

Renegade Exploration Limited

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## 17 January 2024

## **ASX RELEASE**

# Exciting graphite, rare earths and uranium prospects discovered within Carpentaria Joint Venture's EPM 12561.

## Highlights

- Significant graphite rich zones identified at Tommy Creek prospect.
- Over 3km<sup>2</sup> of graphitic shist mapped, with high-grade rock samples returning:
  - 24.7% Total Graphitic Carbon (TGC), 15.2% TGC, 14.3% TGC
- Historical diamond drilling at Tommy Creek intercepted:
  - 211m @ 11.1% TGC from 24m including,
    - 23m @ 21.2% TGC from 120m
- First pass reconnaissance of the Beacon U-REE prospect discovered:
  - 0.12% TREO and 303ppm U (RBCRS003)
  - 0.21% TREO and 142ppm U (RBCRS001)
- Review of the Boundary REE prospect identified:
  - 2.03% TREO (EX102432)
  - 0.50 % TREO (EX102434)

**Renegade Exploration Limited (ASX:RNX)** has identified significant graphite rich zones along with new rare earths and uranium prospects within the Carpentaria Joint Venture (CJV) following a desktop review of historical geological data.

**Renegade Director, Mr Robert Kirtlan,** said the graphite discovery at Tommy Creek within EPM 12561 was particularly exciting as given the mapping, sampling plus prior drilling it has potential to be large.

"When China added graphite to their mineral export restrictions we immediately planned and carried out reconnaissance work at the beginning of the wet season on the permit as previous work completed had highlighted its prospectivity for not just graphite but rare earths, uranium and copper," Mr Kirtlan said.

"We were delighted to uncover a potentially significant graphite prospect at Tommy Creek which



covers over 3km<sup>2</sup>, as well as outstanding rare earth and uranium potential at the Beacon and Boundary prospects."

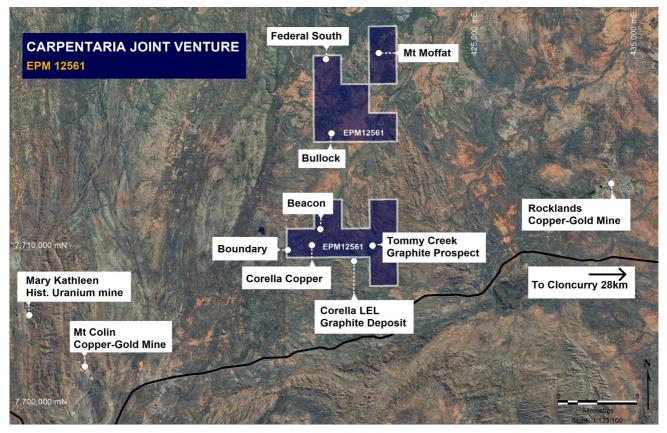


Figure 1. Location of EPM 12561 – Carpentaria Joint Venture, showing Tommy Creek Graphite prospect.

EPM 12561 is part of the Carpentaria Joint Venture (CJV) between Glencore plc and Renegade, whose stake is currently 23.03%. Renegade has approached the joint venture partner to excise the permit and include it with EPM 8588 which Renegade is operating and sole funding to increase its interest<sup>1</sup>.

## **Tommy Creek Project Background**

There are numerous U-REE, Cu, and graphite prospects within the Tommy Creek area of EPM 12561.

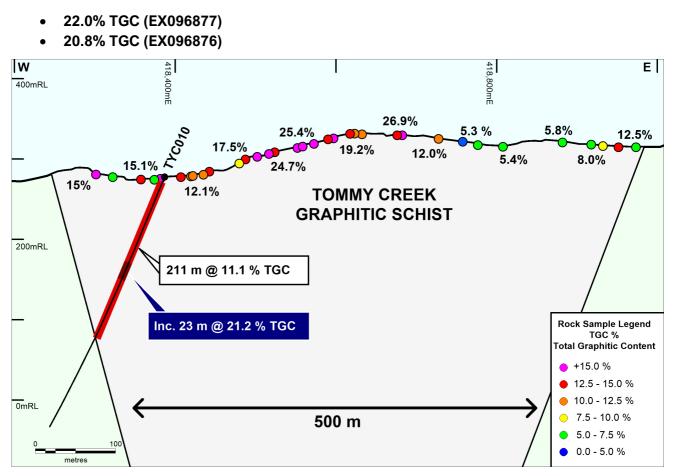
The area was first actively explored for copper and base metals during the mid-1970's by Jododex Australia Pty Ltd. Conzinc-RioTinto held the area during the 1980's and focused on exploring for Mary Kathleen style uranium mineralisation. MIM/Glencore were the next active tenement explorers and were looking for graphite, REE, and copper mineralisation.

The Glencore work consists of soil sampling, rock sampling, IP/EM geophysics, and drilling. An example of the high-grade rock samples at Tommy Creek are:

- 26.9% TGC (EX096839)
- 25.4% TGC (EX096844)

<sup>&</sup>lt;sup>1</sup> See ASX Release dated 16 January 2023: Renegade assumes control of Mongoose Project.





*Figure 2:* Cross section - Hole TYC010 looking north and showing Total Graphitic Content of surface rock samples.

Drilling in the Tommy Creek area generally targeted copper prospects, with a single drill hole testing for graphitic carbon, which intercepted:

- 211m @ 11.1% TGC from 24m, including
  - o 23m @ 21.2% TGC from 120m

Rock sampling at the Boundary REE prospect returned:

- 2.03% TREO (EX102432)
- 0.50% TREO (EX102434)
- 0.43% TREO (EX102433)

## **Tommy Creek Project Geology**

EPM 12561 is located within the Tommy Creek Domain, a fault and shear bound block in the central Eastern Fold Belt. It is separated from the Mary Kathleen Domain to the west by the Pilgrim-Fountain Range fault system. Unnamed structures separate the Mitakoodi Domain to the south and the Canobie Domain to east.

The Tommy Creek Domain is a fault bounded package of calc-silicate, meta-sedimentary and metavolcanic rocks with felsic and mafic intrusions, with a complex and intense deformation history. The



metamorphic grade is anomalously high relative to neighbouring domains, dominated by amphibolite facies rather than the greenschist facies of adjacent blocks.

Major stratigraphic units represented include the Corella Formation (granoblastic calc-silicates, meta-siltstone and marble) and the Milo Beds (meta-siltstone, felsic volcanics, muscovite schist, marble, calc silicate and graphitic phyllite), along with the intrusions of the Tommy Creek Microgranite, and unnamed felsic and mafic units.

The graphite at Tommy Creek is hosted in a micaceous schist unit which has undergone many generations of folding. This has resulted in a twisted basin shape, which resembles a bat at surface.

Additional styles of mineralisation within the area are shear hosted copper deposits and skarn hosted uranium-REE+-Cu/Au deposits.

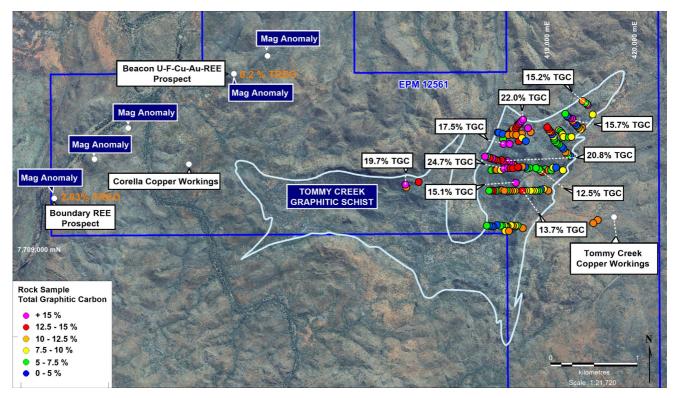


Figure 3: Tommy Creek prospect area of EPM1256.

### This announcement has been approved by the Board of Renegade Exploration Limited.

### For more information, please contact:

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## **About Renegade Exploration Limited**

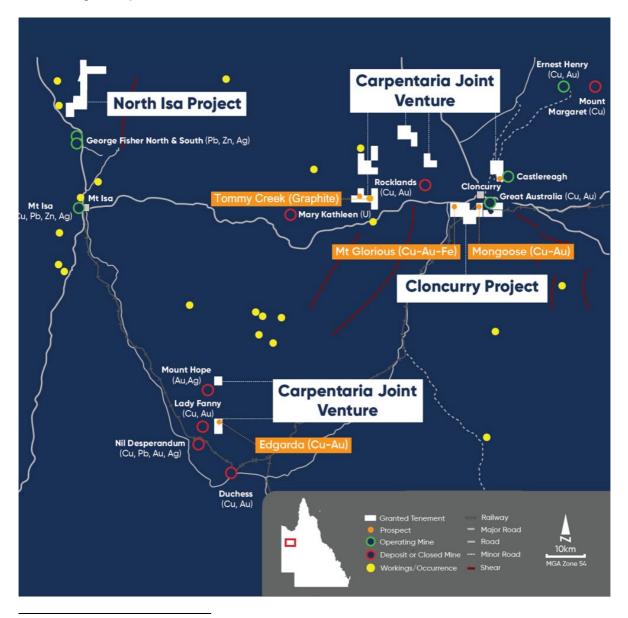
# Renegade Exploration Limited (ASX:RNX) is an Australian based minerals exploration company developing a portfolio of advanced copper and gold projects in north-west Queensland.

Renegade's immediate primary focus is the Cloncurry Project located in mining infrastructure rich Cloncurry. In January 2023, Renegade reached an agreement with Carpentaria Joint Venture partner Mount Isa Mines (MIM) to become sole operator and funder of the project<sup>2</sup>, which is very advanced in terms of exploration activity.

The company has expanded its north-west Queensland operations with a 75% interest in a joint venture on the North Isa Project, located just north of MIM's George Fisher mining operations near Mount Isa.

More recently, Renegade has applied for a number of permits in the Barcaldine region. The company's Aramac tenements cover the previously discovered Toolebuc formation which is host to vanadium deposits to the north in the Julia Creek and Richmond areas.

## For further information www.renegadeexploration.com



<sup>2</sup> Refer ASX Release; Renegade assumes control of Mongoose Project dated 16 January 2023.



#### **Competent Person Statement and Geological Information Sources**

The information in this announcement that relates to geological information for Mongoose Project is based on information compiled by Mr Edward Fry, who is a full-time employee of the Company. Mr Fry is a Member of the Australian Institute of Mining and Metallurgy. Mr Fry has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and the activity he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results (JORC Code). Mr Fry consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

The references in this announcement to Exploration Results were reported in accordance with Listing Rule 5.7 in the following announcements:

ASX Release Title	Date
Renegade acquires interest in Carpentaria Joint Venture	17 December 2020
Renegade assumes control of Mongoose Project	16 January 2023

The company confirms that it is not aware of any new information or data that materially affects the information included in the previous market announcements noted above.



## JORC Code, 2012 Edition – Table 1:

## Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Drilling (Glencore)</li> <li>Samples were 1m pulverised RC drill chips or 1m interval half-core, or taken to the geological boundary (sub metre interval) for diamond core.</li> <li>The measures taken to ensure sample representativity was not recorded.</li> <li>Samples were sent to ALS for analyses.</li> <li>Samples were pulverized to produce a 30 g chare for multi-acid digest (ME-ICP61) and fire assay for gold (Au-AA21).</li> <li>Rock sampling (Glencore)</li> <li>Samples were sent to ALS for analyses.</li> <li>Sampling method consisted of rock sampling of a specific area.</li> <li>The measures taken to ensure sample representativity was not recorded.</li> <li>Samples were pulverized to produce a 30 g chare for multi-acid digest (ME-MS42/81/MEICP06) and fire assay for gold (Au-AA21).</li> <li>Rock sampling (Renegade)</li> <li>Sampling method consisted of rock sampling of a specific area.</li> <li>The measures taken to ensure sample representativity was not recorded.</li> <li>Samples were pulverized to produce a 30 g chare for multi-acid digest (ME-MS42/81/MEICP06) and fire assay for gold (Au-AA21).</li> <li>Rock sampling (Renegade)</li> <li>Sampling method consisted of rock sampling of a specific area.</li> <li>The measures taken to ensure sample representativity was to only sample rock that were insitu.</li> <li>Samples were pulverized to produce a 30 g chare for multi-acid digest (ME-MS61r) graphite analyses (C-IR18) and fire assay for gold (Au-AA21).</li> </ul>
Drilling techniques	• Drill type (e.g., core, reverse circulation, open- hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g., core diameter, triple or standard tube, depth of diamond tails, face- sampling bit or other type, whether core is oriented and if so, by what method, etc).	<ul> <li>Reverse Circulation (RC) drilling.</li> <li>Diamond drilling (DD).</li> </ul>



Criteria	JORC Code explanation	Commentary
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>The method of recording and assessing the recoveries was not recorded.</li> <li>The measures taken to maximise recovery was not recorded.</li> <li>No relationship can be determined.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Drill chips were all geologically logged, recording relevant data using a set template to log geological intervals. All data was codified to a set company codes systems. The company feels that this offers sufficient detail for the purpose of interpretation and further studies.</li> <li>All logging included lithological features, sulphide % and type if present, alteration and descriptions of chips.</li> <li>100% of the drill chips were logged.</li> </ul>
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>The RC drilling sub sampling technique was not recorded. The diamond drilling sub-sampling technique was half coring.</li> <li>Sample preparation technique was not recorded.</li> <li>Field QC procedures were not recorded.</li> <li>The rate of blank sample insertion was not recorded.</li> <li>The measured taken to ensure sampling representativity were not recorded.</li> <li>The sample size was not recorded.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>The assaying and laboratory procedures are considered as being appropriate for reporting copper and gold ore mineralization, according to industry best practice.</li> <li>No geophysical tools were using the assaying.</li> <li>The QAQC protocols were not recorded.</li> </ul>



Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Significant mineralization intersections have not been verified.</li> <li>No twinned holes were drilled.</li> <li>The documentation of primary data was not recorded.</li> <li>No adjustments have been made.</li> <li>REE multielement results are converted to stoichiometric oxide (REO) using element to stoichiometric ratio factors:</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>The quality of the coordinate positions was not recorded.</li> <li>All surveys are MGAS zone 54 (GDA).</li> <li>Topographic control is sufficient for this stage of exploration.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Drill spacing at this point of exploration was irregular as drilling targeted separate anomalies. Rock sampling was completed wherever gossans were cropping out or along transect lines (for graphite).</li> <li>No sample compositing occurred. All samples were taken from the hole at 1</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>m intervals.</li> <li>No bias attributable to orientation of sampling upgrading of results has been identified as mineralization is thought to be perpendicular to the drill hole.</li> <li>No sampling bias is assumed.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>The sample security protocols were not recorded.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	Audit data of sampling techniques and data were not recorded.



Section 2 Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The company owns 23.03 % of the Carpentaria JV properties in QLD namely EPM 8588, 8586, 12180, 12597, and 12561. EPM 12561 is located on the Mitakoodi people's traditional land.</li> <li>The tenement is in good standing and no known impediments exist.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	• Exploration was undertaken by Mount Isa Mining, a Glencore Company according to the terms of the Joint Venture. CRAE, and Jododex.
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The deposit types being assessed are for skarn U/REE mineralisation, IOCG mineralisation, and for primary metamorphosed graphitic metasediments.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	All information is included in the above tables and appendices located below.



Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated</li> <li>and some typical examples of such aggregations should be shown in detail</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Intercepts were reported using the length weighted average technique.</li> <li>High grade intercepts within broad low-grade intervals have been separated as "included" results.</li> <li>No metal equivalents have been used.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g., 'down hole length, true width not known').</li> </ul>	<ul> <li>The drill hole intercepts are considered to be approximately true thickness.</li> <li>The mineralisation targeted in the drilling is primary metamorphosed graphite hosted within a micaceous schist. The drilling is orientated approximately perpendicular to the geological orientation.</li> </ul>
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	• See the above figures
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.	• Representative reporting of both low and high grades has been presented within this document.



Criteria	JORC Code explanation	Commentary
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul> <li>All meaningful data have been included in this document.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	• The nature of future work will initially focus on gaining a soil understanding of the geological and structural setting. Once this is accomplished, then effective modelling and exploration planning can be



Hole ID	East	North	Grid	RL m	Depth m	Туре	Azi mag	Dip
TYC001	419506	7709247	GDA94z54	309	61.0	RC	0	90
TYC002	419502	7709267	GDA94z54	309	198.2	DD	332	-60
TYC003	419672	7709342	GDA94z54	312	216.6	DD	324	-70
TYC004	419942	7710899	GDA94z54	304	191.7	DD	124	-60
TYC005	419444	7710349	GDA94z54	322	210.5	DD	324	-60
TYC006	419468	7710478	GDA94z54	308	192.1	DD	114	-60
TYC007	419774	7710719	GDA94z54	304	101.8	DD	129	-70
TYC008	420063	7710909	GDA94z54	300	195.1	DD	284	-60
TYC009	419270	7710766	GDA94z54	295	222.5	DD	308	-60
TYC010	418410	7709919	GDA94z54	277	351.1	DD	262	-65
TYC011	415632	7710012	GDA94z54	285	285.4	DD	12	-60
TYC012	415733	7709904	GDA94z54	252	270.3	DD	8	-60
TYC013	416943	7709264	GDA94z54	262	243.3	DD	15	-55
TYC014	419822	7710799	GDA94z54	300	306.3	DD	48.5	-60
TYC015	419667	7710407	GDA94z54	307	351.3	DD	344	-60
TYC016	419572	7709974	GDA94z54	301	177.3	DD	84	-60

## Appendix 1: Tommy Creek historical drill hole collar information



#### Hole ID From m To m TGC % Hole ID From m To m TGC % TYC010 24 15.4 TYC010 129 130 25 TYC010 25 26 18.85 TYC010 130 131 131 132 19.15 TYC010 26 27 9.13 TYC010 27 28 19.7 132 13.75 TYC010 TYC010 133 TYC010 28 TYC010 133 134 29 21.9 TYC010 29 30 22.5 TYC010 134 135 18.15 TYC010 30 31 20.5 TYC010 135 136 31 32 20.5 136 137 11.75 TYC010 TYC010 32 TYC010 33 16.5 TYC010 137 138 14.8 TYC010 33 34 TYC010 138 139 35 TYC010 34 15.15 TYC010 139 140 TYC010 37 38 0.35 TYC010 140 141 NO ASSAY 40 41 0 TYC010 141 142 NO ASSAY 43 44 0 TYC010 142 143 TYC010 46 47 12 143 144 NO ASSAY NO ASSAY 50 NO ASSAY 145 49 0 144 **TYC010** 40 41 20.9 NO ASSAY 145 146 TYC010 41 42 13.9 147 NO ASSAY 146 42 NO ASSAY 147 TYC010 43 10.2 148 TYC010 43 44 11.35 NO ASSAY 148 149 44 TYC010 45 11.5 NO ASSAY 149 150 TYC010 45 46 11.05 NO ASSAY 150 151 47 152.2 TYC010 46 11.65 NO ASSAY 151 TYC010 47 48 10.55 TYC010 152.2 153 TYC010 48 49 12.7 TYC010 154 153 TYC010 TYC010 49 50 12.25 154 155 TYC010 50 51 155 11.6 TYC010 156 TYC010 51 52 10.95 TYC010 156 157 TYC010 52 53 13.55 TYC010 157 158 53 54 TYC010 16.1 TYC010 158 159 TYC010 54 55 13.55 TYC010 159 160.7 **TYC010** 55 56 12.55 NO ASSAY 160.7 162 TYC010 56 57 14.6 NO ASSAY 162 163 TYC010 57 58.5 15.1 NO ASSAY 163 164 TYC010 58.5 59.6 0.12 NO ASSAY 164 165 TYC010 59.6 61 9.38 NO ASSAY 165 166 **TYC010** 61 62 0.08 NO ASSAY 166 167 TYC010 NO ASSAY 62 63 3.83 167 168 TYC010 63 64 13.7 NO ASSAY 169 168 NO ASSAY TYC010 64 65 17.2 169 170 TYC010 65 66 16.1 NO ASSAY 170 171 TYC010 NO ASSAY 172 66 67 16.4 171

## Appendix 2: Tommy Creek relevant historical drill hole assays

20.8

25.9

14.2

21.4

27.1

26.3

21.3

19.3

27

0

0

0 0

0

0

0

0

0

24.8

22.4

21.4

26.8

25.2

16.9

21.6 22.8

0

0 0

0

0 0

0

0

0

0

0

19



Hole ID	From m	To m	TGC %	Hole ID	From m	To m	TGC %
TYC010	67	68	13.85	NO ASSAY	172	173.7	0
TYC010	68	69	13.25	TYC010	173.7	174.6	23.8
TYC010	69	70	15.2	TYC010	174.6	176	12.95
TYC010	70	71	12.05	TYC010	176	177	11.05
TYC010	71	72	10.2	TYC010	177	178	7.27
TYC010	72	73	14.9	TYC010	178	179	6.21
TYC010	73	74	13.35	TYC010	179	180	6.02
TYC010	74	75	14.1	TYC010	180	181	6.41
TYC010	75	76	13.1	TYC010	181	182	7.54
TYC010	76	77	9.57	TYC010	182	183	6
TYC010	77	78	9.38	TYC010	183	184	6.51
TYC010	78	79	10.9	TYC010	184	185	6.02
TYC010	79	80	6.14	TYC010	185	186	5.64
TYC010	80	81	9.67	TYC010	186	187	8.62
TYC010	81	82	8.99	TYC010	187	188	1.03
TYC010	82	83	10.2	TYC010	188	189	0.21
TYC010	83	84	8.92	TYC010	189	190	2.54
TYC010	84	85	8.4	TYC010	190	191	11.2
TYC010	85	86	10.75	TYC010	191	192	0.09
TYC010	86	87	15.25	TYC010	192	193	0.29
TYC010	87	88	9.84	TYC010	193	194	0.11
TYC010	88	89	14.25	TYC010	194	195	0.03
TYC010	89	90	15.85	TYC010	195	196.3	0.12
TYC010	90	91	16.85	TYC010	196.3	197	21.7
TYC010	91	92	16.9	TYC010	197	198	6.14
TYC010	92	93	13.5	TYC010	198	199	2.31
TYC010	93	94	8.69	TYC010	199	200	2.37
TYC010	94	95	4.85	TYC010	200	201	3.84
TYC010	95	96	7.63	TYC010	201	202	1.09
TYC010	96	97	9.78	TYC010	202	203	3.85
TYC010	97	98.5	8.42	TYC010	203	204	10.75
NO ASSAY	98.5	99	0	TYC010	204	205	10.75
NO ASSAY	99	100	0	TYC010	205	206	11.95
NO ASSAY	100	101	0	TYC010	206	207	18.75
TYC010	101	102	9.3	TYC010	207	208	21.4
TYC010	102	103	9.57	TYC010	208	209	15.6
TYC010	103	104	12.95	TYC010	209	210	17.95
TYC010	104	105	13.55	TYC010	210	211	19.45
TYC010	105	106	17.7	TYC010	211	212	16.85
TYC010	106	107	15.8	TYC010	212	213	18.8
TYC010	107	108	18.5	TYC010	213	214	16.75
TYC010	108	109	14.2	TYC010	214	215	15.15
TYC010	109	110	14.45	TYC010	215	216	16.7
TYC010	110	111	16.3	TYC010	216	217	13.1



Hole ID	From m	To m	TGC %	Hole ID	From m	To m	TGC %
TYC010	111	112	14.8	TYC010	217	218.5	19.9
TYC010	112	113	14.9	TYC010	218.5	219.5	19.75
TYC010	113	114	14.4	TYC010	219.5	221	1.05
TYC010	114	115	13.15	TYC010	221	222	0.28
TYC010	115	116	10.2	TYC010	222	223	0.3
TYC010	116	117	11.65	TYC010	223	224	1.52
TYC010	117	118	11.85	TYC010	224	225	5.36
TYC010	118	119	13.35	TYC010	225	226	5.97
TYC010	119	120	15.8	TYC010	226	227	6.01
TYC010	120	121	18.95	TYC010	227	228	5.1
TYC010	121	122	19.6	TYC010	228	229	6.04
TYC010	122	123	23.4	TYC010	229	230	5.84
TYC010	123	124	25.9	TYC010	230	231	4.95
TYC010	124	125	24.9	TYC010	231	232	6.28
TYC010	125	126	25	TYC010	232	233	6.6
TYC010	126	127	23.1	TYC010	233	234	8.1
TYC010	127	128	21.9	TYC010	234	235	8.9
TYC010	128	129	20.4				



Sample ID	E GDA 94	N GDA 94	TGC %	Sample ID	E GDA 94	N GDA 94	TGC %
EX062624	419587	7709338	10.6	EX096825	419177	7710174	4.51
EX062625	419537	7709304	10.5	EX096826	419147	7710204	5.61
EX062629	418720	7710327	10.85	EX096827	419127	7710214	7.31
EX062630	418672	7710427	13.8	EX096828	419112	7710229	6.88
EX062632	419411	7710394	10.9	EX096829	419092	7710249	6.63
EX096751	418732	7709246	10.7	EX096830	419092	7710269	6.23
EX096752	418647	7709264	7.46	EX096831	418952	7709889	12.5
EX096753	418672	7709274	7.2	EX096832	418932	7709904	8.03
EX096754	418647	7709274	9.44	EX096833	418917	7709919	5.49
EX096755	418622	7709274	11.5	EX096834	418882	7709934	5.85
EX096756	418597	7709279	9.69	EX096835	418807	7709934	5.37
EX096757	418557	7709264	12.4	EX096836	418777	7709929	5.31
EX096758	418542	7709264	5.06	EX096837	418757	7709944	2.4
EX096759	418522	7709274	8.03	EX096838	418727	7709949	12.05
EX096760	418497	7709274	5.97	EX096839	418682	7709939	26.9
EX096761	418477	7709274	5.46	EX096840	418632	7709974	10.25
EX096762	418437	7709284	4.34	EX096841	418622	7709974	10.6
EX096763	418397	7709264	3.32	EX096842	418597	7709989	19.2
EX096764	418377	7709269	3.27	EX096843	418572	7709994	20.8
EX096765	418347	7709274	4.16	EX096844	418552	7710014	25.4
EX096766	418322	7709274	6.57	EX096845	418522	7710004	14.2
EX096767	418532	7709214	8.72	EX096846	418502	7710009	17.5
EX096768	418572	7709214	11.45	EX096847	418487	7710024	14.2
EX096769	418972	7709894	6.32	EX096848	418442	7710019	13.1
EX096770	418992	7709919	5.91	EX096849	418422	7710029	10.4
EX096771	419024	7709907	10.35	EX096850	418407	7710034	12.5
EX096772	419055	7709909	5.71	EX096851	418382	7710044	15.1
EX096773	419077	7709939	7.95	EX096852	418357	7710049	14.2
EX096774	419112	7709939	4.3	EX096853	418322	7710064	6.12
EX096775	419190	7709907	8.51	EX096854	418302	7710064	15.05
EX096776	419022	7709674	11.75	EX096855	419082	7710294	7.99
EX096777	418972	7709694	7.79	EX096856	419067	7710319	4.67
EX096778	418942	7709689	4.95	EX096857	419057	7710344	13.2
EX096779	418922	7709674	5.65	EX096858	419037	7710354	11.35
EX096780	418897	7709674	7.47	EX096859	419027	7710379	13.3
EX096781	418872	7709674	8.1	EX096860	419012	7710399	13.5
EX096782	418847	7709674	8.09	EX096861	418597	7710344	16.35
EX096783	418822	7709674	8.51	EX096862	418577	7710329	11.4
EX096784	418772	7709674	9.48	EX096863	418552	7710314	11.1
EX096785	418747	7709674	8.03	EX096864	418507	7710264	6.65
EX096786	418727	7709674	13.7	EX096865	418512	7710209	17.5
EX096787	418647	7709674	10.15	EX096866	418582	7710209	17
EX096788	418622	7709674	9.91	EX096867	418687	7710239	13.95
EX096789	418597	7709674	11.6	EX096868	418822	7710344	11.5

## Appendix 3: Tommy Creek graphite sample locations and results



Sample ID	E GDA 94	N GDA 94	TGC %	Sample ID	E GDA 94	N GDA 94	TGC %
EX096790	418572	7709674	10.85	EX096869	418792	7710389	18.15
EX096791	418547	7709674	6.1	EX096870	418612	7710369	12.6
EX096792	418472	7709684	8.92	EX096871	418622	7710384	11.7
EX096793	418447	7709674	6.05	EX096872	418652	7710384	14.25
EX096794	418422	7709674	5.26	EX096873	418667	7710414	14.65
EX096795	418397	7709674	14.8	EX096874	418687	7710434	12.85
EX096796	418372	7709674	12.8	EX096875	418702	7710454	15.1
EX096797	418347	7709674	6.69	EX096876	418717	7710469	22
EX096798	418497	7709684	11.1	EX096877	418737	7710489	22
EX096799	418522	7709674	10.4	EX096878	417402	7709711	11.5
EX096800	418652	7709764	15.1	EX096879	417392	7709744	19.7
EX096801	419392	7710374	8.93	EX096880	417542	7709774	14.05
EX096802	419372	7710394	10.6	RTCRS001	419531	7710546	9.1
EX096803	419352	7710414	5.31	RTCRS003	419473	7710653	15.2
EX096804	419342	7710424	4.99	RTCRS004	419462	7710669	8.48
EX096805	419322	7710444	4.86	RTCRS005	419447	7710677	7.44
EX096806	419307	7710459	16.85	RTCRS006	419416	7710701	10.7
EX096807	419302	7710474	10.25	RTCRS007	418445	7710341	0.94
EX096808	419297	7710499	15.7	RTCRS008	418458	7710337	2.9
EX096809	419272	7710504	15.5	RTCRS009	418502	7710323	4.47
EX096810	419247	7710514	14	RTCRS010	418569	7710311	12.2
EX096811	419237	7710529	4.29	RTCRS011	418617	7710315	12.2
EX096812	419217	7710554	7.11	RTCRS012	418656	7710311	11.35
EX096813	419147	7710364	9.48	RTCRS013	418722	7710276	9.96
EX096814	419162	7710354	6.18	RTCRS014	418767	7710242	2.44
EX096815	419177	7710334	6.29	RTCRS015	418373	7709909	5.37
EX096816	419187	7710319	9.56	RTCRS016	418421	7709910	11.1
EX096817	419197	7710289	9.61	RTCRS017	418435	7709913	11.25
EX096818	419257	7710284	5.07	RTCRS018	418479	7709909	8.37
EX096819	419287	7710289	8.31	RTCRS019	418516	7709928	24.7
EX096820	419272	7710074	2.98	RTCRS020	418558	7709934	15.2
EX096821	419247	7710084	5.67	RTCRS021	418590	7709933	13.45
EX096822	419237	7710109	8.63	RTCRS022	418618	7709930	12.8
EX096823	419219	7710114	10.05	RTCRS023	418676	7709944	14.3
EX096824	419197	7710154	2.47				



		EX102430	EX102431	EX102432	EX102433	EX102434	RBCRS001	RBCRS002	RBCRS003	
	Element	REE ppm	Conversion Factor							
LREE	La	1,020	30	7,460	2,240	1,950	690	270	428	1.173
	Ce	1,140	58	8,270	921	1,890	778	260	438	1.228
	Pr	80	7	480	112	119	51.2	16.9	28.9	1.208
	Nd	185	26	991	259	252	125.5	35.4	66.7	1.166
HREE	Sm	17	6	58	20	19	13.05	3.31	6.35	1.160
	Eu	3	1	7	3	2	9.04	8.66	18.4	1.158
	Gd	10	6	24	14	10	8.77	1.9	3.89	1.153
	Tb	1	1	3	2	1	1.38	0.31	0.6	1.176
	Dy	7	6	10	8	7	7.4	1.63	3.3	1.148
	Но	1	1	2	1	1	1.46	0.31	0.61	1.146
	Er	3	4	4	4	3	4.02	0.9	1.73	1.143
	Tm	0	1	0	1	0	0.59	0.14	0.24	1.142
	Yb	3	3	3	3	3	0.53	0.14	0.23	1.139
	Lu	0	0	0	0	0	3.55	0.9	1.48	1.137
	Y	33	35	44	55	35	48.2	9.5	16.6	1.270
	TREE ppm	2,503	185	17,354	3,642	4,292	1,743	610	1,015	

## Appendix 4: Tommy Creek REE sample locations and REE results

		EX102430	EX102431	EX102432	EX102433	EX102434	RBCRS001	RBCRS002	RBCRS003	
	Symbol	TREO ppm	TREO ppm	TREO ppm	TREO ppm	TREO ppm	TREO ppm	TREO ppm	TREO ppm	Oxide
LREE	La	1196	35	8749	2627	2287	809	317	502	La <sub>2</sub> O <sub>3</sub>
	Ce	1337	68	9699	1080	2217	912	305	514	Ce <sub>2</sub> O <sub>3</sub>
	Pr	93	8	563	131	139	60	20	34	Pr <sub>6</sub> O <sub>11</sub>
	Nd	216	31	1162	304	296	147	42	78	Nd <sub>2</sub> O <sub>3</sub>
HREE	Sm	20	7	68	23	22	15	4	7	Sm <sub>2</sub> O <sub>3</sub>
	Eu	3	2	8	3	3	11	10	22	Eu <sub>2</sub> O <sub>3</sub>
	Gd	11	7	28	16	11	10	2	5	$Gd_2O_3$
	Tb	1	1	3	2	1	2	0	1	Tb <sub>4</sub> O <sub>7</sub>
	Dy	8	7	12	10	8	9	2	4	Dy <sub>2</sub> O <sub>7</sub>
	Но	1	1	2	2	1	2	0	1	Ho <sub>2</sub> O <sub>3</sub>
	Er	4	4	4	5	4	5	1	2	We <sub>2</sub> O <sub>3</sub>
	Tm	1	1	0	1	1	1	0	0	Tm <sub>2</sub> O <sub>3</sub>
	Yb	3	4	3	3	3	1	0	0	Yb <sub>2</sub> O <sub>3</sub>
	Lu	1	1	0	1	0	4	1	2	Lu <sub>2</sub> O <sub>3</sub>
	Y	39	41	52	65	41	57	11	19	$Y_2O_3$
	TREO ppm	2,935	217	20,353	4,271	5,034	2,044	715	1,190	



Sample ID	East	North	Grid
EX102430	413404	7709264	GDA94z54
EX102431	413467	7709274	GDA94z54
EX102432	413412	7709415	GDA94z54
EX102433	413424	7709535	GDA94z54
EX102434	413425	7709657	GDA94z54
RBCRS001	415418	7710842	GDA94z54
RBCRS002	415440	7711008	GDA94z54
RBCRS003	415440	7711008	GDA94z54