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Dear Ian,

**Draft Gas Quality Information Protocol – MDL Submission**

1. Maui Development Limited (**MDL**) welcomes the opportunity to make this submission on the Gas Industry Company's (**GIC**) proposed Gas Quality Information Protocol (the **draft Protocol**), dated August 2014.
2. No part of this submission is confidential and MDL is happy for it to be made publicly available.
3. As noted in previous submissions in the GIC's gas quality work-stream, MDL and the Maui Pipeline operators acknowledge there may be areas where processes can be improved or implemented and wish to work collaboratively with the GIC and review areas where the industry has signalled an interest or concern.
4. MDL has not been formally involved with the development of the draft Protocol or its previous versions that were led by industry stakeholders other than the GIC. Therefore, this is MDL's first formal opportunity to provide input and comments on the proposed objectives of the draft Protocol and the specific Transmission System Owner (**TSO**) obligations and methods of compliance contained within.
5. We suggest that the GIC facilitate additional working groups with the relevant parties for each section of the draft Protocol. For example, MDL would want to participate in the Gas Specification working group, but would not obviously need to be involved in the odourisation or network pressure equivalent. This would help further explore and align industry expectations in this area and provide an opportunity for further discussion on how the draft Protocol could be progressed and implemented.
6. We set out our comments and queries on specific sections of the draft Protocol in the table found in Appendix 1 of this letter.
7. Appendix 2 of this letter sets out a number of potential opportunities for improvement in the areas of gas quality control, monitoring and reporting that MDL is in the process of examining. MDL has raised these potential enhancements within the Gas Industry Transmission Access Working Group (**GITAWG**). If a decision is made to progress these opportunities for improvement, consultation with industry representatives will take place. MDL suggests that the GIC take into account the outcomes of the gas quality component of the GITAWG in the continuing development of the draft Protocol.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'John Blackstock'.

John Blackstock  
Technical Advisor, Commercial Operator, Maui Pipeline  
for Maui Development Limited

APPENDIX 1 – MDL’s Specific Comments on the Draft Protocol:

Draft Protocol Reference (Page / Section)	MDL Comments
<p>Section 1.2 Principles of Good Industry Practice Pages 8-9</p>	<ul style="list-style-type: none"> <li>MDL questions the use of the word “secrecy” in the context of parties notifying gas quality “incidents” or “exceptions”. This is on the basis that the word “secrecy” could suggest some sort of underlying collusion being present. The MPOC is unequivocal that Non-Specification Gas may not be knowingly injected into the Maui Pipeline and MDL must take action as soon as any such issue comes to its attention (as required by the MPOC).</li> <li>MDL notes that the proposed definition of “incidents” includes “near misses”. Section 17.5 MPOC requires a Welded Party to notify MDL if that Welded Party detects, or in its reasonable opinion, suspects Non-Specification Gas is flowing, or is likely to flow through its Welded Point. Similarly, section 17.6 MPOC requires MDL to notify Shippers and Welded Parties upon detecting or in its reasonable opinion, suspecting that Non-Specification Gas is flowing, or is likely to flow through a Welded Point. MDL wonders if there is scope for confusion between the threshold/interpretation of a “near miss” and Non-Specification Gas being “likely to flow” through a Welded Point i.e. is it possible that a near miss does not amount to Non-Specification Gas being likely to flow through a Welded Point?</li> <li>The last bullet point in the Protocol’s Principles of Good Industry Practice states that “<i>service providers will make available to gas wholesalers and retailers all information relating to gas quality that the wholesalers and retailers reasonably need to demonstrate that they are complying with their legal obligations.</i>” To the extent that MDL is a “service provider”, MDL considers that an obligation to “make available <b>all</b> information relating to gas quality that wholesalers and retailers reasonably need to demonstrate that they are complying with their legal obligations” would be too onerous. This may also be potentially inefficient, especially if different wholesalers and retailers consider they require different things. MDL suggests that the GIC should conduct further consultation with the relevant stakeholders and retailers/wholesalers to determine what information is considered necessary, in what form, and provided by whom, to assist the relevant parties in meeting their legal obligations. The allocation of any significant costs associated with compiling or processing such information may also need to be examined.</li> </ul>
<p>Section 3.1 Legal Framework Page 14</p>	<ul style="list-style-type: none"> <li>Figure 1 should also include New Zealand Pipeline Regulations and NZS/AS 2885 Pipeline Standards.</li> </ul>
<p>Section 3.1 SM Regulations Pages 15-16</p>	<ul style="list-style-type: none"> <li>The Gas (Safety and Measurement) Regulations 2010 (the <b>SM Regulations</b>) require an audited safety management system as described in sections 29 through to 40 of the SM Regulations. However, Regulation 30(5) of the Gas Safety and Measurement Regulations 2010 states that:</li> </ul>

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	<p><i>(5) This regulation does not require a safety management system in respect of a gas measurement system on a gas transmission system.</i></p> <ul style="list-style-type: none"> <li>• Therefore, MDL considers that the references to “TSOs” in this context should be removed, and this point should be made clearer throughout the draft Protocol.</li> <li>• Irrespective of whether the Safety Management Systems requirements of the SM Regulations apply to gas transmission, MDL considers that all of the substantive and documentation requirements are in any event met (or exceeded) by compliance with the AS 2885 suite of standards.</li> </ul>
<p><i>Section 3.1 Maui Pipeline ICAs Page 21</i></p>	<ul style="list-style-type: none"> <li>• It appears there are some minor inconsistencies with the MPOC terminology that will need to be revisited. The MPOC uses the following definitions: <ul style="list-style-type: none"> <li>○ “Direct Injecting Party” means a Welded Party who injects any quantity of gas into the Maui Pipeline direct from a gas production or processing facility” (e.g. STOS / SENZL / Todd / Greymouth);</li> <li>○ “Indirect Injecting Party” means a party who injects any quantity of gas into a Transmission Pipeline which then flows into the Maui Pipeline” (e.g. Origin / Vector (Kapuni) / Tag / Greymouth);</li> <li>○ “Injecting Welded Party” means a Welded Party who receives any quantity of gas from an Indirect Injecting Party which then flows into the Maui Pipeline (e.g. Vector Transmission);</li> </ul> </li> </ul> <p>For example, the Protocol states that “<i>Section 17 of the MPOC requires direct injecting parties to monitor gas quality as shown in Table 6</i>”. However, section 17 MPOC also requires Injecting Welded Parties (e.g. Vector Transmission) to procure that Indirect Injecting Parties monitor the same gas quality components and characteristics.</p>
<p><i>Section 4.1 Technical Standards Page 27 2<sup>nd</sup> paragraph</i></p>	<ul style="list-style-type: none"> <li>• Reference should be to Appendix A rather than Appendix B.</li> </ul>
<p><i>Section 5 Obligations and Means of Compliance Section Page 30</i></p>	<ul style="list-style-type: none"> <li>• As noted previously, the reference to “TSOs” Safety Management Systems in the first bullet point should be removed.</li> </ul>
<p><i>Table 2 Gas Specification Obligations and Actions for TSOs Pages 31-32</i></p>	<ul style="list-style-type: none"> <li>• The TSO section of table 2 in section 5.1 states that: <p><i>“Each TSO will develop, maintain and implement an SMS that, for example, allows for continuous monitoring of gas specification at key locations throughout its system, and maintaining equipment (filters and separators)</i></p> </li> </ul>

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	<p><i>and systems to ensure that the liquid and dust contamination of gas delivered from the system is within specification.”</i></p> <ul style="list-style-type: none"> <li>• As noted earlier in this submission MDL considers: <ul style="list-style-type: none"> <li>(a) Regulation 30(5) of the SM Regulations does not require a SMS on a gas transmission system.</li> <li>(b) all of the substantive and documentation requirements are met (or exceeded) by compliance with the AS 2885 suite of standards.</li> </ul> </li> <li>• MDL disagrees with the statement that a TSO is required to continuously monitor gas specification at key locations throughout its system. This appears to be suggesting that the TSOs are required to install and maintain equipment on its system to monitor the whole spectrum of gas components and characteristics contained in NZS 5442. MDL does use gas chromatographs (GCs) at selected locations on the Maui Pipeline system. However, these GCs are required to source information for metering purposes rather than monitoring compliance with gas specification.</li> <li>• MDL considers it is not accurate to say that TSOs <i>“maintain equipment (filters and separators) and systems to ensure that the liquid and dust contamination of gas delivered from the system is within specification.”</i> Even the application of the most rigorous maintenance regime could not result in the categorical outcome of <i>“ensuring”</i> gas delivered is within specification.</li> <li>• The difficulties associated with the assessment of the impact of non-specification gas on all downstream gas consumers is discussed further in the ensuing section of this submission.</li> </ul>
<p style="text-align: center;"><i>Section 6.1 Communication During a Gas Specification Event Page 38-39 Figure 3</i></p>	<ul style="list-style-type: none"> <li>• The Protocol makes reference to it being <i>“inherent”</i> within the RPO standard for TSOs to provide downstream users with some sort of advice on the <i>“likely consequences”</i> of a Gas Specification excursion. MDL disagrees with this statement. MDL does not have detailed knowledge of the downstream users’ assets, design and operating envelopes. Indeed, it would be inappropriate for TSOs to provide such advice as the TSO is simply not able to place themselves in the shoes of the downstream users without the appropriate knowledge. It is however reasonable and prudent that the TSOs advise the downstream users of any quality excursions as soon as they are made aware of such an excursion, which as noted above is current practice. If the possible consequences of an incident are known, or have been conveyed to MDL, this information would be passed through to the relevant counterparties.</li> <li>• MDL also considers that such <i>“likely consequences”</i> advice would be difficult to provide given factors such as: <ul style="list-style-type: none"> <li>(a) the array of different end-users at different locations;</li> </ul> </li> </ul>

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	<p>(b) the co-mingling of gas;  (c) the possible time that has elapsed since the event was discovered and notified;  (d) the unique pipeline operating conditions on the day;  (e) the specific nature and extent of the gas quality excursion etc.</p> <ul style="list-style-type: none"> <li>• MDL believes that all parties in the gas supply chain should have in place documented plans for responding to contingencies involving non-specification gas. Indeed, it is those end users of gas themselves who are best placed to determine the best course of action in response to any notifications or data from upstream parties or suppliers.</li> <li>• MDL suggests that the GIC facilitates further industry discussion on this proposed obligation.</li> <li>• Appendix 2 of this submission lists some potential opportunities for improvement that MDL is considering in the areas of gas quality control, monitoring and reporting. One potential opportunity is the development and implementation of a “Standard Operating Procedure” (SOP) in relation to notification of Non-Specification events and the steps which may be taken by the pipeline operators in response to such events. Such an SOP could also incorporate the Australian Energy Market Operator (AEMO) Guidelines to cover short-term gas quality excursions outside the Gas Specification.</li> </ul>
<p><i>Section 7  Gas Quality Information  Table 5  Pages 43</i></p>	<ul style="list-style-type: none"> <li>• Reference to section 4.1 MPOC possibly confused with section 4.1 of NZS: 5442</li> </ul>

## Appendix 2 – Possible Opportunities for Improvement in Gas Quality

MDL is examining the following potential opportunities for improvement in the areas of gas quality control, monitoring and reporting:

	Potential Opportunities For Improvement
<b>Control</b>	<ul style="list-style-type: none"> <li>The GIC has recommended that MDL review its technical requirements for Welded Points and Stations (Schedule 1 of the MPOC) from time to time to ensure the requirements are aligned with current industry best practice. MDL intends to continue discussions with Vector in its capacity as Maui Pipeline Technical Operator (TO) in relation to reviewing and potentially updating Schedule 1. As part of this exercise, MDL will work with the TO to establish whether any specific MPOC changes may be required in relation to gas quality management on the Maui Pipeline.</li> </ul>
<b>Monitoring</b>	<ul style="list-style-type: none"> <li>Formalise and standardise the process for injecting parties demonstrating compliance with the Gas Specification by requesting, on a periodic basis (possibly annually), that injecting parties submit the “checklist” found as Appendix E to the Gas Specification.</li> <li>Amend section 17.15 of the MPOC to require continuous monitoring for water content and for hydrocarbon dew-point.</li> <li>Amend section 17.15 of the MPOC to remove the requirement to monitor total halogens.</li> <li>Amend section 17.15 of the MPOC for the monitoring of oxygen to no longer be carried out continuously, but rather as required and in any event no less than quarterly.</li> <li>Work with injecting parties to formalise the frequency of testing for components that are tested less frequently than the default intervals set out in the MPOC.</li> </ul>
<b>Reporting</b>	<ul style="list-style-type: none"> <li>Publish the monitoring requirements for each gas source, with any approved exceptions and supporting rationale, on OATIS.</li> <li>As MDL already publishes calorific values and relative density figures on OATIS for different gas streams, it is proposed that a Wobbe Index field is also included on OATIS.</li> <li>The TO and direct injecting parties discuss the feasibility of Gas Control at Bell Block receiving greater Gas Specification alarm information via SCADA or other telemetry.</li> <li>Publish a “Standard Operating Procedure” in relation to notification of Non-Specification events and the steps which may be taken by MDL in response to such events. MDL could look at adopting the approach of the Australian Energy Market Operator who has developed guidelines to cover short-term gas quality excursions outside the gas quality specifications. These guidelines set notification, alert and curtailment limits for each component of the Australian gas specification.</li> </ul>