



PETRATHERM LIMITED

ACN 106 806 884

ASX: PTR

www.petratherm.com.au
admin@petratherm.com.au

ASX ANNOUNCEMENT

9 July 2021

Comet Project – Regional shallow drilling program identifies a large new gold anomalous area

HIGHLIGHTS

- Stage 1 - Regional gold exploration program identifies significant new gold anomaly covering an area of approximately 2,000 metres by 800 metres.
- Infill sampling to get underway in 3 weeks, with follow-up drill testing of this target, Comet, and Target 14 Gold Prospects in the coming months

Petratherm Limited (“Petratherm” or “the Company”) (ASX: PTR) is pleased to provide a summary of findings from its regional geochemical gold exploration program at the Comet Project, approximately 80 kilometres southwest of Coober Pedy in South Australia. The Comet Project contains prospective Archean strata of the Northern Gawler Craton which hosts numerous gold occurrences such as the Challenger gold deposit (1.1 Moz @ 5.1g/t) and is located 30 km east from the recent high-grade Aurora Tank Gold discovery (Figure 1).

The survey has identified a significant new coherent gold anomalous occurrence (DG1) spanning an approximate 2,000 metre by 800 metre area (Figure 2), warranting immediate follow-up.

Historical surface geochemical sampling exploration techniques in the region have been severely impeded by shallow cover strata which masks most of the prospective basement rock geochemical response. To overcome this issue, Petratherm applied a new exploration methodology, where regional scale (400 metre by 400 metre) shallow grid drilling has been undertaken to directly sample the top of the in-situ “saprolite” zone clays (deeply weathered basement rock which has been chemically decomposed to clay) below younger transported cover strata (refer to PTR ASX release 28/05/21 for program background). In most areas over the tenement the top of saprolite zone occurs between 5 and 15 metres depth and shallow drilling was undertaken using a light weight and cost effective, land cruiser mounted air core drill rig.

The saprolite sampling program has proved effective, with early findings indicating sampling provides geochemical data with high level of precision (low noise), eliminates superficial anomalies contained in the transported cover sediment, and most critically provides direct geochemical screening of the prospective basement rock.

The new assay results for the DG1 gold anomalous area has yielded gold in saprolite up to 33 ppb (on a 400m grid). For comparison, the gold in saprolite above primary gold mineralisation at the Comet Gold Prospect 5 km to the northwest ranged between 7 to 51 ppb (including all detailed in-fill RAB drill sampling down to a 50m grid size). Bedrock drilling below the saprolite anomaly at Comet Prospect has yielded multiple high gold intercepts of up to 6.97 g/t Au (refer to PTR ASX release 30/10/20 for summary of significant gold intercepts).

The Company has engaged McLeod Drilling to undertake infill sampling over the new prospective zone and this work is scheduled to start in approximately 3 weeks time and will take about 1 week to complete.

The Company was recently awarded S.A Government grant funding to a level of \$147,500 on a 1 for 1 basis through the Accelerated Discovery Initiative (ADI) to assist the Company's Deep Geochemical Gold exploration for the Comet Project Area (PTR ASX release 21/05/21). A small portion of this grant will be used to co-fund the upcoming infill sampling work, with the majority to be spent on regional and infill sampling on the adjoining tenement application area (ELA 2020/0194, "Gina Project"). An initial focus area for the Company on the adjoining Gina Project Area includes the historical Target 14 Gold Prospect (refer to PTR ASX release 03/12/2020) which occurs about 5km SW of the new gold anomalous area, and which may be along the same structural trend (Figure 1).

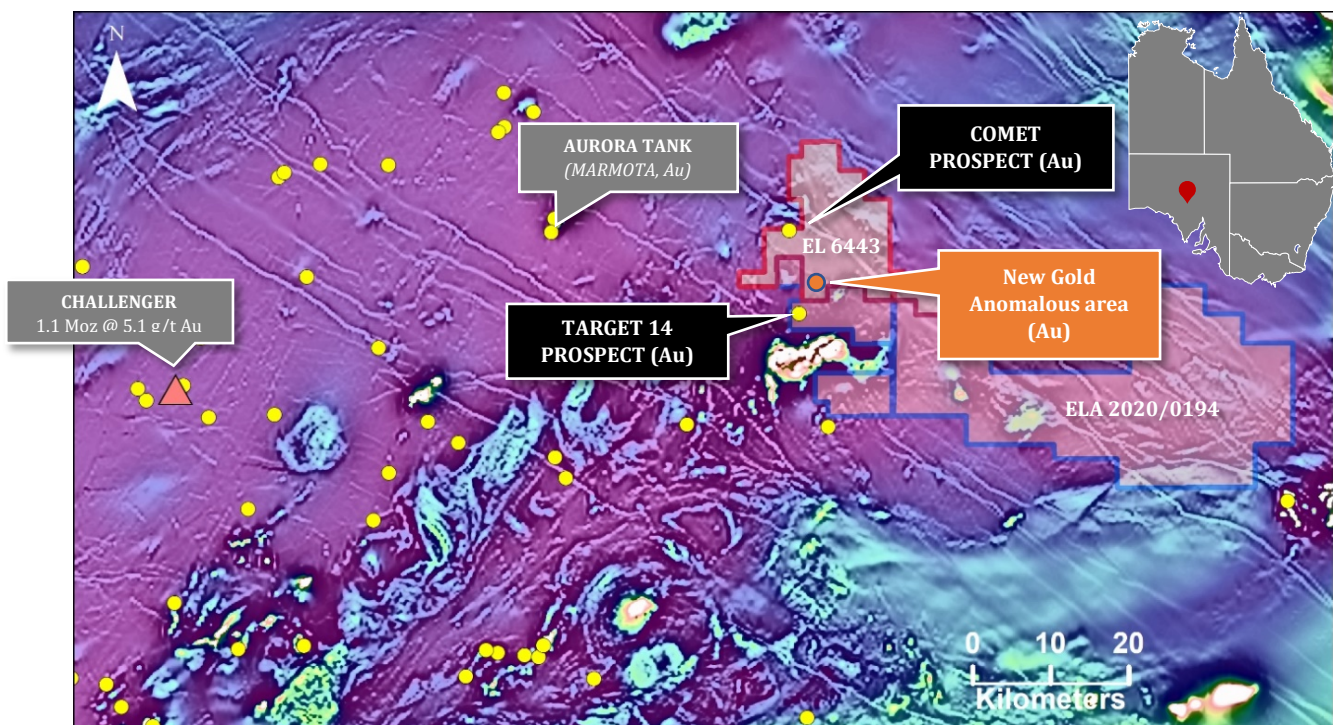


Figure 1 Regional Location Map of Petratherm's Comet Project (comprising EL6443 and ELA 2020/0194) and gold occurrences overlain on a regional aeromagnetic image

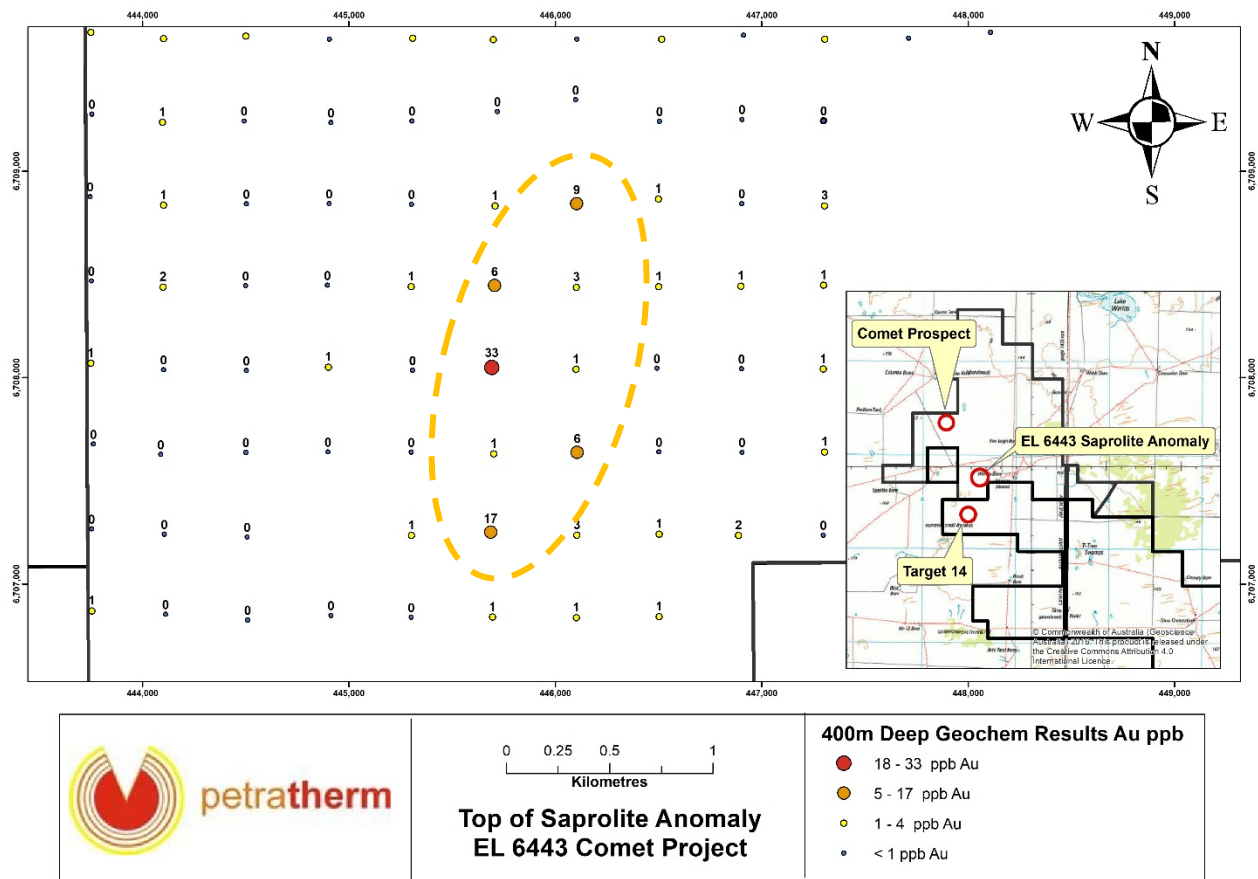


Figure 2 Geochemical Plan highlighting the DG1 Saprolite gold anomaly

This ASX announcement has been approved by Petratherm's Board of Directors and authorised for release by Petratherm's Chairman Derek Carter.

Competent Persons Statement: The information in this report that relates to Exploration Targets and Exploration Results is based on information compiled by Mr Peter Reid, who is a Competent Person, and a Member of the Australian Institute of Geoscientists. Mr Reid is not aware of any new information or data that materially affects the historical exploration results included in this report. Mr Reid is an employee of Petratherm Ltd. Mr Reid has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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 Reid consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

ELA EL 6443 (Comet Project) JORC Table 1

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>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.</i> <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> <i>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 Au that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i>	459 drill holes were drilled to collect samples from the top of the saprolite on 400 metre spacing across EL 6443. - Samples were collected as composite intervals from one metre drill samples stored individually in buckets. - Composite samples were collected using a sampling tool to collect representative samples from buckets. 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). Only laboratory assay results were used to compile the results that appears in the report. - A handheld Garmin 64s was used to record the location of each drill hole. The accuracy of this GPS is +/- 3m
Drilling techniques	<i>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.).</i>	Drill Method consists of Aircore and RAB Drilling, Hole diameters are 100 mm
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> <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>	- Both Air core and RAB drilling methods were utilised throughout the duration of the program. - Hole diameters are 100mm - A Geologist was on site for every drill hole to ensure that sample recoveries were appropriate.

Criteria	JORC Code explanation	Commentary
Logging	<i>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.</i> <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i> <i>The total length and percentage of the relevant intersections logged.</i>	- All samples were geologically logged by the on-site geologist. - Geological logging is qualitative. - Representative chip trays containing 1 m geological subsamples were collected. 100% of any reported intersections in this announcement have had geological logging completed.
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> <i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i> <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> <i>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.</i> <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	- Samples averaging 2 kg were collected for laboratory assay. - It is considered representative samples were collected. - Laboratory sample preparation includes drying and pulverizing of submitted sample to target of p80 at 75 um. - No samples checked for size after pulverizing failed to meet sizing target in the sample batches relevant to the report. - Duplicate samples were introduced into the sample stream by the Company, while the laboratory completed repeat assays on various samples. - Standard samples were introduced into the sample stream by the Company, while the laboratory completed standard assays also. - Both Company and laboratory introduced duplicate samples indicate acceptable analytical accuracy and precision. - Laboratory analytical charge sizes are standard sizes and considered adequate for the material being assayed.
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> <i>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model,</i>	- ALS in Perth was used for analytical work. Samples were analysed in the following manner: - Aqua Regia Digest. Analysed by Inductively

Criteria	JORC Code explanation	Commentary
	<i>reading times, calibrations factors applied and their derivation, etc.</i> <i>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.</i>	Coupled Plasma Mass Spectrometry and Inductively Coupled Plasma-Atomic Emission Spectrometer for Au to 1ppb and 39 other elements. - For laboratory samples, the Company introduced QA/QC samples at a ratio of one QA/QC sample for every 50 drill samples. The laboratory introduced additional QA/QC samples (blanks, standards, checks) - Both the Company introduced, and laboratory introduced QA/QC samples indicate acceptable levels of accuracy and precision have been established.
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i> <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> <i>Discuss any adjustment to assay data.</i>	- A Company geologist has checked the calculation of the quoted intersections in addition to the Competent Person. - No twinned holes were drilled in the program. - No adjustments have been made to the assay data.
Location of data points	<i>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.</i> <i>Specification of the grid system used.</i> <i>Quality and adequacy of topographic control.</i>	All maps and locations are in UTM grid (GDA94 Z53) and have been measured by hand-held GPS with a lateral accuracy of ± 3 metres and a vertical accuracy ± 5m.
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i> <i>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.</i> <i>Whether sample compositing has been applied.</i>	- Drill holes were completed on a 400 metres spaced grid. - The data spacing and distribution is insufficient to establish the degree of geological and grade continuity appropriate for a JORD mineral resource.
Orientation of data in relation to geological structure	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> <i>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.</i>	No Geological Information regarding orientation of structure was available.
Sample security	<i>The measures taken to ensure sample security.</i>	- Company staff collected all laboratory samples. - Samples submitted to the

Criteria	JORC Code explanation	Commentary
		laboratory were transported and delivered by Company staff.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audit of data has been completed to date.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	- 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. - 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.	- EL 6443 Comet is located approximately 80km south south-west of Coober Pedy overlapping Ingomar and Commonwealth Hill Pastoral Stations. - The tenement is located within the Woomera Prohibited Area (Amber Zone) and the Far North Prescribed Wells Area. Native Title Claims: SCD2011/001 Antakirinja Matu-Yankunyjtjatjara. - The tenement is in good standing and no known impediments exist.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	- Previous exploration work includes; Surface Geochemical Sampling: Calcrete Airborne Geophysics: Magnetics & Radiometrics. Ground Geophysics: Magnetics and Gravity. Exploration Drilling: 202 Mechanised Auger, 103 Aircore, 9 Rotary Air, 27 Reverse Circulation & 3 Diamond.
Geology	Deposit type, geological setting and style of mineralisation.	Petratherm is primarily exploring for Orogenic Gold mineralisation (e.g. Challenger-style) within the Christie Region of the Gawler Craton, South Australia.
Drill hole Information	- 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: - easting and northing of the drill hole collar - elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar - dip and azimuth of the hole - down hole length and interception depth	- A summary of material geochemical drill results and sample locations shown in Figure 2 are presented in the body of the report. - The type of drilling performed, comprised

Criteria	JORC Code explanation	Commentary
	○ hole length. • 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.	vertical shallow holes to an average depth of 12 metres on a 400m grid. The drilling is effectively a regional deep auger geochemical sampling program and as a result tabulation of drill hole information is considered not necessary as it does not add further material information and does not detract from the understanding of the report.
Data aggregation methods	• 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. • 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. • The assumptions used for any reporting of metal equivalent values should be clearly stated.	• The results reported are the true values of composite samples as received by ALS. • Sample results have not been aggregated for the purposes of reporting interval lengths or average grades. • No metal equivalents are reported.
Relationship between mineralisation widths and intercept lengths	• These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. • 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').	• Drill coverage is not currently considered sufficient to establish true widths due to uncertainty regarding mineralisation dip and strike. • Mineralisation intersections are downhole lengths; true width is unknown.
Diagrams	• 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.	• See figures in release attached.
Balanced reporting	• 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.	• An assessment of drilling data has been completed and based on the data set any gold value of greater than 4 ppb Au is determined to be anomalous.
Other substantive exploration data	• 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.	• See attached ASX Release. Geological observations are included in that report.

Criteria	JORC Code explanation	Commentary
<i>Further work</i>	<i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> <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>	See attached release.