

ODESSA'S NEW PROJECT APPLICATION THE ARGYLE SOUTH DIAMOND ALLUVIAL SYSTEM

HIGHLIGHTS

- Two Mineral License Applications South of the Argyle Diamond Mine
- Covers 40km of Diamond-bearing Alluvial Channels Draining from the Argyle Diamond Deposit
- Previous Exploration Identified Multiple Sites with Significant Diamond Accumulations in Gravel

Odessa Minerals Limited (ASX:ODE) (Odessa or the Company) is pleased to announce that it has applied for two exploration licenses over a major alluvial diamond-bearing channel that drains south from the Argyle Diamond Mine.

The Argyle Diamond Mine operated from 1985 until 2020 and produced over 850 million carats of diamonds until its closure in 2020. Argyle was ranked as the world's largest producer of pink, champagne and cognac diamonds.

Mr Alistair Stephens, CEO of Odessa, commented:

"Following a recommendation from our Senior Advisor, Mr. Grant Boxer, we are delighted to make our first foray into the East Kimberley with a diamondiferous alluvial channel draining from the Argyle Diamond Mine. In complement to our West Kimberley strategy, which includes our efforts at the Aries Kimberlite Pipes and the Ellendale Diamond Fields, the addition of a large footprint in the Argyle Diamond District demonstrates Odessa's commitment to sound project portfolio development.

"During 2021, increasing demand and reduced supply resulted in rough diamond prices increasing more than 20%. We look forward to engaging with all Stakeholders to discuss our intentions, with the aim to advance this project to production of Ethically Sourced Diamonds."



Odessa Minerals Limited ABN 93 646 595 799 E: info@odessaminerals.com.au P: +61 8 6665 2950 Suite 1, 295 Rokeby Road, Subiaco WA 6008 ASX Code ODE



About Argyle South Project

The Argyle South alluvial channel, under application by Odessa, follows a 40-kilometre channel along the Bow River. Diamonds in the channel are sourced from weathering of the Argyle Diamond kimberlite pipe and have been transported down multiple drainage systems south and east toward Lake Argyle.

Previous exploration has involved 132 small exploration test pits and 27 bulk samples. Diamonds were recovered from 25 of 27 bulk samples. Exploration focused on the Camel Yard Prospect, while diamonds were also recovered from gravels and gravel terraces along the length of the Bow River.



Figure 1 The Argyle South Project area with area of diamond occurrences. The blue outline is Rio Tinto's Argyle Diamond Mine licence.







Figure 2 Central part of the Argyle South Project to highlight older Cenozoic Gravels as mapped by the Geological Survey of Western Australia

The Company believes that while previous work successfully identified numerous diamond occurrences, the project was not pursued by explorers at the time due to subdued diamond prices. Previous work on near-surface gravels and basal gravels, where diamonds are most likely to accumulate, have had insufficient assessment.

Previous exploration focused on Camel Yard with just a few tests at locations such as Lissadell Hill and Pandanus Yard. The area is also host to channels of older Cenozoic gravels, which are likely to represent previous paths of the Bow River. These older gravel channels have not been tested and are potentially diamondiferous.

Odessa also believes that new technologies such as passive seismic, would better define alluvial gravel geometries, as well as identifying deep-leads where diamonds are most likely to accumulate.

The Company has applied for two exploration licenses under wholly owned subsidiary OD3 (Argyle) Pty Ltd. License E80/5725, is an exclusive application to Odessa and covers 230 square kilometres and covers 40 kilometres of alluvial channels. The smaller license, E80/5738, covers 18 square kilometres over the Camel Yard area and is a second application over the top of an existing, much larger exploration license application by a third party. This second application overlies a Mining and Miscellaneous License for construction sand related to the construction of the Argyle Diamond Mine. The main alluvial diamond occurrences at E80/5738 are outside





of the small mining/miscellaneous license area. The Company notes that the exploration licenses are in the application stage, and there is no guarantee that the exploration licenses will be granted.



Figure 3. One of the larger stones previous recovered from the Argyle South project from the Pandanus Yard area. Diamond is nearly 6mm across. Photograph supplied Mr G. Boxer, each bar scale equal one mm.



Figure 4 Raw rough diamonds recovered from the Argyle South Alluvial Project. Largest diamond in this photograph is 3 mm wide. Photograph supplied, Mr G. Boxer, field of view is 10 mm.







Figure 5 Large bedrock bars in the Bow River creating ideal trap sites for diamonds. Photograph supplied Mr G. Boxer

This announcement has been approved for release by the Board of Odessa Minerals.

ENQUIRIES

Alistair Stephens | CEO astephens@odessaminerals.com.au M: +61 488 992 544 General enquiries info@odessaminerals.com.au

ABOUT ODESSA MINERALS

Odessa Minerals Limited ("Odessa", "ASX:ODE", <u>www.odessaminerals.com.au</u>) is a diamond mineral exploration company based in Perth, Western Australia with strategic intent to become a producer of ethically sourced, low environmental impact, gem quality diamonds.

Odessa holds 20 granted and application exploration licences which constitute the Aries, Ellendale, Calwynyardah, Noonkanbah and Argyle South Projects in a portfolio of 2,600km² in the Kimberley region of





Western Australia. All are prospective for diamonds. The Aries Project is located in the Central Kimberley region of Western Australia, approximately 300 kilometers east of Derby.

Odessa Minerals acknowledges the Traditional Owners of the areas which we explore, and recognize their unique connection to the lands and waters of the Kimberley region of Western Australia. We respectfully pay our respects to their Elders - past, present and emerging.

Competent Persons Statement

The information in this report that relates to mineral exploration from the Argyle South projects is based on information compiled from historic WAMEX archive reports reviewed by Mr. Grant Boxer who is an advisor to the Company. Mr. Boxer is a Registered Professional with the Australian Institute of Geoscientists 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' (JORC code). Mr. Boxer consents to the inclusion in this report of the matters based on the 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	JORC Code explanation	Commentary
Sampling techniques	 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. 	 Work is of a historic nature and is as reported by Astro Mining NL in WAMEX Report A62135. As this work is of a historic nature, the Company cannot verify all aspects of the previous work. Compilation of reported data is on-going. Bulk sampling involved scraping and digging gravels of between 30 and 144.9 tonnes. In most cases gravels were selected from the near surface, with the deepest gravel at Pandanus Yard being a lower gravel horizon from 5.1 to 6.5m Samples were screened initially at 100mm with a second screening that discarded material above 10mm and below 1mm. Samples were fed into an on-site heavy media separation plant with material ~>3g/cm³ ("concentrate") retained and sent to Astro's laboratory in Perth for processing. Diamonds were extracted by hand-sorting from the concentrate.
Drilling techniques	 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). 	 Not applicable to historic data reviewed and presented in this release
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and 	 Not applicable to historic data reviewed and presented in this release



Criteria	JORC Code explanation	Commentary
	whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	
Logging	 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. 	 Not applicable to historic data reviewed and presented in this release
Sub-sampling techniques and sample preparation	 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 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 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. 	 Work is of a historic nature and is as reported by Astro Mining NL in WAMEX Report A62135. As this work is of a historic nature, the Company cannot verify all aspects of the previous work. Compilation of reported data is on-going. Screening of samples as above
Quality of assay data and laboratory tests	 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. 	 Work is of a historic nature and is as reported by Astro Mining NL in WAMEX Report A62135. As this work is of a historic nature, the Company cannot verify all aspects of the previous work. Compilation of reported data is on-going. Samples for fraction >1mm and <10mm were hand sorted with diamonds picked using binocular microscope.
Verification of sampling and assaying	 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. 	 Not applicable to historic data reviewed and presented in this release



Criteria	JORC Code explanation	Commentary
Location of data points	 Discuss any adjustment to assay data. Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	 Work is of a historic nature and is as reported by Astro Mining NL in WAMEX Report A62135. As this work is of a historic nature, the Company cannot verify all aspects of the previous work. Compilation of reported data is on-going. Samples located from data filed in A62135 were collected by hand-held GPS and are in MGA94 Z52 coordinates.
Data spacing and distribution	 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. 	 Work is of a historic nature and is as reported by Astro Mining NL in WAMEX Report A62135. As this work is of a historic nature, the Company cannot verify all aspects of the previous work. Compilation of reported data is on-going. Sample sites selected on the basis of access, observed surface gravels and limited geophysics
Orientation of data in relation to geological structure	 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. 	 Not applicable to historic data reviewed and presented in this release
Sample security	• The measures taken to ensure sample security.	 Work is of a historic nature and is as reported by Astro Mining NL in WAMEX Report A62135. As this work is of a historic nature, the Company cannot verify all aspects of the previous work. Compilation of reported data is on-going. Astro Mining report that samples were securely transported, stored and sorted at their laboratory in Perth.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	 Work is of a historic nature and is as reported by Astro Mining NL in WAMEX Report A62135



Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	 Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	 The project is subject to two tenement applications recently lodged by the Company. These are 100% applications by Odessa, with no royalties currently applied. As these projects are still application, negotiation is required with the traditional owners and there is no guarantee the projects will progress to granted exploration license or mining license. Tenement numbers, Western Australia E80/5725 and E80/5738
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	 Previous explorers have reported diamonds from the project area. Refer to the body of this release and WAMEX Report A62135 available https://www.dmp.wa.gov.au/WAMEX- Minerals-Exploration-1476.aspx
Geology	• Deposit type, geological setting and style of mineralisation.	 The deposit type is 'alluvial diamonds' where diamonds have been eroded from a nearby source and deposited into gravels.
Drill hole Information	 A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth 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. 	 Not applicable to historic data reviewed and presented in this release



Criteria	JORC Code explanation	Commentary
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	 Not applicable to historic data reviewed and presented in this release
Relationship between mineralisation widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). 	 Not applicable to historic data reviewed and presented in this release
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. 	As per the body of this release
Balanced reporting	 Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	 Compilation work of historic data is still ongoing.
Other substantive exploration data	 Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	 Not applicable to historic data reviewed and presented in this release
Further work	 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 	 Following granting and access to the tenements, the Company intends to conduct mapping and ground geophysics (passive seismic) to map the channel depths. If suitable sites for further work are identified, the Company will



Criteria	JORC Code explanation	Commentary
	information is not commercially sensitive.	apply for a program of works for pitting and bulk-sample testing.

Section 3 Estimation and Reporting of Mineral Resources

Not applicable

Section 4 Estimation and Reporting of Ore Reserves

Not applicable

Section 5 Estimation and Reporting of Diamonds and Other Gemstones

Criteria	JORC Code explanation	Commentary
Indicator minerals	 Reports of indicator minerals, such as chemically/physically distinctive garnet, ilmenite, chrome spinel and chrome diopside, should be prepared by a suitably qualified laboratory. 	 Not applicable to historic data reviewed and presented in this release



Criteria	JORC Code explanation	Commentary
Source of diamonds	• Details of the form, shape, size and colour of the diamonds and the nature of the source of diamonds (primary or secondary) including the rock type and geological environment.	 Work is of a historic nature and is as reported by Astro Mining NL in WAMEX Report A62135. As this work is of a historic nature, the Company cannot verify all aspects of the previous work. Compilation of reported data is on-going. Previous diamonds recovered range from 1mm to 6mm and are weathered rough diamonds from alluvial sources presumed to be draining from the Argyle Diamond deposit. Based on photographs of diamonds, they are clear to smoky/cognac, however, as the source is Argyle, it is presumed that the alluvial channels have the potential to also host Argyle pink diamonds.
Sample collection	 Type of sample, whether outcrop, boulders, drill core, reverse circulation drill cuttings, gravel, stream sediment or soil, and purpose (eg large diameter drilling to establish stones per unit of volume or bulk samples to establish stone size distribution). Sample size, distribution and representivity. 	 Work is of a historic nature and is as reported by Astro Mining NL in WAMEX Report A62135. As this work is of a historic nature, the Company cannot verify all aspects of the previous work. Compilation of reported data is on-going. Work includes gravel sampling with compilation of historic work still on-going.
Sample treatment	 Type of facility, treatment rate, and accreditation. Sample size reduction. Bottom screen size, top screen size and re-crush. Processes (dense media separation, grease, X-ray, hand-sorting, etc). Process efficiency, tailings auditing and granulometry. Laboratory used, type of process for micro diamonds and accreditation. 	 Work is of a historic nature and is as reported by Astro Mining NL in WAMEX Report A62135. As this work is of a historic nature, the Company cannot verify all aspects of the previous work. Compilation of reported data is on-going. Top screen of 10mm, and bottom screen of 1mm. Samples separated by dense media separation. Diamonds recovered in Astro's diamond laboratory in Perth.
Carat	• One fifth (0.2) of a gram (often defined as a metric carat or MC).	 Not applicable to historic data reviewed and presented in this release
Sample grade	 Sample grade in this section of Table 1 is used in the context of carats per units of mass, area or volume. The sample grade above the specified lower cut-off sieve size should be reported as carats per dry metric tonne and/or carats per 100 dry metric tonnes. For alluvial deposits, sample grades quoted in carats per square metre or carats per cubic metre are acceptable if accompanied by a volume 	 Not applicable to historic data reviewed and presented in this release



Criteria	JORC Code explanation	Commentary
	 to weight basis for calculation. In addition to general requirements to assess volume and density there is a need to relate stone frequency (stones per cubic metre or tonne) to stone size (carats per stone) to derive sample grade (carats per tonne). 	
Reporting of Exploration Results	 Complete set of sieve data using a standard progression of sieve sizes per facies. Bulk sampling results, global sample grade per facies. Spatial structure analysis and grade distribution. Stone size and number distribution. Sample head feed and tailings particle granulometry. Sample density determination. Per cent concentrate and undersize per sample. Sample grade with change in bottom cut-off screen size. Adjustments made to size distribution for sample plant performance and performance on a commercial scale. If appropriate or employed, geostatistical techniques applied to model stone size, distribution or frequency from size distribution of exploration diamond samples. The weight of diamonds may only be omitted from the report when the diamonds are considered too small to be of commercial significance. This lower cut-off size should be stated. 	 Not applicable to historic data reviewed and presented in this release
Grade estimation for reporting Mineral Resources and Ore Reserves	 Description of the sample type and the spatial arrangement of drilling or sampling designed for grade estimation. The sample crush size and its relationship to that achievable in a commercial treatment plant. Total number of diamonds greater than the specified and reported lower cut-off sieve size. Total weight of diamonds greater than the specified and reported lower cut-off sieve size. The sample grade above the specified lower cut-off sieve size. 	 Not applicable to historic data reviewed and presented in this release
Value estimation	 Valuations should not be reported for samples of diamonds processed using total liberation method, which is commonly used for processing exploration samples. To the extent that such information is not deemed commercially sensitive, Public Reports should include: 	 Not applicable to historic data reviewed and presented in this release



Criteria	JORC Code explanation	Commentary
	 diamonds quantities by appropriate screen size per facies or depth. details of parcel valued. number of stones, carats, lower size cut-off per facies or depth. The average \$/carat and \$/tonne value at the selected bottom cut-off should be reported in US Dollars. The value per carat is of critical importance in demonstrating project value. The basis for the price (eg dealer buying price, dealer selling price, etc). An assessment of diamond breakage. 	
Security and integrity	 Accredited process audit. Whether samples were sealed after excavation. Valuer location, escort, delivery, cleaning losses, reconciliation with recorded sample carats and number of stones. Core samples washed prior to treatment for micro diamonds. Audit samples treated at alternative facility. Results of tailings checks. Recovery of tracer monitors used in sampling and treatment. Geophysical (logged) density and particle density. Cross validation of sample weights, wet and dry, with hole volume and density, moisture factor. 	 Not applicable to historic data reviewed and presented in this release
Classification	• In addition to general requirements to assess volume and density there is a need to relate stone frequency (stones per cubic metre or tonne) to stone size (carats per stone) to derive grade (carats per tonne). The elements of uncertainty in these estimates should be considered, and classification developed accordingly.	 Not applicable to historic data reviewed and presented in this release