ASX Announcement

12 May 2026

ASX: OD6

BIG JIM - HIGHEST GRADE FLUORSPAR DISCOVERED TO DATE, SPECTACULAR MASSIVE FLUORSPAR DRILL TARGET DEFINED

OD6 Metals Limited (ASX: OD6) ("OD6" or "the Company") confirms the rediscovery of the historically referenced high-grade Big Jim Fluorspar Lode at its Quinn Fluorspar Project, confirming a significant new drill target within a growing district-scale fluorspar system.

HIGHLIGHTS

- **Big Jim Fluorspar (CaF_2) workings,** noted in historic US Geological Survey reports, located through targeted field reconnaissance with extensive high-grade system confirmed including **massive fluorspar exposed at surface**, plus a tunnel inferred to be the Big Jim lode:
  - **Massive purple fluorspar vein**, inferred as historically reported lode reported with **98.6% CaF_2**
  - **Exposed footwall breccia with lower contact not exposed** (may be wider) inferred as historically reported "gangue" with **60% CaF_2.**
  - Historic workings mapped out of >**220m (>700 feet)** with reported high-grade fluorspar throughout and at either end **(System open to the North and South)**
  - **Multiple rock samples collected and pending assay**
  - **Metallurgical samples collected** and testworks underway for further optical sorting, crushing, grinding and flotation
  - Shallow westerly dip provides **direct target for drilling** ultra-high-grade fluorspar system **extending underneath lithocap**.
- **Highest grade discovery lode to date and presents an additional extensive system**
- Complements the existing nearby Mammoth and Horseshoe discoveries for resource drill out.

Managing Director Brett Hazelden, commented:

"Through some clever geological detective work, and historic descriptions dating back to the 1940s, the Nevada team was able to narrow the search area for the Big Jim Fluorspar Lode. We are very excited to announce that this has now been located and presents a third extensive fluorspar system, with Horseshoe and Mammoth, on the Quinn Project to target for the drill out. The visual estimates of size and grade are consistent with historic reports and Big Jim perhaps is our highest-grade target to date.

This discovery validates our ambition to be a US-based high-grade fluorspar developer coinciding with increasing strategic demand for US domestic supply"

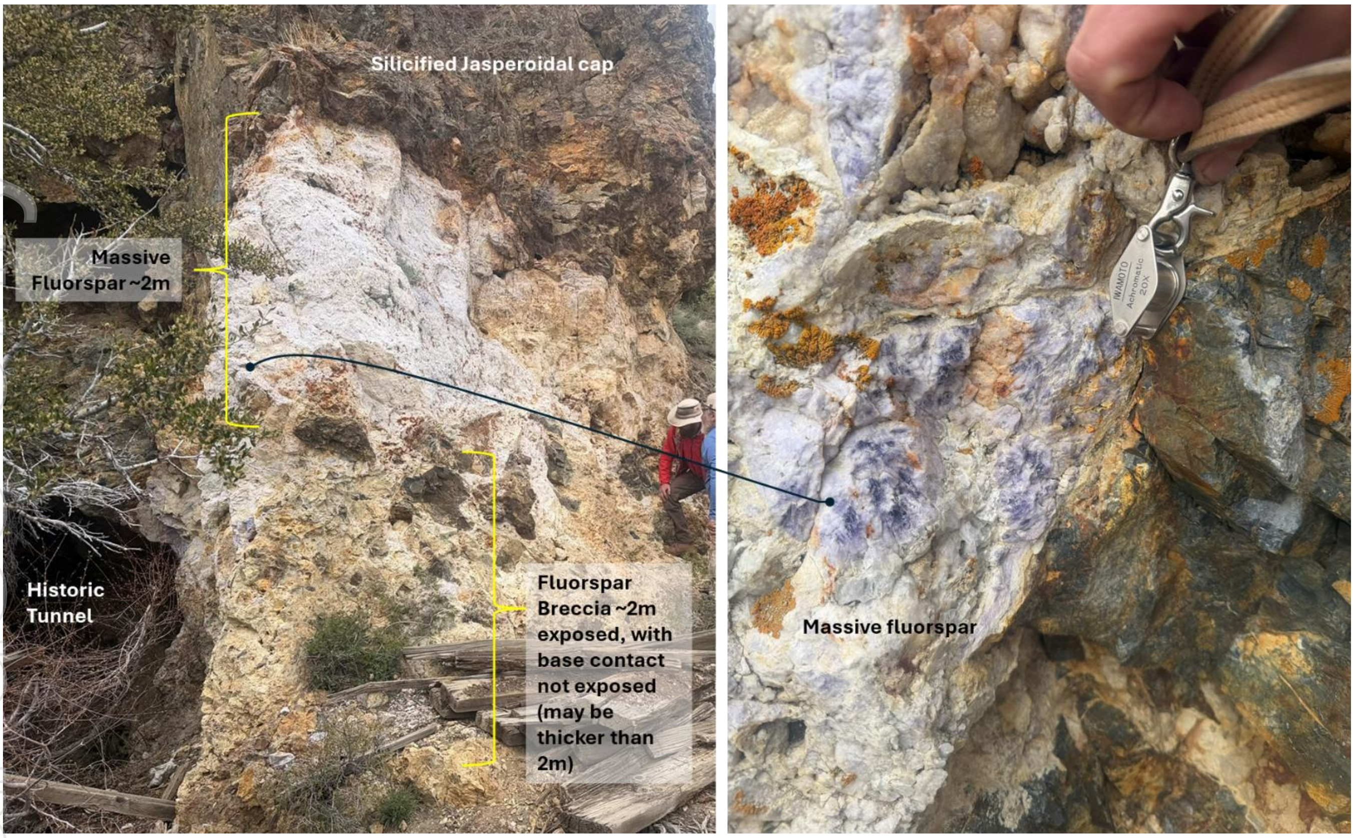

Figure 1 Big Jim rediscovered in 2026. Location 616125mE, 4221580mN (Datum NAD83, Zone 11)

Disclaimer on Visual Estimates and Historic results

Field observations are consistent with historic reports on Big Jim. The main Big Jim lode is estimated at 85 to 95% CaF_2 and the footwall breccia is estimated at 40 to 60% CaF_2. Visual estimates are no substitute for laboratory results and should not be relied upon. Samples have been collected and despatched to the ALS Global laboratory in Reno Nevada. These results will be reported as soon as received and compiled.

Assay results in this report are historic in nature and are compiled by the Competent Person to the best of their knowledge. Whilst the surface exposure observed are consistent with historic results, these should not be relied upon.

About Quinn Fluorspar Project

On 4 March 2026 the Company announced an exclusive option agreement to acquire the Quinn Fluorspar Project, located approximately 220km north of Las Vegas, Nevada. The project offers very high-grade fluorspar mineralization **(>40% CaF_2)** identified at the **Mammoth and Horseshoe Projects in replacement / breccia style mineralization mapped out over large 9,000m^2 and 3,000m^2** areas respectively. In addition, a number of other fluorspar occurrences are noted in the wider project area with reported historic rock chip results up to **94% CaF_2.** Preliminary work by the Company has revealed both Mammoth and Horseshoe to be very high grade and potentially sizeable deposits.

The United States is currently **100% reliant on imports of fluorspar**. Fluorspar is listed on the US Critical Minerals list with applications in **battery technologies, AI chip manufacture, nuclear fuels industry, aerospace and defence technologies**. The project is located **~300km by road from the US Strategic Minerals Reserve** at Hawthorne, Nevada (refer to Company announcements 4/3/2026, 6/3/2026, & 16/03/2026).

Big Jim Lode

Big Jim is located approximately 1km NNE of the Horseshoe Fluorspar Deposit. Big Jim was discovered and intermittently exploited by Frank and Joe "Big Jim" Perkins from 1934. A report from 1947 (Goulet & Jones, 1947) documented the Big Jim lode as a shallow dipping high-grade lode over "6 feet" (2m) in width. Workings and grades up of **94.6%, 96% and 98.6%** were reported from the vein (**Figure 3**).

In addition footwall mineralization reported in "gangue" material had reported grades of up to **60% CaF_2**. Gangue is a historically used mining term to refer to commercially valueless rock. However, whilst the "gangue" material may have been considered not-economic in the 1940s, it also represents a potential valuable source of fluorspar material. **Today's economic projects generally have grades >20% CaF_2** with some companies suggesting a resource of grade >8% CaF_2 is economic, **making the historic gangue material at Big Jim extremely valuable**.

Historically the lodes are reported in a limestone with a "rhyolite" hanging wall (above the vein). The rhyolite observation was revised to be a jasperoid (silica rich rock) in Papke, 1979. Upon field observation by the Company's team, confirmed a jasperoidal cap - being highly silicified / iron oxide unit replacing the limestone (**Figure 1**). The footwall consists of a breccia with the matrix infilled with fluorspar with limestone clasts. The base of the breccia was not observed, and hence may be thicker than observed (**Figure 4** & **Figure 2**)

Up slope from Big Jim is the Rocket lode, which was exposed in a small pit over approximately 1m wide, but its true width could not be determined. Goulet and Jones reported a third lode approximately 60 feet (20m) beneath. There is no reported information on the third lode and it has not yet been observed in the field.

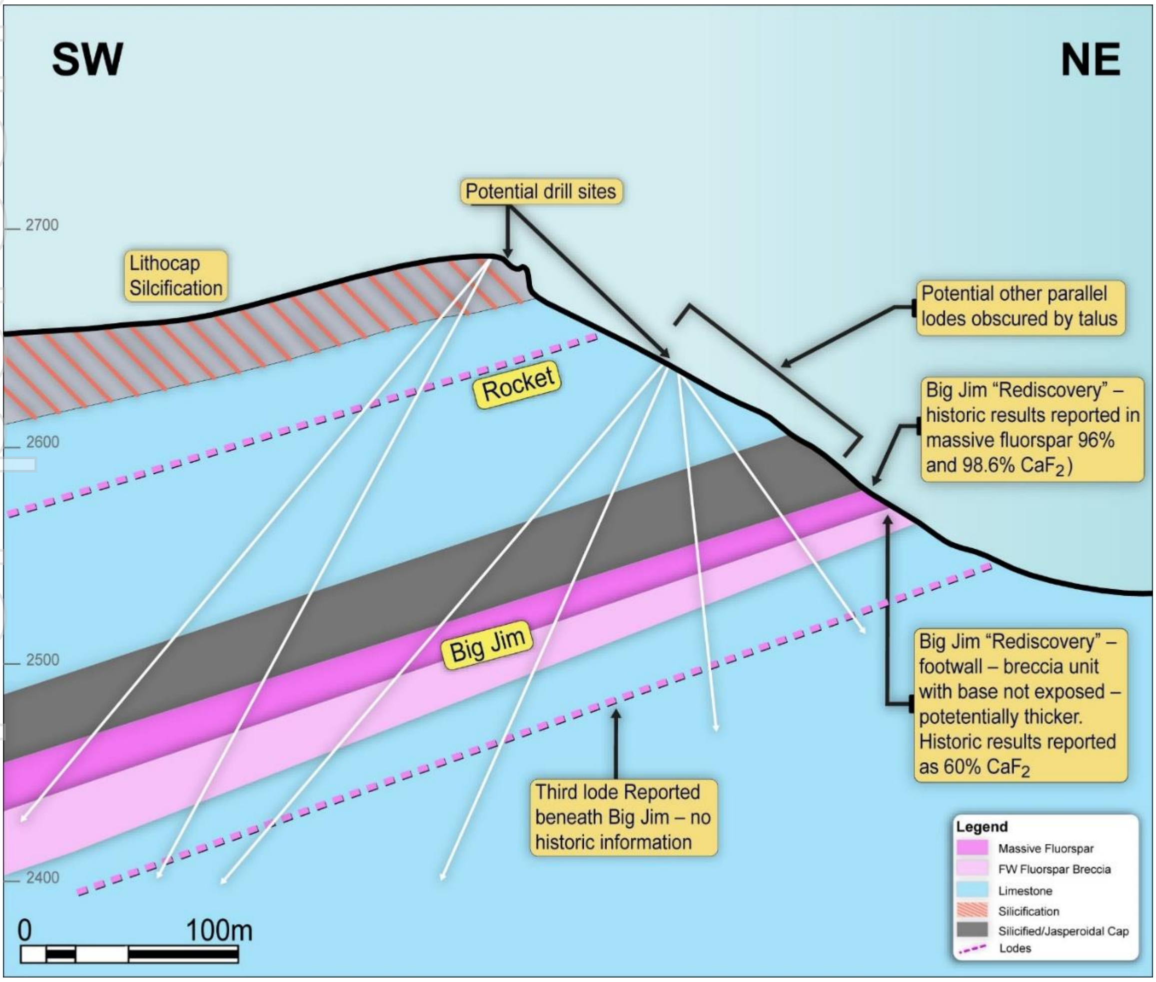

Figure 2 Schematic Geological Cross-section of Big Jim geology. Widths are schematic for illustration purposes with the massive fluorspar estimated at 2m, and the footwall breccia at least 2m (lower contact not observed).

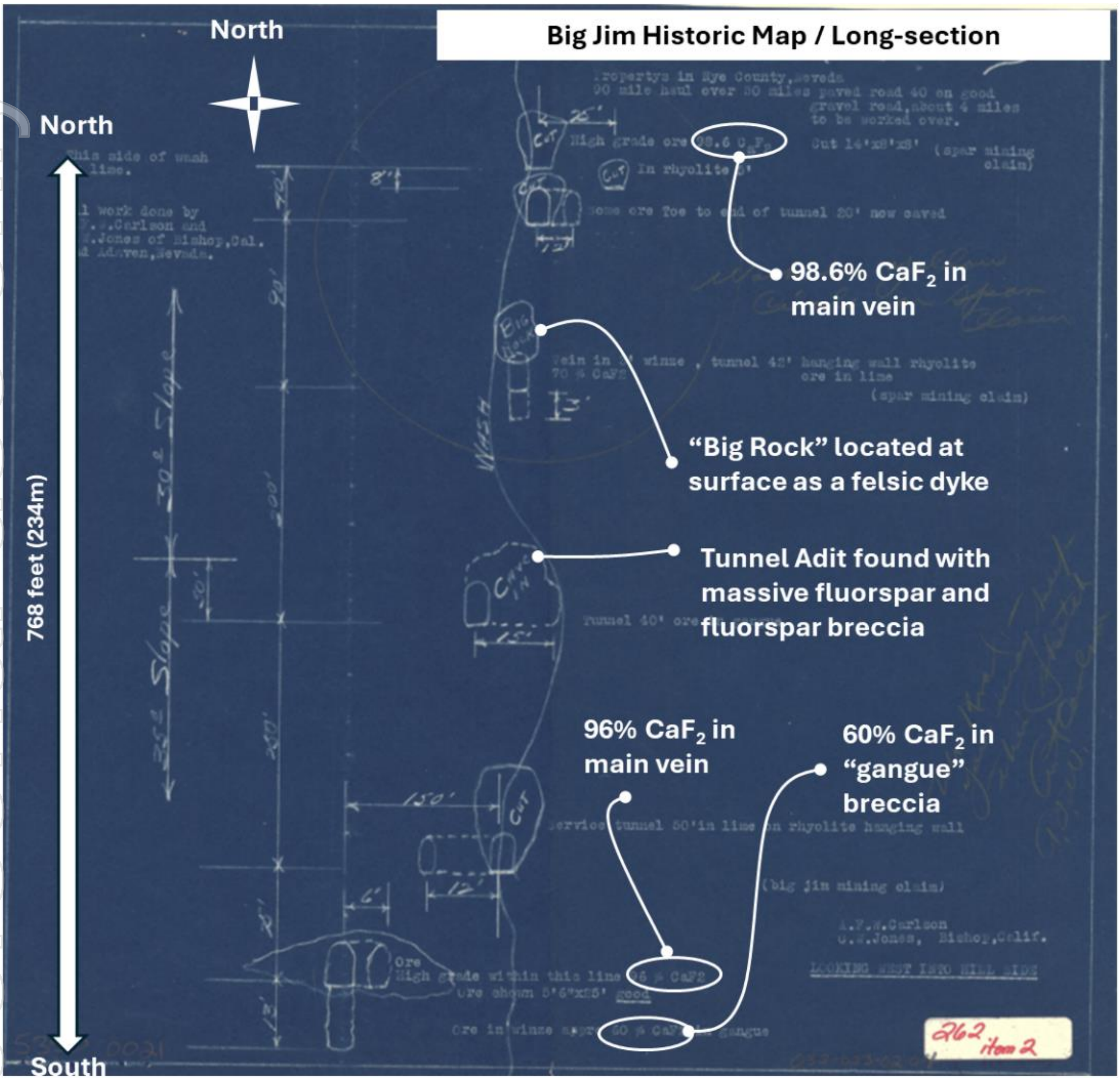

Figure 3 Annotated mine sketch map with historic results (Goulet & Jones, 1947) for AFW Carlson of Bishop, California

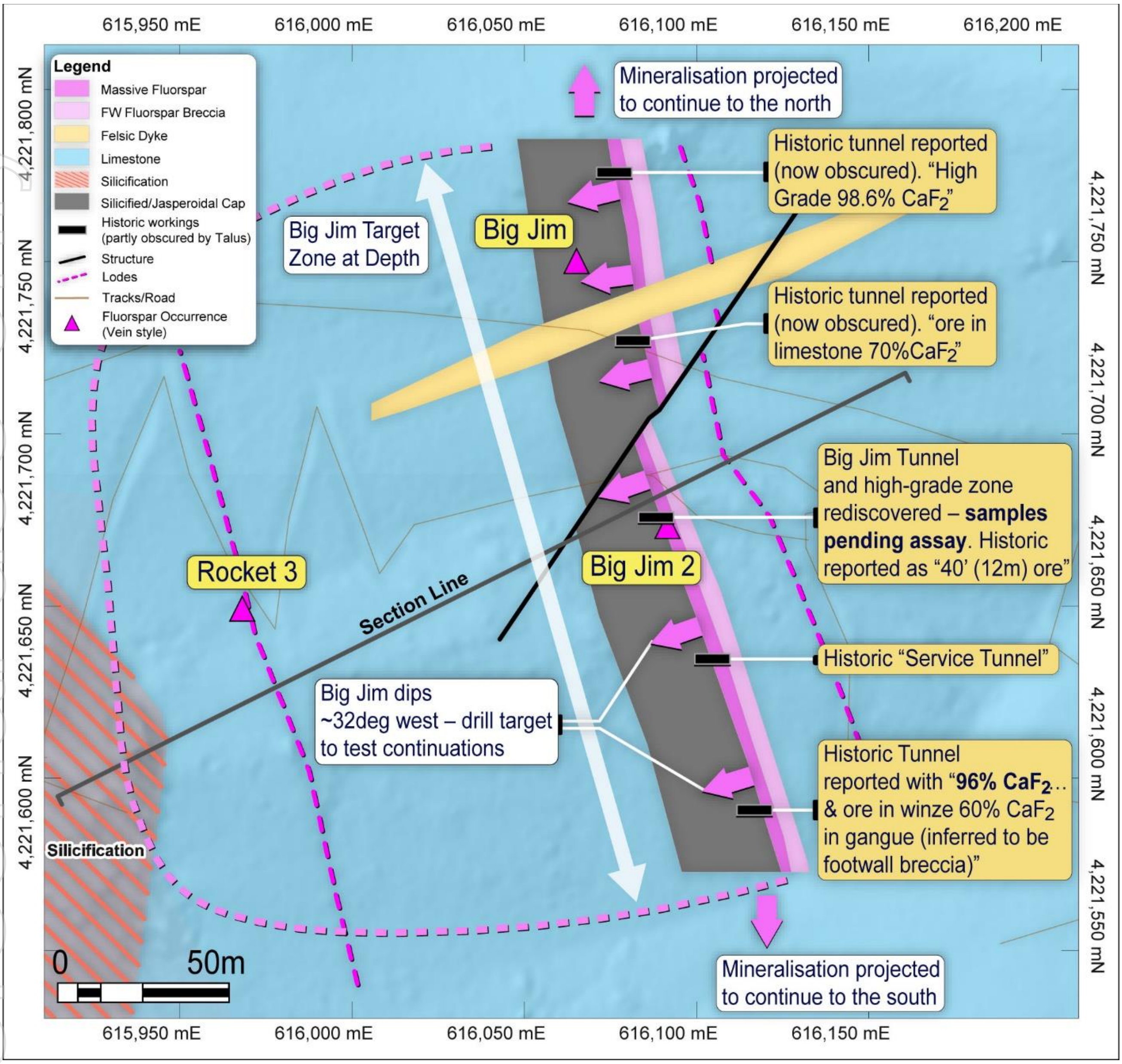

Figure 4 Schematic geological map of the Big Jim area based on recent field visit. Not all historic workings were located at surface, and their position is estimated based on geographically referencing Figure 3.

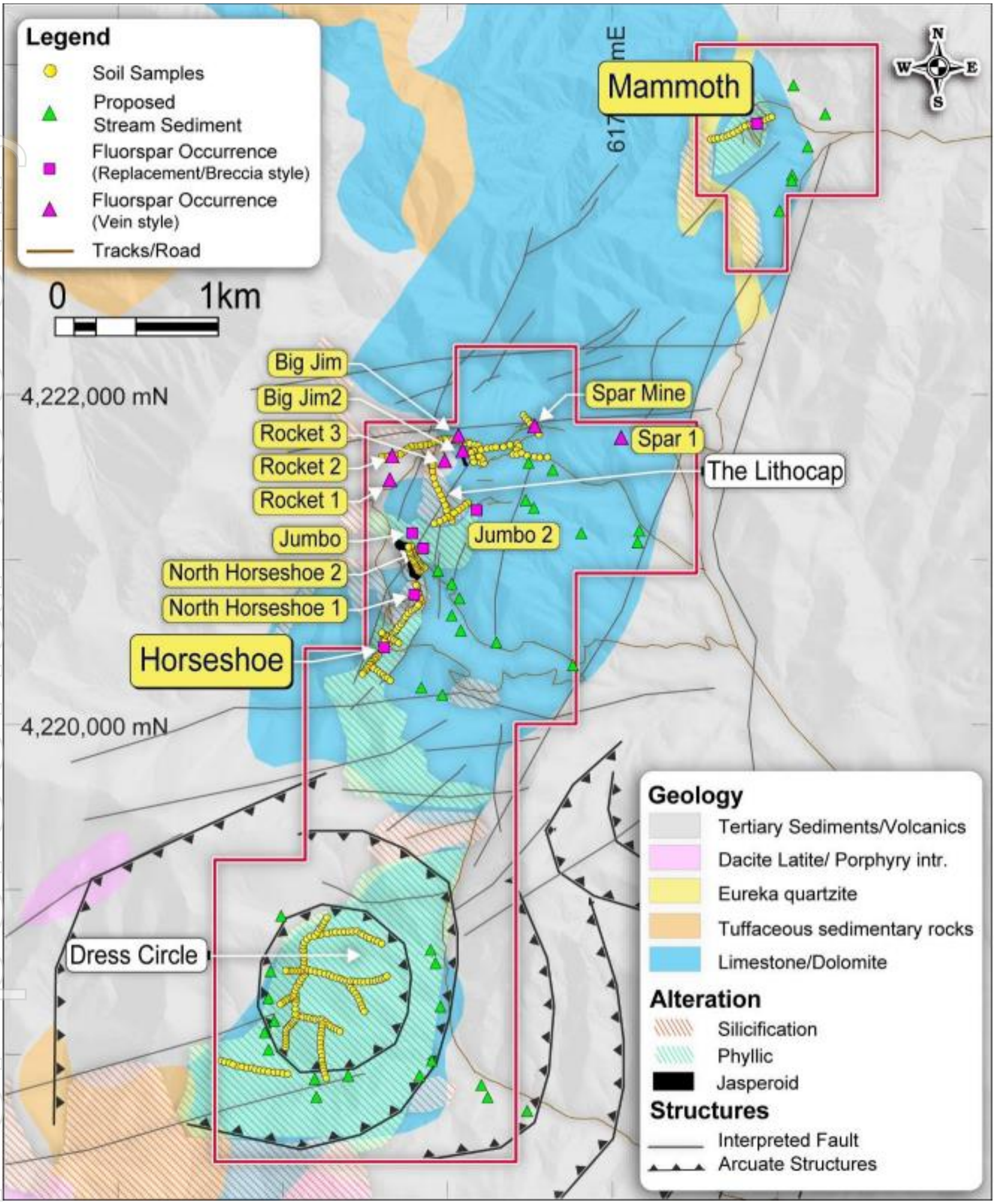

Figure 5 Local geology and Prospect location map at the Quinn Fluorspar Project. Soil samples pending assay.

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References:

Bidtel, E., (1912). Valuation of Fluorspar. Journal of Industrial and Engineering Chemistry, 4, 201-202.

Goulet, R.J & Jones, C.F., 1947. The Big Jim Fluorspar Mine (report for Mr Carson of Bishop, California). On File: Nevada Bureau of Mines & Geology.

Papke, K.G. (1979). Fluorspar in Nevada. Nevada Bureau of Mines & Geology, Bulletin 93.

Sainsbury, C.L., & Kleinhampl, F.J., (1969) Fluorite Deposits of the Quinn Canyon Range. United States Geological Survey. Bulletin 1272-C.

Table 1 Compiled historic results for Big Jim. Location of Visual Estimates

Sample	Source	Width	Grade Caf2(%)	Description	Laboratory
Eisenhauer 3	Goulet & Jones 1947	0.3	74.86	1 ft sample on hanging wall sediments of vein	Eisenhauer Assayer
Eisenhauer 4	Goulet & Jones 1947	1.8	90.84	6 ft sample across vein on right side of Big Cut	Eisenhauer Assayer
Eisenhauer 5	Goulet & Jones 1947	1.5	94.41	5 ft sample across vein	Eisenhauer Assayer
Mine Sample	Goulet & Jones 1947		98.4	Mine sample at north end of workings	Not reported
Mine Sample	Goulet & Jones 1947		96%	Mine sample at south end of workings on main vein	Not reported
Mine Sample	Goulet & Jones 1947		60%	Mine sample at south end of workings in "gangue" breccia	Not reported
Visual Estimate	Company 2026	~2m	85-95%	Estimated from surface exposure of massive fluorspar vein of ~2m width	To be assayed
Visual Estimate	Company 2026	~2m	40-60%	Estimated from surface exposure of ~2m breccia body with lower contact not observed	To be assayed

Due Diligence and Next Steps

As part of its due diligence program in connection with the Quinn Fluorspar Project (see announcement dated 4 March 2026, *"OD6 TO ACQUIRE ULTRA HIGH GRADE USA FLUORSPAR PROJECTS"*), OD6 intends to collect new samples from the surface showings to test the veracity of historic reports, including:

- **Digitise scanned paper logs and cross-sections** into a geological model
- Receipt and interpretation of **assay results**
- Expand **systematic channel and rock chip sampling**
- Validate and replicate **historic high-grade results**
- Undertake **detailed geological and structural mapping**
- Complete **soil geochemistry programs**
- Identify and prioritise **drill targets**
- Initiate **permitting for maiden drilling**
- Progress **metallurgical testwork planning**

Figure 6 *Quinn Fluorspar Location in Nevada.*

Forward Looking Statements

Certain information in this document refers to the intentions of OD6 Metals, however these are not intended to be forecasts, forward looking statements, or statements about the future matters for the purposes of the Corporations Act or any other applicable law. Statements regarding plans with respect to OD6 Metals projects are forward looking statements and can generally be identified by the use of words such as 'project', 'foresee', 'plan', 'expect', 'aim', 'intend', 'anticipate', 'believe', 'estimate', 'may', 'should', 'will' or similar expressions. There can be no assurance that the OD6 Metals plans for its projects will proceed as expected and there can be no assurance of future events which are subject to risk, uncertainties and other actions that may cause OD6 Metals actual results, performance, or achievements to differ from those referred to in this document. While the information contained in this document has been prepared in good faith, there can be given no assurance or guarantee that the occurrence of these events referred to in the document will occur as contemplated. Accordingly, to the maximum extent permitted by law, OD6 Metals and any of its affiliates and their directors, officers, employees, agents and advisors disclaim any liability whether direct or indirect, express or limited, contractual, tortuous, statutory or otherwise, in respect of, the accuracy, reliability or completeness of the information in this document, or likelihood of fulfilment of any forward-looking statement or any event or results expressed or implied in any forward-looking statement; and do not make any representation or warranty, express or implied, as to the accuracy, reliability or completeness of the information in this document, or likelihood of fulfilment of any forward-looking statement or any event or results expressed or implied in any forward-looking statement; and disclaim all responsibility and liability for these forward-looking statements (including, without limitation, liability for negligence).

Competent Persons Statement

Information in this report relating to field observations and historic data is based on information compiled by Dr Darren Holden who is a Fellow of the Australasian Institute of Mining and Metallurgy.

Dr Holden is an employee of GeoSpy Pty Ltd and is a geological advisor to the Company and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined by the 2012 Edition of the Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Holden owns shares in the Company and participates in the Company's employee securities incentive plan. Dr Holden consents to the inclusion of the data in the form and context in which it appears.

No new information

Except where explicitly stated, this announcement contains references to prior exploration results, all of which have been cross-referenced to previous market announcements made by the Company. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements.

The information in this report relating to the Mineral Resource estimate for the Splinter Rock Project is extracted from the Company's ASX announcements dated 18 July 2024. OD6 confirms that it is not aware of any new information or data that materially affects the information included in the original announcement and that all material assumptions and technical parameters underpinning the Mineral Resource estimate continue to apply.

This announcement has been authorised for release by the Board of OD6 Metals Limited

About OD6 Metals

OD6 Metals is an Australian public company pursuing exploration and development opportunities within the critical minerals sector, namely rare earths, copper and fluorspar.

Rare Earth Elements

OD6 Metals has successfully identified clay hosted rare earths at its 100% owned **Splinter Rock Project** which is located in the Esperance-Goldfields region of Western Australia.

The Company released a Mineral Resource Estimate (MRE) for Splinter Rock in May 2024, confirming that the project hosts one of the largest and highest-grade clay-hosted rare earths deposits in Australia with an Indicated Resource of 119Mt @ 1,632ppm TREO and an Inferred Resource of 563Mt @ 1,275ppm TREO with an overall ratio of ~23% high-value Magnetic Rare Earths (MagREE).

An innovative Process Flow sheet has been selected utilising Heap Leaching, Nano-filtration and Ion Exchange Technologies that have achieved ~75% Nd & Pr overall recovery, produced a high-quality Mixed Rare Earth Carbonate or Hydroxide (MREC/H) of ~56-59% TREO, with low levels of impurities (Al, Fe, P, Si) and extremely low uranium and thorium content.

Fluorspar (Fluorite)

The Company secured an option to acquire the **Quinn Fluorspar Project in Nevada, USA**. Nevada is regarded as one of the world's premier mining jurisdictions and is currently ranked second in the 2025 Fraser Institute's Mining Attractiveness Index.

Historically a number of the Quinn Fluorspar deposits were mined in the 1950's for Fluorspar. In 1969. The United States Geological Survey (USGS) conducted a survey and confirmed fluorspar grading up to 72% CaF_2 in bulk samples.

The USA currently imports 100% of all Fluorspar consumed domestically with 68% of all global supply sourced from China (USGS 2024). Fluorspar is listed as a Critical Mineral by the USGS and is essential in the production of hydrofluoric acid, AI semi-conductor chip etching, advanced battery technologies and nuclear fuel processing with other applications in defence and aerospace technologies.

Copper

The Company is advancing the **Gulf Creek Copper-Zinc VMS Project** located near the town of Barraba in NSW.

Gulf Creek was mined at around the turn of the 20th century and was once regarded as the highest-grade copper mine (2% to 6.5% Cu) in NSW until its closure due to weak copper prices in 1912. Very little exploration has occurred at the project in over 100 years, with OD6 aiming to apply modern day exploration technologies.

The 2025 maiden drilling program successfully defined high grade copper below the historical mine plus confirmed the strong relationship between magnetism and massive sulphide mineralisation. Geophysical modelling has identified multiple, high priority and targets ready for drilling providing over >3km of strike in the immediate mine-stratigraphy, and over >10km across the tenement.

Corporate Directory

Managing Director	Mr Brett Hazelden
Non-Executive Chairman	Mr Piers Lewis
Non-Executive Director	Dr Mitch Loan
Financial Controller/ Joint Company Secretary	Mr Troy Cavanagh
Joint Company Secretary	Mr Joel Ives
Technical Advisor to the Board	Dr Darren Holden

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JORC 2012 – Table 1: Quinn Fluorspar Project

Section 1 Sampling Techniques and Data

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

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*	• *Results presented are of an historic nature and are based on work undertaken by previous owners. Results and geological maps/sections produced in the* • *The Competent Person has reviewed all the historic reports and although the Company cannot attest to the nature or accuracy of this previous work, due to the consistency and use of multiple laboratories, including presented certification, the Competent Person believes that the work is of an adequate standard to be considered reliable in the context in which they are presented here. The recent field observations are consistent with historic work.* • *Historic assay techniques include wet chemistry involving pulverising, digestion and titration and likely use of a technique known as the Bidtel technique (Bidtel, 1912), which was an accurate and well-established technique at the time for the assaying of fluorine/fluorspar content (Sanchez et al, 2010).* • *Samples with widths are reported as composite chip channel samples over the reported width. Widths reported in feet and converted to metres using a factor of 1 foot = 0.3048 metres* • *Samples without reported widths are grab rock chip samples.*
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).*	• *No drilling reported*
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 whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• *No drill sampling reported*
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.*	• *Samples with geological description are noted in Data Compilation Table 1 above.*
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.*	• *Composite samples of channels as reported.*

Criteria	JORC Code explanation	Commentary
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.*	• *Assaying techniques for fluorspar at this time involved wet chemistry using pluverisation, digestion and titration. This is likely as the method known as the Bidtel Technique (Bidtel, 1912).*
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.* • *Discuss any adjustment to assay data.*	• *Work reported in government bulletins such as USGS (Sainsbury, C.L., & Kleinhampl, (1969) and Nevada Bureau of Mines and Geology (Papke 1979) verified the presence of high-grade fluorspar* • *Assay data was entered into a spreadsheet manually from historic scanned reports.*
Location of data points	• *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.*	• *As noted in the body of the release. The true location of the historic section/map shown in Figure 2 can not be accurately verified. Though the "Big Rock" was noted at surface and used as base-point to geo-reference the workings presented on Figure 3*
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.*	• *As noted in the map in the body of this report.*
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.*	• *Variable as reported.*
Sample security	• *The measures taken to ensure sample security.*	• Historic samples – with Unknown security procedures • The Company has collected its own samples which were secured and sent to the ALS Global Laboratory in Reno pending assay.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• *Reviews of historic data was carried out by the Competent Person – Dr Darren Holden of GeoSpy and technical advisor to the Company.*

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.*	• *State of Nevada Mining Claims.* • *Staked in 2025 and 2026 and filed in early 2026.* • *Projects fall on Federal Land (National Forest) but are outside of the designated Wilderness Study Areas* • *The transaction terms include a 2% NSR on future production. Applicable State Royalties will apply.* • *Future work such as drilling requires permitting through the US Forest Service*

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• *As noted in the reference list.*
Geology	• *Deposit type, geological setting and style of mineralisation.*	• *Principal host rocks are Paleozoic limestones and dolomites which have been altered by epithermal activity from Cenozoic volcanism and intrusions.* • *Fluorspar is reported as replacement deposits in limestone, epithermal veins and vein/breccias.*
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:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *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.*	• *No drilling reported*
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.*	• *As noted in the body of the release. No aggregation, though some reported widths historically noted.*
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').*	• *Based on historic reports, widths are noted as true width.*
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.*	• *Diagrams are included at relevant sections in this Report*
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.*	• *All samples located in historic reports are noted in Table 1.*
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.*	• *As reported in the body of the 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 information is not commercially sensitive.*	• *On-going mapping and sampling ahead of drill permitting and planning*