35	1 m	4.9
<i>and</i>						51	52	1 m	4.2
19ATAC050	412,120	6,715,661	-60	150	51	15	16	1 m	5.9
<i>and</i>						18	19	1 m	4.3
19ATAC062	412,041	6,715,761	-60	150	48	39	45	6 m	1.5
<i>including</i>						39	40	1 m	4.2

[ Intersections over 5 g/t gold in red ]



**Figure 3: Schematic long-section through NW flank**

## Summary Highlights at Aurora Tank include:

- 2m at **67 g/t** gold from 32m – Hole 17AT021 (incl 1m @ **93 g/t** gold from 32m )
  - 3m at **41 g/t** gold from 21m – Hole 19AT049 (incl 1m @ **120 g/t** gold from 21m )
  - 5m at **27 g/t** gold from 38m – Hole 18AT104 (incl 1m @ **105 g/t** gold from 38m )
  - 3m at **24 g/t** gold from 34m – Hole 18AT065 (incl 1m @ **51 g/t** gold from 35m )
  - 6m at **11 g/t** gold from 40m – Hole 18AT074 (incl 1m @ **58 g/t** gold from 44m )
  - 5m at **13 g/t** gold from 41m – Hole 17AT022 (incl 1m @ **44 g/t** gold from 45m )
  - 4m at **14 g/t** gold from 32m – Hole 17AT011 (incl 1m @ **42 g/t** gold from 33m )
  - 4m at **10 g/t** gold from 25m – Hole 16AT043 (incl 1m @ **39 g/t** gold from 27m )
  - 2m at **20 g/t** gold from 46m – Hole 19AT065 (incl 1m @ **39 g/t** gold from 47m )
  - 3m at **10 g/t** gold from 28m – Hole 18AT070 (incl 1m @ **24 g/t** gold from 29m )
  - 3m at **12 g/t** gold from 29m – Hole 17AT045 (incl 1m @ **20 g/t** gold from 30m )
  - 3m at **11 g/t** gold from 22m – Hole 16AT019 (incl 1m @ **23 g/t** gold from 22m )
  - 3m at **11 g/t** gold from 22m – Hole 16AT019 (incl 1m @ **23 g/t** gold from 22m )
  - 3m at **10 g/t** gold from 58m – Hole 18AT120 (incl 1m @ **26 g/t** gold from 59m )
  - 3m at **10 g/t** gold from 22m – Hole 17AT035 (incl 1m @ **19 g/t** gold from 23m )
  - 10m at **6 g/t** gold from 17m – Hole 17AT042 (incl 1m @ **42 g/t** gold from 18m )
  - 4m at **9 g/t** gold from 28m – Hole 17AT026 (incl 1m @ **26 g/t** gold from 31m )
  - 2m at **13 g/t** gold from 37m – Hole 19AT063 (incl 1m @ **22 g/t** gold from 37m )
  - 1m at **47 g/t** gold from 35m – Hole 19AT051
  - 1m at **30 g/t** gold from 17m – Hole 17AT029
  - 1m at **23 g/t** gold from 35m – Hole 16AT061
  - 1m at **20 g/t** gold from 17m – Hole 17AT024
  - 1m at **22 g/t** gold from 20m – Hole 17AT044
- Significant gold mineralisation over 500m strike length
  - More than 200 intersections greater than 1 g/t gold
  - Mineralisation close to surface (consistently within 50m of surface)
  - Bottle-roll metallurgical testwork at Aurora Tank **returned 94% to 97% gold recoveries** [ ASX:MEU 30 Oct 2017 ]
  - Drilling and sampling details are described in the JORC Appendix 1.

## Reconnaissance      Tree leaves yield new discovery hole 450m NE of known mineralised zone

Marmota's June drilling program also contained a *reconnaissance* component designed to see if new gold mineralisation can be found *outside* the known mineralisation area at Aurora Tank.

Building on our innovative R&D program, Marmota measured anomalous gold in tree leaves, and then drill tested a number of biogeochem gold-in-tree leaf anomalies, outside the known mineralisation area at Aurora Tank.

Discovery hole 19ATAC098 (Two Fingers) was drilled to test a biogeochemical (Senna shrub leaf) gold anomaly and intersected **6m @ 3.4 g/t** gold at 44 m below surface [ ASX:MEU 31 July 2019]. The hole is located approximately 450m to the NE of the known mineralised zone at Aurora Tank. [ see Fig.5 ]

Marmota's discovery and method was recently the basis of an article in *New Scientist* magazine (17 Aug 2019).



Figure 4: Marmota's method and discovery featured on the cover of New Scientist

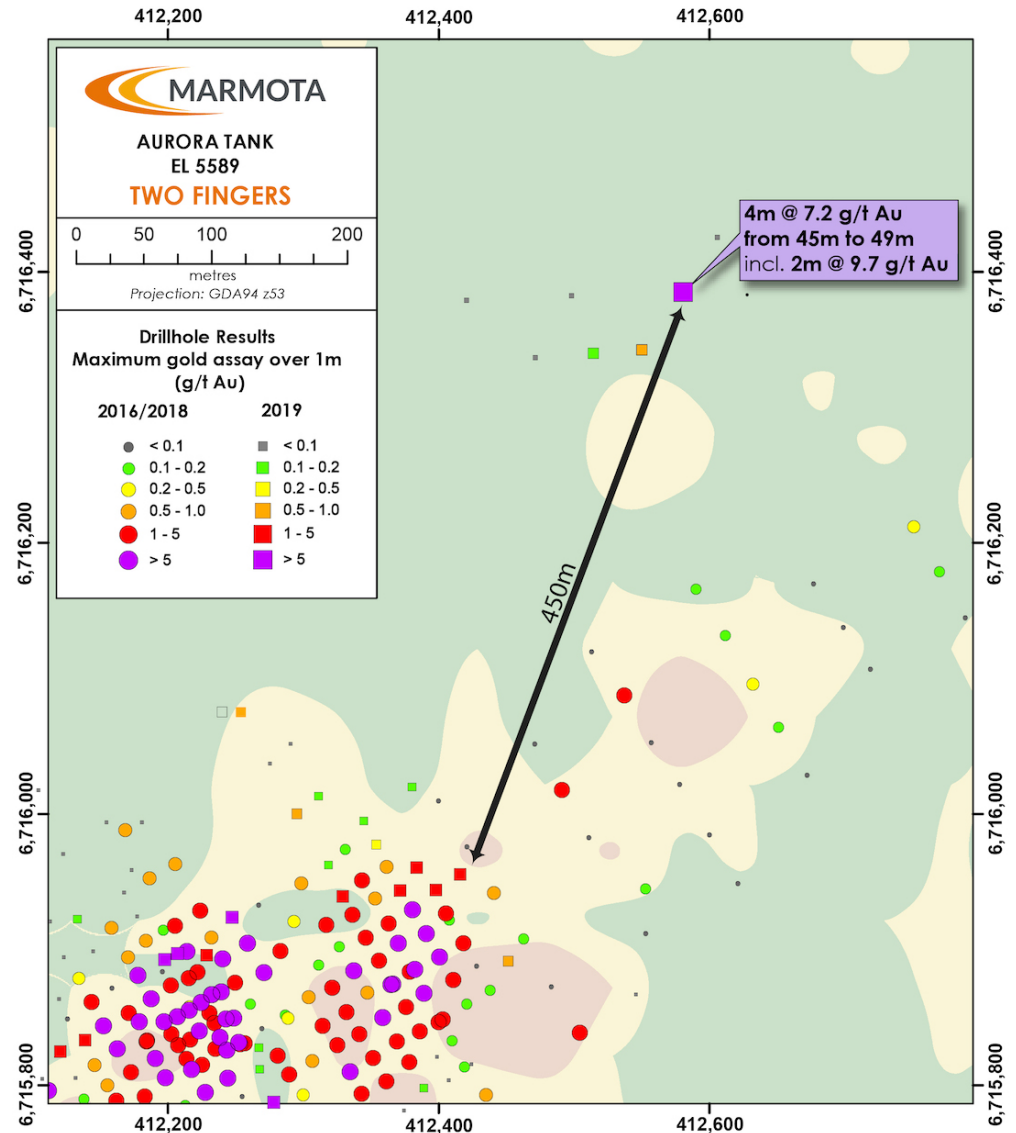
## 1m assays verify, validate, and strengthen Discovery Hole

An important component of the detailed 1m assay testing is that fresh samples were collected from Aurora Tank, which provides an important verification and validation mechanism.

Marmota is very pleased to advise that the new 1m assays have:

1. **Verified and validated** new discovery hole 98 (Two Fingers)
2. **Sample Grade has substantially increased**, with the detailed 1m assays in Hole 98 reporting:
  - 45 to 46m: **10.0 g/t** gold
  - 46 to 47m: **9.3 g/t** gold
  - 47 to 48m: **6.0 g/t** gold
  - 48 to 49m: **3.5 g/t** gold

... averaging **4m @ 7.2 g/t** gold (compared to **6m @ 3.4 g/t** in the composites).



**Figure 5: Two Fingers discovery identified by tree leaves, located 450m from known mineralisation**



### 3. Anomalous pathfinder elements for primary mineralisation

The Two Fingers Hole 98 intersection is accompanied by anomalous pathfinder elements for primary mineralisation (see Table 2), such as Ag, As, Bi, Cu and Sb. This is typical of Archaean gold mineralisation and indicates a potential primary source of mineralisation associated with sulphides that has depth potential.

FROM (m)	TO (m)	Sample Type	SAMPLE_ID	Ag_ppm	As_ppm	Bi_ppm	Cu_ppm	Sb_ppm	Au_ppm	Au Rpt_ppm	Pref_Au_ppm
44	45	spear	S09208	0.15	271	0.3	67	5.35	0.09	N.A.	0.09
45	46	spear	S09209	1	2520	13	148	7.5	10.3	9.8	10.05
46	47	spear	S09210	0.9	2830	7.65	110	11.6	9	9.7	9.35
47	48	spear	S09211	0.65	520	11.3	117	12.6	6.2	5.8	6.00
48	49	spear	S09212	0.6	157	5.05	130	5.75	3.57	3.43	3.50
49	50	spear	S09213	0.1	46	0.45	53	2.2	0.15	N.A.	0.15

**Table 2: Multi-element assays for Hole 98 (from 44m to 50m) including anomalous pathfinder elements**

### 4. Geology

Geological examination of the drill chips from the mineralised interval suggests similar minerals and textures to those seen in the main Aurora Tank mineralised zone. Follow up drilling to determine the strike and dip of the new zone will be carried out in the planned Phase 2 drilling program.

## Comment

Many of the best results are accompanied by low but anomalous levels of the pathfinder elements Ag, As, Bi, Cu and Sb. This is typical of Archaean gold mineralisation and indicates that Aurora Tank is derived from a primary source of mineralisation associated with sulphides and has depth potential.

### Marmota Chairman, Dr Colin Rose, said:

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1. In our 31 July 2019 release, I commented that it was both exciting and remarkable that we had identified a new discovery hole 450m from known mineralisation, at 44m below surface, based entirely on tree leaves from a senna shrub. That result has now been verified and validated with fresh samples, and the sample grade has increased to 4m @ 7.2 g/t. I find this more remarkable when one considers that this is the result of a first-pass recon test hole.
2. We are very pleased to see all the ingredients at Aurora Tank coming together: High-grade mineralisation close to surface, excellent gold recoveries from metallurgical testwork, and potential low-cost low-capex open-pittable production methods. I further note that Marmota has commissioned column leach tests to assess the project's suitability for low-cost heap leach production, and recently appointed Shane Barker as new *Executive Director: Production* [ ASX:MEU 2 Sept 2019 ]. ”

# What's Next

## *Aurora Tank Gold*

- **Phase 2 drilling** (already fully funded).  
Due to defence testing in the Woomera Prohibited Defence Area during September, Phase 2 drilling is now being planned for October.
- Marmota is exploring options to bring Aurora Tank into production by **low-cost low-capex open-pittable mining**, including heap leach methods.
- Column leach gold tests have recently been carried out to assess the project's suitability to recover gold by low-cost heap leaching. Results are anticipated in the next month.

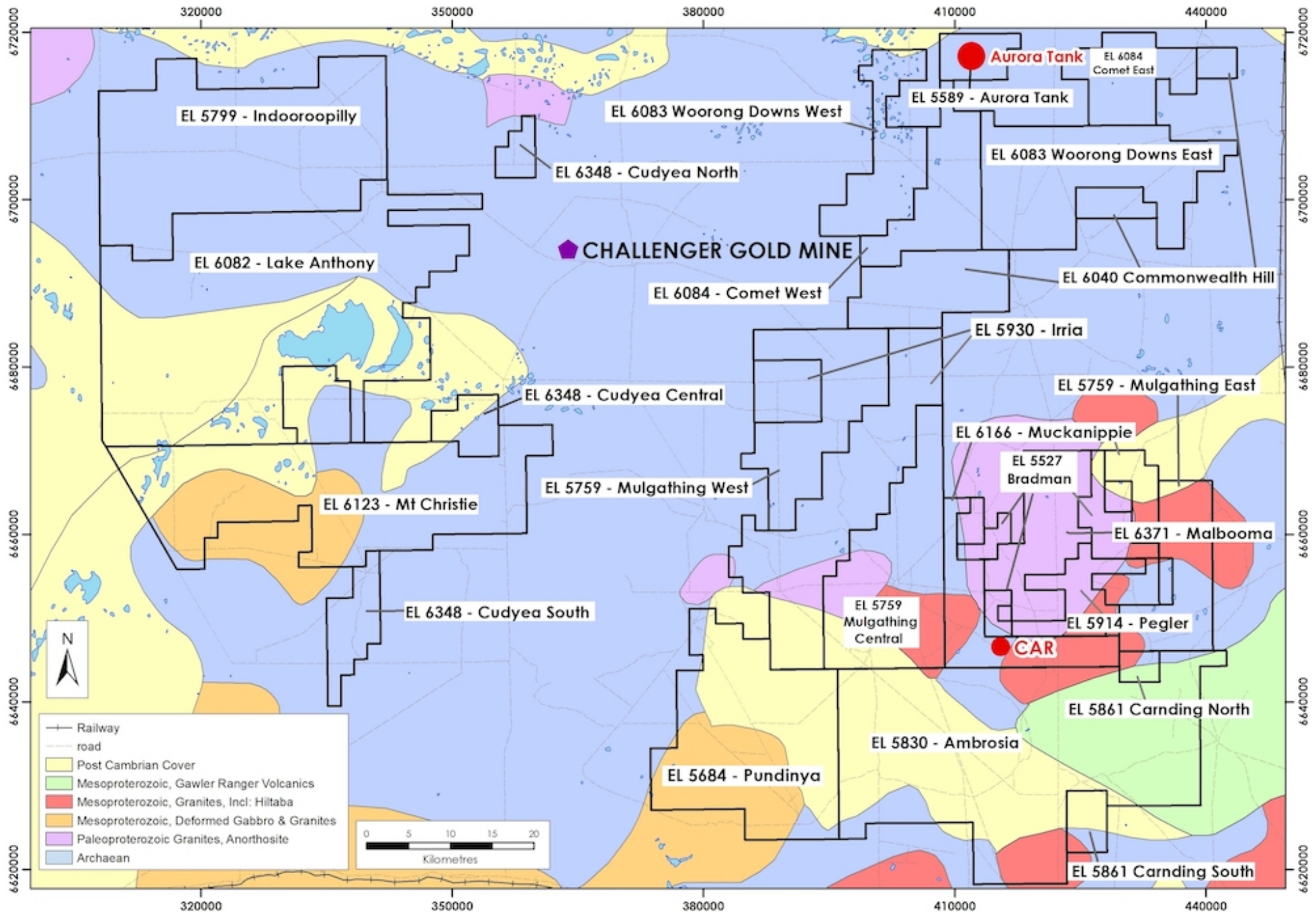


Figure 6: Marmota's Aurora Tank tenement and tenements around the Challenger Gold Mine

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**About Marmota Limited**

Marmota Limited (ASX: MEU) is a South Australian mining exploration company, focused on gold, copper and uranium. Gold exploration is centred on the Company's dominant tenement holding in the highly prospective and significantly underexplored Gawler Craton, near the Challenger gold mine, in the Woomera Prohibited Defence Area. The Company's copper project is based at the Melton project on the Yorke Peninsula. The Company's uranium project is at Junction Dam adjacent to the Honeymoon mine.

For more information, please visit: [www.marmota.com.au](http://www.marmota.com.au)

**Competent Persons Statement**

Information in this Release relating to Exploration Results is based on information compiled by Dr Kevin Wills, who is a Fellow of the Australasian Institute of Mining and Metallurgy. He has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves." Dr Wills consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

Where results from previous announcements are quoted, Marmota confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcement and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

**Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li><i>Nature and quality of sampling (e.g. 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.</i></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li><i>In cases where ‘industry standard’ work has been done this would be relatively simple (e.g. ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverized 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 (e.g. submarine nodules) may warrant disclosure of detailed information.</i></li> </ul>	<ul style="list-style-type: none"> <li>136 AC holes were drilled to collect samples from Aurora Tank.</li> <li>Samples were collected at 1m intervals from the drilling cyclone and stored in separate bags at the drill site.</li> <li>Composite 4m samples were collected using a 50mm PVC tube ‘spear’ to collect representative samples from bags. Composite samples were an average weight of 2 kg which were pulverized to produce sub samples for lab assay (samples pulverized to produce a 25 g sample for Aqua Regia Digest and analysed by Inductively Coupled Mass Spectrometry and Inductively Coupled Plasma Optical (Atomic) Emission Spectrometry).</li> <li>1m samples were collected using a 50mm PVC tube ‘spear’ to collect representative samples from bags. Samples were an average weight of 2 kg which were pulverized to produce sub samples for lab assay (samples pulverized to produce a 25 g sample for Aqua Regia Digest and analysed by Inductively Coupled Mass Spectrometry and Inductively Coupled Plasma Optical (Atomic) Emission Spectrometry. 40g sample was also produced for Lead Collection Fire Assay by ICP AES.</li> <li>Only laboratory assay results were used to compile the table of intersections that appears in the report.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li><i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).</i></li> </ul>	<ul style="list-style-type: none"> <li>Drill Method consists of Air Core drilling with slimline RC tails as needed.</li> <li>Hole diameters are 120.65 mm</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Drillholes and sample depths were recorded in hard copy format during drilling including description of lithology and sample intervals.</li> <li>Qualitative assessment of sample recovery and moisture content of drill samples was recorded.</li> <li>Sample recoveries were generally high, and moisture in samples minimal. In some instances, where ground water influx was high, wet/moist samples were collected.</li> <li>The sample system cyclone was cleaned at the end of each hole and as required to minimise up-hole and cross-hole contamination.</li> <li>No relationship is known to exist between sample recovery and grade, in part due to in-ground variation in grade. A potential bias due to loss/gain of fine/coarse material is not suspected. Drilling was halted between each interval to make sure the hole was cleared out before commencing the next interval.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Logging</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>• All samples were geologically logged by the on-site geologist. The holes have not been geotechnically logged.</li> <li>• Geological logging is qualitative.</li> <li>• Chip trays containing 1m geological subsamples were collected.</li> <li>• 100% of any reported intersections in this announcement have had geological logging completed.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <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> <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 style="list-style-type: none"> <li>• Samples averaging 2 kg were collected for laboratory assay. Samples were collected with a 50mm tube by diagonally spearing individual samples within bags.</li> <li>• It is considered representative samples were collected after homogenizing of sample through drilling cyclone and unbiased spearing of samples in bags.</li> <li>• Laboratory sample preparation includes drying and pulverizing of submitted sample to target of p80 at 75 um.</li> <li>• No samples checked for size after pulverizing failed to meet sizing target in the sample batches relevant to the report.</li> <li>• Duplicate samples were introduced into the sample stream by the Company.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <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 (i.e. lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>• Bureau Veritas Minerals in Adelaide and Perth were used for analytical work. Samples were analysed in the following manner: <ul style="list-style-type: none"> <li>○ Aqua Regia Digest. Analysed by Inductively Coupled Plasma Mass Spectrometry for Ag, As, Bi, Cu Sb, and W.</li> <li>○ Lead Collection Fire Assay ICP-AES for Au</li> </ul> </li> <li>• For laboratory samples, the Company introduced QA/QC samples at a ratio of one QA/QC sample for every 20 drill samples. The laboratory introduced additional QA/QC samples (blanks, standards, checks) at a ratio of greater than 1 QA/QC sample for every 10 drill samples</li> <li>• Both the Company and laboratory introduced QA/QC samples indicate acceptable levels of accuracy and precision have been established.</li> <li>• Duplicate samples were introduced into the sample stream by the Company, while the laboratory completed repeat assays on various samples.</li> <li>• Standard samples were introduced into the sample stream by the Company, while the laboratory completed standard assays also.</li> <li>• Both Company and laboratory introduced duplicate samples indicate acceptable analytical accuracy and precision.</li> <li>• Laboratory analytical charge sizes are standard sizes and considered adequate for the material being assayed.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• A Company geologist has checked the calculation of the quoted intersections in addition to the Competent Person.</li> <li>• No twinned holes were drilled in the program.</li> <li>• No adjustments have been made to the assay data.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• Drill hole coordinate information was collected using an RTX Differential GPS system with an autonomous accuracy of +/- 2.5 centimetres utilising GDA 94 Zone 53. Down hole surveys were undertaken in an open hole at the maximum depth the probe would descend to.</li> <li>• Area is proximately flat lying and topographic control uses SRTM 90 DEM.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• Holes were located to follow up specific geological and mineralisation targets.</li> <li>• Drill hole spacing is irregular as indicated in Appendix 2</li> <li>• Reconnaissance holes based on Biogeochemical Au Targets were placed in optimal locations to test these targets.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <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>	<ul style="list-style-type: none"> <li>• Drill lines were orientated to cover previously drilled mineralisation and traverses crossed the width of the mineralised zone. Therefore a sampling bias should not have occurred.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>• The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>• Company staff collected all laboratory samples.</li> <li>• Samples submitted to the laboratory were transported and delivered by Company staff.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>• No audit of data has been completed to date.</li> </ul>



## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Aurora Tank (EL 5589) is 100% owned by Marmota Limited. EL 5589 is located approximately 100 km southwest of Coober Pedy in South Australia.</li> <li>There are no third party agreements, non-government royalties, historical sites or environmental issues.</li> <li>Exploration is conducted within lands of the Antakirinja Matu-Yankunyjatjara Native Title Determination Area.</li> <li>The tenement is in good standing.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Exploration in the Commonwealth Hill region has been carried out by a number of exploration companies previously including; <ul style="list-style-type: none"> <li>Kennecott Explorations (Australia) Pty Ltd (1968-69)</li> <li>Dampier Mining Co. Ltd (1978-79)</li> <li>Afmeco Pty Ltd (1980-83)</li> <li>Stockdale Prospecting Ltd (1986-87)</li> <li>SADME (1996-97)</li> <li>Minotaur Gold NL (1993-99)</li> <li>Redport Ltd (1997-2002)</li> <li>Apollo Minerals (2013-15)</li> </ul> </li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The Goshawk zone of Aurora Tank is situated in the Christie Domain of the western Gawler Craton. The Christie Domain is largely underlain by late Archaean Mulgathing Complex which comprises of meta-sedimentary successions interlayered with Banded Iron Formations (BIF), chert, carbonates and calc-silicates.</li> <li>Marmota is targeting Challenger-style Late Archaean gold whilst being open for occurrence of a variety of other mineralisation styles which may also exist in the tenement area.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>The required information on drill holes is incorporated into Appendix 2 to the ASX Release.</li> </ul>

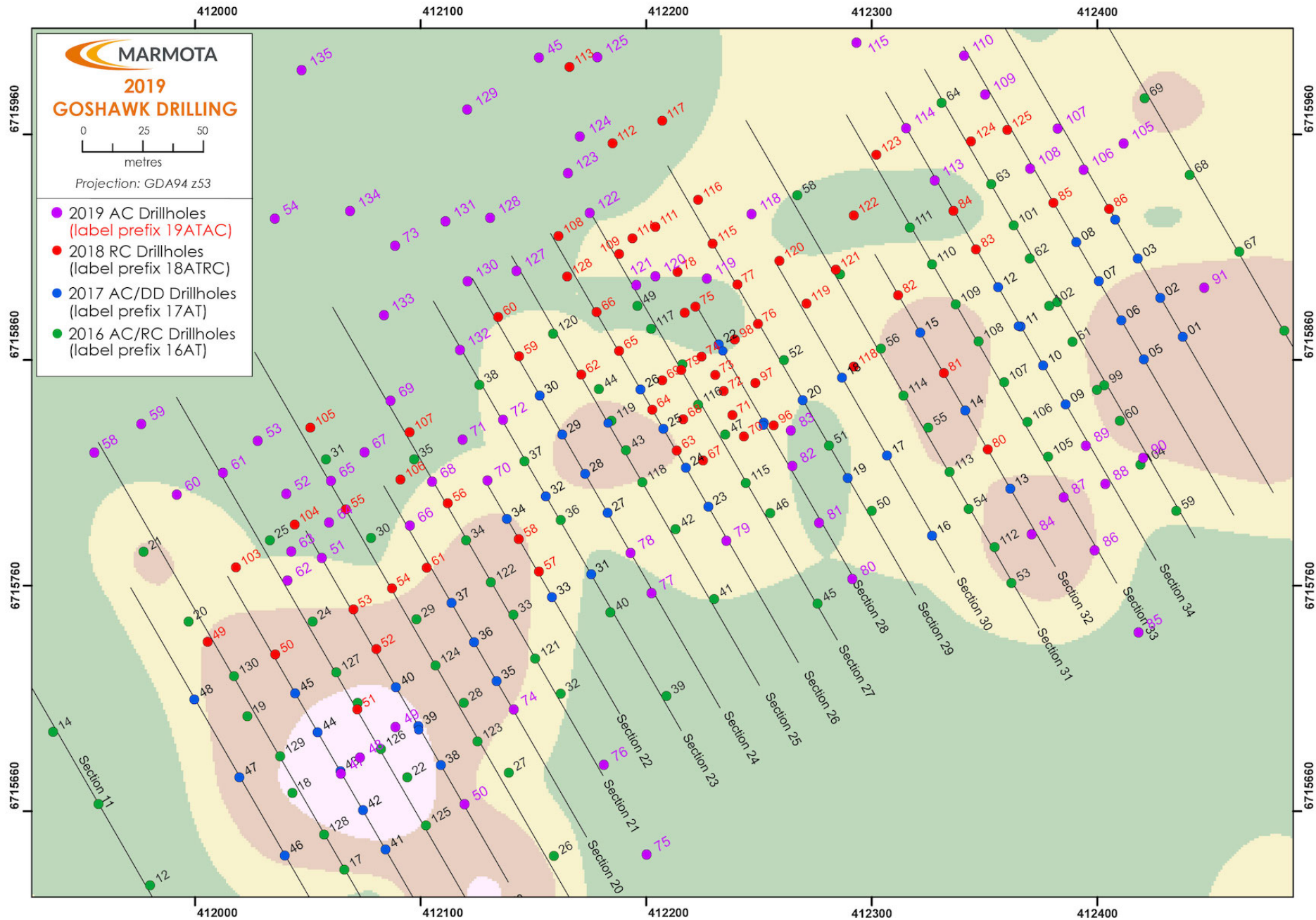
Criteria	JORC Code explanation	Commentary
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li><i>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.</i></li> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>Where aggregated intercepts are presented in the report, they may include shorter lengths of high-grade mineralisation; these shorter lengths are also tabulated.</li> <li>No metal equivalents are reported.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li><i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i></li> </ul>	<ul style="list-style-type: none"> <li>Drill coverage is considered sufficient to establish approximate true widths due to the current geological understanding of mineralisation dip and strike</li> <li>Mineralisation intersections are downhole lengths; exact true widths are unknown but are similar to the intersection lengths as the mineralised zones are approximately normal to hole inclinations.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>See Figures in release attached.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li><i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>A cut-off grade of 1.0g/t (1000 ppb) gold was applied in reviewing assay results and deemed to be appropriate at this stage in reporting of exploration results.</li> <li>Reporting is considered balanced.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>See attached ASX Release. Geological observations are included in that report.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>See attached release.</li> <li>Marmota is currently reviewing results received to date from this drilling campaign and considering additional work programs including resampling mineralised zones at 1m intervals and additional infill drilling.</li> </ul>

June 2019 drillhole collar summary

Hole ID	Easting (MGA94 z53)	Northing (MGA94 z53)	RL	Dip	Azimuth (Mag)	EOH Depth
19ATAC001	411,502	6,715,327	155	-60	150	50
19ATAC002	411,764	6,715,177	155	-60	150	50
19ATAC003	412,040	6,715,359	155	-60	150	50
19ATAC004	412,038	6,715,415	155	-60	150	50
19ATAC005	411,881	6,715,480	155	-60	150	50
19ATAC006	411,863	6,715,586	155	-60	150	46
19ATAC007	411,748	6,715,700	154	-60	150	51
19ATAC008	411,732	6,715,745	154	-60	150	50
19ATAC009	411,716	6,715,775	153	-60	150	50
19ATAC010	411,729	6,715,618	154	-60	150	50
19ATAC011	411,677	6,715,715	153	-60	150	50
19ATAC012	411,705	6,715,719	154	-60	150	54
19ATAC013	411,614	6,715,759	153	-60	150	50
19ATAC014	411,502	6,715,912	153	-60	150	51
19ATAC015	411,789	6,715,925	153	-60	150	50
19ATAC016	411,833	6,715,925	153	-60	150	50
19ATAC017	411,809	6,715,971	153	-60	150	48
19ATAC018	411,849	6,715,975	153	-60	150	50
19ATAC019	411,888	6,715,975	152	-60	150	48
19ATAC020	411,806	6,716,053	153	-60	150	50
19ATAC021	412,063	6,716,016	153	-60	150	50
19ATAC022	412,040	6,716,056	153	-60	150	50
19ATAC023	412,011	6,716,098	153	-60	150	50
19ATAC024	411,948	6,716,151	153	-60	150	49
19ATAC025	411,922	6,716,190	153	-60	150	50
19ATAC026	411,892	6,716,236	153	-60	150	50
19ATAC027	411,905	6,716,149	153	-60	150	48
19ATAC028	411,885	6,716,188	153	-60	150	50
19ATAC029	411,844	6,716,189	154	-60	150	50
19ATAC030	411,771	6,716,234	153	-60	150	51
19ATAC031	412,103	6,716,018	153	-60	150	51
19ATAC032	412,079	6,716,055	153	-60	150	50
19ATAC033	412,051	6,716,097	153	-60	150	54
19ATAC034	411,988	6,716,150	153	-60	150	50
19ATAC035	411,962	6,716,190	153	-60	150	50
19ATAC036	412,000	6,716,190	153	-60	150	50
19ATAC037	412,031	6,716,331	153	-60	150	51
19ATAC038	411,990	6,716,331	153	-60	150	50
19ATAC039	411,951	6,716,331	153	-60	150	50
19ATAC040	412,034	6,716,420	153	-60	150	50
19ATAC041	412,072	6,716,420	152	-60	150	50

19ATAC042	412,113	6,716,420	152	-60	150	50
19ATAC043	412,075	6,716,472	152	-60	150	50
19ATAC044	412,115	6,716,471	152	-60	150	50
19ATAC045	412,153	6,715,994	153	-60	150	50
19ATAC046	411,915	6,715,651	154	-60	150	57
19ATAC047	412,065	6,715,675	154	-60	150	44
19ATAC048	412,074	6,715,682	154	-60	150	44
19ATAC049	412,089	6,715,696	154	-60	150	43
19ATAC050	412,120	6,715,661	154	-60	150	51
19ATAC051	412,057	6,715,771	154	-60	150	50
19ATAC052	412,041	6,715,800	154	-60	150	66
19ATAC053	412,028	6,715,823	154	-60	150	72
19ATAC054	412,036	6,715,922	153	-60	150	45
19ATAC055	412,016	6,715,953	153	-60	150	50
19ATAC056	411,977	6,715,969	153	-60	150	57
19ATAC057	411,994	6,715,933	153	-60	150	50
19ATAC058	411,955	6,715,818	154	-60	150	57
19ATAC059	411,976	6,715,831	153	-60	150	54
19ATAC060	411,992	6,715,799	153	-60	150	46
19ATAC061	412,013	6,715,809	154	-60	150	50
19ATAC062	412,041	6,715,761	154	-60	150	48
19ATAC063	412,043	6,715,774	154	-60	150	50
19ATAC064	412,060	6,715,787	154	-60	150	57
19ATAC065	412,061	6,715,805	154	-60	150	60
19ATAC066	412,096	6,715,785	154	-60	150	50
19ATAC067	412,076	6,715,818	154	-60	150	60
19ATAC068	412,106	6,715,805	154	-60	150	50
19ATAC069	412,087	6,715,841	154	-60	150	69
19ATAC070	412,130	6,715,806	154	-60	150	63
19ATAC071	412,119	6,715,824	154	-60	150	60
19ATAC072	412,137	6,715,832	154	-60	150	54
19ATAC073	412,089	6,715,910	153	-60	150	50
19ATAC074	412,142	6,715,704	154	-60	150	50
19ATAC075	412,201	6,715,639	154	-60	150	50
19ATAC076	412,182	6,715,679	155	-60	150	57
19ATAC077	412,204	6,715,755	154	-60	150	59
19ATAC078	412,194	6,715,773	154	-60	150	61
19ATAC079	412,237	6,715,779	154	-60	150	50
19ATAC080	412,293	6,715,762	154	-60	150	50
19ATAC081	412,278	6,715,787	154	-60	150	50
19ATAC082	412,266	6,715,812	154	-60	150	50
19ATAC083	412,266	6,715,828	154	-60	150	57
19ATAC084	412,373	6,715,782	154	-60	150	50
19ATAC085	412,421	6,715,738	154	-60	150	50
19ATAC086	412,401	6,715,775	154	-60	150	50
19ATAC087	412,387	6,715,798	154	-60	150	51
19ATAC088	412,406	6,715,804	154	-60	150	50
19ATAC089	412,397	6,715,821	154	-60	150	50
19ATAC090	412,423	6,715,816	154	-60	150	50

19ATAC091	412,450	6,715,892	154	-60	150	50
19ATAC092	412,544	6,715,867	154	-60	150	54
19ATAC093	412,602	6,715,867	154	-60	150	50
19ATAC094	412,621	6,715,887	154	-60	150	50
19ATAC095	412,881	6,715,712	155	-60	150	50
19ATAC096	413,061	6,716,490	150	-60	150	50
19ATAC097	412,550	6,716,343	152	-60	150	50
19ATAC098	412,580	6,716,384	151	-60	150	50
19ATAC099	412,606	6,716,426	151	-60	150	50
19ATAC100	412,514	6,716,340	152	-60	150	50
19ATAC101	412,498	6,716,383	151	-60	150	50
19ATAC102	412,471	6,716,337	152	-60	150	45
19ATAC103	412,420	6,716,379	152	-60	150	50
19ATAC104	412,379	6,716,020	153	-60	150	50
19ATAC105	412,414	6,715,956	153	-60	150	54
19ATAC106	412,396	6,715,944	154	-60	150	63
19ATAC107	412,385	6,715,962	154	-60	150	65
19ATAC108	412,372	6,715,944	153	-60	150	56
19ATAC109	412,352	6,715,977	154	-60	150	60
19ATAC110	412,343	6,715,995	154	-60	150	52
19ATAC111	412,310	6,716,013	154	-60	150	50
19ATAC112	412,289	6,716,052	153	-60	150	60
19ATAC113	412,330	6,715,939	154	-60	150	50
19ATAC114	412,317	6,715,963	153	-60	150	54
19ATAC115	412,295	6,716,001	153	-60	150	69
19ATAC116	412,274	6,716,037	153	-60	150	51
19ATAC117	412,254	6,716,076	154	-60	150	50
19ATAC118	412,248	6,715,924	153	-60	150	80
19ATAC119	412,228	6,715,896	154	-60	150	69
19ATAC120	412,205	6,715,897	154	-60	150	66
19ATAC121	412,197	6,715,893	154	-60	150	66
19ATAC122	412,176	6,715,925	154	-60	150	50
19ATAC123	412,166	6,715,942	154	-60	150	50
19ATAC124	412,172	6,715,959	154	-60	150	50
19ATAC125	412,179	6,715,994	153	-60	150	50
19ATAC126	412,162	6,716,113	153	-60	150	50
19ATAC127	412,143	6,715,899	154	-60	150	48
19ATAC128	412,132	6,715,923	154	-60	150	50
19ATAC129	412,121	6,715,971	153	-60	150	50
19ATAC130	412,122	6,715,894	154	-60	150	50
19ATAC131	412,112	6,715,921	153	-60	150	50
19ATAC132	412,118	6,715,864	154	-60	150	50
19ATAC133	412,084	6,715,879	153	-60	150	50
19ATAC134	412,069	6,715,926	153	-60	150	50
19ATAC135	412,048	6,715,988	153	-60	150	50
19ATAC136	411,960	6,715,928	153	-60	150	48



**Figure 7: Aurora Tank – Drill Collars**