



Consultation Response

Proposed changes to the oil and gas reporting requirements in the ASX Listing Rules

22 October 2021

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Proposed changes to the oil and gas reporting requirements in the ASX Listing Rules – consultation response

1. Introduction

On 16 April 2021, ASX released a consultation paper entitled [Proposed changes to the oil and gas reporting requirements in the ASX Listing Rules](#).

The reporting requirements for oil and gas production and exploration activities are found in Chapter 5 of the ASX Listing Rules and the associated definitions in Listing rule 19.12 (together “**Chapter 5**”). They are built upon the 2007 edition of the Petroleum Resources Management System sponsored by the Society of Petroleum Engineers, the American Association of Petroleum Geologists, the World Petroleum Council and the Society of Petroleum Evaluation Engineers (commonly referred to as the “**SPE-PRMS**”).

The SPE-PRMS was revised by its sponsors in July 2018. The consultation paper proposed changes to Chapter 5 to reflect and give effect to those revisions. The proposed changes were set out in mark-up in annexure A to the consultation paper.

The consultation period closed on 28 May 2021.

2. Summary of consultation feedback

ASX received 17 submissions (9 non-confidential and 8 confidential) in response to its consultation paper. Of these:

- 9 were from ASX-listed oil and gas entities
- 6 were from consultants to the oil and gas industry
- one was from a professional services organisation representing petroleum geologists and other practitioners in the upstream petroleum industry, and
- one was from a professional services organisation representing mining and petroleum lawyers.

Copies of the non-confidential submissions are available on the ASX website at: <https://www.asx.com.au/regulation/public-consultations.htm> (next to the entry for 22/10/21).

All of the respondents to the consultation were supportive of ASX amending Chapter 5 to better align it with the 2018 revision of the SPE-PRMS and also expressed their support for a large majority of the specific rule changes ASX was proposing in that regard.

There were some submissions objecting to a relatively small number of ASX’s proposed changes, and some suggesting modifications or clarifications.

Chief amongst these was ASX’s proposed change to LR 5.22.5 to require petroleum reserves and contingent resources to be sub-classified based on the project maturity sub-classes in section 2.1.3.5 of the SPE-PRMS.

Based on the consultation feedback, ASX is not intending to proceed with this change to LR 5.22.5 or the associated changes to LR 5.25.3 and 5.25.4 at this point in time. ASX will re-visit the desirability of mandating the sub-classification of petroleum resources as and when the SPE-PRMS sponsors further develop their requirements for the reporting of maturity sub-classes.

Annexure A below summarises the main comments ASX received in the consultation submissions on its proposed changes to Chapter 5 and ASX’s response. ASX has excluded from that summary rules changes that did not attract any specific commentary beyond short statements of approval or non-objection by respondents.

ASX would like to express its appreciation to all of the respondents who provided submissions on the consultation paper. ASX has found the feedback in those submissions most helpful in finalising and improving its proposed rule changes.

3. Final rule changes and effective date

Accompanying this consultation response are a mark-up of the final changes ASX is making to the ASX listing rules addressing the feedback received in consultation submissions (Annexure B), together with a mark-up comparing the final rule changes to the consultation version (Annexure C).

Subject to the receipt of the necessary regulatory approvals, the final rule changes will come into effect on 1 July 2022. For the avoidance of doubt, this means that:

- for all listed entities, regardless of their balance date, the changes to the requirements for first-time reporting of petroleum resources and for reporting material changes to petroleum resources in LR 5.25 – 5.36 will commence to apply to reports issued on or after 1 July 2022; while
- the requirements for reporting of petroleum resources in an entity’s annual report in LR 5.37 – 5.40 will commence to apply in respect of the entity’s annual report for the first full financial year commencing on or after 1 July 2022 – that is:
 - for entities with a 30 June balance date, their annual report for the financial period commencing 1 July 2022 and ending 30 June 2023; and
 - for entities with a 31 December balance date, their annual report for the financial period commencing 1 January 2023 and ending 31 December 2023.

Listed entities are encouraged to early-adopt the changes, if they wish to.

ASX will issue an update to Guidance Note 32 *Reporting on Oil and Gas Activities* (“GN 32”) well before the transition date of 1 July 2022 reflecting the final changes to the Listing Rules and addressing some of the issues raised in the consultation submissions.

Listed entities will need to review their compliance with the final changes to Chapter 5 and the 2018 edition of the SPE-PRMS between now and 1 July 2022, so that they are fully in compliance from that date (or, in the case of their annual reporting requirements, from their first full financial year commencing on or after 1 July 2022).

Annexure A

Specific consultation feedback and ASX’s response

This section outlines the main comments ASX received on the issues raised in its consultation paper and on its proposed Listing Rule (“LR”) changes.

Proposed LR Change	Submission	ASX Response
<p>LR 5.25.2</p> <p>LR 5.25.2 currently requires petroleum resources to be reported in the most specific resource class in which they can be classified under the SPE-PRMS (ie as petroleum reserves, contingent resources and prospective resources).</p> <p>ASX proposed a change to LR 5.25.2 to also require petroleum reserves and contingent resources to be sub-classified based on the project maturity sub-classes in section 2.1.3.5 of the SPE-PRMS, that is</p> <ul style="list-style-type: none"> • in the case of petroleum reserves, as ‘on-production’, ‘approved for development’ or ‘justified for development’; and • in the case of contingent resources, as ‘development pending’, ‘development on-hold’, ‘development unclarified’ and ‘development not viable’). 	<p>Four respondents, all of them consultants to the oil and gas industry, expressed their general support for the proposed change, noting in one case that it would “better inform investors of the status and credibility of reported oil and gas reserves and resources”.</p> <p>Indeed, three of those four respondents recommended that the change should go further. Two of them suggested that, in addition to petroleum reserves and contingent resources, prospective resources should also be sub-classified based on the project maturity sub-classes in section 2.1.3.5 of the SPE-PRMS. They argued that this was necessary to comply with the statement in section 2.2.2.5 of the SPE PRMS that:</p> <p><i>“Quantities in different classes and sub-classes cannot be aggregated without considering the varying degrees of technical uncertainty and commercial likelihood involved with the classification(s) and without considering the degree of dependency between them ...”</i></p> <p>The third suggested that not only should the maturity sub-class be disclosed for each major class, but also the chance of commerciality (Pc).</p> <p>No oil and gas entities expressly supported the proposed change.</p>	<p>The rationale for the proposed changes to Chapter 5 was consistency with the 2018 revisions to the SPE-PRMS. ASX therefore sees the force in the argument that its proposed changes to LR 5.25.2 requiring sub-classification of petroleum resources go considerably further than the SPE-PRMS and are not appropriate at this time.</p> <p>ASX does not read section 2.2.2.5 of the SPE PRMS as mandating sub-classification of petroleum resources. That position is clearly contrary to the express position taken in the SPE RMS in:</p> <ul style="list-style-type: none"> • 1.1.0.6D: “Prospective Resources ... may be sub-classified based on project maturity ...” • 1.2.0.7: “In general, it is recommended that an individual project has assigned to it a specific maturity level sub-class”. • 2.1.3.1: “Such sub-classes may be characterized qualitatively by the project maturity level descriptions and associated quantitative chance of reaching commercial status and being placed on production”. • 2.1.3.5.1: “... development projects and associated recoverable quantities may be sub-classified according to project maturity levels and the associated actions (i.e., business

Proposed LR Change	Submission	ASX Response
	<p>One oil and gas entity simply noted the change and indicated that it would modify its reporting requirements to sub-classify reserves and contingent resources in accordance with the SPE-PRMS.</p> <p>Another oil and gas entity did not express a view on the proposed change but simply asked for clarification on whether an entity could introduce its own additional sub-classes for contingent resources, as permitted under SPE-PRMS 2.1.3.5.8.</p> <p>Three others did not express a view on the proposed change beyond noting that it would bring with it a substantial compliance burden. To reduce that compliance burden, two of them suggested that the project maturity sub-class should be reported in the initial announcement of a reserve or resource to ASX and that a formal reassessment should only have to be undertaken on a yearly basis. The third recommended that the requirement only apply to the reporting of 2P reserves and 2C resources.</p> <p>Four respondents (three of them major oil and gas entities) expressly opposed the proposed change and suggested that it should either be dropped or modified so that sub-classification was optional.</p> <p>All four respondents remarked that under SPE-PRMS section 1.2.07, sub-classification of petroleum reserves and contingent resources was recommended but not mandatory and therefore ASX's proposed change mandating sub-</p>	<p>decisions) required to move a project toward commercial production”.</p> <ul style="list-style-type: none"> • 2.1.3.5.8: “Note that the Contingent Resources sub-classes described above ... are <i>recommended</i>; however, entities are <i>at liberty</i> to introduce additional sub-classes that align with project management goals”. • 2.3.0.1: “Such projects are classified according to the resources classification framework ... with <i>preference</i> for applying project maturity sub-classes”. • Table 1: “Reserves ... <i>may be</i> sub-classified based on project maturity and/or characterized by the development and production status” and “Contingent Resources ... <i>may be</i> sub-classified based on project maturity and/or characterized by the economic status”. • Table 2: “Developed Reserves <i>may be</i> further sub-classified as Producing or Non-producing”. • Appendix A: “Developed Reserves <i>may be</i> further sub-classified as Producing or Non-Producing” and “Project maturity <i>may be</i> indicated qualitatively by allocation to classes and sub-classes and/or quantitatively by associating a project’s estimated likelihood of commerciality”. <p>Given the issues raised in the consultation submissions, ASX is not intending to proceed at this point in time with the proposed change to LR 5.25.2 to require petroleum reserves and</p>

Proposed LR Change	Submission	ASX Response
	<p>classification went substantially further than the SPE-PRMS.</p> <p>They expressed concern that reporting against project maturity sub-classes would create a substantial additional compliance burden on listed entities without providing meaningful additional information to investors.</p> <p>They argued that the criteria for the SPE-PRMS sub-classes are far more open to interpretation than the criteria for petroleum reserves and contingent resources. They also noted that the SPE-PRMS only provides limited definitions and guidance in relation to its recommended sub-classes and that if ASX's proposed change was made, different listed entities would likely place a different meaning on the sub-classes, causing confusion for investors.</p> <p>Some also noted that the proposed change would require material changes to systems and processes, including listed oil and gas entities potentially having to replace existing reserves reporting software.</p>	<p>contingent resources to be sub-classified based on the project maturity sub-classes in section 2.1.3.5 of the SPE-PRMS.</p> <p>Instead, for consistency with the SPE-PRMS, ASX will add a note to LR 5.25.2 as follows:</p> <p><i>“ASX also recommends, as a matter of best practice, that petroleum reserves and contingent resources are sub-classified based on the project maturity sub-classes set out in section 2.1.3.5 of SPE-PRMS.”</i></p> <p>ASX will re-visit the desirability of mandating the sub-classification of petroleum resources as and when the SPE-PRMS sponsors further develop their requirements for the reporting of maturity sub-classes.</p>
<p>LR 5.25.3 and 5.25.4</p> <p>LR 5.25.3 and 5.25.4 currently prohibit the use of terms referring to aggregated petroleum resources without the proximate disclosure of a breakdown between estimates of petroleum reserves, contingent resources and prospective resources, as well as a statement on whether and how each of the resource classes in the breakdown were adjusted for risk. ASX proposed amendments to LR 5.25.3 and 5.25.4 to also require the disclosure</p>	<p>Four respondents commented on the proposed change.</p> <p>One respondent queried the meaning of “clear” in the proposed changes, particularly in reference to the proposed sub-classes of petroleum resources.</p> <p>A second noted that the original wording prohibited the use of terms referring to aggregated petroleum resources, such as “estimated ultimate recovery”, without the proximate disclosure of a</p>	<p>The proposed changes to LR 5.25.3 and 5.25.4 went hand-in-hand with the proposed change to LR 5.25.2 mentioned above, requiring the disclosure of the different maturity sub-classes of petroleum reserves and contingent resources. As ASX is not proceeding the proposed change to LR 5.25.2, it is also not proceeding with the proposed changes to LR 5.25.3 and 5.25.4.</p>

Proposed LR Change	Submission	ASX Response
<p>of “a clear explanation of the different technical and commercial maturity of the different classes and sub-classes of petroleum resources being reported”.</p>	<p>breakdown between petroleum reserves, contingent resources and prospective resources. It suggested that this had been lost somewhat in the drafting of the proposed changes, which appeared to focus more on prohibiting aggregation rather than on the use of specific terms referring to aggregated resources without the required proximate disclosure.</p> <p>A third suggested that the changes should go further and require not only that aggregated resources be clearly broken down, but also that the aggregated risk should be considered for the portfolio as a whole. They noted that if all prospects in a portfolio are linked (ie in some way dependent), then success in one improves the likelihood of success in the others. If, on the other hand, the prospects are independent of each other, then success in one will have little bearing on the chance of success of the others.</p> <p>A fourth supported the thrust of these changes but suggested that the wording could be clearer. For example, they could perhaps specifically require sub-totals of each sub-class to be presented.</p>	
<p>LR 5.25.5</p> <p>For consistency with section 3.3.1.1 of the SPE-PRMS, ASX proposed changes to LR 5.25.5 to require estimates of petroleum resources to be reported net of royalty quantities that the entity is required to pay in-kind or in-cash to the royalty owner.</p>	<p>Six respondents commented that ASX’s proposed changes to LR 5.25.5 could be read as requiring resource estimates to be reduced by statutory royalties. They all noted that this is inconsistent with section 3.3.1.2 of the SPE-PRMS, which characterises such obligations as production taxes and permits entities to report accordingly. One also noted that it was inconstant with LR 5.26.4, which</p>	<p>ASX favours the latter approach.</p> <p>ASX will amend LR 5.25.5 to make it clear that the requirement to report petroleum resources net of royalty quantities (now in LR 5.25.5(b)(i)) only applies to contractual royalties. It is also adding a concluding paragraph to LR 5.25.5 as follows:</p> <p><i>“For the avoidance of doubt, paragraph (b)(i) above does not apply to production taxes, even</i></p>

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	<p>requires reserves to be reported as quantities available for sale at a reference point.</p> <p>One of these six respondents suggested retaining LR 5.25.5 in its current form without the proposed amendments, while the rest suggested amending it to recognise the difference between contractual royalties and production taxes in the nature of royalties.</p>	<p><i>though they may be in the nature of a “royalty”. Production taxes in the nature of a royalty may be reported as a reduction in the entity’s petroleum resource entitlement or as a tax expense. The entity must disclose which treatment it is applying to such taxes.”</i></p>
<p>LR 5.25.7</p> <p>ASX proposed changes to LR 5.25.7 to make it clearer that estimates of petroleum resources must be reported in the appropriate units for each individual product type reported (ie in the case of oil, BOEs and, in the case of gas, McfGEs).</p>	<p>One respondent expressly supported the proposed change to LR 5.25.7 but suggested, to avoid confusion between what is reported by different entities, that the rule be amended to specify that the quantities reported must be sales quantities and therefore exclude CiO (fuel consumed in operations).</p>	<p>ASX does not agree. This change would be contrary to SPE-PRMS 3.2.2 and LR 5.26.4, both of which allow quantities of petroleum to be consumed in operations to be included in petroleum resources (in the case of LR 5.26.4, on the proviso that the CiO quantities are reported separately to, and have equal prominence with, sales quantities).</p>
<p>LR 5.26.1</p> <p>ASX proposed to amend the criteria for the disclosure of an estimated petroleum reserve to require not only a high degree of confidence in the commerciality of the project but also “evidence of the economic producibility of the reservoir”.</p>	<p>Three respondents commented on this change.</p> <p>One simply expressed their support for the change.</p> <p>One objected to this change, describing it as “troubling”. They noted that, by definition, a project that meets the commerciality requirements of section 2.1.2.1 of the SPE-PRMS must already have met the requirements of economic producibility, especially when complying with paragraph D of that section. Hence they argued that the proposed addition to LR 5.26.1 is redundant.</p> <p>The third asked for clarification on the level of disclosure required and, in particular, whether it would be sufficient for the entity simply to state that it had such evidence. They noted that if entities were required to disclose the evidence in</p>	<p>It was not ASX’s intention, in its proposed changes to LR 5.26.1, to require an entity, as a condition of reporting an estimate of a petroleum reserve, to disclose its evidence of the producibility of the reservoir.</p> <p>ASX is amending its proposed changes to LR 5.26.1 to remove the words “evidence of”, so that the rule will now require an entity to have “a high degree of confidence in the commerciality of the project and the economic producibility of the reservoir” in order to report an estimate of petroleum reserves.</p> <p>This will make the language of LR 5.26.1 consistent with the definition of “Reserves in Table 1 of the SPE-PRMS, which states:</p> <p><i>“To be included in the Reserves class, there must</i></p>

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	question, this would be onerous and potentially require the disclosure of commercial confidential information.	<i>be a high confidence in the commercial maturity and economic producibility of the reservoir as supported by actual production or formation tests.”</i>
<p>LR 5.26.4</p> <p>ASX proposed changes to LR 5.26.4 to require petroleum reserves to be reported as quantities available for sale at the reference point, subject to a qualification that quantities of petroleum to be consumed in operations (CiO) may be included as petroleum reserves provided these quantities are reported separately to, and have equal prominence with, sales quantities.</p>	One respondent suggested excluding CiO from reserves and resources “as per PRMS”.	While SPE-PRMS recommends that reserves should be sale quantities and exclude CiO, section 3.2.2 expressly provides for the treatment of CiO amounts in the manner set out in ASX’s proposed changes to LR 5.26.4. ASX therefore intends to proceed with its proposed changes to that rule.
<p>LR 5.27.5</p> <p>ASX proposed the introduction of a new LR 5.27.5 prohibiting the reporting of forecast financial information derived from an estimate of economically not viable contingent resources.</p>	<p>One respondent expressed their support for the change.</p> <p>Another respondent recognised the intent of the rule and said that in most cases it agreed with it but pointed out a situation it had experienced where a blanket ban of the type proposed might not be appropriate. It involved a field that had been downgraded from a reserve to a contingent resource due to a reduction in oil price and the field becoming economically not viable. However it made a commercial decision to continue production, despite that leading to a financial loss, as it considered that a better alternative to abandonment. It pointed out that the proposed blanket prohibition would have disintitled it from reporting the anticipated loss to shareholders as a result of the decision to continue production.</p>	<p>ASX agrees and is amending LR 5.27.5 to provide:</p> <p><i>“An entity must only report forecast financial information:</i></p> <p><i>(a) derived solely from an estimate of economically not viable + contingent resources if all of the following information is included in the report proximate to that disclosure:</i></p> <ul style="list-style-type: none"> • <i>an explanation of the reasons why the entity is forecasting financial information for +contingent resources that have been assessed to be economically not viable;</i> <i>and</i> • <i>a statement of the factors that lead the entity to believe that it has a reasonable</i>

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	<p>It suggested allowing the disclosure of forecast financial information but with additional disclosure explaining why.</p>	<p><i>basis for reporting the forecast financial information; or</i></p> <p><i>(b) derived partly from an estimate of economically not viable +contingent resources and partly from an estimate of other +petroleum resources if all of the following information is included in the report proximate to that disclosure:</i></p> <ul style="list-style-type: none"> • <i>an explanation of the reasons why the entity is forecasting financial information derived in part from +contingent resources that have been assessed to be economically not viable;</i> • <i>a statement of the factors that lead the entity to believe that it has a reasonable basis for reporting that part of the forecast financial information derived from the estimate of economically not viable +contingent resources; and</i> • <i>the implications for the overall forecast financial information of including, and not including, the forecast financial information derived from the estimate of economically not viable +contingent resources.”</i>
<p>LR 5.28.3</p> <p>ASX proposed the introduction of a new LR 5.28.3 prohibiting the disclosure of a mean estimate of prospective resources.</p>	<p>Three respondents expressly supported the proposed change.</p> <p>A fourth respondent said that it was comfortable with the proposed change on the basis that it does not typically disclose prospective resources and</p>	<p>ASX does not agree with the suggestion that the reporting of prospective resources be banned altogether. It is permitted under the SPE-PRMS and can provide useful information for investors.</p>

Proposed LR Change	Submission	ASX Response
	<p>would not be concerned about complying with the new rule in the event it chose to disclose prospective reserves in specific circumstances in the future.</p> <p>A fifth respondent simply noted that it has not reported prospective resources in the past and did not anticipate doing so in the future.</p> <p>Five other respondents, however, objected to the proposed changes, expressing views along the lines of the one quoted below:</p> <p><i>“Unlike reserves and contingent resources, the ‘mean’ prospective resource is the industry standard and recognised as the appropriate statistical metric to best represent the range of uncertainty associated with prospective resource assessments. This metric is a widely used and accepted term in the industry which is used for evaluations and business decisions and may constitute valuable information for investors. We consider that a prohibition on disclosing mean prospective resource would potentially deprive investors of material information ...”</i></p> <p>Most of those objecting to the proposed changes also noted that the SPE-PRMS was silent on the issue of reporting mean estimates of prospective resources.</p> <p>Various respondents suggested as a compromise allowing the publication of a mean estimate of prospective resources, provided it was accompanied (variously) by:</p>	<p>Further, ASX sees the force of the submissions from the five respondents who objected to the prohibition on the disclosure of a mean estimate of prospective resources and the sense of the compromise suggested by a number of respondents.</p> <p>ASX is therefore modifying LR 5.28.3 to prohibit the disclosure of a mean estimate of prospective resources unless it is also accompanied by the low estimate, best estimate and high estimate.</p>

Proposed LR Change	Submission	ASX Response
	<ul style="list-style-type: none"> • the best estimate; • low and high estimates; • low, best and high estimates; or • low, mid and high estimates. <p>Finally, one respondent suggested not allowing prospective resources to be reported at all.</p>	
<p>LR 5.28.4 and 5.28.5</p> <p>ASX proposed the addition of new LR 5.28.4 and 5.28.5 requiring, where reported prospective resources represent aggregated estimates of prospective resources, the method of aggregation must be disclosed and must be either:</p> <ul style="list-style-type: none"> • arithmetic summation by category (that is, low estimate, best estimate or high estimate); or • statistical aggregation of uncertainty distributions up to the field, property or project level. <p>ASX proposed the addition of new LR 5.28.5 requiring, if prospective resources are reported beyond the field, property or project level, that estimates of prospective resources must be aggregated by arithmetic summation by category beyond that level of reporting. In this case, the entity must include a note in the report cautioning that the aggregate low estimate may be a very conservative estimate and the aggregate high estimate may be a very optimistic estimate due to the portfolio effects of arithmetic summation.</p>	<p>Two respondents expressly supported the proposed changes to these rules.</p> <p>A third respondent suggested that the changes should go further and limit the reporting of aggregated prospective resources to individual leads/prospects/fields and to prohibit aggregation on a portfolio basis.</p>	<p>Given the apparent support for the new LR 5.28.4 and 5.28.5 (evidenced by the two supportive submissions and the absence of comment in 14 other submissions), ASX intends to proceed with the changes originally proposed to those rules.</p> <p>As to the suggestion from the third respondent, ASX would note that aggregation of petroleum resources is a highly technical area and ASX considers that it would be best addressed in the official guidance published about the SPE-PRMS rather than in the LR. ASX understands that the SPE Examples Sub-committee is considering providing examples of acceptable methods of aggregation.</p>

Proposed LR Change	Submission	ASX Response
<p>This was to fill a gap in the SPE-PRMS, which provides guidance on the aggregation of petroleum reserves and contingent resources but none on aggregation of prospective resources.</p>		
<p>LR 5.28.6 ASX proposed a new LR 5.28.6, prohibiting an entity from reporting forecast financial information derived from an estimate of prospective resources.</p>	<p>Three respondents expressly supported the proposed new rule.</p> <p>One respondent objected to the proposed new rule, noting that the market ascribes value to prospective resources and analysts may ascribe value to prospective resources and that one consequence of the rule being adopted would be that ASX presumably would object to a value being ascribed to prospective resources in an independent expert’s report in a merger and acquisition context. They argued that an absolute prohibition on any financial forecast derived from prospective resources would be an unwarranted overreach and that:</p> <p><i>“Any ASX listed entity is subject to regulatory oversight and it should be assumed that any financial forecast, if made, will be based on reasonable grounds and otherwise comply with ASIC Regulatory Guide 170. The ASX Listing Rules should not be drafted on an entirely prophylactic basis, and should not assume that all issuers will ignore their legal obligations. A financial forecast that is properly prepared, and based on reasonable grounds with all material assumptions stated will not be ipso facto misleading. Quite the contrary.”</i></p>	<p>ASX intends to proceed with the proposed new rule. In relation to the single submission that opposed the proposed rule, ASX struggles to see any situation where an entity would have a reasonable basis for making financial forecasts based on prospective resources, which by definition are potential accumulations that have not yet been discovered.</p>

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<p>LR 5.30</p> <p>LR 5.30 sets out the requirements for reporting drilling results. ASX did not propose any changes to this rule in its consultation paper.</p>	<p>One respondent recommended that ASX provide additional guidance in GN 32 that information about flow rates in a report of drilling results should be accompanied by information about the pressures associated with the flow and the duration of the test.</p>	<p>ASX thinks this is a good suggestion but rather than address it by way of guidance in GN 32, ASX has decided to incorporate it into LR 5.30 itself.</p>
<p>LR 5.31.6</p> <p>LR 5.31.6 requires a report of estimates relating to undeveloped petroleum reserves to include a “brief statement” on various matters listed in that rule. ASX proposed some additions and modifications to that list.</p>	<p>Two respondents expressed their support for the proposed changes.</p> <p>Four respondents expressed some concerns about the level of detail expected in the “brief statement” and asked ASX to provide guidance on that topic.</p> <p>One respondent suggested the addition of the word “resolved” to the final bullet point in the list of matters in LR 5.31.6, to be consistent with section 2.1.2.1 G of the SPE-PRMS.</p> <p>Another respondent queried why it was necessary to include information about key approvals that have already been obtained and suggested a minor drafting change to the last bullet in the list of matters in LR 5.31.6 to only require a brief statement of outstanding approvals.</p>	<p>ASX will update GN 32 to provide guidance on what is meant by a “brief statement” in LR 5.31.6.</p> <p>ASX has incorporated both of the drafting suggestions into the final version of LR 5.31.6.</p>
<p>LR 5.33.3</p> <p>ASX proposed an addition to LR5.33.3 requiring the first report of contingent resources to include a brief description of “the entity’s assessment of the chance of development associated with the reported estimates of contingent resources”.</p>	<p>One respondent specifically agreed with the proposed change to LR 5.33.3</p> <p>In contrast, six other respondents objected to the proposed change, noting that the SPE-PRMS does not require disclosure of the chance of development. They noted that there is no universally accepted method to determine chance of development, which includes a number of</p>	<p>ASX understands the issues raised by respondents and the potential risks and liabilities associated with forward-looking statements regarding the chance of development.</p> <p>ASX has decided to modify its changes to LR 5.33.3 to require instead a brief description of “any other work the entity is proposing to undertake to assess</p>

Proposed LR Change	Submission	ASX Response
	<p>technical and non-technical factors. They submitted that it was likely that the basis for determining and disclosing the chance of development would differ from entity to entity, making it difficult for investors to compare disclosures and could lead to investors being confused or misled.</p> <p>A eighth respondent did not object to the change but, in line with the comments mentioned in the preceding paragraph, noted that there was no industry standard for these disclosures and it was unclear to it whether reporting on the probability of development would lead to greater information or greater misinformation.</p>	<p>or improve the chance of development of the contingent resources”.</p>
<p>LR 5.38</p> <p>LR 5.38 provides that an oil and gas entity that reports to the US SEC and files an SEC Form 10-K or 20-F Report with a US oil and gas reserves statement, is not required to comply with the annual reserves statement requirements in LR 5.39 (although it must still comply with LR 5.40 if it wishes to separately report on oil and gas entity level or other aggregated estimates of contingent resources).</p> <p>ASX proposed some minor changes to LR 5.38 to clarify its intent.</p>	<p>One respondent specifically agreed with the proposed change.</p> <p>One respondent noted that a necessary consequence of this rule was that it introduced an inconsistency between entities reporting their reserves under US requirements and entities reporting them under Chapter 5 and the SPE-PRMS.</p>	<p>ASX understands the point but has made a conscious determination that an entity which has to report its petroleum resources in accordance with the generally more restrictive requirements under US law should be free to do without also having to produce a reserves statement that complies with Chapter 5 and the SPE-PRMS.</p>
<p>LR 5.39.4</p> <p>ASX proposed a change to LR 5.39.4 requiring an entity with material petroleum reserves that had not been developed for 5 or more years to include</p>	<p>One respondent specifically agreed with the proposed change.</p> <p>However, five respondents objected to the proposed change, arguing that any disclosure as to</p>	<p>ASX understands the issues raised by respondents and the potential risks and liabilities associated with forward-looking statements regarding the time frame for development.</p>

Proposed LR Change	Submission	ASX Response
<p>in its annual report a statement of its intention “and time frame” with regard to the future development of the reserves.</p>	<p>time frame could be highly uncertain and potentially misleading to investors. They commented that it is typical for reserves that support a long-term sales contract to remain undeveloped for many years until such time as they are required to be developed to meet sales contract requirements. The timing of development is constantly being adjusted to optimise the development sequence so that infrastructure is most efficiently utilised having regard to a range of factors. They also noted that there is a significant difference between these internal deliberations and being obliged to make a public statement about the time frame to production that could be misinterpreted as some form of binding commitment to proceed to develop within that time frame come what may.</p>	<p>ASX has decided to modify its changes to LR 5.39.4 to require instead a statement in the entity’s annual report of “any work the entity is proposing to undertake towards development of the undeveloped petroleum reserves”.</p>
<p>LR 5.44</p> <p>LR 5.44 requires any reserves statement in an oil and gas entity’s annual report to be approved by a qualified petroleum reserves and resources evaluator. ASX did not propose any changes to this rule in its consultation paper.</p>	<p>One respondent suggested that LR 5.44 should be amended to incorporate the same requirement as appears in paragraph (c) of LR 5.42, so that the reserves statement must also state “the name of the professional organisation of which the qualified petroleum reserves and resources evaluator is a member.”</p> <p>LR 5.42 provides (relevantly) that a public report by an entity containing estimates of petroleum resources must state that it is based on, and fairly represents, information and supporting documentation prepared by, or under the supervision of, a named qualified petroleum reserves and resources evaluator or evaluators. Paragraph (c) of that rule requires the name of the</p>	<p>LR 5.44 already requires:</p> <p><i>“a statement that the reserves statement as a whole has been approved by a named qualified petroleum reserves and resources evaluator or evaluators, as well as the information referred to in rule 5.42(b) and (c) in relation to the named qualified petroleum reserves and resources evaluator or evaluators.”</i> [emphasis added]</p> <p>Therefore is no need to make the change suggested by the respondent to achieve the outcome they desire.</p> <p>However, ASX has modified the drafting of LR 5.44 to make its intent clearer.</p>

Proposed LR Change	Submission	ASX Response
	<p>professional organisation of which the qualified petroleum reserves and resources evaluator is a member to be disclosed in the report.</p>	
<p>Historical and foreign estimates ASX asked in its consultation paper if respondents saw a need to have rules allowing oil and gas entities to report historical estimates or foreign estimates of petroleum resources – similar to the provisions in LR 5.10-5.14 allow mining entities to report historical estimates or foreign estimates of mineralisation in certain specified circumstances – and, if so, what those rules should provide.</p>	<p>Only two respondents commented on this issue. One opined that no such provisions were needed. Another suggested that the reporting of historical estimates should be allowed, provided it followed the SPE PRMS guidelines and was compliant with the ASX listing rules. However, it stated that the reporting of foreign estimates should only be permitted for resources reported to the SEC in a Form 10-K or 20-F Report, as that could be expected to provide appropriate information about the maturity and confidence interval of the resource. The use of foreign estimates prepared under the frameworks of other jurisdictions, some of whom allow the reporting of petroleum resources in metric tonnes without a range of resources and an attached degree of uncertainty / confidence interval, should not be allowed.</p>	<p>Based on the consultation feedback, ASX does not see a need at this point to introduce provisions in Chapter 5 dealing with historical estimates or foreign estimates of petroleum resources.</p>

Proposed LR Change	Submission	ASX Response
<p>Transition ASX asked in its consultation paper whether stakeholders saw a need for any specific transitional arrangements to facilitate oil and gas entities moving from the current reporting rules to the proposed new reporting rules and, if so, their views on what those arrangements should be.</p>	<p>Three respondents noted that if ASX proceeded with the requirement to disclose project maturity sub-classes under LR 5.25.2, this would require material changes to systems and processes, including potentially replacing existing reserves reporting software and additional training for technical staff. Two of them suggested it would be prudent to allow an extra year for entities to transition to this particular requirement (ie moving the effective date from 1 July 2022 to 1 July 2023).</p> <p>One respondent expressed the view that no transitional arrangements would be necessary, provided the final changes were announced in sufficient time (6-9 months ahead of implementation) and adequately communicated to the industry.</p> <p>Another respondent stated that it did not anticipate any issues in making the transition to the new rules as it was already essentially aligned with many of the proposed changes.</p> <p>Yet another stated that they saw no need for transitional arrangements, given the current version of the SPE-PRMS had been released in 2018 and entities should have had enough time since then to comply with the new requirements.</p>	<p>As mentioned above, ASX is not proposing to proceed with the change to LR 5.25.2 and so there is no need to have any special transitional arrangements on that score.</p> <p>Accordingly, based on the consultation feedback, ASX does not see a need for any particular transitional arrangements to facilitate oil and gas entities moving from the current reporting rules to the proposed new reporting rules.</p>
<p>Other issues raised by respondents – Reserves and resources evaluators ASX did not propose any changes to the definition of qualified reserves and resources evaluators in LR 19.12.</p>	<p>Two respondents encouraged ASX to publish a list of the professional organisations that meet the requirement in paragraph (c) of the definition of “qualified petroleum reserves and resources evaluator”, namely, that they are:</p>	<p>ASX agrees and will update GN 32 to include a list of the professional organisations that it is aware of and it understands meet the requirements in paragraph (c) of the definition of “qualified petroleum reserves and resources evaluator”.</p>

Proposed LR Change	Submission	ASX Response
	<p><i>“a professional organisation of engineers, geologists or other geoscientists whose professional practice includes petroleum reserves, contingent resources and prospective resources evaluations and/or audits. The professional organisation must have disciplinary powers, including the power to suspend or expel a member.”</i></p>	<p>ASX would be pleased to receive submissions or suggestions on the names of organisations that anyone wishes to put forward for consideration in this regard. Any such submissions or suggestions should explain the membership of the organisation in question and its disciplinary powers.</p>
<p>Other issues raised by respondents – 2011 PRMS Application Guidelines</p>	<p>Two respondents recommended that ASX remove the references to the 2011 PRMS Application Guidelines (“AG”) in the notes to the LR and in GN 32, noting that the AG are currently being amended by the SPE to conform to the 2018 SPE-PRMS and will be republished soon. Instead they suggested referring more generally to any published SPE Guidance to the SPE-PRMS, whether it be the AG, Examples or Frequently Asked Questions.</p>	<p>ASX agrees and has removed all references in LR notes to the 2011 AG. It has also added a note to LR 5.25.2 that:</p> <p><i>“In interpreting and applying the SPE-PRMS, entities should have regard to any Application Guide, Examples, Frequently Asked Questions or other official guidance published in relation to the SPE-PRMS. However, if there is any inconsistency between such guidance and the Listing Rules, the Listing Rules prevail.”</i></p>
<p>Other issues raised by respondents – “Proximate” disclosures</p>	<p>One respondent noted that considerable additional space may be needed to present all of the information required to be reported under the proposed rule changes and that this might make it difficult to comply with the “proximate and prominence” requirements in some rules and still maintain a reasonable font size. It suggested allowing the use of cross-references to separate data tables or appendices.</p>	<p>ASX notes that there are only four rules in Chapter 5 that apply to oil and gas entities and that require “proximate disclosure” – LR 5.25.3, 5.25.4, 5.27.5 and 5.28.2. Of these, LR 5.27.5 is a new rule of narrow application (the reporting of forecast financial information derived from an estimate of economically not viable contingent resources) and LR 5.28.2 relates to the location of a 5 line cautionary statement relevant to prospective resources. Hence, the concerns raised by the respondent would only seem to be an issue in respect of LR 5.25.3 and 5.25.4.</p>

Proposed LR Change	Submission	ASX Response
		<p>ASX proposed changes to LR 5.25.3 and 5.25.4 to require “a clear explanation of the different technical and commercial maturity of the different classes of [petroleum resources/contingent resources] being reported”. These went hand-in-hand with ASX’s proposed changes to LR 5.25.2.</p> <p>As mentioned above, ASX is not proceeding with its proposed changes to LR 5.25.2, 5.25.3 and 5.25.4 and so the issue raised by the respondent should no longer be of concern.</p>
<p>Other issues raised by respondents – GN 32</p>	<p>Two respondents recommended that ASX re-visit its guidance in GN 32 on the definition of ‘materiality’.</p> <p>One of them also recommended that ASX give guidance in GN 32 on aggregation.</p>	<p>ASX will consider its guidance on the definition of ‘materiality’ in its next update to GN 32.</p> <p>ASX would note that aggregation of petroleum resources is a highly technical area and ASX considers that it would be best addressed in the official guidance published about the SPE-PRMS rather than in the LR. ASX understands that the SPE Examples Sub-committee is considering providing examples of acceptable methods of aggregation.</p>
<p>Other issues raised by respondents – General</p>	<p>Finally, two respondents recommended that ASX highlight the need for entities to revisit all compliance, including the requirement for proved reserves to be economic.</p>	<p>ASX has included in this consultation response a statement highlighting the need to assess compliance with the 2018 revisions to the SPE-PRMS and the updates to Chapter 5.</p>

Annexure B
Final changes to Chapter 5 and Rule 19.12 of the ASX Listing Rules
proposed to come into effect 1 July 2022

Chapter 5

**Additional reporting on mining and
oil and gas production and exploration activities**

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Explanatory note

This chapter sets out additional reporting and disclosure requirements for *mining entities, *oil and gas entities, and other entities reporting on mining and oil and gas activities.

Information to be given to ASX for release to the market must be given to ASX's *market announcements office.

Amended 01/07/14, 01/12/19

Quarterly reporting

Mining producing entities

- 5.1 A *mining producing entity must complete a report for each quarter of its financial year and give it to ASX for release to the market. It must do so no later than 1 month after the end of the quarter. The report must include all of the following information for the group comprising the entity and its *child entities on a consolidated basis.
- 5.1.1 Details of its mining production and development activities for the quarter and a summary of the expenditure incurred on those activities. If there were no substantive mining production and development activities during the quarter, that fact must be stated.
- 5.1.2 A summary of its mining *exploration activities for the quarter and a summary of the expenditure incurred on those activities. If there were no substantive mining *exploration activities during the quarter, that fact must be stated.

~~Note: The changes to Listing Rule 5.1 made on 01/12/19 come into effect for the quarter ended 31/03/20.~~

Cross reference: Guidance Note 23 *Quarterly Reports*.

Oil and gas producing entities

- 5.2 An *oil and gas producing entity must complete a report for each quarter of its financial year and give it to ASX for release to the market. It must do so no later than 1 month after the end

of the quarter. The report must include all of the following information for the group comprising the entity and its *child entities on a consolidated basis.

- 5.2.1 Details of its oil and gas production and development activities for the quarter and a summary of the expenditure incurred on those activities. If there were no substantive oil and gas production or development activities during the quarter, that fact must be stated.
- 5.2.2 A summary of its oil and gas *exploration activities for the quarter and a summary of the expenditure incurred on those activities. If there were no substantive oil and gas *exploration activities during the quarter, that fact must be stated.

Note: The changes to Listing Rule 5.2 made on 01/12/19 come into effect for the quarter ended 31/03/20.

Quarterly activity reports by mining exploration entities

- 5.3 A *mining exploration entity must complete a report for each quarter of its financial year and give it to ASX for release to the market at the same time as it gives its Appendix 5B for that quarter under rule 5.5. The report must include all of the following information for the group comprising the entity and its *child entities on a consolidated basis.
- 5.3.1 Details of its mining *exploration activities for the quarter, including any material developments or material changes in those activities, and a summary of the expenditure incurred on those activities. If there were no substantive mining *exploration activities during the quarter, that fact must be stated.
- 5.3.2 Details of its mining production and development activities for the quarter and a summary of the expenditure incurred on those activities. If there were no substantive mining production and development activities during the quarter, that fact must be stated.
- 5.3.3 Details of:
- any *mining tenements *acquired or *disposed of during the quarter and their location;
 - the *mining tenements held at the end of the quarter and their location;
 - any farm-in or farm-out agreements it entered into during the quarter; and
 - the beneficial percentage interests it held at the end of the quarter in farm-in or farm-out agreements.
- 5.3.4 If the quarter is included in a period covered by a "use of funds" statement or expenditure program in the *prospectus, *PDS or *information memorandum lodged by the entity with ASX under rule 1.1 condition 3, a comparison of the entity's actual expenditure on the individual items in the "use of funds" statement or expenditure program since the date of its admission or re-admission to the official list against the estimated expenditure on those items in the "use of funds" statement or expenditure program in the *prospectus, *PDS or *information memorandum and an explanation of any material variances.
- 5.3.5 A description of, and an explanation for, any payments to, or to an *associate of, a related party of the entity included in its Appendix 5B for the quarter.

Note: The changes to Listing Rule 5.3 made on 01/12/19 come into effect for the quarter ended 31/03/20.

Quarterly activity reports by oil and gas exploration entities

- 5.4 An *oil and gas exploration entity must complete a report for each quarter of its financial year and give it to ASX for release to the market at the same time as it gives its Appendix 5B for that quarter under rule 5.5. The report must include all of the following information for the group comprising the entity and its *child entities on a consolidated basis.

- 5.4.1 Details of its oil and gas *exploration activities for the quarter, including any material developments or material changes in those activities, and a summary of the expenditure incurred on those activities. If there were no substantive oil and gas *exploration activities during the quarter, that fact must be stated.
- 5.4.2 Details of its oil and gas production and development activities for the quarter and a summary of the expenditure incurred on those activities. If there were no substantive oil and gas production and development activities during the quarter, that fact must be stated.
- 5.4.3 Details of:
- any *petroleum tenements it *acquired or *disposed of during the quarter and their location;
 - the *petroleum tenements held by it at the end of the quarter and their location;
 - any farm-in or farm-out agreements it entered into during the quarter; and
 - the beneficial percentage interests it held at the end of the quarter in farm-in or farm-out agreements.
- 5.4.4 If the quarter is included in a period covered by a “use of funds” statement or expenditure program in the *prospectus, *PDS or *information memorandum lodged by the entity with ASX under rule 1.1 condition 3, a comparison of the entity’s actual expenditure on the individual items in the “use of funds” statement or expenditure program since the date of its admission or re-admission to the official list against the estimated expenditure on those items in the “use of funds” statement or expenditure program in the *prospectus, *PDS or *information memorandum and an explanation of any material variances.
- 5.4.5 A description of, and an explanation for, any payments to, or to an *associate of, a related party of the entity or an associate included in its Appendix 5B for the quarter.

Note: The changes to Listing Rule 5.4 made on 01/12/19 come into effect for the quarter ended 31/03/20.

Quarterly cash flow reports for mining exploration entities and oil and gas exploration entities

- 5.5 A *mining exploration entity and an *oil and gas exploration entity must also complete an Appendix 5B and give it to ASX. It must do so immediately the information is available for release to the market, and in any event within 1 month after the end of each quarter of its financial year.

Note: The changes to Listing Rule 5.5 made on 01/12/19 come into effect for the quarter ended 31/03/20.

Cross reference: Listing Rule 4.10.19, Guidance Note 23 *Quarterly Reports*.

Reporting on mining activities

Requirements applicable to all public reporting

- 5.6 Subject to rule 5.10, a public report prepared by an *entity must be prepared in accordance with rules 5.7 to 5.24 if applicable and Appendix 5A (JORC Code) if applicable if the report includes a statement relating to any of the following.
- *Exploration targets.
 - *Exploration results.
 - *Mineral resources or *ore reserves.
 - *Production targets.

Note: The rules in this chapter relate to the reporting of exploration results, mineral resources, ore reserves, historical and foreign estimates and production targets. Appendix 5A (JORC Code) relates to the reporting of exploration

targets, exploration results, mineral resources and ore reserves. This rule is not confined to reports under this chapter. It also applies to all public reports, including prospectuses, product disclosure statements, information memoranda, bidder's and target's statements, annual reports, financial statements, technical papers, presentations, website content and information given to ASX for release to the market under other chapters of these rules.

Requirements applicable to reports of exploration results for material mining projects

5.7 An *entity publicly reporting in relation to a *material mining project, either:

- (a) *exploration results for the first time; or
- (b) any new *exploration results,

must include all of the following information in a market announcement and give it to ASX for release to the market.

5.7.1 As an appendix to the market announcement, a separate report providing all information that is material to understanding the *exploration results, in relation to each of the criteria in section 1 (sampling techniques and data) and section 2 (reporting of exploration results) of Table 1 in Appendix 5A (JORC Code). An *entity that determines that one or more of those criteria is not material for this purpose must identify each such criterion and explain why it has determined that it is not material to understanding the *exploration results.

5.7.2 As an appendix to the market announcement, a separate table setting out the following information for material drill-holes unless the *entity determines that the information is not material:

- easting and northing of the drill-hole collar;
- elevation or RL of the drill-hole collar;
- dip and azimuth of the hole;
- down hole width and depth; and
- end of hole.

An *entity that determines that a drill-hole table setting out the information described above is not material, is not required to attach the table to the market announcement but must explain why it has determined that the table is not material to understanding the *exploration results.

Note: ~~C~~lauses 17 and 18 of Appendix 5A (JORC Code) set out additional requirements for public reports on *exploration results that also must be complied with (see Listing Rule 5.6) ~~including~~ ~~–The proposed amendments to the JORC Code also require~~ reporting against Table 1 of Appendix 5A (JORC Code) on an 'if not, why not' basis.

Requirements applicable to reports of mineral resources for material mining projects

5.8 An *entity publicly reporting estimates of *inferred mineral resources, *indicated mineral resources or *measured mineral resources in relation to a *material mining project, either:

- (a) for the first time; or
- (b) that have materially changed from when those estimates were last reported in accordance with this rule,

must include all of the following information in a market announcement and give it to ASX for release to the market.

5.8.1 In the market announcement, a fair and balanced representation of the information contained in the separate report prepared in accordance with rule 5.8.2 including a summary of all information material to understanding the reported estimates of *mineral resources in relation to the following matters:

- geology and geological interpretation;
- sampling and sub-sampling techniques;

- drilling techniques;
- the criteria used for classification, including drill and data spacing and distribution. This includes separately identifying the drill spacing used to classify each category of *mineral resources (inferred, indicated and measured) where estimates for more than one category of *mineral resource are reported;
- sample analysis method;
- estimation methodology;
- cut-off grade(s), including the basis for the selected cut-off grade(s); and
- mining and metallurgical methods and parameters, and other material modifying factors considered to date.

5.8.2 As an appendix to the market announcement, a separate report providing all information that is material to understanding the estimates of *mineral resources, in relation to each of the criteria in:

- section 1 (sampling techniques and data), section 2 (reporting of exploration results), and section 3 (estimation and reporting of mineral resources) of Table 1 of Appendix 5A (JORC Code); and
- section 5 (estimation and reporting of diamonds and other gemstones) of Table 1 of Appendix 5A (JORC Code), for all *entities reporting diamonds and other gemstones.

An *entity that determines that one or more of those criteria is not material for this purpose must identify each such criterion and explain why it has determined that it is not material to understanding the estimates of *mineral resources.

Note: [Clauses 19 to 27 of Appendix 5A \(JORC Code\)](#) set out additional requirements for public reports on *mineral resources that also must be complied with (see Listing Rule 5.6) [including ~~The proposed amendments to the JORC Code also require~~](#) reporting against Table 1 of Appendix 5A (JORC Code) on an 'if not, why not' basis.

Requirements applicable to reports of ore reserves for material mining projects

5.9 An *entity publicly reporting estimates of *probable ore reserves and *proved ore reserves in relation to a *material mining project, either:

- (a) for the first time; or
- (b) that have materially changed from when those estimates were last reported in accordance with this rule,

must include all of the following information in a market announcement and give it to ASX for release to the market.

5.9.1 In the market announcement, a fair and balanced representation of the information contained in the separate report prepared in accordance with rule 5.9.2 including a summary of all information material to understanding the reported estimates of *ore reserves in relation to the following matters:

- the material assumptions and the outcomes from the *preliminary feasibility study or the *feasibility study (as the case may be). If the economic assumptions are commercially sensitive to the *mining entity, an explanation of the methodology used to determine the assumptions rather than the actual figure can be reported;

Note: [Economic assumptions](#) may not be commercially sensitive. A *mining entity that considers that certain information is commercially sensitive should refer to section 6 of Guidance Note 31 on the steps ASX expects it to take in these circumstances.

- the criteria used for classification, including the classification of the *mineral resources on which the *ore reserves are based and the confidence in the modifying factors applied;

- the mining method selected and other mining assumptions, including mining recovery factors and mining dilution factors;
- the processing method selected and other processing assumptions, including the recovery factors applied and the allowances made for deleterious elements;
- the basis of the cut-off grade(s) or quality parameters applied;
- estimation methodology; and
- material modifying factors, including the status of environmental approvals, mining tenements and approvals, other governmental factors and infrastructure requirements for selected mining methods and for transportation to market.

5.9.2 As an appendix to the market announcement, a separate report providing all information that is material to understanding the estimates of *ore reserves, in relation to each of the criteria in:

- section 1 (sampling techniques and data), section 2 (reporting of exploration results), section 3 (estimation and reporting of mineral resources), and section 4 (estimation and reporting of ore reserves) of Table 1 of Appendix 5A (JORC Code); and
- section 5 (estimation and reporting of diamonds and other gemstones) of Table 1 of Appendix 5A (JORC Code), for all *entities reporting diamonds and other gemstones.

An *entity that determines that one or more of those criteria is not material for this purpose must identify each such criterion and explain why it has determined that it is not material to understanding the estimates of *ore reserves.

Note: ~~C~~lauses 28 to 35 of Appendix 5A (JORC Code) set out additional requirements for public reports on *ore reserves that also must be complied with (see Listing Rule 5.6) ~~including –The proposed amendments to the JORC Code also require~~ reporting against Table 1 of Appendix 5A (JORC Code) on an 'if not, why not' basis.

Requirements applicable to reports of historical estimates and foreign estimates of mineralisation for material mining projects

- 5.10 An *entity reporting *historical estimates or *foreign estimates of mineralisation in relation to a *material mining project to the public is not required to comply with rule 5.6 provided the *entity complies with rules 5.12, 5.13 and 5.14.
- 5.11 An *entity must not include *historical estimates or *foreign estimates (other than *qualifying foreign estimates) of mineralisation in an economic analysis (including a *scoping study, *preliminary feasibility study, or a *feasibility study) of the *entity's *mineral resources and ore reserves holdings.
- 5.12 Subject to rule 5.13, an *entity reporting *historical estimates or *foreign estimates of mineralisation in relation to a *material mining project must include all of the following information in a market announcement and give it to ASX for release to the market.
- 5.12.1 The source and date of the *historical estimates or *foreign estimates.
- 5.12.2 Whether the *historical estimates or *foreign estimates use categories of mineralisation other than those defined in Appendix 5A (JORC Code) and if so, an explanation of the differences.
- 5.12.3 The relevance and materiality of the *historical estimates or *foreign estimates to the *entity.

- 5.12.4 The reliability of the *historical estimates or *foreign estimates, including by reference to any of the criteria in Table 1 of Appendix 5A (JORC Code) which are relevant to understanding the reliability of the *historical estimates or *foreign estimates.
- 5.12.5 To the extent known, a summary of the work programs on which the *historical estimates or *foreign estimates are based and a summary of the key assumptions, mining and processing parameters and methods used to prepare the *historical estimates or *foreign estimates.
- 5.12.6 Any more recent estimates or data relevant to the reported mineralisation available to the *entity.
- 5.12.7 The evaluation and/or exploration work that needs to be completed to verify the *historical estimates or *foreign estimates as *mineral resources or *ore reserves in accordance with Appendix 5A (JORC Code).
- 5.12.8 The proposed timing of any evaluation and/or exploration work that the *entity intends to undertake and a comment on how the *entity intends to fund that work.
- 5.12.9 A cautionary statement proximate to, and with equal prominence as, the reported *historical estimates or *foreign estimates stating that:
- the estimates are *historical estimates or *foreign estimates and are not reported in accordance with the JORC Code;
 - a *competent person has not done sufficient work to classify the *historical estimates or *foreign estimates as *mineral resources or *ore reserves in accordance with the JORC Code; and
 - it is uncertain that following evaluation and/or further exploration work that the *historical estimates or *foreign estimates will be able to be reported as *mineral resources or *ore reserves in accordance with the JORC Code.
- 5.12.10 A statement by a named *competent person or persons that the information in the market announcement provided under rules 5.12.2 to 5.12.7 is an accurate representation of the available data and studies for the *material mining project. The statement must include the information referred to in rule 5.22(b) and (c).
- 5.13 An *entity that has issued a market announcement under rule 5.12 is not required to include the information set out in rule 5.12 in any subsequent public report in relation to the *historical estimates or *foreign estimates provided all of the following conditions are satisfied.
- 5.13.1 The subsequent public report cross-references the initial market announcement referred to in rule 5.12.
- 5.13.2 The *entity is not in possession of any new information or data relating the *historical estimates or *foreign estimates that materially impacts on the reliability of the estimates or the *mining entity's ability to verify the *historical estimates or *foreign estimates as *mineral resources or *ore reserves in accordance with Appendix 5A (JORC Code).
- 5.13.3 The *entity confirms in the subsequent public report that the supporting information provided in the initial market announcement referred to in rule 5.12 continues to apply and has not materially changed.
- 5.13.4 The subsequent public report includes a cautionary statement proximate to, and with equal prominence as, the reported *historical estimates or *foreign estimates stating the matters contained in rule 5.12.9.
- 5.14 An *entity that has publicly reported *historical estimates or *foreign estimates in accordance with rule 5.12 which have not subsequently been verified and reported as *mineral resources

or *ore reserves in accordance with Appendix 5A (JORC Code), must comply with all of the following conditions.

- 5.14.1 The *entity must include each year in its *annual report (if applicable, in its mineral resources and ore reserves statement), a statement on:
- the progress made in evaluating the previously reported *historical estimates or *foreign estimates; and
 - the status of any further evaluation and/or exploration work required to verify the *historical estimates or *foreign estimates as *mineral resources or *ore reserves in accordance with Appendix 5A (JORC Code).

5.14.2 If the *historical estimates or *foreign estimates have not been verified and reported as *mineral resources or *ore reserves in accordance with Appendix 5A (JORC Code) after 3 years from the date the *historical estimates or *foreign estimates were initially reported, the *annual report (if applicable, in its mineral resources and ore reserves statement) for that year and every subsequent year must include:

- an explanation of why the *historical estimates or *foreign estimates have not been verified and reported as *mineral resources or *ore reserves in accordance with Appendix 5A (JORC Code); and
- a statement of the *entity's intention with regard to verifying and reporting the *historical estimates or *foreign estimates as *mineral resources or *ore reserves in accordance with Appendix 5A (JORC Code).

Note: Listing Rule 5.20 provides that a *mining entity must include a mineral resources and ore reserves statement in its *annual report.

Requirements applicable to reports of production targets

5.15 An *entity must not issue a public report containing or referring to a *production target that is based:

- (a) solely on an *exploration target or solely on a combination of *inferred mineral resources and an *exploration target; or
- (b) solely or partly on *historical estimates or *foreign estimates (other than *qualifying foreign estimates) of mineralisation.

5.16 Subject to rules 5.18 and 5.19, a public report by an *entity containing a *production target relating to:

- (a) the *mineral resources and ore reserves holdings of the *entity (an entity level *production target); or
- (b) a *material mining project of the *entity (or two or more *mining projects which together are material to the *entity),

must include all of the following information and be given to ASX for release to the market.

5.16.1 All material assumptions on which the *production target is based. If the economic assumptions are commercially sensitive to the *mining entity, an explanation of the methodology used to determine the assumptions rather than the actual figure can be reported.

Note: Economic assumptions may not be commercially sensitive. A *mining entity that considers that certain information is commercially sensitive should refer to section 8.6 of Guidance Note 31 on the steps ASX expects it to take in these circumstances.

5.16.2 A statement that the estimated *ore reserves and/or *mineral resources underpinning the *production target have been prepared by a *competent person or persons in accordance with the requirements in Appendix 5A (JORC Code).

5.16.3 The relevant proportions of:

- *probable ore reserves and *proved ore reserves;
 - *inferred mineral resources, *indicated mineral resources and *measured mineral resources;
 - an *exploration target; and
 - *qualifying foreign estimates,
- underpinning the *production target.

5.16.4 If a proportion of the *production target is based on *inferred mineral resources, a cautionary statement proximate to, and with equal prominence as, the reported *production target, stating that:

"There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised".

5.16.5 If a proportion of the *production target is based on an *exploration target, a statement of the factors that lead the *entity to believe that it has a reasonable basis for reporting a *production target in that context, and a cautionary statement proximate to, and with equal prominence as, the reported *production target, stating that:

"The potential quantity and grade of an exploration target is conceptual in nature, there has been insufficient exploration to determine a mineral resource and there is no certainty that further exploration work will result in the determination of mineral resources or that the production target itself will be realised".

5.16.6 If the *production target is based solely on *inferred mineral resources:

- a statement of the factors that lead the *entity to believe that it has a reasonable basis for reporting a *production target based solely on *inferred mineral resources;
- the level of confidence with which the *inferred mineral resources are estimated and the basis for that level of confidence;
- a technical report of a sufficient level of confidence to support the *production target. The technical report must be prepared by, or under the supervision of, a named independent *competent person or persons and include the information referred to in rule 5.22(b) and (c); and
- a cautionary statement proximate to, and with equal prominence as, the reported *production target, stating that:

"There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised. The stated production target is based on the company's current expectations of future results or events and should not be solely relied upon by investors when making investment decisions. Further evaluation work and appropriate studies are required to establish sufficient confidence that this target will be met."

Note: This rule requires that the technical report must be prepared by, or under the supervision of, an independent +competent person. The +inferred mineral resources underlying the +production target must be prepared by, or under the supervision of, a +competent person or persons, but are not required to be prepared by, or under the supervision of, an independent +competent person or persons.

5.16.7 If a proportion of the *production target is based on *qualifying foreign estimates that have not been verified and reported as *mineral resources or *ore reserves in accordance with Appendix 5A (JORC Code) after 3 years from the date the *qualifying foreign estimates were initially reported, the statement and explanation referred to in rule 5.14.2.

Note: The proximate cautionary statement referred to in Listing Rule 5.12.9 will also be required, and should be provided together with the statement and explanation referred to above.

5.17 Subject to rules 5.18 and 5.19, a public report by an *entity containing forecast financial information derived from a *production target relating to:

- (a) the *mineral resources and ore reserves holdings of the *entity (an entity level *production target); or
- (b) a *material mining project of the *entity (or two or more *mining projects which together are material to the *entity),

must include all of the following information and be given to ASX for release to the market.

5.17.1 All material assumptions on which the forecast financial information is based. If the economic assumptions are commercially sensitive to the *mining entity, an explanation of the methodology used to determine the assumptions rather than the actual figure can be reported.

Note: Economic assumptions may not be commercially sensitive. A *mining entity that considers that certain information is commercially sensitive should refer to section 8.6 of Guidance Note 31 on the steps ASX expects it to take in these circumstances.

5.17.2 The *production target from which the forecast financial information is derived (including all the information contained in rule 5.16).

5.17.3 If a significant proportion of the *production target is based on an *exploration target, the implications for the forecast financial information of not including the *exploration target in the *production target.

5.18 A public report by an *entity containing a *production target, or forecast financial information derived from a *production target, relating to an operating mine(s) and that is underpinned:

- (a) solely by *ore reserves; or
- (b) solely by a combination of *ore reserves and *measured mineral resources; or
- (c) solely by a combination of *ore reserves and:

- *measured mineral resources; and/or
- *indicated mineral resources,

provided in this case that the *indicated mineral resources are not the determining factor in project viability,

is not required to comply with rules 5.16.1 or 5.17.1 (as the case may be) in relation to that *production target or forecast financial information.

5.19 An *entity that has issued a public report under rules 5.16 or 5.17 is not required to include the information set out in rules 5.16 and 5.17 in any subsequent public report in relation to a *production target, or forecast financial information derived from a *production target, provided all of the following conditions are satisfied.

5.19.1 The subsequent public report cross-references the initial public report referred to in rule 5.16 or rule 5.17 (as the case may be).

5.19.2 The *entity confirms in the subsequent public report that all the material assumptions underpinning the *production target, or the forecast financial information derived from a *production target, in the initial public report referred to in rule 5.16 or rule 5.17 (as the case may be) continue to apply and have not materially changed.

5.19.3 If the *production target is based solely on *inferred mineral resources, the subsequent public report includes a cautionary statement proximate to, and with equal prominence as, the reported *production target, or the forecast financial information derived from a *production target, which includes the statement set out in rule 5.16.4.

- 5.19.4 If a proportion of the *production target is based on an *exploration target, the subsequent public report includes a cautionary statement proximate to, and with equal prominence as, the reported *production target, or forecast financial information derived from a *production target, which includes the statement set out in rule 5.16.5.

Annual report requirements

- 5.20 A *mining exploration entity must include in its *annual report:
- (a) the *mining tenements held by the *mining exploration entity and its *child entities and their location; and
 - (b) the percentage interest it or they hold in each *mining tenement.
- 5.21 A *mining entity must include a mineral resources and ore reserves statement in its *annual report which includes all of the following information.
- 5.21.1 A summary of the results of the *mining entity's annual review of its *ore reserves and *mineral resources.
- 5.21.2 As at the *mining entity's end of financial year balance date (or such other appropriate disclosed date), the *mining entity's *mineral resources and ore reserves holdings in tabular form reported on the following basis:
- by commodity type, including the grade or quality;
 - by *ore reserve category and *mineral resource category; and
 - by geographical area based on the materiality of the *mineral resources and ore reserves holdings to the *mining entity.
- Note: **M**+mineral resources and ore reserves holdings include +mineral resources and +ore reserves in which the +mining entity or any of its +child entities has an economic interest.
- 5.21.3 If the *mining entity reports as at a date other than its end of financial year balance date, the *mining entity must include a brief explanation of any material changes in the *mineral resources and ore reserves holdings in the period between the date of annual review of its *ore reserves and *mineral resources and the end of financial year balance date.
- 5.21.4 A comparison of the *mining entity's *mineral resources and ore reserves holdings against that from the previous year on the following basis:
- by commodity type, including the grade or quality; and
 - total *ore reserves and total *mineral resources by geographical area based on the materiality of the *mineral resources and ore reserves holdings to the *mining entity,
- including an explanation of any material changes in the *mineral resources and ore reserves holdings from the previous year.
- 5.21.5 A summary of the governance arrangements and internal controls that the *mining entity has put in place with respect to its estimates of *mineral resources and *ore reserves and the estimation process.

Note: **C**ompliance with this rule satisfies the requirement in clause 14 of Appendix 5A (JORC Code) for a +mining entity to publicly report on +mineral resources and +ore reserves annually.

Competent person requirements

- 5.22 Subject to rule 5.23, a market announcement by an *entity containing *exploration results or estimates of *mineral resources or *ore reserves in relation to a *material mining project must state:
- (a) that it is based on, and fairly represents, information and supporting documentation prepared by a named *competent person or persons;

- (b) in each case, whether the *competent person is an employee of the *mining entity or a *related party and, if not, the name of the *competent person's employer; and
- (c) in each case, the name of the professional organisation of which the *competent person is a member.

The market announcement must only be issued with the prior written consent of the *competent person or persons as to the form and context in which the *exploration results or estimates of *mineral resources or *ore reserves (as the case may be) and the supporting information are presented in the market announcement.

Note: This requirement applies to market announcements containing +exploration results under Listing Rule 5.7 or estimates (original or updated) of +mineral resources or +ore reserves under Listing Rule 5.8 or Listing Rule 5.9.

5.23 The requirements in rule 5.22 only apply the first time an *entity publicly reports *exploration results in accordance with listing rule 5.7 or estimates (original or updated) of *mineral resources or *ore reserves in accordance with rule 5.8 or rule 5.9 (as the case may be) provided all of the following conditions are satisfied.

5.23.1 Any subsequent public report that refers to those *exploration results or estimates of *mineral resources or *ore reserves cross-references the relevant market announcement containing the statements and consent referred to in rule 5.22.

5.23.2 The *entity confirms in the subsequent public report that it is not aware of any new information or data that materially affects the information included in the relevant market announcement and, in the case of estimates of *mineral resources or *ore reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

5.24 The mineral resources and ore reserves statement in a *mining entity's *annual report must include:

- (a) a statement that it is based on, and fairly represents, information and supporting documentation prepared by a *competent person or persons; and
- (b) a statement that the mineral resources and ore reserves statement as a whole has been approved by a named *competent person or persons, as well as the information referred to in rule 5.22(b) and (c) in relation to the named *competent person or persons.

The mineral resources and ore reserves statement must only be issued with the prior written consent of the named *competent person or persons referred to in paragraph (b) as to the form and context in which it appears in the *annual report.

Note: The named +competent person or persons referred to in paragraph (b) may be a different to the +competent person or persons referred to in paragraph (a).

Reporting on oil and gas activities

Requirements applicable to all public reporting

5.25 An *entity publicly reporting *petroleum resources, including estimates of:

- (a) *petroleum reserves;
- (b) *contingent resources; or
- (c) *prospective resources,

must ensure all of the following requirements are complied with in the report.

Note: This Listing Rule is not confined to reports under this chapter. It also applies to all public reports, including prospectuses, product disclosure statements, information memoranda, bidder's statements, target's statements, annual reports, financial statements, technical papers, presentations, website content and information given to ASX for release to the market under other chapters of these rules.

5.25.1 The date at which the estimates are reported must be disclosed in the report.

Note: The date referred to in Listing Rule 5.25.1 may be referenced as the "~~evaluation effective date~~". SPE-PRMS defines 'effective date' in section 1.1 and Appendix A.

- 5.25.2 *Petroleum resources must be classified in accordance with *SPE-PRMS and reported in the most specific resource class in which *petroleum resources can be classified under *SPE-PRMS. ~~*Petroleum reserves and *contingent resources must also be sub-classified based on the project maturity sub-classes under *SPE-PRMS.~~

Note: The specific classes for petroleum resources are mentioned in section 1.1 of +SPE-PRMS. They are production, reserves, contingent resources, prospective resources and unrecoverable petroleum.

~~ASX also recommends, as a matter of best practice, that petroleum reserves and contingent resources are sub-classified based on the project maturity sub-classes set out in section 2.1.3.5 of SPE-PRMS.~~

~~In interpreting and applying the SPE-PRMS, entities should have regard to any Application Guide, Examples, Frequently Asked Questions or other official guidance published in relation to the SPE-PRMS. However, if there is any inconsistency between such guidance and the Listing Rules, the Listing Rules prevail. The sub-classes for project maturity are mentioned in section 2.1.3.5 of SPE-PRMS. Additional guidance on petroleum resource classification is provided in the Guidelines for Application of the Petroleum Resources Management System (November 2014).~~

- 5.25.3 The disclosure of total petroleum initially-in-place, total resource base, estimated ultimate recovery, remaining recoverable resources or hydrocarbon endowment is prohibited unless all of the following information is included in the report proximate to that disclosure:

- an estimate of *petroleum reserves;
- an estimate of *contingent resources;
- an estimate of *prospective resources; and
- whether and how each of the resource classes in the summation were adjusted for risk.

Note: +SPE-PRMS defines 'total petroleum initially-in-place' and 'estimated ultimate recovery' in section 1.1 and Appendix A, 'estimated ultimate recovery' in section 1.1 and Appendix A, and 'recoverable resources' in section 1.2 and Appendix A. ~~Additional guidance on total petroleum initially-in-place is provided in section 2.2 of the Guidelines for Application of the Petroleum Resources Management System (November 2014). +SPE-PRMS provides guidance on aggregation across different classes of petroleum reserves, contingent resources and prospective resources in sections 1.1.0.7, 2.2.2.5 and 4.2.6.~~

- 5.25.4 The disclosure of discovered petroleum initially-in-place is prohibited unless all of the following information is included in the report proximate to that disclosure.

- an estimate of *petroleum reserves;
- an estimate of *contingent resources; and
- ~~a clear explanation of the different technical and commercial maturity of the different classes of petroleum resources being reported; and~~

Note: +SPE-PRMS defines 'discovered petroleum initially-in-place' in section 1.1 and Appendix A. ~~SPE-PRMS provides guidance on aggregation in sections 1.1.0.7, 2.2.2.5 and 4.2.6.~~

- 5.25.5 Estimates of *petroleum reserves, *contingent resources and *prospective resources must:

- (a) • be reported according to the *entity's economic interest in the *petroleum reserves, *contingent resources and *prospective resources including its entitlements under production-sharing contracts and risked-service contracts;

~~Note: SPE-PRMS defines 'production-sharing contract' in section 3.3.2 and Appendix A and 'risk-service contract' in section 3.3.2 and Appendix A.~~

- (b) • be reported net of:

- (i) ~~contractual royalty quantities that the *entity is required by agreement~~ (including overriding royalties provided for in farm-out agreements) ~~that the entity is required to give pay~~ in-kind or in-cash to the royalty owner; or

- (ii) those volumes that the *entity is allowed to lift and sell on behalf of the royalty owner; and

(c) not be reported in relation to pure service contracts.

For the avoidance of doubt, paragraph (b)(i) above does not apply to production taxes, even though they may be in the nature of a royalty. Production taxes in the nature of a royalty may either be accounted for and reported as a reduction in the entity's *petroleum resource entitlement or as a tax expense. The entity must disclose which treatment it is applying to such taxes.

Note: *SPE-PRMS addresses royalties and production taxes in defines 'production-sharing contract' in section 3.3.1.2 and Appendix A and 'Royalty' and 'taxes' are defined risked-service contract' in section 3.3.1.2 and Appendix A. ~~Additional guidance on production-sharing contracts (in section 10.33) and risked-service contracts (in section 10.4) is provided in the Guidelines for Application of the Petroleum Resources Management System (November 2011).~~

- 5.25.6 The *entity must disclose whether the deterministic or probabilistic method was used to prepare the estimates of *petroleum reserves, *contingent resources and *prospective resources in the report.

Note: *SPE-PRMS defines the 'deterministic estimation method' and the 'probabilistic estimation method' in section 4.2 and Appendix A. ~~Additional guidance on the deterministic estimation method (in sections 2.2, 3.1, 6.2 and 7.1) and the probabilistic estimation method (in sections 5.3 and 7.1) is provided in the Guidelines for Application of the Petroleum Resources Management System (November 2011).~~

- 5.25.7 ~~If~~ E estimates of *petroleum reserves, *contingent resources and *prospective resources are must be reported in the appropriate units for each individual product type reported. If estimates are also reported in units of equivalency between oil and gas, the *entity must disclose in the report the conversion factor used to convert:

- gas to oil, where the estimates are reported in *BOEs; and
- oil to gas, where the estimates are reported in *McfGEs.

Note: A ~~additional guidance on hydrocarbon conversion is provided in SPE-PRMS section 3.2.9 and on~~ +BOEs is provided in sections 4.12 and 9.13 in the Guidelines for Application of the Petroleum Resources Management System (November 2011).

- 5.26 An *entity publicly reporting estimates of *petroleum reserves must ensure all of the following requirements are complied with in that report.

- 5.26.1 The *entity must have a high degree of confidence in the commercial ity of the project and the the economic producibility of the reservoir.

Note: SPE-PRMS defines 'commerciality' in section 2.1.2.1 and 'economically producible' in section 3.1.2.

- 5.26.2 The term 'reserves' must only be used in connection with estimates of commercially recoverable quantities of *petroleum and must not be used in connection with estimated quantities of *petroleum that are not commercially recoverable.

- 5.26.3 *Petroleum reserves must be categorised and reported in the most specific category that reflects the degree of uncertainty in the estimated quantities of recoverable *petroleum, that is, *1P, *2P or *3P. If an estimate of *3P is reported, estimates of *2P and *1P must also be reported.

- 5.26.4 ~~If +p~~ P ~~Petroleum reserves must be reported as quantities available for sale at net of +lease fuel up to the~~ reference point, ~~Quantities of +petroleum to be consumed in operations may be included as +petroleum reserves provided these quantities are reported separately to, and have equal prominence with, sales quantities~~ the report must disclose the portion of the +petroleum reserves estimates that will be consumed as fuel in production and lease plant operations.

Note: SPE-PRMS defines 'reference point' in section 3.2.1.1 and 'consumed in operations' in section 3.2.2.1. ~~Additional guidance on +lease fuel (in section 9.1) and +reference points (in sections 7.1 and 9.13) is provided in the Guidelines for Application of the Petroleum Resources Management System (November 2011).~~

5.26.5 The *entity must disclose the *reference point used for the purpose of measuring and assessing the estimated *petroleum reserves.

*Note: additional guidance is provided on *reference points in sections 7.1 and 9.13 of the Guidelines for Application of the Petroleum Resources Management System (November 2014).*

5.26.7 Where reported *petroleum reserves represent aggregated estimates of *petroleum reserves, the method of aggregation must be disclosed ~~which~~ and must be either:

- arithmetic summation by category (that is, *1P, *2P or *3P); or
- statistical aggregation of uncertainty distributions up to the field, property or project level.

*Note: *SPE-PRMS defines 'aggregation' in section 4.2.5 and Appendix A.*

5.26.8 If *petroleum reserves are reported beyond the field, property or project level, estimates of *petroleum reserves must be aggregated by arithmetic summation by category beyond that level of reporting. In this case, the *entity must include a note in the report cautioning that the aggregate *1P may be a very conservative estimate and the aggregate *3P may be a very optimistic estimate due to the portfolio effects of arithmetic summation.

Note: additional guidance is provided on aggregation in sections 1.1, 2.1, 4.1, 5.1, 6.26 and 8.1 of the Guidelines for Application of the Petroleum Resources Management System (November 2014).

5.27 An *entity publicly reporting estimates of *contingent resources must ensure all of the following requirements are complied with in that report.

5.27.1 *Contingent resources must be categorised and reported in the most specific category that reflects the degree of uncertainty in the estimated quantities of potentially recoverable *petroleum, that is, *1C, *2C or *3C. If an estimate of *3C is reported, estimates of *2C and *1C must also be reported.

5.27.2 The disclosure of a mean estimate of *contingent resources is prohibited.

5.27.3 Where reported *contingent resources represent aggregated estimates of *contingent resources, the method of aggregation must be disclosed and must be either:

- arithmetic summation by category (that is, *1C, *2C or *3C); or
- statistical aggregation of uncertainty distributions up to the field, property or project level.

5.27.4 If *contingent resources are reported beyond the field, property or project level, estimates of *contingent resources must be aggregated by arithmetic summation by category beyond that level of reporting. In this case, the *entity must include a note in the report cautioning that the aggregate *1C may be a very conservative estimate and the aggregate *3C may be a very optimistic estimate due to the portfolio effects of arithmetic summation.

Note: additional guidance is provided on aggregation in sections 1.1, 2.1, 4.1, 5.1, 6.26 and 8.1 of the Guidelines for Application of the Petroleum Resources Management System (November 2014).

(a) derived solely from an estimate of economically not viable *contingent resources if all of the following information is included in the report proximate to that disclosure:

- an explanation of the reasons why the entity is forecasting financial information for *contingent resources that have been assessed to be economically not viable; and
- a statement of the factors that lead the entity to believe that it has a reasonable basis for reporting the forecast financial information; or

(b) derived partly from an estimate of economically not viable *contingent resources and partly from an estimate of other *petroleum resources if all of the following information is included in the report proximate to that disclosure:

- [an explanation of the reasons why the entity is forecasting financial information derived in part from *contingent resources that have been assessed to be economically not viable;](#)
- [a statement of the factors that lead the entity to believe that it has a reasonable basis for reporting that part of the forecast financial information derived from the estimate of economically not viable *contingent resources; and](#)
- [the implications for the overall forecast financial information of including, and not including, the forecast financial information derived from the estimate of economically not viable *contingent resources.](#)

[Note: SPE-PRMS defines 'economically not viable contingent resources' in section 2.1.3.7.1 and Appendix A.](#)

5.28 An *entity publicly reporting estimates of *prospective resources must ensure all of the following requirements are complied with in that report.

5.28.1 *Prospective resources must be categorised and reported in the most specific category that reflects the degree of uncertainty in the estimated quantities of potentially recoverable *petroleum, that is, *low estimate, *best estimate or *high estimate. If a *high estimate of *prospective resources is reported, the *best estimate and *low estimate of *prospective resources must also be reported.

5.28.2 A cautionary statement proximate to, and with equal prominence as, the reported *prospective resources must be included in the report, stating that:

"The estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an ~~associated~~ risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially ~~moveable~~ recoverable hydrocarbons".

[5.28.3 The disclosure of a mean estimate of *prospective resources is prohibited unless it is accompanied by the *low estimate, *best estimate and *high estimate.](#)

[5.28.4 Where reported *prospective resources represent aggregated estimates of *prospective resources, the method of aggregation must be disclosed and must be either:](#)

- [arithmetic summation by category \(that is, *low estimate, *best estimate or *high estimate\); or](#)
- [statistical aggregation of uncertainty distributions up to the field, property or project level.](#)

[5.28.5 If *prospective resources are reported beyond the field, property or project level, estimates of *prospective resources must be aggregated by arithmetic summation by category beyond that level of reporting. In this case, the entity must include a note in the report cautioning that the aggregate *low estimate may be a very conservative estimate and the aggregate *high estimate may be a very optimistic estimate due to the portfolio effects of arithmetic summation.](#)

[5.28.6 An entity must not report forecast financial information derived from an estimate of *prospective resources.](#)

Requirements applicable to reporting on geophysical surveys

5.29 A public report by an *entity on any geophysical survey in relation to *petroleum must include the name, nature and status of the survey, and the permit under which the survey is being conducted.

Requirements applicable to reporting material exploration and drilling results

- 5.30 An *entity publicly reporting material *exploration and drilling results in relation to *petroleum resources must include all of the following information in that report and give the report to ASX for release to the market.
- (a) The name and type of well.
 - (b) The location of the well and the details of the permit or lease in which the well is located.
 - (c) The *entity's working interest in the well.
 - (d) If the gross pay thickness is reported for an interval of conventional resources, the net pay thickness.
 - (e) The geological rock type of the formation drilled.
 - (f) The depth of the zones tested.
 - (g) The types of test(s) undertaken and the duration of the test(s).
 - (h) The hydrocarbon phases recovered in the test(s).
 - (i) Any other recovery, such as, formation water and water, associated with the test(s) and their respective proportions.
 - (j) The choke size used, the flow rates and, if measured, the volumes of the hydrocarbon phases measured.
 - (k) [If flow rates were tested, information about the pressures associated with the flow and the duration of the test.](#)
 - (l) If applicable, the number of fracture stimulation stages and the size and nature of fracture stimulation applied.
 - (m) Any material volumes of non-hydrocarbon gases, such as, carbon dioxide, nitrogen, hydrogen sulphide and sulphur.
 - (n) Any other information that is material to understanding the reported results.

Requirements applicable to reporting petroleum reserves for material oil and gas projects

- 5.31 The first time an *entity publicly reports estimates of *petroleum reserves in relation to a *material oil and gas project, the *entity must include all of the following information in a market announcement and give it to ASX for release to the market.
- 5.31.1 All material economic assumptions used to calculate the estimates of *petroleum reserves. If those economic assumptions are commercially sensitive to the *oil and gas entity, an explanation of the methodology used to determine the assumptions rather than the actual figure can be reported.
 - 5.31.2 Whether the *entity has operator or non-operator interests in the *material oil and gas project. If the *entity has non-operator interests, the name of the operator.
 - 5.31.3 The types of permits or licences held by the *entity in respect of the reported estimates of *petroleum reserves.
 - 5.31.4 A brief description of:
 - the basis for confirming commercial [ity and economic](#) producibility and booking *petroleum reserves;
 - the analytical procedures used to estimate the *petroleum reserves;
 - the proposed *extraction method; and
 - if applicable, any specialised processing required following *extraction.

[Note: SPE-PRMS defines 'commerciality' in section 2.1.2.1 and 'economically producible' in section 3.1.2.](#)

5.31.5 The estimated quantities (in aggregate) to be recovered:

- from existing wells and facilities (developed *petroleum reserves); and
- through future investments (undeveloped *petroleum reserves).

Note: *SPE-PRMS defines 'developed reserves' and 'undeveloped reserves' in section 2.1 and Appendix A. ~~Additional guidance is provided on developed reserves and undeveloped reserves in sections 3.1, 6.1 and 8.1 of the Guidelines for Application of the Petroleum Resources Management System (November 2014).~~

5.31.6 If the reported estimates of *petroleum reserves relate to undeveloped *petroleum reserves, a brief statement regarding:

- the status of the *material oil and gas project;
- [the existence of a technically mature, feasible development plan when development is anticipated;](#)
- [the financial appropriations that are in place or have a high likelihood of being secured to implement the project for development;](#)
- [the reasonable time-frame for development;](#)
- [confirmation that the *oil and gas project has positive economics and meets the entity's investment and operating criteria;](#)
- the marketing arrangements that justify development;
- [the access to production and/or transportation infrastructure which is available or can be made available;](#) ~~and~~
- [any key legal, contractual, environmental, regulatory and other government approvals needed for development which are not yet in place in place; and or will be forthcoming required, together with](#)
- [any key social or economic concerns that need to be resolved for development.](#)

5.31.7 If the reported estimates of *petroleum reserves relate to unconventional *petroleum resources, the land area, ~~and the number of wells, and the proposed extraction method and any additional processing which may be required before sale for which the estimates of *petroleum reserves are provided.~~

Note: *SPE-PRMS defines 'unconventional resources' in section 2.4 and Appendix A. ~~Additional guidance on unconventional petroleum resources is provided in sections 1.1 and 8.6 of the Guidelines for Application of the Petroleum Resources Management System (November 2014).~~

5.31.8 If *1P is zero for the reported estimates of *petroleum reserves, a brief explanation of why *1P is zero and why, in the absence of *1P, *3P and *2P have been determined and reported.

5.32 The first time an entity publicly reports estimates of *petroleum reserves in relation to a *material oil and gas project that have materially changed from when those estimates were previously reported, the *entity must include all of the following information in a market announcement and give it to ASX for release to the market.

5.32.1 An explanation of the new data and information.

5.32.2 An explanation of how the new data and information has affected the estimates of *petroleum reserves.

5.32.3 Any changes or additions to the information provided under rules 5.31.1 to 5.31.7.

Requirements applicable to reporting contingent resources for material oil and gas projects

- 5.33 The first time an *entity publicly reports estimates of *contingent resources in relation to a *material oil and gas project, the *entity must include all of the following information in a market announcement and give it to ASX for release to the market.
- 5.33.1 The types of permits or licences held by the *entity in respect of the reported estimates of *contingent resources.
- 5.33.2 The basis for confirming the existence of a significant quantity of potentially **moveable recoverable** hydrocarbons and the determination of a discovery.
- 5.33.3 A brief description of:
- the analytical procedures used to estimate the *contingent resources;
 - the key contingencies that **currently** prevent the *contingent resources from being classified as *petroleum reserves; ~~and~~
 - any further appraisal drilling and evaluation work to be undertaken to assess the potential for commercial recovery of the *contingent resources, and to progress the *material oil and gas project; and
 - any other work the entity is proposing to undertake to assess or improve the chance of development associated with the reported estimates of the *contingent resources.
- Note: SPE-PRMS defines the 'chance of development' and the 'chance of commerciality' in section 2.1.3 and Appendix A. For contingent resources, the chance of commerciality is equal to the chance of development. The determination of commerciality is covered by SPE PRMS 2.1.2, which requires an assessment of the factors in paragraphs A–G in SPE PRMS 2.1.2.1.
- 5.33.4 If the reported estimates of *contingent resources are contingent on technology under development, a brief explanation of:
- whether the technology is under active development;
 - whether a pilot for that technology is planned and budgeted; and
 - whether the technology has been demonstrated to be commercially viable in analogous reservoirs and, if not, whether it has been demonstrated to be commercial viable in other reservoirs.
- 5.33.5 If the reported estimates of *contingent resources relate to unconventional *petroleum resources, the land area, ~~and~~ the number of wells, ~~and the proposed extraction method and any additional processing which may be required before sale~~ for which the estimates of *contingent resources are provided.
- Note: *SPE-PRMS defines 'unconventional resources' in section 2.4 and Appendix A. ~~Additional guidance on unconventional petroleum resources (in sections 1.1 and 8.6) and on the key contingencies for a classification of +contingent resources is provided in the Guidelines for Application of the Petroleum Resources Management System (November 2011).~~
- 5.34 The first time an *entity publicly reports estimates of *contingent resources in relation to a *material oil and gas project that have materially changed from when those estimates were previously reported, the *entity must include all of the following information in a market announcement and give it to ASX for release to the market.
- 5.34.1 An explanation of the new data and information.
- 5.34.2 An explanation of how the new data and information has affected the estimates of *contingent resources.
- 5.34.3 Any changes or additions to the information provided under rules 5.33.1 to 5.33.5.

Requirements applicable to reporting prospective resources for material oil and gas projects

- 5.35 The first time an *entity publicly reports estimates of *prospective resources in relation to a *material oil and gas project, the *entity must include all of the following information in a market announcement and give it to ASX for release to the market.
- 5.35.1 The types of permits or licences held by the *entity in respect of the reported estimates of *prospective resources.
- 5.35.2 A brief description of:
- the basis on which the *prospective resources are estimated; and
 - any further *exploration activities, including studies, further data acquisition and evaluation work, and *exploration drilling to be undertaken and the expected timing of those *exploration activities.
- 5.35.3 The *entity's assessment of the chance of discovery and the chance of development associated with the reported estimates of *prospective resources.
- 5.35.4 If risked estimates of *prospective resources are reported, an explanation of how the estimates were adjusted for risk.
- Note: additional guidance on *prospective resources is provided in the Guidelines for Application of the Petroleum Resources Management System (November 2014).*
- 5.36.1 An explanation of the new data and information.
- 5.36.2 An explanation of how the new data and information has affected the estimates of *prospective resources.
- 5.36.3 Any changes or additions to the information provided under rules 5.35.1 to 5.35.4.

Annual report requirements

- 5.37 An *oil and gas exploration entity must include in its *annual report:
- (a) the *petroleum tenements held by the *oil and gas exploration entity and its *child entities and their location; and
 - (b) the percentage interest it or they hold in each *petroleum tenement.
- 5.38 An *oil and gas entity that reports to the ~~SEC Securities and Exchange Commission (SEC) of the United States of America~~ and files ~~an SEC-compliant SEC Forms 10-K or 20-F Reports~~ with a ~~*US oil and gas reserves statement~~ the SEC annually, is not required to comply with the annual reserves statement requirements under rules ~~5.39 and 5.40~~. In such a case, immediately after filing any such form or report with the SEC, the *oil and gas entity must give a copy of the form or report to ASX for release to the market.
- Note: ~~I~~the US Securities Exchange Act of 1934 requires certain companies to file a Forms 10-K or 20-F Report with the SEC. To avoid creating inconsistent regulatory requirements, an entity that files an SEC Form 10-K or 20-F Report with the SEC containing a compliant US oil and gas reserves statement is not required to comply with rule 5.39 (although it must still comply with rule 5.40 if it wishes to separately report on oil and gas entity level or other aggregated estimates of contingent resources). ASX may ask an *oil and gas entity to provide evidence that it has filed SEC compliant Forms 10-K and 20-F with the SEC.*
- 5.39 Subject to rule 5.38, an *oil and gas entity must include a reserves statement in its *annual report which includes all of the following information.
- 5.39.1 As at the *oil and gas entity's end of financial year balance date, the *oil and gas entity's *petroleum reserves holdings in tabular form reported on the following basis:

- subject to rule 5.39.2, by the *oil and gas entity's total *1P *petroleum reserves and *2P *petroleum reserves (split between developed and undeveloped *petroleum reserves and by product); and
- by total aggregated *1P *petroleum reserves and *2P *petroleum reserves by product and geographical area (split between developed and undeveloped *petroleum reserves by geographical area).

Note: ~~P~~+petroleum reserves holdings include +petroleum reserves in which the +oil and gas entity or any of its +child entities have an economic interest.

- 5.39.2 If the *oil and gas entity has material unconventional *petroleum resources, it must separately identify the portion of the total *1P *petroleum reserves and *2P *petroleum reserves reported under the first bullet point of rule 5.39.1 that are based on unconventional *petroleum resources.

Note: +SPE-PRMS defines 'developed reserves' and 'undeveloped reserves' in section 2.1 and Appendix A and 'unconventional resources' in section 2.4 and Appendix A. ~~Additional guidance on developed and undeveloped reserves (in sections 2.1, 6.1 and 8.2) and unconventional resources (in sections 1.1 and 8.6) is provided in the Guidelines for Application of the Petroleum Resources Management System (November 2011).~~

- 5.39.3 A reconciliation of the *oil and gas entity's *petroleum reserves holdings against that from the previous year. The reconciliation can be reported on the basis of the *oil and gas entity's total *1P *petroleum reserves and *2P *petroleum reserves by product or by total aggregated *1P *petroleum reserves and *2P *petroleum reserves by geographical area, and must include an explanation of any material changes in those holdings from the previous year.

- 5.39.4 If any material concentrations of undeveloped *petroleum reserves in *material oil and gas projects have remained undeveloped after 5 years from the date they were initially reported, the *oil and gas entity's reserves statement in the *annual report for that year and every subsequent year must include:

- an explanation of why the undeveloped *petroleum reserves have not been developed; ~~and~~
- a statement of the *oil and gas entity's intention ~~and time frame~~ with regard to the future development of the undeveloped *petroleum reserves; ~~and~~
- any work the entity is proposing to undertake towards development of the undeveloped *petroleum reserves.

Note: +SPE-PRMS defines 'undeveloped reserves' in section 2.1 and Appendix A. ~~Additional guidance is provided on undeveloped reserves in sections 3.1, 6.1 and 8.1 of the Guidelines for Application of the Petroleum Resources Management System (November 2011).~~

- 5.39.5 A summary of the governance arrangements and internal controls that the *oil and gas entity has put in place, including the frequency and scope of any reviews or audits undertaken, with respect to its estimates of *petroleum reserves and the estimation process.

5.39.6 Estimates of *petroleum reserves in the reserves statement in the *annual report must be reported in the appropriate units for each individual product type reported. If estimates are also reported in units of equivalency, either of oil or gas, the entity must disclose in the report the conversion factor used, in accordance with rule 5.25.7.

Note: Additional guidance on hydrocarbon conversion is provided in SPE-PRMS section 3.2.9.

- 5.40 ~~If a~~An *oil and gas entity:

- (a) that reports on *oil and gas entity level ~~and/or~~ other aggregated estimates of *contingent resources in its reserves statement in its *annual report, ~~must include in that~~ reserves statement ~~must include~~; or
- (b) that is exempt from the requirement to include a reserves statement in its *annual report under rule 5.38 but wishes to report on *oil and gas entity level or other

[aggregated estimates of *contingent resources, must include in its *annual report or in a statement to be provided to ASX for release to the market with its annual report under rule 4.7, a statement that includes,](#)

-all of the following-information [set out in rules 5.40.1, 5.40.2 and 5.40.3.](#)

5.40.1 As at the *oil and gas entity's end of financial year balance date, the *oil and gas entity's *contingent resources holdings in tabular form reported on the following basis:

- total *2C *contingent resources by product; ~~and~~
- aggregated *2C *contingent resources by product and geographical area; ~~and-~~
- [estimates of *contingent resources must be made in the appropriate units for each individual product type reported. If estimates are also reported in units of equivalency either of oil or gas, the entity must disclose in the report the conversion factor used, in accordance with rule 5.25.7.](#)

[Note: Additional guidance on hydrocarbon conversion is provided in SPE-PRMS section 3.2.9.](#)

5.40.2 A reconciliation of the *oil and gas entity's total *2C *contingent resources holdings against that from the previous year, including an explanation of any material changes in those holdings from the previous year.

Note: ~~C~~ontingent resources holdings include ~~+~~contingent resources in which the ~~+~~oil and gas entity and all its ~~+~~child entities have an economic interest.

[5.40.3 If the *oil and gas entity has material unconventional *petroleum resources, it must separately identify the portion of the total *2C *contingent resources reported under the first bullet point of rule 5.40.1 that are based on unconventional *petroleum resources.](#)

[Note: SPE-PRMS defines 'developed reserves' and 'undeveloped reserves' in section 2.1 and Appendix A and 'unconventional resources' in section 2.4 and Appendix A.](#)

Qualified petroleum reserves and resources evaluator requirements

- 5.41 An *entity publicly reporting on estimates of *petroleum reserves, *contingent resources and *prospective resources must ensure that those estimates are prepared by, or under the supervision of, a *qualified petroleum reserves and resources evaluator or evaluators.
- 5.42 Subject to rule 5.43, a public report by an *entity containing estimates of *petroleum reserves, *contingent resources and *prospective resources must state:
- (a) that it is based on, and fairly represents, information and supporting documentation prepared by, or under the supervision of, a named *qualified petroleum reserves and resources evaluator or evaluators;
 - (b) whether the *qualified petroleum reserves and resources evaluator is an employee of the *oil and gas entity or a *related party and, if not, the name of the *qualified petroleum reserves and resources evaluator's employer; and
 - (c) the name of the professional organisation of which the *qualified petroleum reserves and resources evaluator is a member.

The report must only be issued with the prior written consent of the *qualified petroleum reserves and resources evaluator as to the form and context in which the estimated *petroleum reserves, *contingent resources and *prospective resources and the supporting information are presented in the public report.

Note: ~~T~~his requirement applies (but is not limited) to public reports containing estimates of ~~+~~petroleum reserves or materially changed estimates of ~~+~~petroleum reserves in accordance with Listing Rules 5.31 or 5.32, estimates of ~~+~~contingent resources or materially changed estimates of ~~+~~contingent resources in accordance with Listing Rules 5.33 or 5.34 and estimates of ~~+~~prospective resources or materially changed estimates of ~~+~~prospective resources in accordance with Listing Rules 5.35 or 5.36.

- 5.43 The requirements in rule 5.42 only apply the first time an *entity publicly reports estimates of *petroleum reserves, *contingent resources or *prospective resources (original or updated) provided all of the following conditions are satisfied.
- 5.43.1 Any subsequent public report that refers to those estimates of *petroleum reserves, *contingent resources or *prospective resources cross-references the relevant market announcement containing the statements and consent referred to in rule 5.42.
- 5.43.2 The *entity confirms in the subsequent public report that it is not aware of any new information or data that materially affects the information included in the relevant market announcement and that all the material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.
- 5.44 The reserves statement in an *oil and gas entity's *annual report in accordance with rule 5.39 must include:
- (a) a statement that it is based on, and fairly represents, information and supporting documentation prepared by, or under the supervision of, a *qualified petroleum reserves and resources evaluator or evaluators; ~~and~~
 - (b) a statement that the reserves statement as a whole has been approved by a named *qualified petroleum reserves and resources evaluator or evaluators, ~~as well as the information referred to in rule 5.42(b) and (c) in relation to the named *qualified petroleum reserves and resources evaluator or evaluators;~~
 - (c) whether the *qualified petroleum reserves and resources evaluator is an employee of the *oil and gas entity or a *related party and, if not, the name of the *qualified petroleum reserves and resources evaluator's employer; and
 - (d) the name of the professional organisation of which the *qualified petroleum reserves and resources evaluator is a member.

The reserves statement must only be issued with the prior written consent of the named *qualified petroleum reserves and resources evaluator or evaluators referred to in paragraph (b) as to the form and context in which it appears in the *annual report.

Note: ~~T~~he named *qualified petroleum reserves and resources evaluator or evaluators referred to in paragraph (b) may be different to the *qualified petroleum reserves and resources evaluator or evaluators referred to in paragraph (a).

Terms of a mining tenement and a petroleum tenement joint venture

- 5.45 An *entity must not, and must ensure that all its *child entities do not, enter a joint venture agreement to investigate or explore a *mining tenement or a *petroleum tenement, unless the agreement provides that if the *entity requires it, the operator of the joint venture will give the *entity all the information the *entity requires to comply with the Listing Rules; and that the information may be given to ASX for release to the market if necessary for the *entity to comply with the Listing Rules.
- ...

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Chapter 19

Interpretation and definitions

...

Definitions

19.12 The following expressions have the meanings set out below.

Introduced 01/07/96 Origin: Definitions

Expressions	meanings
...	
lease fuel	oil and/or gas used for field and processing plant operations. Introduced 01/12/13
petroleum	a naturally occurring mixture consisting of hydrocarbons in the gaseous, liquid or solid phase. Petroleum may also contain non hydrocarbon compounds. Common examples of non-hydrocarbon compounds included in petroleum are carbon dioxide, nitrogen, hydrogen sulphide and sulphur. Introduced 01/12/13 Amended XX/XX/21
reference point	a defined location within a "petroleum" extraction and processing operation where quantities of produced product are measured under defined conditions prior to custody transfer. Introduced 01/12/13
...	
SEC	the Securities and Exchange Commission of the United States of America. Introduced XX/XX/21
...	
SPE-PRMS	Petroleum Resources Management System (version 1.01, revised June 2018) sponsored by the Society of Petroleum Engineers (SPE), the American Association of Petroleum Geologists (AAPG), the World Petroleum Council (WPC) and the Society of Petroleum Evaluation Engineers (SPEE). Introduced 01/12/13
...	
US oil and gas reserves statement	A statement of oil and gas reserves prepared in accordance with the SEC requirements set out in Subpart 1200 of Regulation S-K. Introduced XX/XX/21

Annexure C
Mark-up of final changes to Chapter 5 and Rule 19.12 of the
ASX Listing Rules compared to consultation version

Chapter 5

Additional reporting on mining and
oil and gas production and exploration activities

Table of Contents

The main headings in this chapter	Rules
Quarterly reporting	5.1 – 5.5
Reporting on mining activities	5.6 – 5.24
Reporting on oil and gas activities	5.25 – 5.44
Terms of a mining tenement and a petroleum tenement joint venture	5.45

Explanatory note

This chapter sets out additional reporting and disclosure requirements for *mining entities, *oil and gas entities, and other entities reporting on mining and oil and gas activities.

Information to be given to ASX for release to the market must be given to ASX's *market announcements office.

Amended 01/07/14, 01/12/19

Quarterly reporting

Mining producing entities

- 5.1 A *mining producing entity must complete a report for each quarter of its financial year and give it to ASX for release to the market. It must do so no later than 1 month after the end of the quarter. The report must include all of the following information for the group comprising the entity and its *child entities on a consolidated basis.
- 5.1.1 Details of its mining production and development activities for the quarter and a summary of the expenditure incurred on those activities. If there were no substantive mining production and development activities during the quarter, that fact must be stated.
- 5.1.2 A summary of its mining *exploration activities for the quarter and a summary of the expenditure incurred on those activities. If there were no substantive mining *exploration activities during the quarter, that fact must be stated.

Cross reference: Guidance Note 23 *Quarterly Reports*.

Oil and gas producing entities

- 5.2 An *oil and gas producing entity must complete a report for each quarter of its financial year and give it to ASX for release to the market. It must do so no later than 1 month after the end

of the quarter. The report must include all of the following information for the group comprising the entity and its *child entities on a consolidated basis.

- 5.2.1 Details of its oil and gas production and development activities for the quarter and a summary of the expenditure incurred on those activities. If there were no substantive oil and gas production or development activities during the quarter, that fact must be stated.
- 5.2.2 A summary of its oil and gas *exploration activities for the quarter and a summary of the expenditure incurred on those activities. If there were no substantive oil and gas *exploration activities during the quarter, that fact must be stated.

Cross reference: Guidance Note 23 *Quarterly Reports*.

Quarterly activity reports by mining exploration entities

- 5.3 A *mining exploration entity must complete a report for each quarter of its financial year and give it to ASX for release to the market at the same time as it gives its Appendix 5B for that quarter under rule 5.5. The report must include all of the following information for the group comprising the entity and its *child entities on a consolidated basis.
- 5.3.1 Details of its mining *exploration activities for the quarter, including any material developments or material changes in those activities, and a summary of the expenditure incurred on those activities. If there were no substantive mining *exploration activities during the quarter, that fact must be stated.
- 5.3.2 Details of its mining production and development activities for the quarter and a summary of the expenditure incurred on those activities. If there were no substantive mining production and development activities during the quarter, that fact must be stated.
- 5.3.3 Details of:
- any *mining tenements *acquired or *disposed of during the quarter and their location;
 - the *mining tenements held at the end of the quarter and their location;
 - any farm-in or farm-out agreements it entered into during the quarter; and
 - the beneficial percentage interests it held at the end of the quarter in farm-in or farm-out agreements.
- 5.3.4 If the quarter is included in a period covered by a “use of funds” statement or expenditure program in the *prospectus, *PDS or *information memorandum lodged by the entity with ASX under rule 1.1 condition 3, a comparison of the entity’s actual expenditure on the individual items in the “use of funds” statement or expenditure program since the date of its admission or re-admission to the official list against the estimated expenditure on those items in the “use of funds” statement or expenditure program in the *prospectus, *PDS or *information memorandum and an explanation of any material variances.
- 5.3.5 A description of, and an explanation for, any payments to, or to an *associate of, a related party of the entity included in its Appendix 5B for the quarter.

Cross reference: Guidance Note 23 *Quarterly Reports*.

Quarterly activity reports by oil and gas exploration entities

- 5.4 An *oil and gas exploration entity must complete a report for each quarter of its financial year and give it to ASX for release to the market at the same time as it gives its Appendix 5B for that quarter under rule 5.5. The report must include all of the following information for the group comprising the entity and its *child entities on a consolidated basis.

- 5.4.1 Details of its oil and gas *exploration activities for the quarter, including any material developments or material changes in those activities, and a summary of the expenditure incurred on those activities. If there were no substantive oil and gas *exploration activities during the quarter, that fact must be stated.
- 5.4.2 Details of its oil and gas production and development activities for the quarter and a summary of the expenditure incurred on those activities. If there were no substantive oil and gas production and development activities during the quarter, that fact must be stated.
- 5.4.3 Details of:
- any *petroleum tenements it *acquired or *disposed of during the quarter and their location;
 - the *petroleum tenements held by it at the end of the quarter and their location;
 - any farm-in or farm-out agreements it entered into during the quarter; and
 - the beneficial percentage interests it held at the end of the quarter in farm-in or farm-out agreements.
- 5.4.4 If the quarter is included in a period covered by a “use of funds” statement or expenditure program in the *prospectus, *PDS or *information memorandum lodged by the entity with ASX under rule 1.1 condition 3, a comparison of the entity’s actual expenditure on the individual items in the “use of funds” statement or expenditure program since the date of its admission or re-admission to the official list against the estimated expenditure on those items in the “use of funds” statement or expenditure program in the *prospectus, *PDS or *information memorandum and an explanation of any material variances.
- 5.4.5 A description of, and an explanation for, any payments to, or to an *associate of, a related party of the entity or an associate included in its Appendix 5B for the quarter.

Cross reference: Guidance Note 23 *Quarterly Reports*.

Quarterly cash flow reports for mining exploration entities and oil and gas exploration entities

- 5.5 A *mining exploration entity and an *oil and gas exploration entity must also complete an Appendix 5B and give it to ASX. It must do so immediately the information is available for release to the market, and in any event within 1 month after the end of each quarter of its financial year.

Note: Information about an entity’s quarterly cash flows is “available for release to the market” when it has been properly compiled, verified and approved.

Cross reference: Listing Rule 4.10.19, Guidance Note 23 *Quarterly Reports*.

Reporting on mining activities

Requirements applicable to all public reporting

- 5.6 Subject to rule 5.10, a public report prepared by an entity must be prepared in accordance with rules 5.7 to 5.24 if applicable and Appendix 5A (JORC Code) if applicable if the report includes a statement relating to any of the following.
- *Exploration targets.
 - *Exploration results.
 - *Mineral resources or *ore reserves.
 - *Production targets.

Note: The rules in this chapter relate to the reporting of exploration results, mineral resources, ore reserves, historical and foreign estimates and production targets. Appendix 5A (JORC Code) relates to the reporting of exploration targets, exploration results, mineral resources and ore reserves. This rule is not confined to reports under this chapter. It also applies to all public reports, including prospectuses, product disclosure statements, information memoranda, bidder's and target's statements, annual reports, financial statements, technical papers, presentations, website content and information given to ASX for release to the market under other chapters of these rules.

Requirements applicable to reports of exploration results for material mining projects

5.7 An entity publicly reporting in relation to a *material mining project, either:

- (a) *exploration results for the first time; or
- (b) any new *exploration results,

must include all of the following information in a market announcement and give it to ASX for release to the market.

5.7.1 As an appendix to the market announcement, a separate report providing all information that is material to understanding the *exploration results, in relation to each of the criteria in section 1 (sampling techniques and data) and section 2 (reporting of exploration results) of Table 1 in Appendix 5A (JORC Code). An entity that determines that one or more of those criteria is not material for this purpose must identify each such criterion and explain why it has determined that it is not material to understanding the *exploration results.

5.7.2 As an appendix to the market announcement, a separate table setting out the following information for material drill-holes unless the entity determines that the information is not material:

- easting and northing of the drill-hole collar;
- elevation or RL of the drill-hole collar;
- dip and azimuth of the hole;
- down hole width and depth; and
- end of hole.

An entity that determines that a drill-hole table setting out the information described above is not material, is not required to attach the table to the market announcement but must explain why it has determined that the table is not material to understanding the *exploration results.

Note: Clauses 17 and 18 of Appendix 5A (JORC Code) set out additional requirements for public reports on exploration results that also must be complied with (see Listing Rule 5.6), including reporting against Table 1 of Appendix 5A (JORC Code) on an 'if not, why not' basis.

Requirements applicable to reports of mineral resources for material mining projects

5.8 An entity publicly reporting estimates of *inferred mineral resources, *indicated mineral resources or *measured mineral resources in relation to a *material mining project, either:

- (a) for the first time; or
- (b) that have materially changed from when those estimates were last reported in accordance with this rule,

must include all of the following information in a market announcement and give it to ASX for release to the market.

5.8.1 In the market announcement, a fair and balanced representation of the information contained in the separate report prepared in accordance with rule 5.8.2 including a summary of all information material to understanding the reported estimates of *mineral resources in relation to the following matters:

- geology and geological interpretation;
- sampling and sub-sampling techniques;

- drilling techniques;
- the criteria used for classification, including drill and data spacing and distribution. This includes separately identifying the drill spacing used to classify each category of *mineral resources (inferred, indicated and measured) where estimates for more than one category of *mineral resource are reported;
- sample analysis method;
- estimation methodology;
- cut-off grade(s), including the basis for the selected cut-off grade(s); and
- mining and metallurgical methods and parameters, and other material modifying factors considered to date.

5.8.2 As an appendix to the market announcement, a separate report providing all information that is material to understanding the estimates of *mineral resources, in relation to each of the criteria in:

- section 1 (sampling techniques and data), section 2 (reporting of exploration results), and section 3 (estimation and reporting of mineral resources) of Table 1 of Appendix 5A (JORC Code); and
- section 5 (estimation and reporting of diamonds and other gemstones) of Table 1 of Appendix 5A (JORC Code), for all *entities reporting diamonds and other gemstones.

An entity that determines that one or more of those criteria is not material for this purpose must identify each such criterion and explain why it has determined that it is not material to understanding the estimates of *mineral resources.

Note: Clauses 19 to 27 of Appendix 5A (JORC Code) set out additional requirements for public reports on mineral resources that also must be complied with (see Listing Rule 5.6), including reporting against Table 1 of Appendix 5A (JORC Code) on an 'if not, why not' basis.

Requirements applicable to reports of ore reserves for material mining projects

5.9 An entity publicly reporting estimates of *probable ore reserves and *proved ore reserves in relation to a *material mining project, either:

- for the first time; or
- that have materially changed from when those estimates were last reported in accordance with this rule,

must include all of the following information in a market announcement and give it to ASX for release to the market.

5.9.1 In the market announcement, a fair and balanced representation of the information contained in the separate report prepared in accordance with rule 5.9.2 including a summary of all information material to understanding the reported estimates of *ore reserves in relation to the following matters:

- the material assumptions and the outcomes from the *preliminary feasibility study or the *feasibility study (as the case may be). If the economic assumptions are commercially sensitive to the *mining entity, an explanation of the methodology used to determine the assumptions rather than the actual figure can be reported;

Note: Economic assumptions may not be commercially sensitive. A mining entity that considers that certain information is commercially sensitive should refer to section 6 of Guidance Note 31 on the steps ASX expects it to take in these circumstances.

- the criteria used for classification, including the classification of the *mineral resources on which the *ore reserves are based and the confidence in the modifying factors applied;

- the mining method selected and other mining assumptions, including mining recovery factors and mining dilution factors;
- the processing method selected and other processing assumptions, including the recovery factors applied and the allowances made for deleterious elements;
- the basis of the cut-off grade(s) or quality parameters applied;
- estimation methodology; and
- material modifying factors, including the status of environmental approvals, *mining tenements and approvals, other governmental factors and infrastructure requirements for selected mining methods and for transportation to market.

5.9.2 As an appendix to the market announcement, a separate report providing all information that is material to understanding the estimates of *ore reserves, in relation to each of the criteria in:

- section 1 (sampling techniques and data), section 2 (reporting of exploration results), section 3 (estimation and reporting of mineral resources), and section 4 (estimation and reporting of ore reserves) of Table 1 of Appendix 5A (JORC Code); and
- section 5 (estimation and reporting of diamonds and other gemstones) of Table 1 of Appendix 5A (JORC Code), for all *entities reporting diamonds and other gemstones.

An entity that determines that one or more of those criteria is not material for this purpose must identify each such criterion and explain why it has determined that it is not material to understanding the estimates of *ore reserves.

Note: Clauses 28 to 35 of Appendix 5A (JORC Code) set out additional requirements for public reports on ore reserves that also must be complied with (see Listing Rule 5.6), including reporting against Table 1 of Appendix 5A (JORC Code) on an 'if not, why not' basis.

Requirements applicable to reports of historical estimates and foreign estimates of mineralisation for material mining projects

- 5.10 An entity reporting *historical estimates or *foreign estimates of mineralisation in relation to a *material mining project to the public is not required to comply with rule 5.6 provided the entity complies with rules 5.12, 5.13 and 5.14.
- 5.11 An entity must not include *historical estimates or *foreign estimates (other than *qualifying foreign estimates) of mineralisation in an economic analysis (including a *scoping study, *preliminary feasibility study, or a *feasibility study) of the entity's *mineral resources and ore reserves holdings.
- 5.12 Subject to rule 5.13, an entity reporting *historical estimates or *foreign estimates of mineralisation in relation to a *material mining project must include all of the following information in a market announcement and give it to ASX for release to the market.
- 5.12.1 The source and date of the *historical estimates or *foreign estimates.
- 5.12.2 Whether the *historical estimates or *foreign estimates use categories of mineralisation other than those defined in Appendix 5A (JORC Code) and if so, an explanation of the differences.
- 5.12.3 The relevance and materiality of the *historical estimates or *foreign estimates to the entity.
- 5.12.4 The reliability of the *historical estimates or *foreign estimates, including by reference to any of the criteria in Table 1 of Appendix 5A (JORC Code) which are relevant to understanding the reliability of the *historical estimates or *foreign estimates.

- 5.12.5 To the extent known, a summary of the work programs on which the *historical estimates or *foreign estimates are based and a summary of the key assumptions, mining and processing parameters and methods used to prepare the *historical estimates or *foreign estimates.
- 5.12.6 Any more recent estimates or data relevant to the reported mineralisation available to the entity.
- 5.12.7 The evaluation and/or exploration work that needs to be completed to verify the *historical estimates or *foreign estimates as *mineral resources or *ore reserves in accordance with Appendix 5A (JORC Code).
- 5.12.8 The proposed timing of any evaluation and/or exploration work that the entity intends to undertake and a comment on how the entity intends to fund that work.
- 5.12.9 A cautionary statement proximate to, and with equal prominence as, the reported *historical estimates or *foreign estimates stating that:
- the estimates are *historical estimates or *foreign estimates and are not reported in accordance with the JORC Code;
 - a *competent person has not done sufficient work to classify the *historical estimates or *foreign estimates as *mineral resources or *ore reserves in accordance with the JORC Code; and
 - it is uncertain that following evaluation and/or further exploration work that the *historical estimates or *foreign estimates will be able to be reported as *mineral resources or *ore reserves in accordance with the JORC Code.
- 5.12.10 A statement by a named *competent person or persons that the information in the market announcement provided under rules 5.12.2 to 5.12.7 is an accurate representation of the available data and studies for the *material mining project. The statement must include the information referred to in rule 5.22(b) and (c).
- 5.13 An entity that has issued a market announcement under rule 5.12 is not required to include the information set out in rule 5.12 in any subsequent public report in relation to the *historical estimates or *foreign estimates provided all of the following conditions are satisfied.
- 5.13.1 The subsequent public report cross-references the initial market announcement referred to in rule 5.12.
- 5.13.2 The entity is not in possession of any new information or data relating to the *historical estimates or *foreign estimates that materially impacts on the reliability of the estimates or the *mining entity's ability to verify the *historical estimates or *foreign estimates as *mineral resources or *ore reserves in accordance with Appendix 5A (JORC Code).
- 5.13.3 The entity confirms in the subsequent public report that the supporting information provided in the initial market announcement referred to in rule 5.12 continues to apply and has not materially changed.
- 5.13.4 The subsequent public report includes a cautionary statement proximate to, and with equal prominence as, the reported *historical estimates or *foreign estimates stating the matters contained in rule 5.12.9.
- 5.14 An entity that has publicly reported *historical estimates or *foreign estimates in accordance with rule 5.12 which have not subsequently been verified and reported as *mineral resources or *ore reserves in accordance with Appendix 5A (JORC Code), must comply with all of the following conditions.
- 5.14.1 The entity must include each year in its *annual report (if applicable, in its mineral resources and ore reserves statement), a statement on:

- the progress made in evaluating the previously reported *historical estimates or *foreign estimates; and
- the status of any further evaluation and/or exploration work required to verify the *historical estimates or *foreign estimates as *mineral resources or *ore reserves in accordance with Appendix 5A (JORC Code).

5.14.2 If the *historical estimates or *foreign estimates have not been verified and reported as *mineral resources or *ore reserves in accordance with Appendix 5A (JORC Code) after 3 years from the date the *historical estimates or *foreign estimates were initially reported, the *annual report (if applicable, in its mineral resources and ore reserves statement) for that year and every subsequent year must include:

- an explanation of why the *historical estimates or *foreign estimates have not been verified and reported as *mineral resources or *ore reserves in accordance with Appendix 5A (JORC Code); and
- a statement of the entity's intention with regard to verifying and reporting the *historical estimates or *foreign estimates as *mineral resources or *ore reserves in accordance with Appendix 5A (JORC Code).

Note: Listing Rule 5.20 provides that a mining entity must include a mineral resources and ore reserves statement in its annual report.

Requirements applicable to reports of production targets

5.15 An entity must not issue a public report containing or referring to a *production target that is based:

- solely on an *exploration target or solely on a combination of *inferred mineral resources and an *exploration target; or
- solely or partly on *historical estimates or *foreign estimates (other than *qualifying foreign estimates) of mineralisation.

5.16 Subject to rules 5.18 and 5.19, a public report by an entity containing a *production target relating to:

- the *mineral resources and ore reserves holdings of the entity (an entity level *production target); or
- a *material mining project of the entity (or two or more *mining projects which together are material to the entity),

must include all of the following information and be given to ASX for release to the market.

5.16.1 All material assumptions on which the *production target is based. If the economic assumptions are commercially sensitive to the *mining entity, an explanation of the methodology used to determine the assumptions rather than the actual figure can be reported.

Note: Economic assumptions may not be commercially sensitive. A mining entity that considers that certain information is commercially sensitive should refer to section 8.6 of Guidance Note 31 on the steps ASX expects it to take in these circumstances.

5.16.2 A statement that the estimated *ore reserves and/or *mineral resources underpinning the *production target have been prepared by a *competent person or persons in accordance with the requirements in Appendix 5A (JORC Code).

5.16.3 The relevant proportions of:

- *probable ore reserves and *proved ore reserves;
- *inferred mineral resources, *indicated mineral resources and *measured mineral resources;
- an *exploration target; and

- *qualifying foreign estimates, underpinning the *production target.

5.16.4 If a proportion of the *production target is based on *inferred mineral resources, a cautionary statement proximate to, and with equal prominence as, the reported *production target, stating that:

“There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised”.

5.16.5 If a proportion of the *production target is based on an *exploration target, a statement of the factors that lead the entity to believe that it has a reasonable basis for reporting a *production target in that context, and a cautionary statement proximate to, and with equal prominence as, the reported *production target, stating that:

“The potential quantity and grade of an exploration target is conceptual in nature, there has been insufficient exploration to determine a mineral resource and there is no certainty that further exploration work will result in the determination of mineral resources or that the production target itself will be realised”.

5.16.6 If the *production target is based solely on *inferred mineral resources:

- a statement of the factors that lead the entity to believe that it has a reasonable basis for reporting a *production target based solely on *inferred mineral resources;
- the level of confidence with which the *inferred mineral resources are estimated and the basis for that level of confidence;
- a technical report of a sufficient level of confidence to support the *production target. The technical report must be prepared by, or under the supervision of, a named independent *competent person or persons and include the information referred to in rule 5.22(b) and (c); and
- a cautionary statement proximate to, and with equal prominence as, the reported *production target, stating that:

“There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised. The stated production target is based on the company’s current expectations of future results or events and should not be solely relied upon by investors when making investment decisions. Further evaluation work and appropriate studies are required to establish sufficient confidence that this target will be met.”

Note: This rule requires that the technical report must be prepared by, or under the supervision of, an independent competent person. The inferred mineral resources underlying the production target must be prepared by, or under the supervision of, a competent person or persons, but are not required to be prepared by, or under the supervision of, an independent competent person or persons.

5.16.7 If a proportion of the *production target is based on *qualifying foreign estimates that have not been verified and reported as *mineral resources or *ore reserves in accordance with Appendix 5A (JORC Code) after 3 years from the date the *qualifying foreign estimates were initially reported, the statement and explanation referred to in rule 5.14.2.

Note: The proximate cautionary statement referred to in Listing Rule 5.12.9 will also be required, and should be provided together with the statement and explanation referred to above.

5.17 Subject to rules 5.18 and 5.19, a public report by an entity containing forecast financial information derived from a *production target relating to:

- (a) the *mineral resources and ore reserves holdings of the entity (an entity level *production target); or
- (b) a *material mining project of the entity (or two or more *mining projects which together are material to the entity),

must include all of the following information and be given to ASX for release to the market.

5.17.1 All material assumptions on which the forecast financial information is based. If the economic assumptions are commercially sensitive to the *mining entity, an explanation of the methodology used to determine the assumptions rather than the actual figure can be reported.

Note: Economic assumptions may not be commercially sensitive. A mining entity that considers that certain information is commercially sensitive should refer to section 8.6 of Guidance Note 31 on the steps ASX expects it to take in these circumstances.

5.17.2 The *production target from which the forecast financial information is derived (including all the information contained in rule 5.16).

5.17.3 If a significant proportion of the *production target is based on an *exploration target, the implications for the forecast financial information of not including the *exploration target in the *production target.

5.18 A public report by an entity containing a *production target, or forecast financial information derived from a *production target, relating to an operating mine(s) and that is underpinned:

- (a) solely by *ore reserves; or
- (b) solely by a combination of *ore reserves and *measured mineral resources; or
- (c) solely by a combination of *ore reserves and:
 - *measured mineral resources; and/or
 - *indicated mineral resources,
 provided in this case that the *indicated mineral resources are not the determining factor in project viability,

is not required to comply with rules 5.16.1 or 5.17.1 (as the case may be) in relation to that *production target or forecast financial information.

5.19 An entity that has issued a public report under rules 5.16 or 5.17 is not required to include the information set out in rules 5.16 and 5.17 in any subsequent public report in relation to a *production target, or forecast financial information derived from a *production target, provided all of the following conditions are satisfied.

5.19.1 The subsequent public report cross-references the initial public report referred to in rule 5.16 or rule 5.17 (as the case may be).

5.19.2 The entity confirms in the subsequent public report that all the material assumptions underpinning the *production target, or the forecast financial information derived from a *production target, in the initial public report referred to in rule 5.16 or rule 5.17 (as the case may be) continue to apply and have not materially changed.

5.19.3 If the *production target is based solely on *inferred mineral resources, the subsequent public report includes a cautionary statement proximate to, and with equal prominence as, the reported *production target, or the forecast financial information derived from a *production target, which includes the statement set out in rule 5.16.4.

5.19.4 If a proportion of the *production target is based on an *exploration target, the subsequent public report includes a cautionary statement proximate to, and with equal prominence as, the reported *production target, or forecast financial information derived from a *production target, which includes the statement set out in rule 5.16.5.

Annual report requirements

- 5.20 A *mining exploration entity must include in its *annual report:
- (a) the *mining tenements held by the *mining exploration entity and its *child entities and their location; and
 - (b) the percentage interest it or they hold in each *mining tenement.
- 5.21 A *mining entity must include a mineral resources and ore reserves statement in its *annual report which includes all of the following information.
- 5.21.1 A summary of the results of the *mining entity's annual review of its *ore reserves and *mineral resources.
- 5.21.2 As at the *mining entity's end of financial year balance date (or such other appropriate disclosed date), the *mining entity's *mineral resources and ore reserves holdings in tabular form reported on the following basis:
- by commodity type, including the grade or quality;
 - by *ore reserve category and *mineral resource category; and
 - by geographical area based on the materiality of the *mineral resources and ore reserves holdings to the *mining entity.
- Note: Mineral resources and ore reserves holdings include mineral resources and ore reserves in which the mining entity or any of its child entities has an economic interest.
- 5.21.3 If the *mining entity reports as at a date other than its end of financial year balance date, the *mining entity must include a brief explanation of any material changes in the *mineral resources and ore reserves holdings in the period between the date of annual review of its *ore reserves and *mineral resources and the end of financial year balance date.
- 5.21.4 A comparison of the *mining entity's *mineral resources and ore reserves holdings against that from the previous year on the following basis:
- by commodity type, including the grade or quality; and
 - total *ore reserves and total *mineral resources by geographical area based on the materiality of the *mineral resources and ore reserves holdings to the *mining entity,
- including an explanation of any material changes in the *mineral resources and ore reserves holdings from the previous year.
- 5.21.5 A summary of the governance arrangements and internal controls that the *mining entity has put in place with respect to its estimates of *mineral resources and *ore reserves and the estimation process.

Note: Compliance with this rule satisfies the requirement in clause 14 of Appendix 5A (JORC Code) for a mining entity to publicly report on mineral resources and ore reserves annually.

Competent person requirements

- 5.22 Subject to rule 5.23, a market announcement by an entity containing *exploration results or estimates of *mineral resources or *ore reserves in relation to a *material mining project must state:
- (a) that it is based on, and fairly represents, information and supporting documentation prepared by a named *competent person or persons;
 - (b) in each case, whether the *competent person is an employee of the *mining entity or a *related party and, if not, the name of the *competent person's employer; and
 - (c) in each case, the name of the professional organisation of which the *competent person is a member.

The market announcement must only be issued with the prior written consent of the *competent person or persons as to the form and context in which the *exploration results or estimates of *mineral resources or *ore reserves (as the case may be) and the supporting information are presented in the market announcement.

Note: This requirement applies to market announcements containing exploration results under Listing Rule 5.7 or estimates (original or updated) of mineral resources or ore reserves under Listing Rule 5.8 or Listing Rule 5.9.

- 5.23 The requirements in rule 5.22 only apply the first time an entity publicly reports *exploration results in accordance with listing rule 5.7 or estimates (original or updated) of *mineral resources or *ore reserves in accordance with rule 5.8 or rule 5.9 (as the case may be) provided all of the following conditions are satisfied.
- 5.23.1 Any subsequent public report that refers to those *exploration results or estimates of *mineral resources or *ore reserves cross-references the relevant market announcement containing the statements and consent referred to in rule 5.22.
- 5.23.2 The entity confirms in the subsequent public report that it is not aware of any new information or data that materially affects the information included in the relevant market announcement and, in the case of estimates of *mineral resources or *ore reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.
- 5.24 The mineral resources and ore reserves statement in a *mining entity's *annual report must include:
- (a) a statement that it is based on, and fairly represents, information and supporting documentation prepared by a *competent person or persons; and
 - (b) a statement that the mineral resources and ore reserves statement as a whole has been approved by a named *competent person or persons, as well as the information referred to in rule 5.22(b) and (c) in relation to the named *competent person or persons.

The mineral resources and ore reserves statement must only be issued with the prior written consent of the named *competent person or persons referred to in paragraph (b) as to the form and context in which it appears in the *annual report.

Note: The named competent person or persons referred to in paragraph (b) may be a different to the competent person or persons referred to in paragraph (a).

Reporting on oil and gas activities

Requirements applicable to all public reporting

- 5.25 An entity publicly reporting *petroleum resources, including estimates of:
- (a) *petroleum reserves;
 - (b) *contingent resources; or
 - (c) *prospective resources,

must ensure all of the following requirements are complied with in the report.

Note: This Listing Rule is not confined to reports under this chapter. It also applies to all public reports, including prospectuses, product disclosure statements, information memoranda, bidder's statements, target's statements, annual reports, financial statements, technical papers, presentations, website content and information given to ASX for release to the market under other chapters of these rules.

- 5.25.1 The date at which the estimates are reported must be disclosed in the report.

Note: The date referred to in Listing Rule 5.25.1 may be referenced as the 'effective date'. SPE-PRMS defines 'effective date' in section 1.1 and Appendix A.

5.25.2 *Petroleum resources must be classified in accordance with *SPE-PRMS and reported in the most specific resource class in which *petroleum resources can be classified under *SPE-PRMS.

Note: The specific classes for petroleum resources are mentioned in section 1.1 of SPE-PRMS. They are production, reserves, contingent resources, prospective resources and unrecoverable petroleum.

ASX also recommends, as a matter of best practice, that petroleum reserves and contingent resources are sub-classified based on the project maturity sub-classes set out in section 2.1.3.5 of SPE-PRMS.

In interpreting and applying the SPE-PRMS, entities should have regard to any Application Guide, Examples, Frequently Asked Questions or other official guidance published in relation to the SPE-PRMS. However, if there is any inconsistency between such guidance and the Listing Rules, the Listing Rules prevail.

5.25.3 The disclosure of total petroleum initially-in-place, total resource base, estimated ultimate recovery, remaining recoverable resources, or hydrocarbon endowment is prohibited unless all of the following information is included in the report proximate to that disclosure:

- an estimate of *petroleum reserves;
- an estimate of *contingent resources;
- an estimate of *prospective resources; and
- whether and how each of the resource classes in the summation were adjusted for risk.

Note: SPE-PRMS defines 'total petroleum initially-in-place' and 'estimated ultimate recovery' in section 1.1 and Appendix A, and 'recoverable resources' in section 1.2 and Appendix A. SPE-PRMS provides guidance on aggregation across different classes of petroleum reserves, contingent resources and prospective resources in sections 1.1.0.7, 2.2.2.5 and 4.2.6.

5.25.4 The disclosure of discovered petroleum-initially-in-place is prohibited unless all of the following information is included in the report proximate to that disclosure.

- an estimate of *petroleum reserves;
- an estimate of *contingent resources; and
- whether and how each of the resource classes in the summation were adjusted for risk.

Note: *SPE-PRMS defines 'discovered petroleum initially-in-place' in section 1.1 and Appendix A. SPE-PRMS provides guidance on aggregation in sections 1.1.0.7, 2.2.2.5 and 4.2.6.

5.25.5 Estimates of *petroleum reserves, *contingent resources and *prospective resources must:

- (a) be reported according to the entity's economic interest in the *petroleum reserves, *contingent resources and *prospective resources including its entitlements under production-sharing contracts and risk-service contracts;

Note: SPE-PRMS defines 'production-sharing contract' in section 3.3.2 and Appendix A and 'risk-service contract' in section 3.3.2 and Appendix A.

- (b) be reported net of:

- (i) contractual royalty quantities (including overriding royalties provided for in farm-out agreements) that the entity is required to pay in-kind or in-cash to the royalty owner; or
- (ii) those volumes that the entity is allowed to lift and sell on behalf of the royalty owner; and

- (c) not be reported in relation to pure service contracts.

For the avoidance of doubt, paragraph (b)(i) above does not apply to production taxes, even though they may be in the nature of a royalty. Production taxes in the nature of a royalty may either be accounted for and reported as a reduction in the entity's *petroleum resource entitlement or as a tax expense. The entity must disclose which treatment it is applying to such taxes.

Deleted: *Petroleum reserves and *contingent resources must also be sub-classified based on the project maturity sub-classes under *SPE-PRMS.

Deleted: The sub-classes for project maturity are mentioned in section 2.1.3.5 of SPE-PRMS. Additional guidance on petroleum resource classification is provided in the PRMS Guidelines.

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(a) royalty quantities that the entity is required (including overriding royalties provided for in farm-out agreements) to pay in-kind or in-cash to the royalty owner; or¶
(b) those volumes that the entity is allowed to lift and sell on behalf of the royalty owner; and¶
• not be reported in relation to pure service contracts.¶

Deleted: and 'royalty' in section 3.3.1 and Appendix A. Additional guidance on production-sharing contracts (in section 10.33) and risk-service contracts (in section 10.4) is provided in the PRMS Guidelines

[Note: SPE-PRMS addresses royalties and production taxes in section 3.3.1. 'Royalty' and 'taxes' are defined in section 3.3.1 and Appendix A.](#)

5.25.6 The entity must disclose whether the deterministic or probabilistic method was used to prepare the estimates of *petroleum reserves, *contingent resources and *prospective resources in the report.

Note: SPE-PRMS defines the 'deterministic estimation method' and the 'probabilistic estimation method' in section 4.2 and Appendix A.

5.25.7 Estimates of *petroleum reserves, *contingent resources and *prospective resources must be reported in the appropriate units for each individual product type reported. If estimates are also reported in units of equivalency between oil and gas, the entity must disclose in the report the conversion factor used to convert:

- gas to oil, where the estimates are reported in *BOEs; and
- oil to gas, where the estimates are reported in *McfGEs.

Note: Additional guidance on hydrocarbon conversion is provided in SPE-PRMS section 3.2.9.

5.26 An entity publicly reporting estimates of *petroleum reserves must ensure all of the following requirements are complied with in that report.

5.26.1 The entity must have a high degree of confidence in the commerciality of the project and the economic producibility of the reservoir.

Note: SPE-PRMS defines 'commerciality' in section 2.1.2.1 and 'economically producible' in section 3.1.2.

5.26.2 The term 'reserves' must only be used in connection with estimates of commercially recoverable quantities of *petroleum and must not be used in connection with estimated quantities of *petroleum that are not commercially recoverable.

5.26.3 *Petroleum reserves must be categorised and reported in the most specific category that reflects the degree of uncertainty in the estimated quantities of recoverable *petroleum, that is, *1P, *2P or *3P. If an estimate of *3P is reported, estimates of *2P and *1P must also be reported.

5.26.4 *Petroleum reserves must be reported as quantities available for sale at the reference point. Quantities of *petroleum to be consumed in operations may be included as *petroleum reserves provided these quantities are reported separately to, and have equal prominence with, sales quantities.

Note: SPE-PRMS defines 'reference point' in section 3.2.1.1 and 'consumed in operations' in section 3.2.2.1.

5.26.5 The entity must disclose the reference point used for the purpose of measuring and assessing the estimated *petroleum reserves.

5.26.6 The disclosure of a mean estimate of *petroleum reserves is prohibited.

5.26.7 Where reported *petroleum reserves represent aggregated estimates of *petroleum reserves, the method of aggregation must be disclosed and must be either:

- arithmetic summation by category (that is, *1P, *2P or *3P); or
- statistical aggregation of uncertainty distributions up to the field, property or project level.

Note: SPE-PRMS defines 'aggregation' in section 4.2.5 and Appendix A.

5.26.8 If *petroleum reserves are reported beyond the field, property or project level, estimates of *petroleum reserves must be aggregated by arithmetic summation by category beyond that level of reporting. In this case, the entity must include a note in the report cautioning that the aggregate *1P may be a very conservative estimate and

Deleted: Additional guidance on the deterministic estimation method (in sections 2.2, 3.1, 6.2 and 7.1) and the probabilistic estimation method (in sections 5.3 and 7.1) is provided in the PRMS Guidelines.

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the aggregate +3P may be a very optimistic estimate due to the portfolio effects of arithmetic summation.

5.26.9 If a +petroleum reserves replacement ratio is reported, the entity must include an explanation of how the petroleum reserves replacement ratio was calculated in the report.

Deleted: Note: Additional guidance is provided on aggregation in sections 1.1, 2.1, 4.1, 5.1, 6.26 and 8.1 of the PRMS Guidelines.¶

5.27 An entity publicly reporting estimates of +contingent resources must ensure all of the following requirements are complied with in that report.

5.27.1 +Contingent resources must be categorised and reported in the most specific category that reflects the degree of uncertainty in the estimated quantities of potentially recoverable +petroleum, that is, +1C, +2C or +3C. If an estimate of +3C is reported, estimates of +2C and +1C must also be reported.

5.27.2 The disclosure of a mean estimate of +contingent resources is prohibited.

5.27.3 Where reported +contingent resources represent aggregated estimates of +contingent resources, the method of aggregation must be disclosed and must be either:

- arithmetic summation by category (that is, +1C, +2C or +3C); or
- statistical aggregation of uncertainty distributions up to the field, property or project level.

5.27.4 If +contingent resources are reported beyond the field, property or project level, estimates of +contingent resources must be aggregated by arithmetic summation by category beyond that level of reporting. In this case, the entity must include a note in the report cautioning that the aggregate +1C may be a very conservative estimate and the aggregate +3C may be a very optimistic estimate due to the portfolio effects of arithmetic summation.

5.27.5 An entity must only report forecast financial information;

(a) derived solely from an estimate of economically not viable +contingent resources if all of the following information is included in the report proximate to that disclosure:

- an explanation of the reasons why the entity is forecasting financial information for +contingent resources that have been assessed to be economically not viable; and
- a statement of the factors that lead the entity to believe that it has a reasonable basis for reporting the forecast financial information; or

(b) derived partly from an estimate of economically not viable +contingent resources and partly from an estimate of other +petroleum resources if all of the following information is included in the report proximate to that disclosure:

- an explanation of the reasons why the entity is forecasting financial information derived in part from +contingent resources that have been assessed to be economically not viable;
- a statement of the factors that lead the entity to believe that it has a reasonable basis for reporting that part of the forecast financial information derived from the estimate of economically not viable +contingent resources; and
- the implications for the overall forecast financial information of including, and not including, the forecast financial information derived from the estimate of economically not viable +contingent resources.

Deleted: Note: Additional guidance is provided on aggregation in sections 1.1, 2.1, 4.1, 5.1, 6.26 and 8.1 of the PRMS Guidelines.¶

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Note: SPE-PRMS defines 'economically not viable contingent resources' in section 2.1.3.7.1 and Appendix A.

- 5.28 An entity publicly reporting estimates of *prospective resources must ensure all of the following requirements are complied with in that report.
- 5.28.1 *Prospective resources must be categorised and reported in the most specific category that reflects the degree of uncertainty in the estimated quantities of potentially recoverable *petroleum, that is, *low estimate, *best estimate or *high estimate. If a *high estimate of *prospective resources is reported, the *best estimate and *low estimate of *prospective resources must also be reported.
- 5.28.2 A cautionary statement proximate to, and with equal prominence as, the reported *prospective resources must be included in the report, stating that:
- "The estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both a risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially recoverable hydrocarbons".*
- 5.28.3 The disclosure of a mean estimate of *prospective resources is prohibited [unless it is accompanied by the *low estimate, *best estimate and *high estimate.](#)
- 5.28.4 Where reported *prospective resources represent aggregated estimates of *prospective resources, the method of aggregation must be disclosed and must be either:
- arithmetic summation by category (that is, *low estimate, *best estimate or *high estimate); or
 - statistical aggregation of uncertainty distributions up to the field, property or project level.
- 5.28.5 If *prospective resources are reported beyond the field, property or project level, estimates of *prospective resources must be aggregated by arithmetic summation by category beyond that level of reporting. In this case, the entity must include a note in the report cautioning that the aggregate *low estimate may be a very conservative estimate and the aggregate *high estimate may be a very optimistic estimate due to the portfolio effects of arithmetic summation.
- ~~5.28.6 An entity must not report forecast financial information derived from an estimate of *prospective resources.~~

Deleted: Note: Additional guidance is provided on aggregation in sections 1.1, 2.1, 4.1, 5.1, 6.26 and 8.1 of the PRMS Guidelines.¶

Requirements applicable to reporting on geophysical surveys

- 5.29 A public report by an entity on any geophysical survey in relation to *petroleum must include the name, nature and status of the survey, and the permit under which the survey is being conducted.

Requirements applicable to reporting material exploration and drilling results

- 5.30 An entity publicly reporting material *exploration and drilling results in relation to *petroleum resources must include all of the following information in that report and give the report to ASX for release to the market.
- (a) The name and type of well.
 - (b) The location of the well and the details of the permit or lease in which the well is located.
 - (c) The entity's working interest in the well.
 - (d) If the gross pay thickness is reported for an interval of conventional resources, the net pay thickness.
 - (e) The geological rock type of the formation drilled.

- (f) The depth of the zones tested.
- (g) The types of test(s) undertaken and the duration of the test(s).
- (h) The hydrocarbon phases recovered in the test(s).
- (i) Any other recovery, such as, formation water and water, associated with the test(s) and their respective proportions.
- (j) The choke size used, the flow rates and, if measured, the volumes of the hydrocarbon phases measured.
- ~~(k) If flow rates were tested, information about the pressures associated with the flow and the duration of the test.~~
- (l) If applicable, the number of fracture stimulation stages and the size and nature of fracture stimulation applied.
- ~~(m) Any material volumes of non-hydrocarbon gases, such as, carbon dioxide, nitrogen, hydrogen sulphide and sulphur.~~
- ~~(n) Any other information that is material to understanding the reported results.~~

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Requirements applicable to reporting petroleum reserves for material oil and gas projects

5.31 The first time an entity publicly reports estimates of *petroleum reserves in relation to a *material oil and gas project, the entity must include all of the following information in a market announcement and give it to ASX for release to the market.

5.31.1 All material economic assumptions used to calculate the estimates of *petroleum reserves. If those economic assumptions are commercially sensitive to the *oil and gas entity, an explanation of the methodology used to determine the assumptions rather than the actual figure can be reported.

5.31.2 Whether the entity has operator or non-operator interests in the *material oil and gas project. If the entity has non-operator interests, the name of the operator.

5.31.3 The types of permits or licences held by the entity in respect of the reported estimates of *petroleum reserves.

5.31.4 A brief description of:

- the basis for confirming commerciality and economic producibility and booking *petroleum reserves;
- the analytical procedures used to estimate the *petroleum reserves;
- the proposed *extraction method; and
- if applicable, any specialised processing required following *extraction.

Note: SPE-PRMS defines 'commerciality' in section 2.1.2.1 and 'economically producible' in section 3.1.2.

5.31.5 The estimated quantities (in aggregate) to be recovered:

- from existing wells and facilities (developed *petroleum reserves); and
- through future investments (undeveloped *petroleum reserves).

Note: SPE-PRMS defines 'developed reserves' and 'undeveloped reserves' in section 2.1 and Appendix A.

Deleted: Additional guidance is provided on developed reserves and undeveloped reserves in sections 3.1, 6.1 and 8.1 of the PRMS Guidelines.

5.31.6 If the reported estimates of *petroleum reserves relate to undeveloped *petroleum reserves, a brief statement regarding:

- the status of the *material oil and gas project;
- the existence of a technically mature, feasible development plan;

- the financial appropriations that are in place or have a high likelihood of being secured ~~for development~~;
- the reasonable time-frame for development;
- confirmation that the *oil and gas project has positive economics and meets the entity's investment and operating criteria;
- the marketing arrangements that justify development;
- the access to production and/or transportation infrastructure which is available or can be made available;
- ~~any~~ key legal, contractual, environmental, regulatory and other government approvals ~~needed for development~~ which are ~~not yet~~ in place; ~~and~~
- ~~any~~ key social or economic concerns ~~that need to be resolved for development~~.

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5.31.7 If the reported estimates of *petroleum reserves relate to unconventional *petroleum resources, the land area, the number of wells, the proposed extraction method and any additional processing which may be required before sale.

Note: SPE-PRMS defines 'unconventional resources' in section 2.4 and Appendix A.

Deleted: Additional guidance on unconventional petroleum resources is provided in sections 1.1 and 8.6 of the PRMS Guidelines.

5.31.8 If *1P is zero for the reported estimates of *petroleum reserves, a brief explanation of why *1P is zero and why, in the absence of *1P, *3P and *2P have been determined and reported.

5.32 The first time an entity publicly reports estimates of *petroleum reserves in relation to a *material oil and gas project that have materially changed from when those estimates were previously reported, the entity must include all of the following information in a market announcement and give it to ASX for release to the market.

5.32.1 An explanation of the new data and information.

5.32.2 An explanation of how the new data and information has affected the estimates of *petroleum reserves.

5.32.3 Any changes or additions to the information provided under rules 5.31.1 to 5.31.7.

Requirements applicable to reporting contingent resources for material oil and gas projects

5.33 The first time an entity publicly reports estimates of *contingent resources in relation to a *material oil and gas project, the entity must include all of the following information in a market announcement and give it to ASX for release to the market.

5.33.1 The types of permits or licences held by the entity in respect of the reported estimates of *contingent resources.

5.33.2 The basis for confirming the existence of a significant quantity of potentially recoverable hydrocarbons and the determination of a discovery.

5.33.3 A brief description of:

- the analytical procedures used to estimate the *contingent resources;
- the key contingencies that ~~currently~~ prevent the *contingent resources from being classified as *petroleum reserves;
- any further appraisal drilling and evaluation work to be undertaken to assess the potential for commercial recovery ~~of the *contingent resources~~; and
- ~~any other work~~ the ~~entity is proposing to undertake to assess or improve~~ the chance of development ~~of the~~ *contingent resources.

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Note: SPE-PRMS defines the 'chance of development' and the 'chance of commerciality' in section 2.1.3 and Appendix A. For contingent resources, the chance of commerciality is equal to the chance of development. The determination of commerciality is covered by SPE PRMS 2.1.2, which requires an assessment of the factors in paragraphs A –G in SPE PRMS 2.1.2.1.

5.33.4 If the reported estimates of *contingent resources are contingent on technology under development, a brief explanation of:

- whether the technology is under active development;
- whether a pilot for that technology is planned and budgeted; and
- whether the technology has been demonstrated to be commercially viable in analogous reservoirs and, if not, whether it has been demonstrated to be commercial viable in other reservoirs.

5.33.5 If the reported estimates of *contingent resources relate to unconventional *petroleum resources, the land area, the number of wells, the proposed extraction method and any additional processing which may be required before sale.

Note: SPE-PRMS defines 'unconventional resources' in section 2.4 and Appendix A.

5.34 The first time an entity publicly reports estimates of *contingent resources in relation to a *material oil and gas project that have materially changed from when those estimates were previously reported, the entity must include all of the following information in a market announcement and give it to ASX for release to the market.

5.34.1 An explanation of the new data and information.

5.34.2 An explanation of how the new data and information has affected the estimates of *contingent resources.

5.34.3 Any changes or additions to the information provided under rules 5.33.1 to 5.33.5.

Requirements applicable to reporting prospective resources for material oil and gas projects

5.35 The first time an entity publicly reports estimates of *prospective resources in relation to a *material oil and gas project, the entity must include all of the following information in a market announcement and give it to ASX for release to the market.

5.35.1 The types of permits or licences held by the entity in respect of the reported estimates of *prospective resources.

5.35.2 A brief description of:

- the basis on which the *prospective resources are estimated; and
- any further *exploration activities, including studies, further data acquisition and evaluation work, and *exploration drilling to be undertaken and the expected timing of those *exploration activities.

5.35.3 The entity's assessment of the chance of discovery and the chance of development associated with the reported estimates of *prospective resources.

5.35.4 If risked estimates of *prospective resources are reported, an explanation of how the estimates were adjusted for risk.

5.36 The first time an entity publicly reports estimates of *prospective resources in relation to a *material oil and gas project that have materially changed from when those estimates were previously reported, the entity must include all of the following information in a market announcement and give it to ASX for release to the market.

5.36.1 An explanation of the new data and information.

Deleted: Additional guidance on unconventional petroleum resources (in sections 1.1 and 8.6) and on the key contingencies for a classification of contingent resources is provided in the PRMS Guidelines.

Deleted: Note: Additional guidance on prospective resources is provided in the PRMS Guidelines.¶

5.36.2 An explanation of how the new data and information has affected the estimates of *prospective resources.

5.36.3 Any changes or additions to the information provided under rules 5.35.1 to 5.35.4.

Annual report requirements

5.37 An *oil and gas exploration entity must include in its *annual report:

- (a) the *petroleum tenements held by the *oil and gas exploration entity and its *child entities and their location; and
- (b) the percentage interest it or they hold in each *petroleum tenement.

5.38 An *oil and gas entity that reports to the SEC and files an SEC Form 10-K or 20-F Report with a *US oil and gas reserves statement, is not required to comply with the annual reserves statement requirements under rule 5.39. In such a case, immediately after filing any such form or report with the SEC, the *oil and gas entity must give a copy of the form or report to ASX for release to the market.

Note: The US Securities Exchange Act of 1934 requires certain companies to file a Form 10-K or 20-F Report with the SEC. To avoid creating inconsistent regulatory requirements, an entity that files an SEC Form 10-K or 20-F Report with the SEC containing a compliant US oil and gas reserves statement is not required to comply with rule 5.39 (although it must still comply with rule 5.40 if it wishes to separately report on oil and gas entity level or other aggregated estimates of contingent resources).

5.39 Subject to rule 5.38, an *oil and gas entity must include a reserves statement in its *annual report which includes all of the following information.

5.39.1 As at the *oil and gas entity's end of financial year balance date, the *oil and gas entity's *petroleum reserves holdings in tabular form reported on the following basis:

- subject to rule 5.39.2, by the *oil and gas entity's total *1P *petroleum reserves and *2P *petroleum reserves (split between developed and undeveloped *petroleum reserves and by product); and
- by total aggregated *1P *petroleum reserves and *2P *petroleum reserves by product and geographical area (split between developed and undeveloped *petroleum reserves by geographical area).

Note: Petroleum reserves holdings include petroleum reserves in which the oil and gas entity or any of its child entities have an economic interest.

5.39.2 If the *oil and gas entity has material unconventional *petroleum resources, it must separately identify the portion of the total *1P *petroleum reserves and *2P *petroleum reserves reported under the first bullet point of rule 5.39.1 that are based on unconventional *petroleum resources.

Note: SPE-PRMS defines 'developed reserves' and 'undeveloped reserves' in section 2.1 and Appendix A and 'unconventional resources' in section 2.4 and Appendix A.

5.39.3 A reconciliation of the *oil and gas entity's *petroleum reserves holdings against that from the previous year. The reconciliation can be reported on the basis of the *oil and gas entity's total *1P *petroleum reserves and *2P *petroleum reserves by product or by total aggregated *1P *petroleum reserves and *2P *petroleum reserves by geographical area, and must include an explanation of any material changes in those holdings from the previous year.

5.39.4 If any material concentrations of undeveloped *petroleum reserves in *material oil and gas projects have remained undeveloped after 5 years from the date they were initially reported, the *oil and gas entity's reserves statement in the *annual report for that year and every subsequent year must include:

- an explanation of why the undeveloped *petroleum reserves have not been developed;

Deleted: Additional guidance on developed and undeveloped reserves (in sections 2.1, 6.1 and 8.2) and unconventional resources (in sections 1.1 and 8.6) is provided in the PRMS Guidelines.

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- a statement of the *oil and gas entity's intention with regard to the future development of the undeveloped *petroleum reserves; and
- any work the entity is proposing to undertake towards development of the undeveloped *petroleum reserves.

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Note: SPE-PRMS defines 'undeveloped reserves' in section 2.1 and Appendix A.

Deleted: Additional guidance is provided on undeveloped reserves in sections 3.1, 6.1 and 8.1 of the PRMS Guidelines.

5.39.5 A summary of the governance arrangements and internal controls that the *oil and gas entity has put in place, including the frequency and scope of any reviews or audits undertaken, with respect to its estimates of *petroleum reserves and the estimation process.

5.39.6 Estimates of *petroleum reserves in the reserves statement in the *annual report must be reported in the appropriate units for each individual product type reported. If estimates are also reported in units of equivalency, either of oil or gas, the entity must disclose in the report the conversion factor used, in accordance with rule 5.25.7.

Note: Additional guidance on hydrocarbon conversion is provided in SPE-PRMS section 3.2.9.

Deleted: and on BOEs is provided in sections 4.12 and 9.13 in the PRMS Guidelines

5.40 An *oil and gas entity:

- that reports on *oil and gas entity level or other aggregated estimates of *contingent resources in its reserves statement in its *annual report, must include in that reserves statement; or
- that is exempt from the requirement to include a reserves statement in its *annual report under rule 5.38 but wishes to report on *oil and gas entity level or other aggregated estimates of *contingent resources, must include in its *annual report or in a statement to be provided to ASX for release to the market with its annual report under rule 4.7, a statement that includes,

all of the information set out in rules 5.40.1, 5.40.2 and 5.40.3.

5.40.1 As at the *oil and gas entity's end of financial year balance date, the *oil and gas entity's *contingent resources holdings in tabular form reported on the following basis:

- total *2C *contingent resources by product;
- aggregated *2C *contingent resources by product and geographical area; and
- estimates of *contingent resources must be made in the appropriate units for each individual product type reported. If estimates are also reported in units of equivalency either of oil or gas, the entity must disclose in the report the conversion factor used, in accordance with rule 5.25.7.

Note: Additional guidance on hydrocarbon conversion is provided in SPE-PRMS section 3.2.9.

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5.40.2 A reconciliation of the *oil and gas entity's total *2C *contingent resources holdings against that from the previous year, including an explanation of any material changes in those holdings from the previous year.

Note: Contingent resources holdings include contingent resources in which the oil and gas entity and all its child entities have an economic interest.

5.40.3 If the *oil and gas entity has material unconventional *petroleum resources, it must separately identify the portion of the total *2C *contingent resources reported under the first bullet point of rule 5.40.1 that are based on unconventional *petroleum resources.

Note: SPE-PRMS defines 'developed reserves' and 'undeveloped reserves' in section 2.1 and Appendix A and 'unconventional resources' in section 2.4 and Appendix A.

Deleted: Additional guidance on unconventional resources is provided in sections 1.1 and 8.6 of the PRMS Guidelines.

Qualified petroleum reserves and resources evaluator requirements

- 5.41 An entity publicly reporting on estimates of *petroleum reserves, *contingent resources and *prospective resources must ensure that those estimates are prepared by, or under the supervision of, a *qualified petroleum reserves and resources evaluator or evaluators.
- 5.42 Subject to rule 5.43, a public report by an entity containing estimates of *petroleum reserves, *contingent resources and *prospective resources must state:
- (a) that it is based on, and fairly represents, information and supporting documentation prepared by, or under the supervision of, a named *qualified petroleum reserves and resources evaluator or evaluators;
 - (b) whether the *qualified petroleum reserves and resources evaluator is an employee of the *oil and gas entity or a *related party and, if not, the name of the *qualified petroleum reserves and resources evaluator's employer; and
 - (c) the name of the professional organisation of which the *qualified petroleum reserves and resources evaluator is a member.

The report must only be issued with the prior written consent of the *qualified petroleum reserves and resources evaluator as to the form and context in which the estimated *petroleum reserves, *contingent resources and *prospective resources and the supporting information are presented in the public report.

Note: This requirement applies (but is not limited) to public reports containing estimates of petroleum reserves or materially changed estimates of petroleum reserves in accordance with Listing Rules 5.31 or 5.32, estimates of contingent resources or materially changed estimates of contingent resources in accordance with Listing Rules 5.33 or 5.34 and estimates of prospective resources or materially changed estimates of prospective resources in accordance with Listing Rules 5.35 or 5.36.

- 5.43 The requirements in rule 5.42 only apply the first time an entity publicly reports estimates of *petroleum reserves, *contingent resources or *prospective resources (original or updated) provided all of the following conditions are satisfied.
- 5.43.1 Any subsequent public report that refers to those estimates of *petroleum reserves, *contingent resources or *prospective resources cross-references the relevant market announcement containing the statements and consent referred to in rule 5.42.
- 5.43.2 The entity confirms in the subsequent public report that it is not aware of any new information or data that materially affects the information included in the relevant market announcement and that all the material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.
- 5.44 The reserves statement in an *oil and gas entity's *annual report in accordance with rule 5.39 must include:
- (a) a statement that it is based on, and fairly represents, information and supporting documentation prepared by, or under the supervision of, a *qualified petroleum reserves and resources evaluator or evaluators;
 - (b) a statement that the reserves statement as a whole has been approved by a named *qualified petroleum reserves and resources evaluator or evaluators;
 - (c) whether the *qualified petroleum reserves and resources evaluator is an employee of the *oil and gas entity or a *related party and, if not, the name of the *qualified petroleum reserves and resources evaluator's employer; and
 - (d) the name of the professional organisation of which the *qualified petroleum reserves and resources evaluator is a member.

The reserves statement must only be issued with the prior written consent of the named *qualified petroleum reserves and resources evaluator or evaluators referred to in paragraph (b) as to the form and context in which it appears in the *annual report.

Note: The named qualified petroleum reserves and resources evaluator or evaluators referred to in paragraph (b) may be different to the qualified petroleum reserves and resources evaluator or evaluators referred to in paragraph (a).

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Terms of a mining tenement and a petroleum tenement joint venture

- 5.45 An entity must not, and must ensure that all its *child entities do not, enter a joint venture agreement to investigate or explore a *mining tenement or a *petroleum tenement, unless the agreement provides that if the entity requires it, the operator of the joint venture will give the entity all the information the entity requires to comply with the Listing Rules; and that the information may be given to ASX for release to the market if necessary for the entity to comply with the Listing Rules.

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Chapter 19

Interpretation and definitions

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Definitions

19.12 The following expressions have the meanings set out below.

Introduced 01/07/96 Origin: Definitions

Expressions	meanings
...	
petroleum	<p>a naturally occurring mixture consisting of hydrocarbons in the gaseous, liquid or solid phase. Petroleum may also contain non hydrocarbon compounds. Common examples of non-hydrocarbon compounds included in petroleum are carbon dioxide, nitrogen, hydrogen sulphide and sulphur.</p> <p>Introduced 01/12/13 Amended XX/XX/21</p>
...	
SEC	<p>the Securities and Exchange Commission of the United States of America.</p> <p>Introduced XX/XX/21</p>
...	
SPE-PRMS	<p>Petroleum Resources Management System (version 1.01, revised June 2018) sponsored by the Society of Petroleum Engineers (SPE), the American Association of Petroleum Geologists (AAPG), the World Petroleum Council (WPC) and the Society of Petroleum Evaluation Engineers (SPEE).</p> <p>Introduced 01/12/13</p>
...	
US oil and gas reserves statement	<p>A statement of oil and gas reserves prepared in accordance with the SEC requirements set out in Subpart 1200 of Regulation S-K.</p> <p>Introduced XX/XX/21</p>

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PRMS Guidelines