

OUTSTANDING TORBANITE YIELDS CONFIRM STRONG COMMERCIAL POTENTIAL AT ALPHA

Modified Fischer Assay (MFA) results confirm high-yielding nature of the unique Alpha Torbanite Project, with results well above historical reports

Highlights:

- Excellent results received from Modified Fischer Assay (MFA) performed by ALS, supporting Greenvale's commercialisation strategy.
- Results confirm the high-yielding nature of the lower seam at the Alpha Torbanite Deposit:
 - Torbanite Ply oil yields of between 290ltrs and 698ltrs per tonne; and
 - Upper and lower Cannel Coal ply oil yield of between 123ltrs and 206ltrs per tonne.
- Results exceed the previously reported oil yield of up to 650ltrs per tonne.
- Length weighted average oil yield of between 225ltrs and 355ltrs per tonne for the lower seam.
- These results rank Alpha amongst the highest-yielding oil shale deposits globally.
- Work is well advanced on the maiden JORC Mineral Resource for Alpha, which is expected to be completed in the coming weeks.

Greenvale Mining Limited (ASX: **GRV**, "**Greenvale**" or "**the Company**") is pleased to advise that it has received highly encouraging results from recently completed test-work on core samples from its flagship **Alpha Torbanite Project** in Queensland.

Preliminary results received from the MFA performed by ALS Laboratories, have confirmed the unique, high-yielding nature of the Alpha Torbanite Deposit.

The results have improved significantly on the previously reported, un-verified historical oil yield ranges published for the Alpha Torbanite Deposit, increasing the Company's confidence in the commercial exploitability of the project and demonstrating that the Alpha Project ranks amongst the highest-yielding oil shale deposits in the world.

The MFA results have exceeded the Company's expectations, providing further support for the commercialisation pathway announced in September (see ASX release, 22 September

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2021). This commercialisation strategy incorporates a green power generation model to ensure the project is carbon-neutral overall.

Greenvale is well advanced in progressing towards the delivery of a maiden JORC Mineral Resource for the Alpha Torbanite Project, which will in turn underpin the Feasibility Study and Ore Reserve estimate targeted for completion in Q1 2022.

The Company expects that the JORC Resource will be finalised in the coming weeks.

Overview

The MFA involves heating an amount of crushed sample (~80 grams) to 500 degrees for 40 minutes. The distilled vapours of oil and water plus gas then pass through a condenser to liquefy the vapours into a graduated centrifuge tube. This technique provides a potential oil yield from the raw sample which is reported as litres per tonne on a zero-moisture basis (LTOM).

Core samples from the Alpha site were taken by SRK Consulting following detailed lithological logging at the Stratum Reservoir Laboratory in Brisbane and transported to ALS Laboratories, Gladstone for assaying. Representative samples were taken in four boreholes across the lower seam, which contains a torbanite ply (LT) sandwiched between an upper (L1) and a lower ply (L2) of cannel coal. The four holes had samples taken from these three ply and are represented by ply names based on the structural model as previously prepared by SRK.

Four representative holes, located in the depocentre of the Alpha Torbanite deposit, were chosen for testing (GM09CR, GM20C, GM21CR & GM28CR). The samples were taken from the lower seam and are located with the main part of the deposit (Figure 1).

Figure 1: MDL 330 locations with sampled core holes (highlighted)

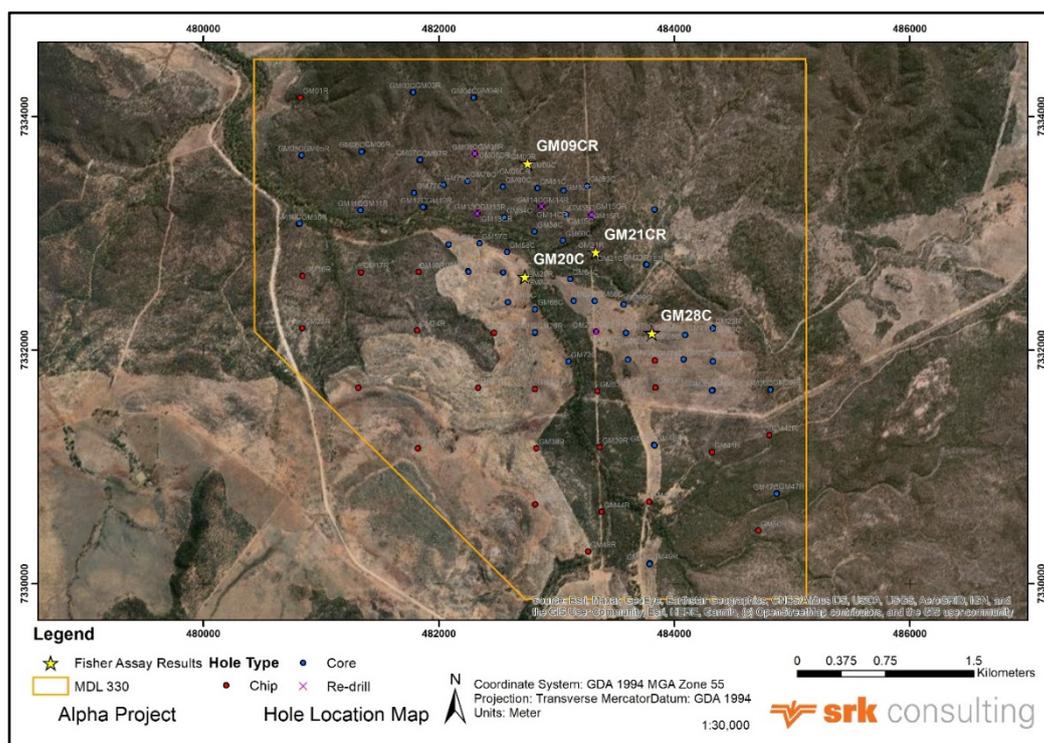


Table 1: Core holes sampled for MFA work

Borehole	Number	Ply	Roof	Floor	Thickness
GM09CR	MFA01	L1	8.64	9.48	0.84
GM09CR	MFA02	LT	9.48	10.26	0.78
GM09CR	MFA03	L2	10.26	10.70	0.44
GM20C	MFA04	L1	21.08	22.22	1.12
GM20C	MFA05	LT	22.20	23.58	1.38
GM20C	MFA06	L2	23.58	23.68	0.10
GM21CR	MFA07	L1	22.37	23.40	1.03
GM21CR	MFA08	LT	23.40	24.49	1.09
GM21CR	MFA09	L2	24.49	24.73	0.24
GM28C	MFA10	L1	29.73	31.10	1.37
GM28C	MFA11	LT	31.10	31.73	0.63
GM28C	MFA12	L2	31.73	32.00	0.27

Table 2: Sampled borehole locations within MDL 330

Borehole	Easting	Northing	Collar Height	Total Depth
GM09CR	482756.75	7333601.73	454.07	19
GM20C	482616.90	7332450.18	444.96	31
GM21CR	483333.93	7332843.14	459.82	33
GM28C	483812.65	7332150.29	459.21	40
Horizontal Datum				
		GDA94 MGA94, Zone 55		
Vertical Datum				
		AHD		

Results

The oil yield values for the 12 Alpha samples (Figure 2) were all extremely positive and were either in line with or above expectations. Of particular note, the Torbanite delivered a top yield of 698ltrs per tonne, well above the previously stated upper yield of 650ltrs per tonne.

As demonstrated in Table 3 (below), all three ply delivered exceptional results and confirm the exciting commercial potential of the Alpha Project.

Figure 2: Comparison of MFA results between Torbanite and Cannel Coal samples

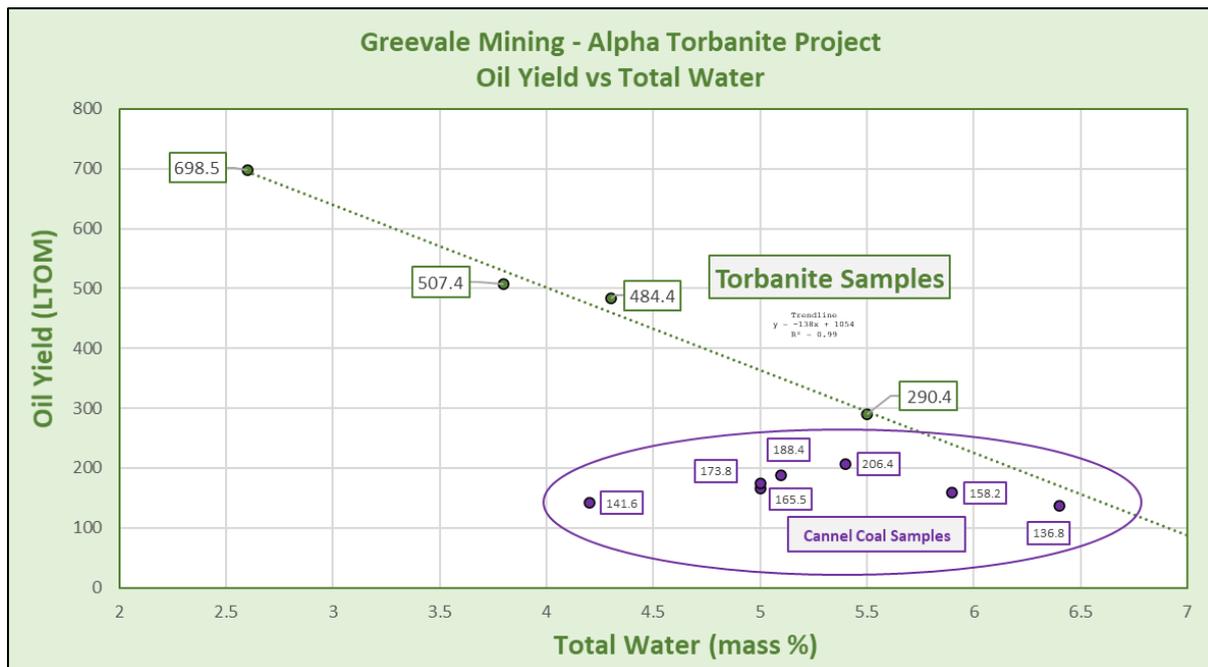


Table 3: Oil yield ranges for boreholes GM09CR, GM20C, GM21CR & GM28CR

Alpha Lower Seam	Oil Yield Range (LTOM)	Number of Samples
L1 – Upper Cannel Coal Ply	120 – > 160	4
LT – Torbanite Ply	290 – > 690	4
L2 – Lower Cannel Coal Ply	150 – > 200	4

The particularly high oil yield from the Torbanite reflects the accumulation of organic-rich sedimentary rock formed in a lacustrine (lake) environment.

Torbanite is an olive-black to black rock containing >5 percentage by volume (vol%) liptinite, of which Alginite (derived from algae related to Botryococcus) is most abundant. Cannel coal is derived from the accumulation of plant remains and the source of the oil is preserved spores, plant resin and cuticles.

Cannel coal deposits have a long history of commercial exploitation, particularly in North America, and the **MFA results from the cannel coal ply found at Alpha are extremely promising.**

When compared to its peers, the high-yielding nature of the Alpha Torbanite Project is more evident (see Table 4). The oil yield results for the 2021 Alpha Torbanite samples are comparable to the lamosite samples from the Mahogany Zone in the Green River Formation, Piceance Basin, Colorado, which is among the highest yielding oil shales in the world.

Even the average yields from the cannel coal ply at Alpha measure highly when ranked among similar coal and oil shale deposits globally.

Table 4: Comparative data of various oil shales

Deposit	Torbanite/Coal/ Oil shale	Oil Yield (LTOM)	
		Range	Average
Alpha, Qld	Torbanite	50 - 620	420
	Cannel coal	50 - 150	120
Green River (USA)	Oil shale	45 - 460	135
Rundle, Qld	Oil shale	50 - 200	105
Stuart, Qld	Oil shale	50 - 220	94
Duaringa, Qld	Oil shale	50 - 130	82
Condor, Qld	Oil shale	50 - 120	65
Julia Creek, Qld	Oil shale	50 - 100	60

Source: Crisp, P.T., Ellis, J., Hutton, A.C., Korth, J, Martin F.A., and Saxby, J.D., 1987, Australian Oils Shales – A compendium of geological and chemical data: North Ryde, NSW, Australia, CSIRO Inst. Energy and Earth Sciences, Division of Fossil Fuels, 109pp.

Next Steps

The Company is awaiting additional laboratory results from the MFA analysis work including trace element analysis, gas sampling and hydrocarbon properties of the potential bitumen and synthetic-light crude yields from the torbanite and cannel coal. These results should be available in mid-to-late December.

Most of this work has been focussed on the lower seam. There is potential for material upside with additional MFA sampling to be undertaken for the Upper Seam.

Once received, integration of the MFA results with raw core analysis will assist in determining volumetrics and help further evaluation and calibration of the Company's own retort testing as it moves toward the delivery of a maiden JORC Mineral Resource.

Management Comment:

Greenvale Mining CEO, Matthew Healy, commented:

“The high oil yields from the Torbanite and Cannel Coal as demonstrated in these Modified Fischer Assay results highlight the oil-rich nature of the Alpha deposit and represent a great outcome for the Project. These exceptionally high grades makes the deposit quite unique when compared with other organic-rich sedimentary rocks, such as oil shales.

“Pleasingly, these results are also consistent with – and in some cases greater than – historically reported yields for the Alpha Torbanite and the Cannel ply.

“These results represent another important step toward the finalisation of a maiden JORC Mineral Resource Estimate for the Alpha Torbanite Deposit, which is currently being completed by highly-regarded consultants SRK Consulting (Australasia) Pty Ltd.

“With sighter test-work nearing completion using the Greenvale retort, systematic retorting of drill core samples will be able to commence shortly, allowing us to ramp up feasibility work on the Alpha Project.

“In the coming weeks we look forward to a very positive end to 2021 and a strong start to the New Year with strong news-flow expected on a number of fronts. At the Alpha Torbanite Project, we have gas and trace element assays on the way, analysis of oil splits produced using the Greenvale retort, and a maiden JORC Mineral Resource being prepared. At the Georgina Project, drilling of our second diamond hole is well underway and we look forward to updating the market on our progress in due course.”

Authorised for Release

This announcement has been approved by the Board for release.

Alan Boys
Company Secretary

Contact

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Competent Person's Statement:

The information in this report that relates to Exploration Results is based on information compiled by Mr Carl D'Silva, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy (Member number 333432). Mr D'Silva is a full-time employee of SRK Consulting (Australasia) Pty Ltd, a group engaged by the Company in a consulting capacity.

Mr D'Silva has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr D'Silva consents to the inclusion in the report of the matters based on his information in the form and context in which it appears

JORC Code, 2012 Edition – Table 1 Report Template

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> 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. 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 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. 	<ul style="list-style-type: none"> Four representative boreholes, in the depocentre of the Alpha Torbanite deposit, were chosen for the testing (GM09CR, GM20C, GM21CR & GM28CR) 4C (100mm) conventional drill coring of the Alpha seam was conducted Core samples were sampled by SRK in Stratum Reservoir Laboratory in Brisbane and transported to ALS Laboratories, Gladstone for assaying Lower Seam contains a torbanite ply (LT) sandwiched between an upper (L1) and a lower ply (L2) of cannel coal The four boreholes were chosen based on the structural model as prepared by SRK Consulting. Approximately 500gms of whole core samples were collected from each of the three ply.
Drilling techniques	<ul style="list-style-type: none"> Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc). 	<ul style="list-style-type: none"> Drill holes are vertical (i.e., 90° angle) holes with only minor deviations observed in verticality logs. All drill holes were hammer drilled with air. 6-inch blade for unconsolidated and weathered section near the surface hole. Set 175 mm surface PVC casing. The target coal seam intervals were spot cored using a PCD coring bit. Partial 4C (100mm) conventional coring A sump to facilitate geophysical logging was drilled using an open hole 100mm PCD bit.
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 maximise sample recovery and ensure 	<ul style="list-style-type: none"> Chip samples were collected at approximately 1 m intervals. All chip samples were geologically logged and photographed.

Criteria	JORC Code explanation	Commentary
	<p>representative nature of the samples.</p> <ul style="list-style-type: none"> 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"> All geological logging has been undertaken using the Logcheck software which is in broad compliance with the ACARP CoalLog Standard. All drill samples were collected and stored in sample trays at Stratum Laboratories, Brisbane Coal Seam recovery excellent with only limited core loss reported and all seams reporting > 95% recovery pre-lab analysis based on field observations. SRK notes that the mechanical state of the core recovered was frequently broken and rubbed, resulting in a tendency of field logging to overstate the thicknesses of seams. Detailed geological logging and corrections to geophysics undertaken by SRK Consultants have largely allowed for these rubbed sections thickness to be adjusted (reduced) where and as appropriate. Lab analysis of the sampled thickness vs mass recovery will allow for a quantitative assessment of core recovery when the data becomes available
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, etc) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> Chip samples were collected every metre, geologically logged and photographed. Preliminary core logging was undertaken in the field before the core was split into 0.5m sections packaged, sealed and refrigerated to prevent oxidation and deterioration of the sample. Detailed geological logging was undertaken by SRK Consultants at the Stratum Laboratory during which time appropriate samples were identified and marked up on core. Samples were selected with consideration of the ply boundary including Upper, L1, LT and L2. Where boundaries were not clear additional (smaller) sample intervals were taken. All drill holes have been geophysically logged with the minimum suite of tools runs including: Density, Caliper, Verticality/Deviation and Gamma. Optical televiewer was run in selected boreholes. The calibration of the geophysical tools was conducted by the geophysical logging company engaged in the project at the time.
Sub-sampling techniques	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and 	<ul style="list-style-type: none"> Approximately 500gms samples were selected from individual plies representatives of each of ply. Modified Fischer Assay (MFA) involves heating an amount of crushed

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and sample preparation	<p>whether sampled wet or dry.</p> <ul style="list-style-type: none"> For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise 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. 	<p>sample (~80 grams) to 500 degrees for 40 minutes. Then the distilled vapors of oil and water plus gas, pass through a condenser to liquefy the vapors into a graduated centrifuge tube.</p> <ul style="list-style-type: none"> MFA is a standardized laboratory test for determining the oil yield from oil shale Oil yield result are reported as litres per tonne on a zero-moisture basis (LTOM)
Quality of assay data and laboratory tests	<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. 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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	<ul style="list-style-type: none"> NATA-accredited (#15784) ALS Laboratories (ACtest) conducting preparation and analysis of samples.
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"> Sample intervals assigned a unique sample identification number prior to core sampling and analysis. Sample analysis conducted in duplicate to ensure repeatability.
Location of data points	<ul style="list-style-type: none"> 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. Specification of the grid system used. Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> All holes were professionally surveyed by Precise Positioning Solutions Pty Ltd. The origin of the survey was based on the calculated site base station coordinates. All surveyed coordinates are recorded in Map Grid of Australia 1994 (MGA94) Zone 56 using the GDA datum.
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 	<ul style="list-style-type: none"> The core drilling in the priority area is based on a drill spacing grid at approximately 250 m x 250 m. This drilling is in addition and infill to the original 500mx 500m drill spacing in the broader area.

Criteria	JORC Code explanation	Commentary
	classifications applied. <ul style="list-style-type: none"> Whether sample compositing has been applied. 	<ul style="list-style-type: none"> The density and distribution of drill holes supports a reasonable level of confidence in the depth and thickness of the Upper and Lower seams across the MDL area. This oil shale unit within the lower seam cannot be distinguished in the wireline logs or accurately measured in the chip samples. All ply's for the lower seam have been selected based on geological logging in cored holes with the top and bottom of the seams corrected to geophysics
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 drill holes were drilled at 90 degrees to the surface and are assumed to be vertical. Downhole verticality survey is available for all drill holes. Seam intercepts are recorded on a downhole basis. Downhole geophysical logs were used to confirm the seam intercepts and thicknesses. As the deposit is gently dipping and drill holes are generally shallow, the downhole seam thickness will approximate the true thickness of the coal.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> Samples delivered from the drill site to by Greenvale staff for delivery to external laboratory. All core samples are secured in the Stratum Laboratory, Brisbane
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"> A logging and sampling procedure was developed by SRK. The Competent Person is adequately satisfied that sampling techniques and procedures have been followed. As no analysis of results is available it is not yet possible to audit the laboratory results against expected values e.g., mass recovery % etc.

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 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"> MDL 330 held by Alpha Resources Pty Ltd, a subsidiary of Greenvale Mining Limited for a five-year term from 1 February 2017 to 31 January 2022. MDL 330 covers an area of 1904.5 ha. 																																																
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Historically (since the 1930s), the title has been held by a number of other parties. Held by Alpha Resources Limited since 2007. <table border="1" data-bbox="1249 710 1908 1382"> <thead> <tr> <th>Asset Name</th> <th>License Holder</th> <th>License Type</th> <th>Issued Date</th> </tr> </thead> <tbody> <tr> <td>Anderson</td> <td>H Anderson</td> <td>MOPA 134</td> <td>1939</td> </tr> <tr> <td>Anderson & other</td> <td>H Anderson & others</td> <td>MOPA 137</td> <td>1940</td> </tr> <tr> <td>Anderson</td> <td>H Anderson</td> <td>ML 90-95</td> <td>1941</td> </tr> <tr> <td>Dobbie</td> <td>R K Dobbie</td> <td>MOPA 140</td> <td>1941</td> </tr> <tr> <td>Templeton</td> <td>A N Templeton</td> <td>MOPA 141</td> <td>1941</td> </tr> <tr> <td>Bradfield</td> <td>JJC Bradfield</td> <td>MOPA 142</td> <td>1941</td> </tr> <tr> <td>Templeton</td> <td>J P Templeton</td> <td>MOPA 143</td> <td>1941</td> </tr> <tr> <td>Ison</td> <td>L Ison</td> <td>MOPA 144</td> <td>1941</td> </tr> <tr> <td>Ison</td> <td>A E Ison</td> <td>MOPA 145</td> <td>1941</td> </tr> <tr> <td>IMC Alpha</td> <td>International Mining Corporation</td> <td>A to P 2240M</td> <td>1980</td> </tr> <tr> <td>Alpha Oil Shale</td> <td>Greenvale Mining & Esperance Minerals</td> <td>A to P 2203-2206M</td> <td>?</td> </tr> </tbody> </table>	Asset Name	License Holder	License Type	Issued Date	Anderson	H Anderson	MOPA 134	1939	Anderson & other	H Anderson & others	MOPA 137	1940	Anderson	H Anderson	ML 90-95	1941	Dobbie	R K Dobbie	MOPA 140	1941	Templeton	A N Templeton	MOPA 141	1941	Bradfield	JJC Bradfield	MOPA 142	1941	Templeton	J P Templeton	MOPA 143	1941	Ison	L Ison	MOPA 144	1941	Ison	A E Ison	MOPA 145	1941	IMC Alpha	International Mining Corporation	A to P 2240M	1980	Alpha Oil Shale	Greenvale Mining & Esperance Minerals	A to P 2203-2206M	?
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Alpha Torbanite Project	Alpha Resources Limited	MDL 330	2007, renewed in 2012 & 2017											
Geology	<ul style="list-style-type: none"> • Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> • The Alpha deposit lies within the axis of the Glen Avon Syncline, a southwest plunging fold structure that occurs on the eastern flank of the Galilee Basin. • The deposit is part of the Permian Colinlea Sandstone, which contains 150 m of cross-bedded sandstones with minor conglomerates, siltstones and mudstones. • The geology of the deposit consists of an Upper and Lower seam of cannel coal with a torbanite lens present in the lower seam. • The Colinlea Sandstone is thought to be an alluvial plain deposit with the coal deposited in swamps on this plain. The torbanite is thought to have been deposited from algae in a lacustrine environment when water entering the system held little sediment or organic material. 												
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: <ul style="list-style-type: none"> ○ 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"> • See tables in body of release 												

Criteria	JORC Code explanation	Commentary
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"> Not applicable
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 (eg 'down hole length, true width not known'). 	<ul style="list-style-type: none"> All drill holes were drilled at 90 degrees to the surface and are assumed to be vertical. Downhole verticality survey is available for all drill holes. Seam intercepts are recorded on a downhole basis. Downhole geophysical logs were used to confirm the seam intercepts and thicknesses. Downhole geophysics is not available for the re-drilled core holes. As the deposit is gently dipping and drill holes are generally shallow, the downhole seam thickness will approximate the true thickness of the coal.
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 appropriate sectional views. 	<ul style="list-style-type: none"> All appropriate diagrams are contained within the announcement.
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 practiced to avoid misleading reporting of Exploration Results. 	<ul style="list-style-type: none"> This release describes all relevant information
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"> The updated interpretation is predominantly based on the 2021 Drill Program results. Limited historical drill hole information was used to supplement the 2021 drilling and support the continuity of the Upper and Lower seams outside the bounds of the MDL area.

Criteria	JORC Code explanation	Commentary
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g., 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"> Additional laboratory results are pending from MFA analysis work including trace element analysis, gas sampling and hydrocarbon properties of the potential bitumen and synthetic-light crude yields from the torbanite and cannel coal. Upper Seam samples were not undertaken as part of this program. Material upside potential may exist with additional analysis Integration of the MFA results with raw core analysis to determine volumetrics for further evaluation and calibration of the Company's own retort testing