



21 November 2022

KRAKATOA DELIVERS MAIDEN MINERAL RESOURCE AT TOWER RARE EARTH DEPOSIT

Maiden Mineral Resource Estimate of 101MT @ 840ppm TREO

HIGHLIGHTS

- Major Maiden Mineral Resource estimate of 101MT @ 840ppm TREO comes only 7 months after making the discovery at Tower
- Mineralisation starts from surface and is highlighted by thick zones of high-grade TREO
- 40% of the Mineral Resource estimate is classified in the Indicated category, 60% classified in the Inferred category
- Maiden Mineral Resource estimate only incorporates 20% of identified Exploration Target drilled to date, with significant resource expansion potential
- Exploration Target for the Tower area is estimated at 57 – 481MT grading 530-1050ppm TREO
- Krakatoa to commence reconnaissance drilling at Tower West and infill and extensional drilling at Tower
- Following delivery of the Mineral Resource estimate, Krakatoa will focus on commencing strategic discussions, development studies and growing the Project in size and scale

Krakatoa Resources Limited (ASX: KTA) (“Krakatoa” or the “Company”) is pleased to announce a major milestone through delivery of a maiden Mineral Resource estimate at the Tower Project, the first prospect drilled of many perspective clay hosted REE targets at the Company’s flagship Mt Clere Project, located in the north-western margins of the Yilgarn Craton, Western Australia.

The impressive **maiden Mineral Resource estimate of 101MT @ 840ppm TREO**, which has been defined in only 7 months following the discovery at Tower, which is highlighted by thick zones of near-surface mineralisation. 40% of the Mineral Resource estimate has been classified in an Indicated category. Significantly, the existing resource has the potential to substantially grow in size and scale as the Mineral Resource estimate only incorporates 20% of the identified Exploration Target drilled to date.

Krakatoa has estimated an **Exploration Target for the Tower area of 57 – 481MT at 530-1050ppm TREO**.



ASX Code
KTA

Capital Structure

344,709,917 Fully Paid Shares
21,200,000 Options @ 7.5c exp 29/11/23
5,000,000 Options @15c exp 29/11/23
15,000,000 Performance Rights at 20c, 30c and 40c.

Directors

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Following completion of the maiden Mineral Resource estimate, Krakatoa will now commence key development workstreams at the Tower Project and initiate discussions with potential end-users, offtake partners and industry groups for potential funding, development, and downstream opportunities.

The Mineral Resource estimate is set out in the Table 1 below, together with the Exploration Target for the extensional areas:

Table 1. Tower project Mineral Resources estimate and Exploration Target.

Resource Classification JORC	Tonnes (Mt)	TREO (ppm)	TREO – CeO ₂ (ppm)	CREO (ppm)	HREO (ppm)	LREO (ppm)	U ₃ O ₈ (ppm)	ThO ₂ (ppm)
Indicated	40	824	481	233	182	642	1	31
Inferred	61	852	540	290	266	586	2	32
Total⁽¹⁾	101	840	517	267	233	607	2	32
Exploration Target ⁽²⁾	57 - 481	530 - 1050	320-625				1 - 4	10- 35

Notes:

- (1) Mineral Resources reported at a cut-off grade of 300 ppm TREO-CeO₂
- (2) Exploration target is reported as a range. The potential quantity and grade of the Exploration Target is conceptual in nature and is therefore an approximation. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource

Krakatoa's CEO, Mark Major commented

“This is an outstanding result and a game-changer for Krakatoa and our shareholders.

“It has only been 7 months since we made the initial discovery at Tower and now the team has delivered a robust maiden resource and we still have a significant exploration target to chase.

“This puts us in a solid position to continue with our systematic exploration strategy and also commence strategic discussions with end users and industry groups related to potential development, funding, off-take arrangements, and downstream processing opportunities.

“We will now continue to explore the Tower area further and look to increase the resource confidence as well as size, plus continue our regional exploration focus. In parallel, we will advance the ongoing technical and metallurgical studies and look to commence baseline environmental and social studies with the vision to move toward production as quickly as possible.

“We believe Tower and the wider area presents a unique opportunity to develop a project of size and quality with key attributes highlighted by free-digging dirt, low strip ratio, extensive mineralised thickness and in this area that doesn't compete with agriculture for land use.”

The maiden Mineral Resource estimate incorporates the results from two drilling campaigns completed over the past 12 months at Mt Clere. The results of both programs were announced to the ASX on 12 April 2022, 19 May 2022 and 2 November 2022.

The Mineral Resource estimate was conducted over the central and southern Tower area located within exploration licences EL09/2357 (Figure 1). This area was identified to represent in-situ weathered regolith plateaus over alkaline gneiss and granites showing defined radiometric anomalism located in the upper catchment of highly anomalous stream geochemical surveys. This area, as well as the Tower West area, have established station tracks which allowed the Company to undertake this drilling quickly and efficiently, while other target areas are less accessible at this time. The area of drilling covered by the Mineral Resource estimate is 5.4km² (Tower central and south areas) which represents less than 20% of the current exploration target identified to be prospective for REE mineralisation.

The Mineral Resource estimate only includes clays and saprolite regolith types. Surface hardcap and basement saprock material has been excluded as no processing alternatives have been tested for this material. The processing of the saprolite is understood and consistent with the Company's knowledge of other IAC and clay hosted deposits, especially those in southern China, Myanmar, and Africa.

In total the Mineral Resource estimate is based on 109 vertical air core holes over the central and south areas of the Tower project. In total 139 drill holes for 3,848m of drilling have been completed, with 30 drill holes at Tower West not included in the Mineral Resource estimate (Figure 5). The core area of the Tower prospect is covered by approximately 200m-spaced drill holes, which provides the confidence to move towards a higher Indicated status within that area. The drill spacing is more sporadic and greater than the 200m distance over much of the Tower West and the southern extent of Tower area.

The area of the JORC classified mineral resource is shown in Figure 1 with several of the block model cross sections over the deposit shown in Figure 2 and 3.

Summary of Material used to Estimate the Mineral Resources

The following is a summary of the key material information used to estimate the Mineral Resources as required by the JORC 2012 Reporting guidelines and the associated Listing rules. The Mineral Resource estimate was prepared by IHC Mining.

Mineral Tenement and Land Status

The Tower project is situated within one granted exploration license (EL09/2357), located in the Errabiddy - Mt Clere region of the north-western margins of the Yilgarn Craton, Western Australia. The tenement is one of 11 held in the area by the Company, with all in good standing.

The Tower project and all exploration licenses within the areas are 100% owned by Krakatoa Resources.

Geology

The Tower deposit is interpreted to be an ionic adsorption REE clay-type deposits like those in South China, Uganda, Madagascar, Myanmar, and others within South America. The mineralisation is contained within the lateritic weathering profile over the bedrock source, consisting of alkaline granitic and gneissic rocks.

These basement rocks are considered to be the original source of the REE which through the process of weathering have accumulated within the pallid clay zones from the breakdown of the basement parent rock. Primary minerals within the basement rocks, such as monazite are then adsorbed as elements on clays (e.g. kaolinite, illite, smectite) and iron oxide surfaces.

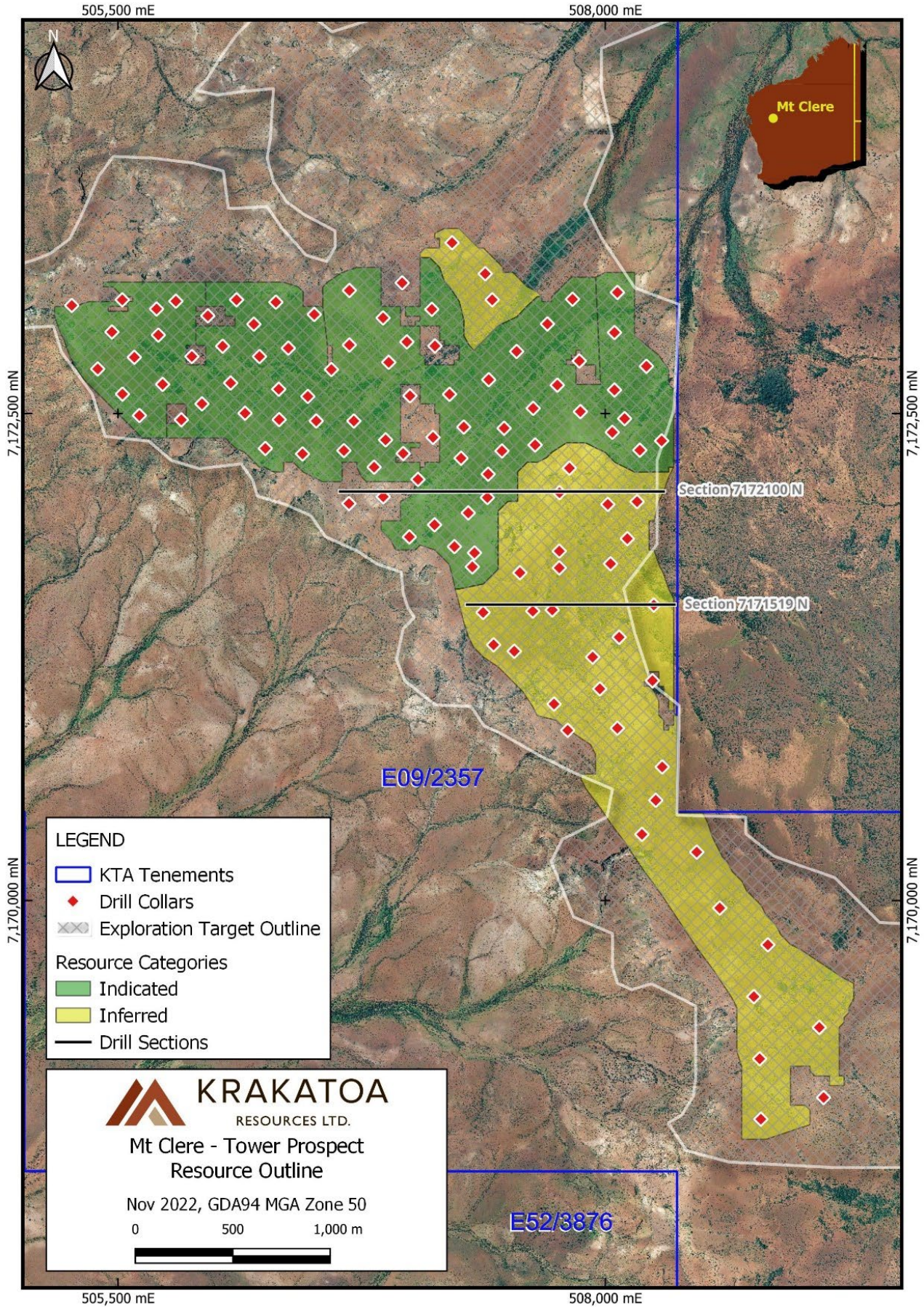


Figure 1 Tower Project JORC classification plan with drillhole and cross sections shown

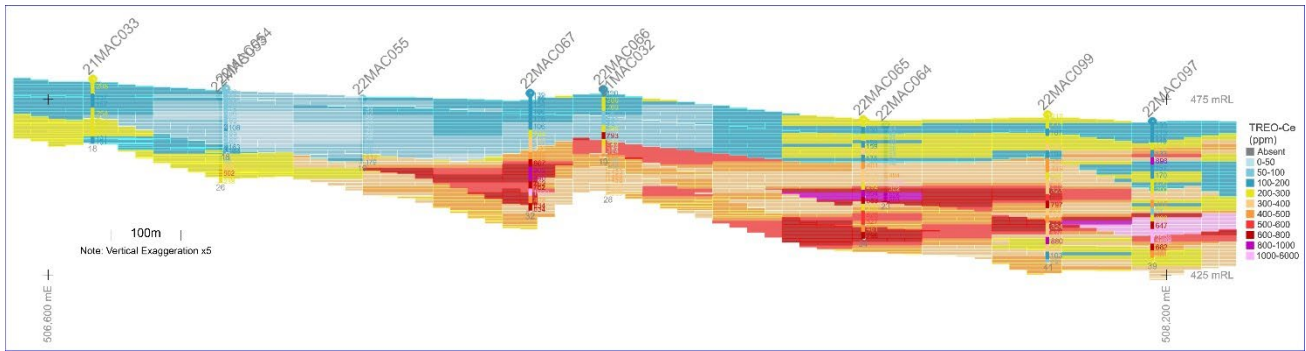


Figure 2 Section 7172100N showing Block Model grade distribution

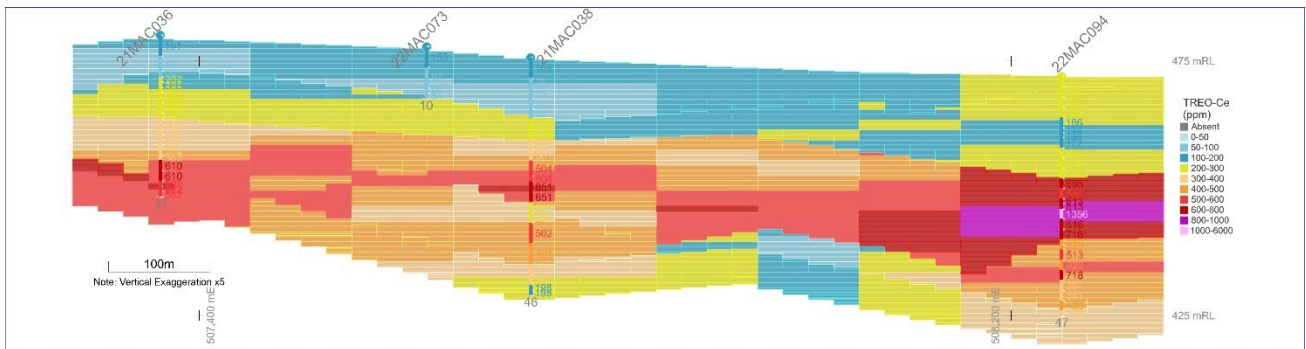


Figure 3 Section 7171519N showing Block Model grade distribution

Over extensive time the weathering developed a lateritic regolith with a surface indurated hardcap, followed downward by clay rich zones (pallid Zone) that grade down through saprolite and saprock to unweathered basement rocks. The thickness of the regolith varies to greater than 50 metres and typically starts at surface to around 10m from surface. The REE mineralisation is concentrated in the weathered profile. This adsorbed REE is the target for extraction and production of REO.

Additional work on the genetic model for REE mineralisation at the Tower projects is ongoing and part of the metallurgical work currently being completed.

Drilling

In total the Mineral Resource estimate is based on 139 vertical air core holes for 3,848m of drilling, with 109 drill holes over the main Tower Project area and only 30 drill holes at Tower West (Figure 1). The core area of the Tower prospect is covered by approximately 200m-spaced drill holes, which provides the confidence to indicated status within that area. The drill spacing is more sporadic and greater than the 200m distance over much of the Tower West and the southern section of the main Tower area.

Sampling

Aircore (AC) samples were collected at 1 metre intervals and contained in large plastic bags. Samples for geochemical analysis were collected as 2m to 4m composites, taken by the spear method, taken from the centre of a complete bag along its entire length, from each 1m plastic bag. Near the end-of-hole narrower composite sample intervals, usually 3m to 1m depending on the depth of the remainder of the hole. A representative sample was taken by spearing from each one metre bulk sample and depositing into calico

bags to create a composited ~3kg sample. Additionally, a representative 1m calico sample was also speared from each bulk sample bag and kept as master sample.

Sample lengths were determined by geological boundaries with a maximum sample length of 1 metre. Field duplicates, certified reference materials and analytical blanks were incorporated into the sample batches and used as part of the QAQC procedures. They were each inserted at a rate of 1:20 samples.

Sample Analysis

All composited AC samples were prepared and assayed at ALS laboratory Perth Australia. Sample preparation included whole sample weighing, assignment of an identification. A sample of 3kg or less underwent pulverising to achieve better than 85% passing 75 microns. Analysis for REE suite on sample pulps was via Lithium Borate Fusion ICP-MS, analysed via ICP-MS (ME-MS81). Elements include Ba, Ce, Cr, Cs, Dy, Er, Eu, Ga, Gd, Hf, Ho, La, Lu, Nb, Nd, Pr, Rb, Sm, Sn, Sr, Ta, Tb, Th, Tm, U, V, W, Y, Yb and Zr; with elements analysed at ppm levels. This method is considered a total analysis.

Estimation Methodology

The geological interpretation utilised lithological logging data, and assay data to guide and control the Mineral Resource estimation.

Datamine Studio RM software was utilised to generate three - dimensional wireframes of the major regolith units. Estimation domains were based on grouping of the regolith domains into 5 zones (inclusive of basement) as defined by regolith rheology, and by comparison of regolith statistics:

- Domain 1 – Lateritic cover zone
- Domain 2 – Silica cap cover zone
- Domain 3 – (Upper/lower) saprolite zone
- Domain 4 – Saprock zone
- Domain 200 – Basement zone

Drill hole sample data was flagged using domain codes generated from three-dimensional mineralisation domains. No residuals were generated. Statistical analysis was carried out on data from all estimated domains, with hard boundary techniques employed within each estimation domain.

No top-cut values were required. A total of 15 REE grade attributes (Y, La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, and Lu) and 2 deleterious elements (U, and Th) were estimated. Final estimated values are converted to stoichiometric oxide values by calculation using published ratios to support reporting of rare earth oxides (REO).

The grade estimation process was completed using Datamine Studio RM software. Drill hole intervals were de-composited to regular 1m intervals for the interpolation process. Inverse Distance Cubed (ID3) was used to interpolate grade and values into the block model. Ordinary Kriging (OK) was also used to interpolate TREO and TREO-CeO₂ as a check against the ID3 interpolation method. The OK check against the ID3 method demonstrated that results of both methodologies were within ~5% difference which is considered satisfactory and provides additional confidence in the grade interpolation of the resource model. It also demonstrates a good understanding of the geological domains, their constrains and overall grade continuity.

Interpolation parameters were derived using standard exploratory data analysis techniques of statistical and continuity analysis, including variography. The model has a block size of 100 m (X) by 100 m (Y) by 1 m

(Z) with sub-celling of 4 m (X) by 4 m (Y) by 20 cm (Z). Inverse Distance Cubed estimation was used with parent cell estimation applied; whereby sub-cells were assigned the grade estimated for the corresponding parent cell volume. A discretisation array of 2 x 2 x 1 was used for the parent cell array. The block model and drill hole file were validated on-screen against the geology and basement wireframes to ensure zone allocation had been correctly assigned. The block model was validated to ensure that the grade interpolation was supported and that the selected block model size and sub-celling was adequate for the estimation process using a combination of visual and statistical techniques including global statistics comparisons, correlation coefficients comparisons, and trend plots.

On-screen validation of the resource estimate was conducted by viewing the coded drill holes against the estimated grades in section and plan. The block model was interrogated in east-west and north-south cross sections with the model viewed at intervals equivalent to the parent cell size. A typical TREO% mineralisation and domain geometries in east-west cross-section showing the main zones are presented in Figure 2 and Figure 3. These type sections demonstrate that the grade interpolation has been effectively constrained by domain.

Resource Classification

The JORC Classification has taken into consideration the drill hole spacing in plan view, as well the sample support within domains, the size, weighting and distribution of the sample composites and the variography. The deposit has been assigned a JORC Classification of Indicated and Inferred supported by the criteria:

- geological continuity and volume;
- drill data quality;
- regular drill hole spacing that defines geology and TREO-CeO₂ mineralisation distribution and trends;
- domain controlled variography for TREO-CeO₂ that supports the drill spacing for each of the classifications.
- modelling technique; and
- estimation properties, including search strategy, number of informing sample composites, and average distance of composites from blocks.

The classification of Indicated and Inferred resources was supported by all the criteria noted above. There has been industry standard QA/QC data supporting the assaying process, the use of a specialised and reputable commercial laboratory and the drilling, sampling and assaying procedures overall have fully supported the development of an Indicated and Inferred Mineral Resource Estimate. In addition to the criteria discussed in this section there is also the consideration of cut-off grade used to report the Mineral Resource Estimate. As a Competent Person, IHC Mining Geological Services Manager Greg Jones considers that the Mineral Resource estimate result appropriately reflects a reasonable view of the deposit categorisation.

Cut-off Grades

The Mineral Resource has been reported above a 300ppm total rare earth oxide (TREO) minus CeO₂ cut-off. The selection of the TREO-CeO₂ cut-off grade used for reporting was based on the experience of the Competent Person. Given the early stage of investigations at the Tower Project, this cut-off has been selected based on published information from more advanced projects with comparable mineralisation

(i.e., clay-hosted rare earth mineralisation) and conceptual processing methods. It was also understood that the recoveries obtained from the weak acid digestion assay methodology over the fusion assays, showed on average over 80% recoverable Magnetic REO under the weak acid conditions. The grade tonnage curves show the grade continuity with the reduction in tonnes and grade with increasing cut-off.

Material above this cut-off generates a head feed grade of over 500ppm, and in the opinion of the Competent Person meets the conditions for reporting of a Mineral Resource with reasonable prospects of economic extraction.

Mining and Metallurgy

Development of this Mineral Resource assumes mining using standard equipment and methods. The assumed mining method is a conventional truck and shovel open pit mining at appropriate bench heights. No specific mining or metallurgical parameters were incorporated into the modelling process. It is known that the recoveries obtained from the weak acid digestion assay methodology over the fusion assays, showed on average over 80% recoverable Magnetic REO under the weak acid conditions. The Company is undertaking preliminary metallurgical test work on selective materials from the initial drill program.

Resource Area and Limits

The maiden Mineral Resource estimate has determined classified resources over the Tower project area.

Indicated Mineral Resources have been determined where drill spacing is 200 m x 200 m or closer and has provided adequate data and displayed geological continuity to support this level of confidence.

Inferred Mineral Resources have been determined where the drill spacing is at 400m x 400 m spacing and on the margins of the Indicated resource area.

The reported resources only include clay and saprolite regolith types, with surface hardrock and basement material excluded as detailed in the estimated methodology section of this report.

The overall grade distribution is shown in Figure 4

Table 2 details the resource classification level by regolith domain as shown in Figure 1.

Table 2. Mineral Resource by regolith domain (zones)

Mineral Resource Category	Zone ⁽²⁾	Material (Mt)	BD (gcm3)	TREO (ppm)	TREO-CeO ₂ (ppm)	CREO (ppm)	LREO (ppm)	HREO (ppm)	U ₃ O ₈ (ppm)	ThO ₂ (ppm)
Indicated	3	30	1.78	860	500	240	670	190	2	29
Indicated	4	10	1.78	730	440	220	550	170	1	35
Total	Indicated	40	1.78	820	480	230	640	180	1	31
Inferred	3	43	1.78	910	570	300	640	270	2	33
Inferred	4	18	1.78	710	480	270	460	250	2	31
Total	Inferred	61	1.78	850	540	290	590	270	2	32
Grand Total ⁽¹⁾		101	1.78	840	520	270	610	230	2	32

Note

(1) Mineral resources reported at a cut-off grade of 300 ppm TREO-CeO₂

(2) Domain 3 – (Upper/lower) saprolite zone; Domain 4 – Saprock zone

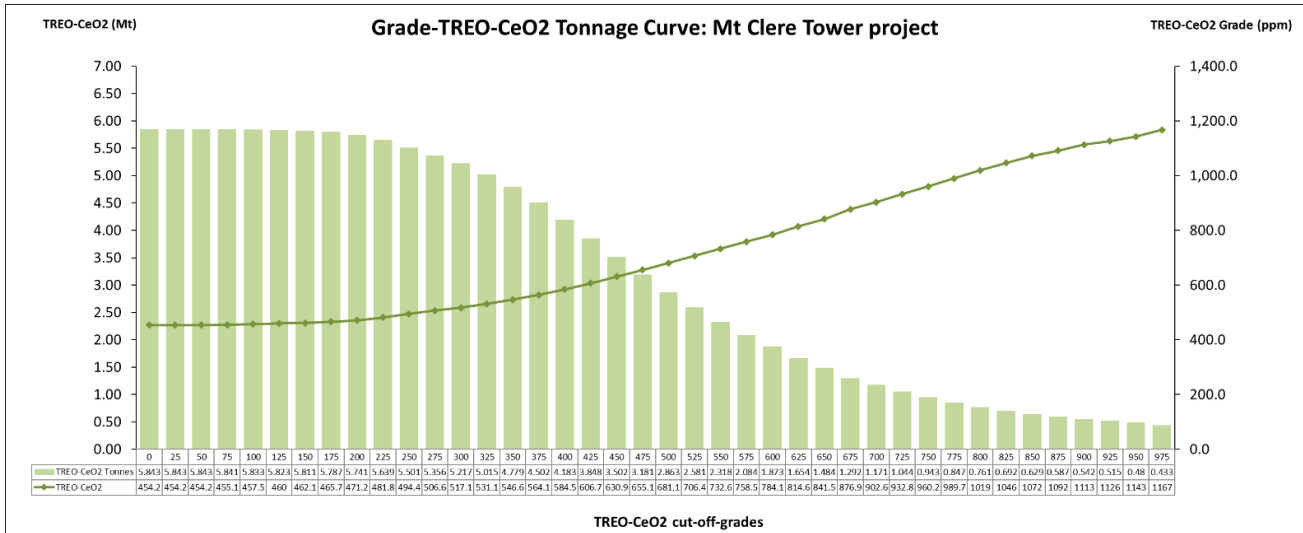


Figure 4 Grade (TREO-CeO₂) - Tonnage Curve

Exploration Target

The Exploration Target for the extended Tower area and the Tower west zones has been estimated using modelling of the recently completed Mineral Resource estimate work and the vertical reconnaissance air core (AC) drill holes assay results with the projection of the mineralisation extending over adjoining geologically prospective areas that have similar basement geology, regolith development, radiometric and spectral indices. The grade and thickness of the mineralisation in these Exploration Target areas is determined from the recent drilling and regolith mapping.

The Exploration Target ranges from **57 to 481 million tonnes grading 530-1050 ppm TREO**.

The potential quantity and grade of the Exploration Target is conceptual in nature and is therefore an approximation. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

The parameters and assumption of the various input parameters are detailed in Table 3. The area of the Exploration Target is shown in Figure 5.

The geological regolith model was constrained by the limits of the topography, geological signature based on the results of the recent drilling which consisted of 139 vertical holes (3,848m). The geological zones highly likely to contain the clay hosted REE mineralisation are interpreted to be areas where alkaline granitic and gneissic basement rocks have well developed thick pallid clay zones. On the flat tops of the topographic highs a well-developed thick lateritic cap is present. This cap is less prominent or absent further down topographical gradient due to erosion. It is postulated that the lower (deeper) more REE enriched clay saprolite zones closer to the basement are still present in the areas of the exploration target.

The modelled target volume outside the area of the current drilling was scaled back to accommodate for any changes within the regolith mineral zonation, specifically the thickness of the mineralised zone. A reduction of thickness of up to a third (~6m) of that found in the drilled zones was used for the target estimation.

Table 3: Exploration Target parameters and assumptions

Parameter	Comments
Geological model	Based on drill hole regolith logging, assay results, geological mapping, radiometric and spectral imagery
Bulk Density	1.78 g/cm ³ – estimated based on known clay material characteristics and reflects same density as the Mineral resource estimate
Number of drill holes,	139 drill holes in total: 39 logged and assayed over the Tower West area, plus 100 holes drilled and assayed that make up the Mineral resource estimates over the Tower central and southern area; Clay hosted >500ppm TREO intersection identified with geological information
Cut-off grades	200ppm TREO, no other element cut offs were used
Target grade	>750ppm TREO
Mineralisation zonation factor – dilution factor	REO zone thickness in drilled areas were averaged and those REO zone thickness outside the drilled area is discounted by ~35-40% to account for variability in mineralisation zonation due to topographical and basement highs.

Current Work Programs

The Company is awaiting the laboratory results from the recent scout reconnaissance auger drilling on the downslope terraces to the southwest of the Tower plateau and areas around the Tower West prospect to determine the extent of mineralisation within these areas and future resource drilling possibilities.

The Company is awaiting the metallurgical diagnostic test work currently being undertaken by ANSTO (Australian's Nuclear Science and Technology Organisation). Additional and extended metallurgical testing programs will be undertaken; specifically expanding on the area distribution. One which represents the entire MRE area will be considered as the next step once the initial test work is known.

The outcome of the Mineral Resource estimate has shown the company it has substantial mineral resources which can be used to move the project into economic studies. We look forward to updating shareholders with a pipeline of news flow as the project develops.

-END-

Authorised for release by the Board.

FOR FURTHER INFORMATION:

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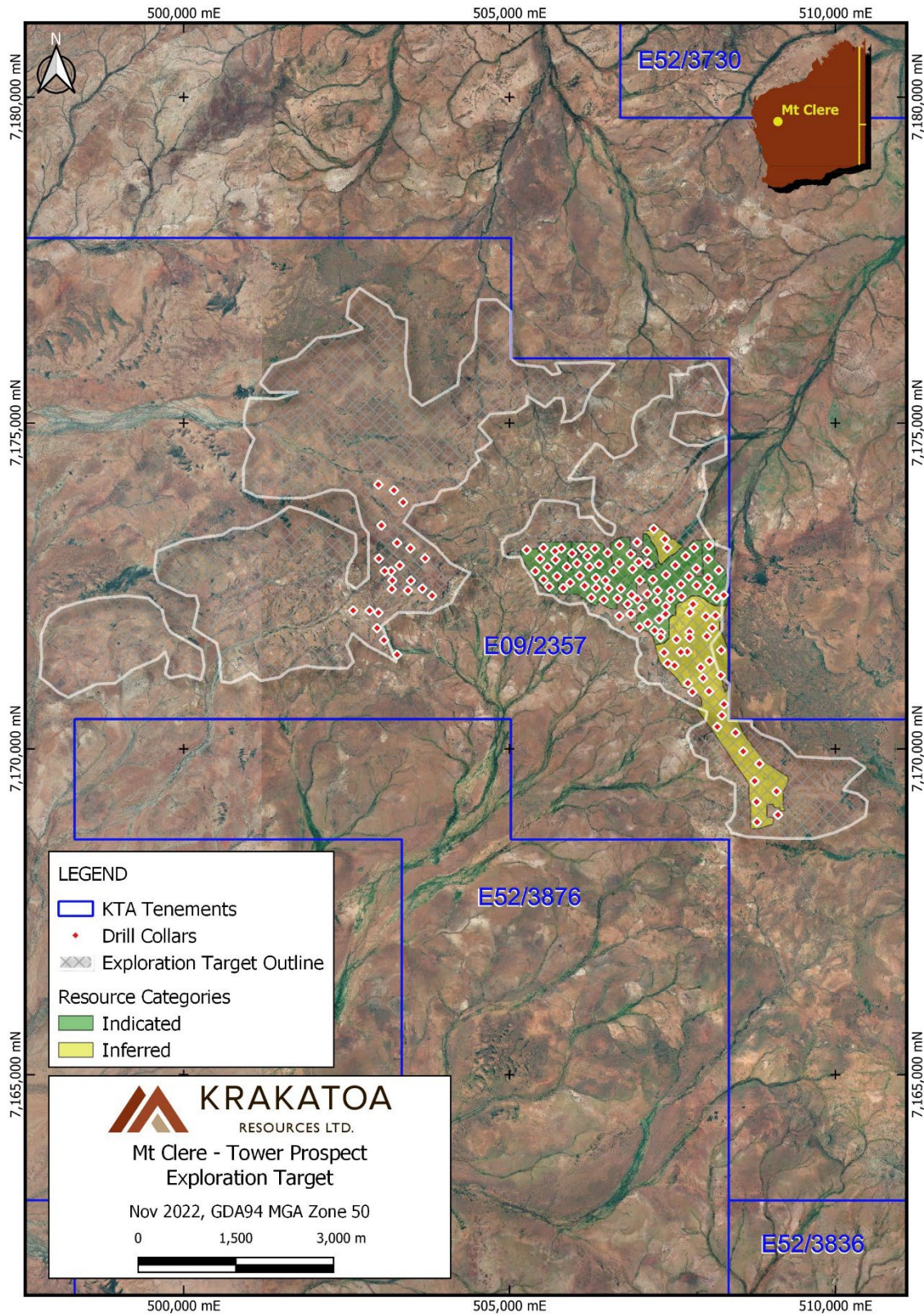


Figure 5 Map showing the extent of the potential ionic clay hosted REE Exploration Target over satellite image, with drill hole locations and Mineral Resource areas.

Competent Person's Statement

The information in this report which relates to Mineral Resources for the Tower rare earth deposit is based upon and fairly represents information compiled by Mr Greg Jones who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Jones is a full-time employee of IHC Mining and has sufficient experience relevant to the style of mineralisation, the 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 Jones consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The Exploration Target and exploration information in this announcement are based on, and fairly represents information compiled by Mark Major, Krakatoa Resources CEO, who is a Member of the Australasian Institute of Mining and Metallurgy and a full-time employee of Krakatoa Resources. Mr Major has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which he has undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Major consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears.

Disclaimer

Forward-looking statements are statements that are not historical facts. Words such as "expect(s)", "feel(s)", "believe(s)", "will", "may", "anticipate(s)" and similar expressions are intended to identify forward-looking statements. These statements include, but are not limited to statements regarding future production, resources or reserves and exploration results. All of such statements are subject to certain risks and uncertainties, many of which are difficult to predict and generally beyond the control of the Company, that could cause actual results to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. These risks and uncertainties include, but are not limited to: (i) those relating to the interpretation of drill results, the geology, grade and continuity of mineral deposits and conclusions of economic evaluations, (ii) risks relating to possible variations in reserves, grade, planned mining dilution and ore loss, or recovery rates and changes in project parameters as plans continue to be refined, (iii) the potential for delays in exploration or development activities or the completion of feasibility studies, (iv) risks related to commodity price and foreign exchange rate fluctuations, (v) risks related to failure to obtain adequate financing on a timely basis and on acceptable terms or delays in obtaining governmental approvals or in the completion of development or construction activities, and (vi) other risks and uncertainties related to the Company's prospects, properties and business strategy. Our audience is cautioned not to place undue reliance on these forward-looking statements that speak only as of the date hereof, and we do not undertake any obligation to revise and disseminate forward-looking statements to reflect events or circumstances after the date hereof, or to reflect the occurrence of or non-occurrence of any events.

Appendix 1 -JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (e.g. cut channels, random chips, or specific specialized 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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. 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 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 may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> Aircore (AC) holes were collected at 1 metre intervals and contained in large plastic bags. Samples for geochemical analysis were collected as 2m to 4m composites, taken by the spear method from each 1 metre plastic bag. Near the end-of-hole narrower composite sample intervals, usually 3 to 1m depending on the depth of the remainder of the hole. A representative sample was taken by spearing from each one metre bulk sample and depositing into calico bags to create a composited ~3kg sample. Additionally, a representative 1m calico sample was also speared from each bulk sample bag and kept as master sample. All AC samples were prepped by ALS Global in Perth. All AC samples were pulverised to 95% passing 75 microns. All AC sample weights were recorded. Lithium Borate Fusion on sample pulps analyzed via ICP-MS (ME-MS81) Elements include: Ba, Ce, Cr, Cs, Dy, Er, Eu, Ga, Gd, Hf, Ho, La, Lu, Nb, Nd, Pr, Rb, Sm, Sn, Sr, Ta, Tb, Th, Tm, U, V, W, Y, Yb, Zr.
Drilling techniques	<ul style="list-style-type: none"> Drill type (e.g., core, RC, open-hole hammer, RAB, auger 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.). 	<ul style="list-style-type: none"> AC blade drilling with a face sampling bit, 90mm nominal hole diameter.
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximize sample recovery and ensure representative nature of the samples. 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. 	<ul style="list-style-type: none"> AC sample recovery and moisture content was monitored and recorded. AC sample recovery is ensured by keeping the hole as dry as possible and cleaning the cyclone out at regular intervals. If groundwater couldn't be controlled the holes were terminated. No relationship has been observed between sample recovery and grade. Sample bias is unlikely due to the good general recovery of sample.
Logging	<ul style="list-style-type: none"> 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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> All AC 1 metre intervals were qualitatively logged in detail, for particular observations such as weathering, alteration, vein and mineral content a quantitative recording is made. Rock samples were described qualitatively. The detailed descriptions recorded were more than sufficient in detail to support the current work.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn, whether 1/4, 1/2 or whole core taken. If non-core, whether riffled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximize representivity of samples. 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. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> AC samples are speared from the bulk samples, which are collected in buckets from the rig's cyclone then tipped into plastic bulk sample bags. Sample moisture is recorded. Most samples were dry. Sample preparation comprises an industry standard of drying and pulverising to -75 microns (85% passing). Samples over 3kg were split. Duplicate field samples, certified reference material samples and blank samples were prepared in the field and submitted to ALS.. The size of the sample is considered to have been appropriate to the grain size for all holes.
Quality of assay	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 	<ul style="list-style-type: none"> Samples were transported by road fright direct to ALS Laboratory in Perth Australia.

Criteria	JORC Code explanation	Commentary																																																			
data and laboratory tests	<ul style="list-style-type: none"> 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. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	<ul style="list-style-type: none"> All samples were weight, given unique ID (barcodes), underwent high temperature drying, crushed, split with a subsample pulverized (with QC checking) before being assayed using a Lithium Borate Fusion ICP-MS (ALS Global method ME-MS81); which is considered to be near total digestion and recognised as an industry standard for analysis technique for REE suite and associated elements. Field duplicates were collected and submitted at a frequency of 1 per 20 samples. Blank samples were submitted at a frequency of 1 per 400 samples. Certified reference material samples were submitted at a frequency of 1 per 200 samples. ALS completed its own internal QA-QC checks that include laboratory repeats There is no evidence of systematic analytical bias or errors from these results. The nature and quality of the QA-QC and analytical methods are considered appropriate to style of mineralisation at this stage of the project. 																																																			
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> Verification has been undertaken by Company personnel. Sample results from previous methods are comparable to those undertaken in both drilling campaigns. AC sample data has been recorded in a database with QA-QC analysis of samples undertaken to validate data prior to it being inserted into the database. Conversion of elemental analysis (REE parts per million) to stoichiometric oxide (REO parts per million) was undertaken by KTA geological staff using the below element to stoichiometric oxide conversion factors. <table border="1" data-bbox="1205 662 1534 1109"> <thead> <tr> <th>Element</th> <th>-Conversion Factor</th> <th>-Oxide Form</th> </tr> </thead> <tbody> <tr><td>Ce</td><td>1.2284</td><td>CeO2</td></tr> <tr><td>Dy</td><td>1.1477</td><td>Dy2O3</td></tr> <tr><td>Er</td><td>1.1435</td><td>Er2O3</td></tr> <tr><td>Eu</td><td>1.1579</td><td>Eu2O3</td></tr> <tr><td>Gd</td><td>1.1526</td><td>Gd2O3</td></tr> <tr><td>Ho</td><td>1.1455</td><td>Ho2O3</td></tr> <tr><td>La</td><td>1.1728</td><td>La2O3</td></tr> <tr><td>Lu</td><td>1.1371</td><td>Lu2O3</td></tr> <tr><td>Nd</td><td>1.1664</td><td>Nd2O3</td></tr> <tr><td>Pr</td><td>1.2083</td><td>Pr6O11</td></tr> <tr><td>Sm</td><td>1.1596</td><td>Sm2O3</td></tr> <tr><td>Tb</td><td>1.1762</td><td>Tb4O7</td></tr> <tr><td>Tm</td><td>1.1421</td><td>Tm2O3</td></tr> <tr><td>Y</td><td>1.2699</td><td>Y2O3</td></tr> <tr><td>Yb</td><td>1.1387</td><td>Yb2O3</td></tr> <tr><td>Zr</td><td>1.351</td><td>ZrO2</td></tr> </tbody> </table> Rare earth oxide is the industry accepted form for reporting rare earths. The following calculations are used for compiling REO into their reporting and evaluation groups: TREO (Total Rare Earth Oxide) = La2O3 + CeO2 + Pr6O11 + Nd2O3 + Sm2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Y2O3 + Lu2O3. TREO-Ce = TREO – CeO2 LREO (Light Rare Earth Oxide) = La2O3 + CeO2 + Pr6O11 + Nd2O3 + Sm2O3 HREO (Heavy Rare Earth Oxide) = Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Y2O3 + Lu2O3 CREO (Critical Rare Earth Oxide) = Nd2O3 + Eu2O3 + Tb4O7 + Dy2O3 + Y2O3 MREO (Magnetic Rare Earth Oxide) = Pr6O11 + Nd2O3 + Tb4O7 + Dy2O3. 	Element	-Conversion Factor	-Oxide Form	Ce	1.2284	CeO2	Dy	1.1477	Dy2O3	Er	1.1435	Er2O3	Eu	1.1579	Eu2O3	Gd	1.1526	Gd2O3	Ho	1.1455	Ho2O3	La	1.1728	La2O3	Lu	1.1371	Lu2O3	Nd	1.1664	Nd2O3	Pr	1.2083	Pr6O11	Sm	1.1596	Sm2O3	Tb	1.1762	Tb4O7	Tm	1.1421	Tm2O3	Y	1.2699	Y2O3	Yb	1.1387	Yb2O3	Zr	1.351	ZrO2
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Location of data	<ul style="list-style-type: none"> Accuracy and quality of surveys used to locate drill holes (collar & downhole) 	<ul style="list-style-type: none"> Drillhole collars were surveyed by a handheld GPS (Garmin Map 64sx with 3-5m precision). 																																																			

Criteria	JORC Code explanation	Commentary
points	<p>surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</p> <ul style="list-style-type: none"> • Specification of the grid system used. • Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> • Following this they were surveyed using a Trimble R2 RTX GPS with expected accuracy of 20mm horizontally and 30mm vertical. • The grid system used on the Mt Clere Project for all surveys is GDA94 Zone 50. • No downhole surveys were done on the AC holes as all holes were drilled vertically.
Data spacing and distribution	<ul style="list-style-type: none"> • Data spacing for reporting of Exploration Results. • 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. • Whether sample compositing has been applied. 	<ul style="list-style-type: none"> • Analytical data points downhole are sufficient to characterize the nature of the rock and its mineralisation. Drill hole spacings are designed to test specific anomalies relative to ease of access. All are appropriate for exploration results reporting. • The holes were roughly drilled between 150 m to 400 m spacings where drill rig access could be achieved. This spacing has been accounted for in the Mineral Resources estimation and classified as appropriate. • 2 to 4 m AC sample composites were nominally taken on site for the AC Drilling, with 1m samples taken near end of hole.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. • 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. 	<ul style="list-style-type: none"> • All AC holes were drilled vertically. The holes were designed to test various regolith geology. • The orientation of the mineralisation is typically within the saprolite of the regolith profile, although some areas of the laterite and saprock profiles are mineralised.
Sample security	<ul style="list-style-type: none"> • The measures taken to ensure sample security. 	<ul style="list-style-type: none"> • 2 to 4 metre composite sub-set samples were collected via the riffle splitter into pre-labelled calico bags. Calico bags were placed into polyweave sacks that were sealed with plastic cable ties. The polyweaves were placed into large bulka bags and submitted in four batches. Each batch was transported-frighted to ALS Global Perth in sealed bulka bags.
Audits or reviews	<ul style="list-style-type: none"> • The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> • No audits or reviews have been completed to date.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • The tower project is situated within E09/2537 which is a granted license to Krakatoa • The tenements are owned and managed by Krakatoa • The Company holds 100% interest and all rights in the Mt Clere tenements • All are considered to be in good standing.
Exploration by other parties	<ul style="list-style-type: none"> • Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> • Various parties have held different parts of the Mt Clere Project in different periods and explored for different commodities over several decades. • The project area was previously explored by BHP, All Star and Astro Mining NL respectively for Au, Pb-Zn-Ag mineralisation and diamonds (see ASX announcement 9 October 2020 and 19 June 2019).
Geology	<ul style="list-style-type: none"> • Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> • Ionic adsorption Clay and Clay hosted rare earth deposit. • The project is focused on multiple REE opportunities, including REE and thorium in enriched monazite sands released from gneissic rocks, REE ion adsorption on clays within the widely preserved deeply weathered lateritic profiles and lastly REE occurring in plausible carbonatites associated with alkaline magmatism. • The project covers regions of structural complexity within the Narryer Terrane in the Yilgarn Craton said to represent reworked remnants of greenstone sequences that are prospective for intrusion-hosted Ni-Cu-(Co)-(PGE's).

Criteria	JORC Code explanation	Commentary
Drill hole Information	<ul style="list-style-type: none"> 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 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. 	<ul style="list-style-type: none"> The material information for drill holes relating to this announcement are contained in Appendix 2
Data aggregation methods	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No metal equivalents have been used. Assay results of REE are reported in ppm and the conversion of elemental analysis (REE parts per million) to stoichiometric oxide (REO parts per million) was undertaken using stoichiometric oxide conversion factors.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> 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 (e.g. 'down hole length, true width not known'). 	<ul style="list-style-type: none"> The AC drilling intercepts are reported as downhole (vertical) widths. The mineralisation is interpreted to be horizontal, flat lying within the regolith profile. No solid information is known or available about mineralisation true width.
Diagrams	<ul style="list-style-type: none"> 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 sectional views. 	<ul style="list-style-type: none"> The pertinent maps for this stage of Project are included in the release.
Balanced reporting	<ul style="list-style-type: none"> Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be used to avoid misleading reporting of Exploration Results. 	<ul style="list-style-type: none"> This report contains all drilling results that are consistent with the JORC guidelines. Where data may have been excluded, it is considered not material.
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All new and meaningful material exploration data has been reported.
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> Mineralogy and further analysis of additional samples is progressing and will be reported when received Further drilling is being considered. Maiden JORC Mineral resource estimation is being undertaken..

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul style="list-style-type: none"> Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	<ul style="list-style-type: none"> Exploration data provided by the company to IHC Mining in the form of Excel files downloaded from the Krakatoa Resources Mt Clere database. Visual screen checks of data to identify duplicate assays and the reproducibility of assays was conducted. Database assay values have been subjected to random reconciliation with laboratory certified value is to ensure integrity. Visual and statistical comparison was undertaken to check the validity of results
Site visits	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	<ul style="list-style-type: none"> Mr. Mark Major (CEO) and Mr. Matt Ridgeway (Consultant Geologist) completed regular site visits during the exploration programme activities to observe drilling, sampling and data collection
Geological interpretation	<ul style="list-style-type: none"> Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	<ul style="list-style-type: none"> The geological interpretation was undertaken by the Company with collaboration from IHC Mining. The geological interpretation was then initially validated by the Companies Exploration Manager and then additionally validated by IHC Mining during the domain wireframe development within the 3D window of Studio RM Datamine software. The data spacing and quality is sufficient to support geological and grade continuity. Interpretation of modelling domains was completed using TREO-CeO₂, TREO, lithology, and geological logging. The Mineral Resource estimate was controlled by the topographic surface, geological surfaces, and basement surface. Four domains were identified with the target high grade TREO clay unit being defined as Zone 3 and Saprock layer as Zone 4. Both Zone 3 and 4 mineralised zone are geologically continuous across the project area both along and across strike, positioned directly above the basement contact (Zone 200). The Zone 3 and 4 mineralised units have variable grade both along and across strike containing target 'hot-spots' of elevated TREO-CeO₂ grades with low Uranium and Thorium values overall. Zone 1 can be defined as a lateritic or hard top which caps the project lithological sequence at surface, continuous both along and across strike. Zone 2 is positioned directly below the Zone 1 lower contact and directly above the Zone 3 upper contact which predominantly consists clayey sand exhibiting variable thicknesses across the project area. The basement (Zone 200) also contains isolated intervals of elevated TREOCeO₂ which provides the Company further opportunity to explore potential extraction of TREO
Dimensions	<ul style="list-style-type: none"> The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource. 	<ul style="list-style-type: none"> The mineral Resource field for the Tower central and southern projects is approximately 5.2km in length and 2.3km at the widest point.
Estimation and modelling techniques	<ul style="list-style-type: none"> The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates. Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available. 	<ul style="list-style-type: none"> The Mineral Resource estimate was conducted using Datamine Studio RM. Inverse Distance Weighting 'ID3' techniques were used to interpolate assay grade from the drill hole samples to interpolate index values and non-numeric sample identification into the block model. Ordinary Kriging was also used to interpolate TREO grade into the block model to be used as a validation check against the inverse distance weighting technique. Appropriate and industry standard search ellipses were used to search for data for the interpolation and suitable limitations on the number of samples and the impact of those samples was maintained. The search ellipse was equal in size both along and across strike as no dominant grade strike direction exists for the deposit. No assumptions were made during the resource estimation as to the recovery of by-products. Further detailed characterisation and leach of ionic clay sample studies are required that may affect the marketability of the mineral products. The average parent cell size used for the interpolation was half the dominant drill hole width and half the standard drill hole line spacing. No assumptions were made regarding the modelling of selective mining units however it is assumed that a form of dry mining will be undertaken, and the cell size and the sub cell splitting will allow for an appropriate dry mining preliminary reserve to be prepared. Any other mining methodology will be more than adequately catered for with the parent cell size that was selected for the modelling exercise. No assumptions were made about correlation between variables. The Mineral Resource estimate was controlled to an extent by the geological/mineralisation and basement surfaces. Grade cutting or capping was not used during the interpolation because of the regular nature of sample spacing.

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> Statistical analysis of composited drill holes by domain was undertaken to compare against the uncomposited data and showed a satisfactory relationship which concluded that grade cutting, or capping was not required at this stage of exploration. Validation of grade interpolations were done visually in Datamine Studio RM software by loading model and drill hole files and annotating and colouring and using filtering to check for the appropriateness of interpolations. Statistical distributions were prepared for model zones from drill hole and model files to compare the effectiveness of the interpolations. Along strike distributions of section line averages (swathe plots) for drill holes and models were also prepared for comparison purposes.
Moisture	<ul style="list-style-type: none"> Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	<ul style="list-style-type: none"> Tonnages were estimated on an assumed dry basis
Cut-off parameters	<ul style="list-style-type: none"> The basis of the adopted cut-off grade(s) or quality parameters applied. 	<ul style="list-style-type: none"> Cut-off grades for TREO-CeO₂ were used to prepare the reported resource estimates. The selection of the TREO-CeO₂ cut-off grade used for reporting was based on the experience of the Competent Person and given the early stage of the Tower project, this cut-off grade was selected based on a peer review of publicly available information from more advanced projects with comparable mineralisation styles (i.e., clay hosted rare earth mineralisation) and comparable conceptual processing methods. The chosen cut-off grade of TREO-CeO₂ >300 ppm was used
Mining factors or assumptions	<ul style="list-style-type: none"> Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made. 	<ul style="list-style-type: none"> No specific mining method is assumed other than potentially the use of dry mining methods
Metallurgical factors or assumptions	<ul style="list-style-type: none"> The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made. 	<ul style="list-style-type: none"> No metallurgical testing has been completed or provided at this stage. A secondary weak acid digestion laboratory analysis was undertaken on the 2021 drill hole and the variation between the full digestion (Lithium Borate Fusion) and the Weak Acid digestion resulted in a digestion or liberation of up to 90% of the fusion results. Varying head grades over the area show a greater recovery for TREO levels between 100 to 1100ppm TREO. There are some results as low as 12%. These results are based upon Weak Acid Aqua Regia digest (ME-MS41W with MS41W-REE) on sample pulps analyzed via ICP-MS which details are provided in ASX Announcement dated 12 April 2022. Metallurgical tests are advancing at ANSTO, examining pH levels between 1 and 4, to optimise extraction rates and levels versus acid consumption. The results will be utilised in the development of a final process flowsheet. The preliminary test results are encouraging and aligned with expectations for the uniquely clay hosted rare earth minerals at Tower.
Environmental factors or assumptions	<ul style="list-style-type: none"> Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made. 	<ul style="list-style-type: none"> No assumptions have been made regarding possible waste and process residue however the shallow depth of the deposit and the ability to return almost all of the processed material back to the void, enabling progressive rehabilitation, will minimise environmental impacts of mining
Bulk density	<ul style="list-style-type: none"> Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. 	<ul style="list-style-type: none"> The selected density value of 1.78 was chosen for target mineralised units Zone 3 and Zone 4 was selected based on a review of similar sediment hosted REO deposits with known density values assigned. Average density values for the residual laterite, sandy overburden and basement were used. At this stage of exploration, the density values used are considered reasonable for REO deposits. It is recommended that future studies include investigations for determining a new bulk density specific to the project target domains to convert volume to tonnes for the sediment hosted REO deposit.

Criteria	JORC Code explanation	Commentary
Classification	<ul style="list-style-type: none"> The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). Whether the result appropriately reflects the Competent Person's view of the deposit. 	<ul style="list-style-type: none"> The JORC Mineral Resource Classification for the Tower project was supported by drill hole spacing, geological continuity and variography of TREO, TREO-CeO₂ and CREO of the target mineralised domained Zone 3 and 4. The classification of Indicated and Inferred Resources was supported by all the criteria noted above. As a Competent Person, IHC Mining Geological Services Manager Greg Jones considers that the result appropriately reflects a reasonable view of the deposit categorisation.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of Mineral Resource estimates. 	<ul style="list-style-type: none"> No audits or reviews of the mineral resource estimate has been undertaken at this point in time
Discussion of relative accuracy/confidence	<ul style="list-style-type: none"> Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. 	<ul style="list-style-type: none"> The overall grade interpolation for this method was considered a reasonable methodology. Validation of the model vs drill hole grades by observation, swathe plot and population distribution analysis was favourable. In-fill drilling will likely improve the interpolation results. The statement refers to global estimates for the entire known extent of the Tower project. No production data is available for comparison with the project at this point in time

Appendix 2 – Drill Hole composited data by Mineral Resources Domain

Hole ID	Northing	Easting	Elevation MASL	FROM (m)	TO (m)	LENGTH (m)	ZONE	ThO2 (ppm)	U3O8 (ppm)	TREO (ppm)	CREO (ppm)	LREO (ppm)	HREO (ppm)	NdPr (ppm)	TREO- CeO2 (ppm)
21MAC012	505263	7173055	494	0	4	4	1	21	0.7	92	25	72	20	15	57
21MAC012	505263	7173055	491	4	6	2	2	37	0.7	322	64	287	35	57	176
21MAC012	505263	7173055	487.5	6	11	5	200	21	0.6	282	65	240	42	51	162
21MAC013	505522	7173084	491.5	0	3	3	1	8	0.6	114	26	96	18	19	63
21MAC013	505522	7173084	488.5	3	6	3	2	5	0.4	82	19	69	13	13	48
21MAC013	505522	7173084	484.5	6	11	5	4	4	0.4	109	25	92	17	19	66
21MAC013	505522	7173084	481.5	11	12	1	200	4	0.4	137	32	116	21	25	83
21MAC014	505797	7173077	487	0	12	12	1	36	1.2	64	22	44	20	11	44
21MAC014	505797	7173077	479	12	16	4	2	43	0.9	295	85	241	54	68	196
21MAC014	505797	7173077	473.5	16	23	7	3	37	1.1	644	157	517	127	97	319
21MAC014	505797	7173077	469	23	25	2	4	39	1.2	875	210	711	164	136	434
21MAC014	505797	7173077	467.5	25	26	1	200	51	1.3	772	199	628	143	141	428
21MAC015	506108	7173084	483	0	12	12	1	36	1.9	166	87	70	96	19	132
21MAC015	506108	7173084	473	12	20	8	2	29	1.4	221	88	135	86	33	151
21MAC015	506108	7173084	467	20	24	4	3	41	1.0	570	162	460	110	121	336
21MAC015	506108	7173084	459	24	36	12	4	27	1.0	578	173	441	137	106	352
21MAC015	506108	7173084	450.5	36	41	5	200	13	0.4	329	130	213	116	62	239
21MAC016	506310	7173072	484	0	4	4	1	93	1.3	271	151	103	168	26	217
21MAC016	506310	7173072	476	4	16	12	2	7	0.7	87	31	59	28	14	58
21MAC016	506310	7173072	466	16	24	8	3	7	2.2	1264	257	1019	245	117	486
21MAC016	506310	7173072	459.5	24	29	5	200	6	0.7	454	163	313	141	83	309
21MAC017	506687	7173132	474	0	8	8	1	25	1.0	870	270	695	174	208	581
21MAC017	506687	7173132	465	8	18	10	200	5	0.4	417	147	316	101	100	315
21MAC018	506958	7173171	476	0	4	4	1	21	1.1	86	28	63	23	16	54
21MAC018	506958	7173171	468	4	16	12	2	8	0.6	83	18	70	14	12	48
21MAC018	506958	7173171	459.5	16	21	5	3	9	0.4	195	50	166	29	42	124
21MAC018	506958	7173171	456.5	21	22	1	4	4	0.3	200	51	168	32	39	127
21MAC018	506958	7173171	455.5	22	23	1	200	4	0.3	200	51	168	32	39	127
21MAC019	506982	7172868	476	0	8	8	1	114	1.0	372	82	331	41	78	205
21MAC019	506982	7172868	471	8	10	2	2	218	1.4	1329	265	1215	114	277	709
21MAC019	506982	7172868	468.5	10	13	3	3	167	1.1	1070	212	975	95	218	561
21MAC019	506982	7172868	465	13	17	4	4	66	0.7	576	112	514	62	103	277
21MAC019	506982	7172868	462	17	19	2	200	64	1.1	648	126	575	73	113	310
21MAC020	506687	7172852	480	0	6	6	1	156	1.2	1125	216	1038	87	221	613
21MAC020	506687	7172852	474.5	6	11	5	4	120	1.1	1147	233	1037	110	223	632
21MAC020	506687	7172852	471.5	11	12	1	200	129	1.2	1081	210	990	91	210	576
21MAC021	506374	7172836	476.5	0	9	9	1	32	1.5	131	55	77	54	19	92
21MAC021	506374	7172836	466.5	9	20	11	2	30	1.4	352	104	262	90	54	215
21MAC021	506374	7172836	453	20	36	16	3	39	2.2	1055	411	676	379	186	736
21MAC021	506374	7172836	443	36	40	4	4	23	1.9	650	313	326	324	93	498
21MAC021	506374	7172836	440.5	40	41	1	200	71	4.0	1619	893	631	988	188	1322
21MAC022	506037	7172846	478.5	0	9	9	1	32	1.9	149	55	101	48	28	102
21MAC022	506037	7172846	466.5	9	24	15	2	12	1.2	73	21	53	20	10	41
21MAC022	506037	7172846	455	24	32	8	4	35	2.5	749	135	649	100	95	367
21MAC022	506037	7172846	450.5	32	33	1	200	28	4.2	1008	185	826	181	79	345
21MAC023	505707	7172903	484	0	8	8	1	33	1.5	98	36	68	31	19	69
21MAC023	505707	7172903	474	8	20	12	2	12	0.7	54	13	44	10	8	30
21MAC023	505707	7172903	461	20	34	14	3	53	0.8	729	147	640	90	121	364
21MAC023	505707	7172903	453.5	34	35	1	4	71	0.7	658	164	557	100	128	407
21MAC023	505707	7172903	452.5	35	36	1	200	71	0.7	658	164	557	100	128	407
21MAC024	505396	7172729	487	0	8	8	1	39	0.9	33	11	24	10	6	22
21MAC024	505396	7172729	481	8	12	4	2	42	1.2	84	19	67	17	10	38
21MAC024	505396	7172729	473.5	12	23	11	3	76	1.2	656	157	544	112	111	360
21MAC024	505396	7172729	467.5	23	24	1	4	62	1.0	945	247	756	189	155	530
21MAC024	505396	7172729	466.5	24	25	1	200	32	0.6	330	128	227	103	66	244

21MAC025	505610	7172490	485	0	4	4	1	24	0.9	59	20	42	17	11	40
21MAC025	505610	7172490	481	4	8	4	2	16	0.7	50	12	41	8	9	29
21MAC025	505610	7172490	467	8	32	24	3	20	0.8	503	94	457	46	90	263
21MAC025	505610	7172490	453.5	32	35	3	4	24	1.3	349	81	301	48	67	202
21MAC025	505610	7172490	451.5	35	36	1	200	24	1.3	349	81	301	48	67	202
21MAC026	505931	7172550	482.5	0	13	13	1	18	1.5	79	27	54	24	13	51
21MAC026	505931	7172550	474.5	13	16	3	2	17	1.0	105	21	90	15	15	47
21MAC026	505931	7172550	467	16	28	12	3	49	1.0	805	178	707	98	156	448
21MAC026	505931	7172550	460	28	30	2	4	197	2.9	3758	863	3237	522	701	2094
21MAC026	505931	7172550	458.5	30	31	1	200	197	2.9	3758	863	3237	522	701	2094
21MAC027	506152	7172502	485	0	10	10	1	23	0.7	132	37	105	26	25	82
21MAC027	506152	7172502	479	10	12	2	2	45	1.0	176	43	150	26	35	101
21MAC027	506152	7172502	473	12	22	10	3	51	0.9	362	87	302	60	64	190
21MAC027	506152	7172502	464	22	30	8	4	47	0.6	588	139	497	91	108	324
21MAC027	506152	7172502	459.5	30	31	1	200	77	0.8	696	185	584	111	149	438
21MAC028	506256	7172321	484	0	8	8	1	119	1.4	119	33	94	25	22	70
21MAC028	506256	7172321	478	8	12	4	2	43	0.7	170	39	149	21	36	98
21MAC028	506256	7172321	474	12	16	4	3	76	0.8	622	120	569	53	121	315
21MAC028	506256	7172321	469.5	16	21	5	4	52	0.7	528	126	459	69	111	304
21MAC028	506256	7172321	466.5	21	22	1	200	17	0.3	281	83	220	61	56	173
21MAC029	506517	7172462	482	0	8	8	1	60	1.5	192	91	95	97	24	142
21MAC029	506517	7172462	470	8	24	16	2	32	1.5	231	70	176	55	46	144
21MAC029	506517	7172462	458	24	32	8	3	16	2.5	890	273	682	208	180	568
21MAC029	506517	7172462	449	32	42	10	4	18	1.8	366	124	258	108	68	242
21MAC029	506517	7172462	443.5	42	43	1	200	24	1.6	415	141	296	119	81	271
21MAC030	506659	7172310	485	0	6	6	1	52	1.3	193	57	144	49	31	108
21MAC030	506659	7172310	479	6	12	6	2	43	1.5	358	104	278	80	70	214
21MAC030	506659	7172310	474	12	16	4	3	34	1.0	517	134	431	86	109	300
21MAC030	506659	7172310	470	16	20	4	4	13	1.0	940	183	782	159	106	364
21MAC030	506659	7172310	467.5	20	21	1	200	43	1.5	758	212	602	156	154	469
21MAC031	506963	7172295	477	0	10	10	1	20	1.0	93	28	69	23	16	59
21MAC031	506963	7172295	467	10	20	10	2	16	0.9	143	47	100	43	25	95
21MAC031	506963	7172295	459	20	26	6	3	9	0.4	333	93	257	76	53	185
21MAC031	506963	7172295	455	26	28	2	200	5	0.7	378	150	253	125	77	282
21MAC032	507399	7172189	477	0	8	8	1	32	1.1	80	32	47	33	11	55
21MAC032	507399	7172189	467	8	20	12	2	7	0.7	63	22	40	23	8	41
21MAC032	507399	7172189	459	20	24	4	3	2	0.6	679	193	545	133	152	453
21MAC032	507399	7172189	456	24	26	2	4	3	0.6	480	200	283	197	73	353
21MAC032	507399	7172189	454	26	28	2	200	3	0.6	480	200	283	197	73	353
21MAC033	506685	7172038	489	0	4	4	1	34	1.2	320	107	229	91	59	205
21MAC033	506685	7172038	486	4	6	2	2	22	0.7	268	71	217	51	49	157
21MAC033	506685	7172038	479	6	18	12	200	30	0.9	336	87	276	61	63	195
21MAC034	506995	7171867	486.5	0	5	5	1	17	1.2	127	54	71	55	17	91
21MAC034	506995	7171867	482.5	5	8	3	2	16	1.3	202	91	103	99	22	149
21MAC034	506995	7171867	473	8	24	16	3	36	1.4	638	241	406	232	97	441
21MAC034	506995	7171867	463.5	24	27	3	4	28	1.7	802	416	355	447	103	637
21MAC034	506995	7171867	461.5	27	28	1	200	28	1.7	802	416	355	447	103	637
21MAC035	507226	7171817	485	0	4	4	1	19	1.2	285	102	199	86	59	194
21MAC035	507226	7171817	479	4	12	8	2	22	0.8	170	55	126	44	34	108
21MAC035	507226	7171817	471	12	20	8	3	48	1.5	506	153	393	113	107	316
21MAC035	507226	7171817	464.5	20	25	5	200	22	1.3	496	183	333	164	94	345
21MAC036	507373	7171479	480.5	0	7	7	1	74	1.6	123	53	68	55	19	92
21MAC036	507373	7171479	472.5	7	16	9	2	30	1.3	300	135	156	144	42	226
21MAC036	507373	7171479	463	16	26	10	3	29	1.8	630	219	448	182	126	420
21MAC036	507373	7171479	457	26	28	2	4	29	1.9	935	315	678	258	186	610
21MAC036	507373	7171479	454.5	28	31	3	200	53	1.7	853	304	602	252	178	582
21MAC037	507533	7171280	477	0	10	10	1	32	2.0	133	55	79	54	22	95
21MAC037	507533	7171280	469	10	16	6	2	21	1.2	268	64	214	55	37	135
21MAC037	507533	7171280	462	16	24	8	3	70	1.3	894	184	783	111	158	481
21MAC037	507533	7171280	457	24	26	2	4	20	1.1	931	301	680	252	178	570
21MAC037	507533	7171280	451	26	36	10	200	28	1.0	621	217	439	181	120	410
21MAC038	507728	7171492	475	0	12	12	1	46	2.0	149	62	87	62	23	106

21MAC038	507728	7171492	467	12	16	4	2	33	1.4	331	105	256	74	76	210
21MAC038	507728	7171492	458	16	30	14	3	52	1.8	765	210	604	161	136	470
21MAC038	507728	7171492	445	30	42	12	4	24	1.8	638	228	441	197	122	432
21MAC038	507728	7171492	437	42	46	4	200	7	0.6	358	164	204	154	70	283
21MAC039	507764	7171794	478	0	6	6	1	70	2.0	173	59	116	57	23	107
21MAC039	507764	7171794	468	6	20	14	2	25	1.3	257	75	195	62	44	155
21MAC039	507764	7171794	455	20	32	12	3	31	1.1	619	167	480	139	99	332
21MAC039	507764	7171794	447	32	36	4	4	16	0.9	331	132	204	127	56	233
21MAC039	507764	7171794	444.5	36	37	1	200	13	0.8	292	124	169	123	49	211
22MAC013	505469	7172919	485.5	0	7	7	1	22	0.8	143	41	116	27	32	97
22MAC013	505469	7172919	473.5	7	24	17	2	5	0.8	391	104	328	63	88	245
22MAC013	505469	7172919	460	24	34	10	3	2	0.7	376	126	263	113	62	242
22MAC013	505469	7172919	454.5	34	35	1	4	2	1.3	1200	190	1034	166	109	355
22MAC013	505469	7172919	453.5	35	36	1	200	2	1.3	1200	190	1034	166	109	355
22MAC014	505698	7173037	483.5	0	5	5	1	35	1.3	155	51	114	41	30	105
22MAC014	505698	7173037	472.5	5	22	17	2	26	0.8	148	31	126	23	22	78
22MAC014	505698	7173037	462	22	26	4	3	55	1.0	1081	218	933	148	166	523
22MAC014	505698	7173037	459	26	28	2	4	32	0.6	595	158	482	113	116	362
22MAC014	505698	7173037	457.5	28	29	1	200	15	0.5	397	156	258	139	69	288
22MAC015	505961	7173002	478.5	0	13	13	1	25	1.4	94	33	65	29	17	62
22MAC015	505961	7173002	471	13	15	2	2	5	0.8	44	15	32	12	10	33
22MAC015	505961	7173002	467	15	21	6	4	3	0.8	159	42	127	32	30	93
22MAC015	505961	7173002	463.5	21	22	1	200	3	0.6	478	123	397	81	101	283
22MAC016	506197	7172959	481.5	0	5	5	1	50	2.5	216	79	143	73	36	141
22MAC016	506197	7172959	473.5	5	16	11	2	20	1.5	119	49	69	50	17	86
22MAC016	506197	7172959	465	16	22	6	3	42	1.8	384	118	287	97	69	249
22MAC016	506197	7172959	461	22	24	2	4	5	1.7	945	153	795	150	65	277
22MAC016	506197	7172959	459.5	24	25	1	200	12	2.1	4590	1096	3952	639	952	2576
22MAC017	506507	7173009	481.5	0	7	7	1	88	1.0	163	49	120	43	26	93
22MAC017	506507	7173009	470.5	7	22	15	2	4	0.3	114	32	88	26	21	72
22MAC017	506507	7173009	456	22	36	14	3	3	0.2	484	154	356	128	92	309
22MAC017	506507	7173009	447	36	40	4	4	1	0.3	437	221	204	233	68	344
22MAC017	506507	7173009	444.5	40	41	1	200	7	1.0	486	182	330	156	100	326
22MAC018	506860	7172991	467	0	8	8	1	48	1.2	139	57	83	57	21	98
22MAC018	506860	7172991	457	8	20	12	2	5	0.4	134	42	104	30	31	101
22MAC018	506860	7172991	449	20	24	4	3	2	0.3	515	179	383	132	118	392
22MAC018	506860	7172991	442.5	24	33	9	4	1	0.3	409	149	281	128	73	281
22MAC018	506860	7172991	437.5	33	34	1	200	4	0.5	311	99	235	76	61	195
22MAC019	507110	7173035	464	0	10	10	1	78	1.5	151	40	122	28	29	93
22MAC019	507110	7173035	456	10	16	6	2	9	1.0	213	59	167	46	41	135
22MAC019	507110	7173035	447	16	28	12	3	17	1.2	488	171	349	139	102	348
22MAC019	507110	7173035	438.5	28	33	5	4	22	0.9	498	160	359	138	85	310
22MAC019	507110	7173035	435.5	33	34	1	200	6	0.5	300	86	233	67	57	184
22MAC020	507214	7173377	463	0	2	2	1	12	1.0	155	38	127	28	26	92
22MAC020	507214	7173377	456	2	14	12	200	12	0.8	415	113	338	78	82	243
22MAC021	507384	7173218	471.5	0	7	7	1	49	2.1	145	44	107	38	24	84
22MAC021	507384	7173218	461	7	21	14	2	31	1.3	116	35	86	30	19	73
22MAC021	507384	7173218	443.5	21	42	21	3	54	2.0	1121	302	926	195	231	701
22MAC021	507384	7173218	431	42	46	4	4	5	0.4	162	53	119	43	32	103
22MAC021	507384	7173218	428.5	46	47	1	200	4	0.4	156	51	114	42	30	100
22MAC022	507420	7173084	469	0	8	8	1	29	1.8	189	63	138	51	37	123
22MAC022	507420	7173084	458	8	22	14	2	33	1.6	172	43	138	34	26	92
22MAC022	507420	7173084	444	22	36	14	3	86	1.7	1042	265	867	175	204	613
22MAC022	507420	7173084	435.5	36	39	3	4	35	1.1	450	153	321	129	86	291
22MAC022	507420	7173084	433.5	39	40	1	200	60	1.9	831	295	576	254	158	544
22MAC023	507126	7172847	471.5	0	7	7	1	35	1.2	185	50	150	35	36	113
22MAC023	507126	7172847	466.5	7	10	3	2	6	0.8	148	35	127	21	29	89
22MAC023	507126	7172847	463.5	10	13	3	3	2	0.9	113	29	91	22	18	64
22MAC023	507126	7172847	461.5	13	14	1	4	2	0.9	183	36	155	29	22	91
22MAC023	507126	7172847	460.5	14	15	1	200	2	0.6	99	20	84	15	12	53
22MAC024	506889	7172763	477.5	0	3	3	1	43	1.3	120	38	88	31	22	77
22MAC024	506889	7172763	470.5	3	14	11	2	39	1.0	250	63	211	39	53	150

22MAC024	506889	7172763	461	14	22	8	3	2	0.4	785	187	642	143	122	390
22MAC024	506889	7172763	455.5	22	25	3	4	2	0.4	404	145	297	107	92	313
22MAC024	506889	7172763	453.5	25	26	1	200	4	0.5	457	178	321	137	105	384
22MAC025	506595	7172726	475.5	0	7	7	1	57	1.4	126	42	89	36	23	83
22MAC025	506595	7172726	467.5	7	16	9	2	17	1.2	46	14	33	13	8	29
22MAC025	506595	7172726	461	16	20	4	3	24	1.6	322	69	277	45	56	161
22MAC025	506595	7172726	456.5	20	25	5	4	17	1.1	392	81	328	64	53	176
22MAC025	506595	7172726	453.5	25	26	1	200	59	1.3	746	187	620	126	143	428
22MAC026	506226	7172793	479	0	4	4	1	60	1.5	156	50	116	40	29	100
22MAC026	506226	7172793	470	4	18	14	2	9	0.7	104	23	87	17	16	57
22MAC026	506226	7172793	457	18	30	12	3	1	0.6	769	260	551	218	147	510
22MAC026	506226	7172793	450.5	30	31	1	4	1	0.4	277	117	174	103	53	221
22MAC026	506226	7172793	449.5	31	32	1	200	1	0.4	277	117	174	103	53	221
22MAC027	505879	7172793	481	0	6	6	1	26	1.7	174	59	126	48	33	112
22MAC027	505879	7172793	471	6	20	14	2	34	1.2	157	40	131	26	32	96
22MAC027	505879	7172793	462	20	24	4	3	5	1.8	357	104	292	64	85	232
22MAC027	505879	7172793	459	24	26	2	4	8	1.6	375	99	302	74	69	210
22MAC027	505879	7172793	457.5	26	27	1	200	23	1.5	2010	517	1722	289	456	1268
22MAC028	505584	7172789	472.5	0	7	7	1	46	1.7	179	56	135	43	35	112
22MAC028	505584	7172789	463.5	7	18	11	2	9	0.8	76	14	65	11	9	43
22MAC028	505584	7172789	455.5	18	23	5	3	12	0.9	726	157	635	91	136	435
22MAC028	505584	7172789	452.5	23	24	1	4	12	1.1	657	171	507	149	88	330
22MAC028	505584	7172789	451.5	24	25	1	200	17	0.6	456	129	361	95	83	269
22MAC029	505523	7172600	455	0	2	2	1	25	1.3	352	55	323	28	51	186
22MAC029	505523	7172600	446	2	18	16	2	10	1.5	461	81	426	35	83	251
22MAC029	505523	7172600	434	18	26	8	3	6	1.2	1417	300	1286	131	295	765
22MAC029	505523	7172600	428	26	30	4	4	8	1.3	1209	281	1074	135	262	661
22MAC029	505523	7172600	425.5	30	31	1	200	10	1.3	1236	268	1123	113	265	661
22MAC030	505729	7172650	479	0	8	8	1	31	1.4	138	43	104	34	26	89
22MAC030	505729	7172650	471	8	16	8	2	4	0.5	126	20	112	14	15	59
22MAC030	505729	7172650	462	16	26	10	3	8	0.6	365	102	291	74	73	231
22MAC030	505729	7172650	456	26	28	2	4	3	0.5	566	156	395	171	43	267
22MAC030	505729	7172650	454.5	28	29	1	200	1	0.5	347	103	244	103	40	185
22MAC031	505825	7172468	479.5	0	5	5	1	33	1.2	76	23	57	19	12	50
22MAC031	505825	7172468	473.5	5	12	7	2	15	0.8	143	28	122	21	19	64
22MAC031	505825	7172468	467	12	18	6	3	12	0.7	154	39	129	25	30	89
22MAC031	505825	7172468	462	18	22	4	200	28	1.6	814	170	671	144	96	340
22MAC032	506078	7172657	476.5	0	9	9	1	27	1.0	108	32	84	24	20	66
22MAC032	506078	7172657	469.5	9	14	5	2	6	1.1	123	34	101	22	26	84
22MAC032	506078	7172657	458	14	32	18	3	7	0.7	509	140	405	104	92	310
22MAC032	506078	7172657	448	32	34	2	200	5	0.5	394	124	308	86	86	290
22MAC033	506325	7172625	477	0	10	10	1	18	1.5	93	38	55	38	15	67
22MAC033	506325	7172625	471	10	12	2	2	10	1.3	84	38	44	39	13	65
22MAC033	506325	7172625	469	12	14	2	3	9	0.8	315	110	227	88	61	232
22MAC033	506325	7172625	466	14	18	4	4	14	0.8	299	95	220	79	56	188
22MAC033	506325	7172625	463.5	18	19	1	200	10	1.0	274	84	209	65	56	175
22MAC034	506474	7172588	471	0	10	10	1	56	1.6	252	109	143	109	40	183
22MAC034	506474	7172588	464	10	14	4	2	28	1.8	294	110	192	102	52	201
22MAC034	506474	7172588	452	14	34	20	3	26	2.4	892	274	689	203	187	582
22MAC034	506474	7172588	441.5	34	35	1	4	9	1.3	481	182	338	143	106	368
22MAC034	506474	7172588	440.5	35	36	1	200	9	1.3	481	182	338	143	106	368
22MAC035	506327	7172469	479.5	0	5	5	1	119	2.2	174	53	129	46	29	104
22MAC035	506327	7172469	473.5	5	12	7	2	43	1.1	98	29	74	23	18	63
22MAC035	506327	7172469	466	12	20	8	3	57	1.5	657	161	544	113	122	404
22MAC035	506327	7172469	460	20	24	4	4	33	1.6	1367	439	1035	332	284	923
22MAC035	506327	7172469	457.5	24	25	1	200	21	1.1	372	108	296	77	76	237
22MAC036	506447	7172293	481	0	4	4	1	56	1.6	336	77	285	51	60	192
22MAC036	506447	7172293	475	4	12	8	2	57	1.6	362	93	286	76	55	233
22MAC036	506447	7172293	466	12	22	10	3	53	1.8	754	174	635	120	131	388
22MAC036	506447	7172293	459.5	22	25	3	4	41	1.1	600	179	475	125	132	392
22MAC036	506447	7172293	457.5	25	26	1	200	24	0.9	472	158	342	130	94	319
22MAC037	506710	7172462	474	0	6	6	1	29	1.5	94	40	54	40	14	68

22MAC037	506710	7172462	466	6	16	10	2	13	1.1	82	16	67	15	9	33
22MAC037	506710	7172462	454	16	30	14	3	13	3.4	1924	600	1462	462	381	1200
22MAC037	506710	7172462	445.5	30	33	3	4	2	1.2	169	60	115	54	27	115
22MAC037	506710	7172462	443.5	33	34	1	200	2	1.4	121	45	76	45	16	84
22MAC038	506873	7172365	474	0	4	4	1	31	1.0	94	31	67	27	16	62
22MAC038	506873	7172365	467	4	14	10	2	25	0.6	126	36	100	26	26	81
22MAC038	506873	7172365	461	14	16	2	3	52	1.0	448	105	386	61	91	267
22MAC038	506873	7172365	458	16	20	4	4	42	1.1	478	109	401	78	79	249
22MAC038	506873	7172365	455.5	20	21	1	200	7	0.3	282	104	186	96	49	188
22MAC039	506998	7172591	470	0	6	6	1	21	0.9	144	41	112	32	27	87
22MAC039	506998	7172591	466	6	8	2	2	38	1.0	309	67	271	38	57	164
22MAC039	506998	7172591	462	8	14	6	3	59	1.4	347	78	308	39	72	198
22MAC039	506998	7172591	458	14	16	2	4	39	1.3	365	85	320	45	77	205
22MAC039	506998	7172591	456.5	16	17	1	200	25	1.2	261	68	221	41	57	161
22MAC040	507201	7172599	472	0	10	10	1	15	1.0	136	36	111	24	27	86
22MAC040	507201	7172599	464	10	16	6	2	3	1.1	373	94	319	55	78	230
22MAC040	507201	7172599	457	16	24	8	3	6	0.9	719	207	580	139	154	432
22MAC040	507201	7172599	452	24	26	2	4	2	0.6	486	208	292	194	91	352
22MAC040	507201	7172599	450.5	26	27	1	200	1	0.4	411	184	238	173	77	299
22MAC041	507402	7172674	472	0	10	10	1	82	1.4	350	84	300	50	71	196
22MAC041	507402	7172674	462	10	20	10	2	19	1.2	199	62	147	52	36	133
22MAC041	507402	7172674	452	20	30	10	3	9	2.1	773	272	566	208	174	540
22MAC041	507402	7172674	446	30	32	2	4	9	1.0	261	91	190	71	55	171
22MAC041	507402	7172674	444.5	32	33	1	200	29	1.0	311	93	246	65	66	195
22MAC042	507545	7172819	465	0	6	6	1	59	2.2	169	78	89	81	24	127
22MAC042	507545	7172819	457	6	16	10	2	42	1.3	507	227	276	231	76	369
22MAC042	507545	7172819	449	16	22	6	3	57	1.7	801	321	496	305	139	560
22MAC042	507545	7172819	444	22	26	4	4	96	1.5	1003	324	745	258	208	644
22MAC043	507703	7172960	462	0	6	6	1	65	2.2	228	77	166	63	46	147
22MAC043	507703	7172960	451	6	22	16	2	7	0.9	119	33	91	27	20	65
22MAC043	507703	7172960	436	22	36	14	3	30	3.3	1114	272	915	199	191	575
22MAC043	507703	7172960	428	36	38	2	4	98	1.6	967	239	825	142	190	566
22MAC043	507703	7172960	426.5	38	39	1	200	59	1.0	449	114	374	75	86	256
22MAC044	507832	7173087	465	0	6	6	1	36	1.6	156	55	108	48	28	101
22MAC044	507832	7173087	456	6	18	12	2	17	1.1	143	43	109	34	25	95
22MAC044	507832	7173087	444	18	30	12	3	5	1.1	998	275	821	176	212	598
22MAC044	507832	7173087	434.5	30	37	7	4	4	0.9	401	131	301	100	81	255
22MAC044	507832	7173087	430.5	37	38	1	200	3	0.8	398	139	285	114	77	261
22MAC045	508062	7173122	457	0	14	14	1	11	1.4	94	30	69	25	17	59
22MAC045	508062	7173122	446	14	22	8	2	5	1.2	197	61	151	46	39	129
22MAC045	508062	7173122	438	22	30	8	3	3	0.9	522	159	413	110	113	322
22MAC045	508062	7173122	430.5	30	37	7	4	2	0.8	349	109	270	79	72	217
22MAC045	508062	7173122	426.5	37	38	1	200	3	0.8	359	118	270	88	72	227
22MAC046	508047	7172916	456	0	8	8	1	21	1.4	168	42	133	35	24	103
22MAC046	508047	7172916	447	8	18	10	2	17	0.8	162	41	133	29	30	100
22MAC046	508047	7172916	428	18	46	28	3	6	0.9	608	164	482	126	105	325
22MAC046	508047	7172916	413	46	48	2	4	3	0.6	322	100	249	74	67	201
22MAC046	508047	7172916	411.5	48	49	1	200	3	0.7	343	114	253	89	70	219
22MAC047	507867	7172770	456	0	2	2	1	29	1.3	130	39	101	30	25	81
22MAC047	507867	7172770	447	2	18	16	2	3	0.5	105	25	86	19	17	60
22MAC047	507867	7172770	436	18	24	6	3	3	1.1	426	107	326	100	53	195
22MAC047	507867	7172770	430	24	30	6	4	1	0.5	226	87	145	81	39	162
22MAC047	507867	7172770	425.5	30	33	3	200	1	0.4	164	60	105	60	24	109
22MAC048	507754	7172646	460	0	4	4	1	43	1.4	237	70	182	55	43	139
22MAC048	507754	7172646	449	4	22	18	2	5	0.9	150	38	122	28	26	94
22MAC048	507754	7172646	438	22	26	4	3	3	2.1	762	208	590	171	125	393
22MAC048	507754	7172646	430	26	38	12	4	8	0.7	407	140	290	117	80	267
22MAC048	507754	7172646	423	38	40	2	200	9	0.4	297	101	212	85	55	193
22MAC049	507630	7172527	468	0	8	8	1	10	0.8	91	30	63	28	15	59
22MAC049	507630	7172527	459	8	18	10	2	1	0.4	61	16	47	14	8	33
22MAC049	507630	7172527	451	18	24	6	4	14	1.2	452	118	354	98	70	239
22MAC049	507630	7172527	447.5	24	25	1	200	7	1.2	303	107	218	85	67	220

22MAC050	507481	7172425	470	0	6	6	1	23	1.4	115	58	50	65	12	89
22MAC050	507481	7172425	460	6	20	14	2	7	0.8	70	20	55	16	13	44
22MAC050	507481	7172425	451	20	24	4	3	5	0.9	801	113	756	44	122	461
22MAC050	507481	7172425	446	24	30	6	4	6	0.8	480	147	350	130	76	274
22MAC050	507481	7172425	442	30	32	2	200	5	0.6	291	99	200	91	46	185
22MAC051	507274	7172431	472.5	0	9	9	1	49	1.5	115	49	65	50	16	83
22MAC051	507274	7172431	462.5	9	20	11	2	50	0.6	177	37	158	19	34	99
22MAC051	507274	7172431	452	20	30	10	3	4	1.1	585	168	457	128	110	351
22MAC051	507274	7172431	446	30	32	2	4	3	0.9	881	334	598	282	171	586
22MAC051	507274	7172431	444.5	32	33	1	200	3	0.6	170	56	123	48	30	110
22MAC052	507116	7172378	474	0	8	8	1	16	1.1	111	35	80	31	18	66
22MAC052	507116	7172378	469	8	10	2	2	11	1.3	106	41	68	38	19	76
22MAC052	507116	7172378	465	10	16	6	3	10	1.4	264	87	198	65	55	167
22MAC052	507116	7172378	461.5	16	17	1	4	6	0.8	203	68	150	53	43	130
22MAC052	507116	7172378	460.5	17	18	1	200	6	0.8	203	68	150	53	43	130
22MAC053	506814	7172225	480	0	2	2	1	17	1.0	149	42	115	34	23	86
22MAC053	506814	7172225	470	2	20	18	2	6	1.0	86	22	67	19	12	50
22MAC053	506814	7172225	459	20	24	4	3	3	0.8	1072	219	885	188	127	435
22MAC053	506814	7172225	456.5	24	25	1	4	4	0.5	369	122	270	99	69	238
22MAC053	506814	7172225	455.5	25	26	1	200	4	0.5	369	122	270	99	69	238
22MAC054	506861	7172073	478	0	2	2	1	14	0.9	151	44	116	35	26	90
22MAC054	506861	7172073	474	2	8	6	2	3	0.5	134	35	107	27	22	76
22MAC054	506861	7172073	467	8	16	8	3	1	0.3	118	37	89	29	24	79
22MAC054	506861	7172073	462	16	18	2	200	3	0.2	292	77	238	55	55	163
22MAC055	507039	7172162	475.5	0	3	3	1	11	0.9	69	24	48	21	12	46
22MAC055	507039	7172162	469.5	3	12	9	2	4	0.5	54	15	42	12	9	33
22MAC055	507039	7172162	462	12	18	6	3	5	1.1	704	106	592	112	40	184
22MAC055	507039	7172162	458.5	18	19	1	200	25	0.6	428	76	374	53	56	179
22MAC056	507260	7172271	476	0	6	6	1	19	1.6	128	57	68	60	17	93
22MAC056	507260	7172271	466	6	20	14	2	5	1.0	54	20	34	20	8	38
22MAC056	507260	7172271	456	20	26	6	3	34	2.0	1243	379	910	333	196	723
22MAC056	507260	7172271	451	26	30	4	4	62	1.5	798	250	601	196	151	516
22MAC056	507260	7172271	448.5	30	31	1	200	44	1.1	474	124	386	87	89	281
22MAC057	507470	7172308	479	0	4	4	1	43	1.8	185	81	98	87	22	131
22MAC057	507470	7172308	469	4	20	16	2	19	1.2	121	50	71	49	20	87
22MAC057	507470	7172308	454	20	34	14	3	39	1.1	1156	317	872	285	164	591
22MAC057	507470	7172308	444.5	34	39	5	4	26	0.7	412	128	310	102	80	257
22MAC057	507470	7172308	441	39	41	2	200	29	0.5	422	133	317	105	84	265
22MAC058	507640	7172339	472	0	8	8	1	51	1.0	279	74	227	52	54	158
22MAC058	507640	7172339	465	8	14	6	2	34	0.7	253	61	214	39	50	137
22MAC058	507640	7172339	461	14	16	2	3	62	0.7	537	117	473	64	107	278
22MAC058	507640	7172339	458	16	20	4	4	93	0.9	863	199	762	101	190	483
22MAC058	507640	7172339	455.5	20	21	1	200	152	1.3	1257	280	1126	131	281	690
22MAC059	507872	7172510	471.5	0	1	1	1	21	0.7	245	45	218	27	38	128
22MAC059	507872	7172510	461.5	1	20	19	2	5	0.4	189	41	161	29	32	112
22MAC059	507872	7172510	445	20	34	14	4	2	0.4	278	117	158	119	40	199
22MAC059	507872	7172510	437.5	34	35	1	200	1	0.3	121	45	77	44	18	83
22MAC060	508047	7172621	468.5	0	3	3	1	48	1.7	184	60	133	52	32	116
22MAC060	508047	7172621	464.5	3	8	5	2	22	1.0	148	48	105	43	24	94
22MAC061	508211	7172743	462.5	0	7	7	1	34	2.4	133	46	89	44	20	87
22MAC061	508211	7172743	450.5	7	24	17	2	13	1.5	48	20	26	22	6	35
22MAC061	508211	7172743	432	24	44	20	3	6	0.8	337	102	254	84	60	206
22MAC061	508211	7172743	417	44	54	10	4	5	0.8	313	101	234	78	64	199
22MAC061	508211	7172743	411	54	56	2	200	3	0.6	277	89	209	68	56	176
22MAC062	508099	7172474	465	0	4	4	1	28	1.5	208	75	139	69	34	136
22MAC062	508099	7172474	457	4	16	12	2	30	1.2	272	98	183	89	47	177
22MAC062	508099	7172474	447	16	24	8	3	32	1.0	539	169	407	132	107	346
22MAC062	508099	7172474	440.5	24	29	5	4	17	1.2	595	201	426	170	110	396
22MAC062	508099	7172474	437.5	29	30	1	200	12	0.9	386	134	267	119	64	252
22MAC063	508036	7172404	465	0	4	4	1	33	0.9	135	40	103	32	24	85
22MAC063	508036	7172404	461	4	8	4	2	104	1.1	216	48	189	27	42	120
22MAC063	508036	7172404	451	8	24	16	3	115	1.7	874	192	763	111	165	476

22MAC063	508036	7172404	439	24	32	8	4	93	1.7	971	235	831	140	194	557
22MAC063	508036	7172404	434.5	32	33	1	200	75	1.5	878	209	762	116	180	501
22MAC064	507816	7172220	473	0	4	4	1	8	0.6	123	39	90	32	22	77
22MAC064	507816	7172220	467	4	12	8	2	5	0.7	100	37	63	37	15	67
22MAC064	507816	7172220	460	12	18	6	3	73	1.2	1119	318	904	215	243	719
22MAC064	507816	7172220	455	18	22	4	4	88	1.3	992	284	794	198	207	614
22MAC064	507816	7172220	452.5	22	23	1	200	131	1.5	1311	391	1027	284	269	803
22MAC065	507765	7172094	470	0	4	4	1	20	1.3	289	110	183	105	48	199
22MAC065	507765	7172094	464	4	12	8	2	15	1.2	324	135	182	142	44	225
22MAC065	507765	7172094	454	12	24	12	3	39	1.9	735	286	466	269	128	508
22MAC065	507765	7172094	444	24	32	8	4	36	1.7	669	246	446	223	118	451
22MAC065	507765	7172094	439	32	34	2	200	69	2.4	1133	463	690	443	193	796
22MAC066	507395	7172069	477	0	6	6	1	32	1.5	274	120	152	122	41	198
22MAC066	507395	7172069	472	6	10	4	2	18	0.9	109	44	65	45	16	80
22MAC066	507395	7172069	468	10	14	4	3	99	1.4	872	253	687	185	178	541
22MAC066	507395	7172069	464	14	18	4	4	11	2.0	971	187	747	224	43	299
22MAC066	507395	7172069	461.5	18	19	1	200	11	1.2	1268	309	917	351	83	490
22MAC067	507297	7171990	480	0	2	2	1	41	2.8	201	81	117	84	27	139
22MAC067	507297	7171990	475	2	10	8	2	20	1.1	179	97	71	108	20	145
22MAC067	507297	7171990	463	10	26	16	3	46	2.0	824	297	554	270	143	570
22MAC067	507297	7171990	452.5	26	31	5	4	33	1.7	989	399	608	380	165	707
22MAC067	507297	7171990	449.5	31	32	1	200	33	1.9	815	384	425	390	127	634
22MAC068	507124	7171929	482.5	0	1	1	1	44	1.5	472	160	326	145	76	291
22MAC068	507124	7171929	475.5	1	14	13	2	35	1.2	377	118	276	100	64	229
22MAC068	507124	7171929	463	14	26	12	3	34	1.5	706	181	527	179	77	331
22MAC068	507124	7171929	454	26	32	6	4	23	1.1	917	398	568	350	205	736
22MAC068	507124	7171929	450.5	32	33	1	200	17	1.7	758	344	420	338	126	578
22MAC069	507329	7171785	483.5	0	1	1	1	19	1.2	215	84	131	84	33	151
22MAC069	507329	7171785	479.5	1	8	7	2	20	1.3	227	86	143	84	36	155
22MAC069	507329	7171785	469	8	22	14	3	36	1.7	675	224	463	212	101	414
22MAC069	507329	7171785	461	22	24	2	4	35	1.3	1089	354	804	285	218	713
22MAC069	507329	7171785	459.5	24	25	1	200	16	1.0	725	345	414	311	158	616
22MAC070	507318	7171713	484.5	0	1	1	1	36	1.6	278	101	186	92	49	185
22MAC070	507318	7171713	479.5	1	10	9	2	27	1.2	264	95	177	87	46	177
22MAC070	507318	7171713	462	10	36	26	3	40	1.3	658	252	421	238	109	451
22MAC070	507318	7171713	448	36	38	2	4	67	2.0	813	288	555	258	146	535
22MAC070	507318	7171713	446.5	38	39	1	200	112	2.4	1286	458	883	404	239	848
22MAC071	507562	7171683	481	0	2	2	1	153	2.6	1120	356	838	282	227	704
22MAC071	507562	7171683	473	2	16	14	2	37	1.4	404	137	285	119	75	263
22MAC071	507562	7171683	463	16	22	6	3	48	1.8	771	263	544	227	146	504
22MAC071	507562	7171683	457	22	28	6	4	19	1.6	667	230	453	214	111	434
22MAC071	507562	7171683	453	28	30	2	200	14	2.2	904	332	538	366	103	568
22MAC072	507427	7171313	475	0	14	14	1	51	1.7	210	71	145	65	34	139
22MAC072	507427	7171313	466.5	14	17	3	2	41	1.9	418	110	326	92	65	269
22MAC072	507427	7171313	462.5	17	22	5	3	35	2.0	361	106	273	88	64	222
22MAC072	507427	7171313	459.5	22	23	1	200	16	2.6	1096	344	849	246	253	714
22MAC073	507628	7171486	477	0	10	10	1	63	2.1	172	60	116	55	28	111
22MAC074	507764	7171708	479.5	0	5	5	1	91	2.4	202	71	139	63	36	134
22MAC074	507764	7171708	471.5	5	16	11	2	56	1.2	145	61	85	60	23	105
22MAC074	507764	7171708	462	16	24	8	3	33	2.1	513	169	381	132	111	335
22MAC074	507764	7171708	457.5	24	25	1	200	44	1.7	487	157	358	129	96	306
22MAC075	507935	7171250	481.5	0	1	1	1	43	2.0	215	72	150	65	37	137
22MAC075	507935	7171250	468.5	1	26	25	2	30	1.5	298	86	231	67	57	188
22MAC075	507935	7171250	449	26	40	14	3	46	1.6	959	403	576	383	163	699
22MAC075	507935	7171250	439	40	46	6	4	27	1.3	467	178	302	165	80	320
22MAC075	507935	7171250	435.5	46	47	1	200	31	1.9	572	180	426	145	106	362
22MAC076	507972	7171087	472	0	20	20	2	14	0.7	189	58	138	51	31	125
22MAC076	507972	7171087	458	20	28	8	3	25	1.0	446	147	323	123	85	300
22MAC076	507972	7171087	446.5	28	43	15	4	39	1.7	841	346	516	325	148	594
22MAC076	507972	7171087	438.5	43	44	1	200	54	2.2	741	211	581	161	138	453
22MAC077	507737	7171009	481	0	2	2	1	39	2.1	411	185	222	189	61	304
22MAC077	507737	7171009	474	2	14	12	2	44	2.3	590	252	336	254	91	428

22MAC077	507737	7171009	463	14	24	10	3	41	2.2	927	254	702	225	141	504
22MAC077	507737	7171009	451.5	24	37	13	4	30	1.5	525	178	366	159	93	337
22MAC077	507737	7171009	444	37	39	2	200	16	1.0	242	86	166	77	43	161
22MAC078	507807	7170874	481.5	0	1	1	1	39	1.8	294	112	188	105	50	205
22MAC078	507807	7170874	474	1	15	14	2	11	1.0	108	47	59	49	15	80
22MAC078	507807	7170874	465.5	15	18	3	3	14	0.8	86	29	61	26	16	59
22MAC078	507807	7170874	463	18	20	2	200	12	0.7	84	26	61	23	14	51
22MAC079	508062	7170885	481.5	0	1	1	1	18	1.1	169	56	123	46	33	109
22MAC079	508062	7170885	476.5	1	10	9	2	29	1.0	220	64	170	50	42	136
22MAC079	508062	7170885	463	10	28	18	3	30	1.9	820	302	531	289	134	538
22MAC079	508062	7170885	449	28	38	10	4	54	1.6	639	198	483	156	122	404
22MAC079	508062	7170885	443	38	40	2	200	20	1.1	574	215	378	196	105	394
22MAC080	508292	7170686	478	0	8	8	1	46	2.3	196	83	112	85	29	142
22MAC080	508292	7170686	467	8	22	14	2	21	1.5	249	107	143	106	44	186
22MAC080	508292	7170686	454	22	34	12	3	23	1.8	594	261	335	258	100	441
22MAC080	508292	7170686	442	34	46	12	4	43	1.5	822	324	528	294	155	573
22MAC080	508292	7170686	435.5	46	47	1	200	33	1.2	617	235	407	211	118	420
22MAC081	508259	7170515	479	0	6	6	1	39	2.2	195	76	122	73	31	135
22MAC081	508259	7170515	470	6	18	12	2	20	1.6	193	56	143	50	30	116
22MAC081	508259	7170515	462.5	18	21	3	3	23	1.3	422	124	330	92	85	266
22MAC081	508259	7170515	460	21	23	2	4	9	1.5	1833	655	1255	578	337	1234
22MAC081	508259	7170515	458.5	23	24	1	200	7	1.4	3010	1155	1948	1062	537	2078
22MAC082	508188	7170340	478.5	0	7	7	1	26	1.8	160	70	87	73	22	118
22MAC082	508188	7170340	466.5	7	24	17	2	26	1.4	286	105	187	99	45	193
22MAC082	508188	7170340	451.5	24	37	13	3	19	2.0	736	270	481	256	117	479
22MAC082	508188	7170340	443.5	37	40	3	4	43	1.6	764	280	517	247	142	513
22MAC082	508188	7170340	441.5	40	41	1	200	6	0.5	192	87	104	88	30	144
22MAC083	508469	7170249	476	0	12	12	1	35	1.7	168	71	94	74	23	121
22MAC083	508469	7170249	464	12	24	12	2	23	1.2	181	68	116	65	29	124
22MAC083	508469	7170249	455	24	30	6	3	6	1.4	673	211	488	186	115	416
22MAC083	508469	7170249	449.5	30	35	5	4	2	1.1	922	335	588	334	122	568
22MAC083	508469	7170249	446.5	35	36	1	200	2	0.9	585	316	254	331	87	481
22MAC084	508587	7169962	479.5	0	5	5	1	31	1.4	192	77	115	77	28	132
22MAC084	508587	7169962	471.5	5	16	11	2	31	0.7	201	55	161	41	38	121
22MAC084	508587	7169962	461.5	16	25	9	3	65	1.0	722	174	615	108	144	404
22MAC084	508587	7169962	452.5	25	34	9	4	67	1.4	710	176	591	118	137	405
22MAC084	508587	7169962	447	34	36	2	200	5	0.6	146	63	79	67	21	107
22MAC085	508834	7169773	477.5	0	9	9	1	54	1.5	260	114	140	119	35	186
22MAC085	508834	7169773	465.5	9	24	15	2	18	1.2	237	122	98	140	27	188
22MAC085	508834	7169773	450	24	40	16	3	24	2.7	1574	538	1094	480	288	1011
22MAC085	508834	7169773	437	40	50	10	4	16	1.6	559	256	297	262	86	418
22MAC085	508834	7169773	430.5	50	53	3	200	23	1.9	538	235	302	236	81	390
22MAC086	508762	7169507	481.5	0	1	1	1	33	2.0	308	116	197	111	52	209
22MAC086	508762	7169507	475.5	1	12	11	2	11	1.3	189	91	91	98	25	145
22MAC086	508762	7169507	460.5	12	31	19	3	36	2.1	745	306	449	297	132	536
22MAC086	508762	7169507	450.5	31	32	1	200	18	1.6	623	237	389	234	94	408
22MAC087	508792	7169188	479	0	6	6	1	27	1.9	235	122	98	138	25	183
22MAC087	508792	7169188	471	6	16	10	2	6	0.9	89	37	51	38	14	64
22MAC087	508792	7169188	465.5	16	17	1	200	3	0.4	602	264	346	256	108	444
22MAC088	508798	7168878	477	0	10	10	4	17	1.3	497	223	275	222	83	367
22MAC088	508798	7168878	471.5	10	11	1	200	10	0.8	193	82	114	80	33	139
22MAC089	509120	7168989	481	0	2	2	1	50	2.0	363	156	207	156	53	272
22MAC089	509120	7168989	477	2	8	6	2	6	1.0	206	110	79	126	19	164
22MAC089	509120	7168989	472	8	12	4	3	7	1.3	122	58	59	63	15	94
22MAC089	509120	7168989	469	12	14	2	4	5	1.8	66	32	27	39	6	53
22MAC089	509120	7168989	467.5	14	15	1	200	4	1.9	60	28	25	36	5	48
22MAC090	509098	7169349	478	0	8	8	1	26	1.8	150	93	34	116	9	133
22MAC090	509098	7169349	466	8	24	16	2	4	1.2	193	114	48	146	11	167
22MAC090	509098	7169349	450	24	40	16	3	3	2.4	1221	619	472	748	137	1014
22MAC090	509098	7169349	435	40	54	14	4	28	1.7	818	377	391	427	103	626
22MAC090	509098	7169349	427.5	54	55	1	200	25	3.1	1132	603	405	727	110	937
22MAC091	509189	7169546	476.5	0	11	11	1	31	1.6	214	109	87	127	18	165

22MAC091	509189	7169546	469.5	11	14	3	2	15	1.3	185	110	51	134	11	158
22MAC091	509189	7169546	455	14	40	26	3	36	2.5	835	344	500	335	130	592
22MAC091	509189	7169546	435.5	40	53	13	4	23	3.4	580	255	319	260	89	426
22MAC091	509189	7169546	428.5	53	54	1	200	23	2.3	408	151	269	139	70	277
22MAC092	508242	7171129	479.5	0	5	5	1	44	2.0	347	122	236	112	57	221
22MAC092	508242	7171129	471.5	5	16	11	2	11	0.9	205	81	126	79	34	146
22MAC092	508242	7171129	465.5	16	17	1	200	3	0.4	136	59	79	57	25	108
22MAC093	508071	7171352	481	0	2	2	1	43	1.9	187	75	117	71	33	133
22MAC093	508071	7171352	475	2	12	10	2	7	0.9	234	96	148	87	46	175
22MAC093	508071	7171352	460	12	32	20	3	2	0.8	633	282	348	285	110	474
22MAC093	508071	7171352	443	32	46	14	4	1	0.3	110	58	48	62	16	89
22MAC093	508071	7171352	435.5	46	47	1	200	1	0.3	104	47	56	48	17	77
22MAC094	508249	7171517	481	0	2	2	1	23	2.4	399	152	260	139	71	275
22MAC094	508249	7171517	471	2	20	18	2	27	1.9	292	141	141	151	42	226
22MAC094	508249	7171517	456	20	32	12	3	31	4.4	1925	426	1498	428	181	764
22MAC094	508249	7171517	443	32	46	14	4	21	1.8	634	266	386	248	120	466
22MAC094	508249	7171517	435.5	46	47	1	200	36	1.4	554	237	327	227	96	398
22MAC095	508027	7171729	477	0	10	10	1	33	2.4	210	92	116	94	30	152
22MAC095	508027	7171729	469.5	10	15	5	2	32	2.2	255	124	123	132	34	191
22MAC096	508113	7171858	477	0	10	10	1	47	2.3	218	94	124	94	33	154
22MAC096	508113	7171858	460	10	34	24	2	28	1.4	131	50	82	49	22	92
22MAC096	508113	7171858	445	34	40	6	3	20	1.5	503	120	431	72	103	274
22MAC096	508113	7171858	438.5	40	47	7	4	19	3.3	844	219	664	180	130	423
22MAC096	508113	7171858	434.5	47	48	1	200	18	1.3	554	232	336	218	97	399
22MAC097	508163	7172048	479	0	6	6	1	75	1.8	223	74	153	70	33	141
22MAC097	508163	7172048	469	6	20	14	2	44	1.6	459	151	326	133	77	295
22MAC097	508163	7172048	455	20	34	14	3	23	1.8	1527	433	1198	330	294	885
22MAC097	508163	7172048	446	34	38	4	4	26	1.0	782	293	539	243	167	572
22MAC097	508163	7172048	443.5	38	39	1	200	14	0.7	363	158	211	153	65	275
22MAC098	508289	7172360	480.5	0	3	3	1	68	2.2	312	96	235	78	58	190
22MAC098	508289	7172360	472.5	3	16	13	2	50	1.2	225	67	175	51	46	139
22MAC098	508289	7172360	457	16	34	18	3	33	1.9	862	304	613	248	181	610
22MAC098	508289	7172360	446.5	34	37	3	4	15	1.1	516	201	342	174	106	392
22MAC098	508289	7172360	444.5	37	38	1	200	12	1.1	512	203	337	174	107	393
22MAC099	508013	7172034	480	0	4	4	1	125	2.6	338	109	244	94	61	219
22MAC099	508013	7172034	474	4	12	8	2	18	1.4	308	150	144	164	40	235
22MAC099	508013	7172034	459	12	34	22	3	17	1.6	643	228	447	196	125	434
22MAC099	508013	7172034	445	34	40	6	4	20	1.8	614	249	383	231	117	448
22MAC099	508013	7172034	441.5	40	41	1	200	2	1.1	96	40	48	48	10	72
22MAC100	508177	7172312	478.5	0	7	7	1	171	1.7	151	66	80	71	18	105
22MAC100	508177	7172312	470.5	7	16	9	2	35	0.9	121	52	67	54	18	91
22MAC100	508177	7172312	460	16	28	12	3	21	1.1	658	215	480	178	128	450
22MAC100	508177	7172312	453.5	28	29	1	200	20	1.2	1016	350	688	328	156	674