Before Independent Commissioners Appointed by the Canterbury Regional Council and Selwyn District Council

In the matter of

The Resource Management Act 1991

And

In the matter of

Applications by **Fulton Hogan Limited** for all resource consents necessary to establish, operate, maintain and close an aggregate quarry (**Roydon Quarry**) between Curraghs, Dawsons, Maddisons and Jones Roads, Templeton

JOINT WITNESS STATEMENT OF: (1) GARETH FITCH; AND

(2) ALEC JORGENSEN

EQUINE HEALTH

DATED: [|3] NOVEMBER 2019

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Introduction

- 1. This Joint Witness Statement (**JWS**):
 - (a) Relates to effects on equine health that may arise from Fulton Hogan Limited's proposal to establish, maintain and close the Roydon Quarry;
 and
 - (b) Reports on the outcome of expert conferencing between the two equine health experts¹ who have filed evidence in this matter.
- 2. The expert conference was held in the morning of 8 November 2019. John Hardie (Barrister and Mediator) facilitated the conference. Dr Jorgensen is based in the Waikato and attended by phone. Dr Fitch is based in Christchurch. Dr Fitch and Mr Hardie attended the conference at [venue].
- 3. The experts involved have read Appendix 3 of the Environment Court Practice Note and confirm compliance with it.
- 4. In particular (and as set out in paragraphs 1(a) and (b) of Appendix 3) the witnesses understand:
 - (a) that the role of a JWS is to clearly record the issues agreed and not agreed, between them. Succinct reasons are to be captured in the JWS. This will assist all parties and the decision-makers in focussing on the matters that remain in dispute and the significance of them;
 - (b) expert conferencing is not a forum in which compromise or a mediated outcome between the experts is anticipated. Unlike mediation, the "aim" is not resolution. Rather, the aim is clear identification of and narrowing of points of difference.
- 5. Based on the evidence filed up to 7 November 2019, the following topics may be a useful starting point for discussions:
 - (a) What is the risk of silicate causing pulmonary silicosis in horses, including with reference to reported cases? It is considered, by both experts, that the risk of the occurrence of silicosis is likely so small as to not be relevant.
 - (b) What levels of environmental exposure to increased silicates might cause pulmonary silicosis in horses? The exact levels are unknown, but given the low incidence of silicosis and that reported cases were

¹ Gareth Fitch (witness for N and A McGrath) and Alec Jorgensen (witness for Fulton Hogan Limited)

confined to a particular geographical area it would be considered that the levels would need to be relatively high. These levels would be considered highly unlikely to occur as a result of quarrying, given that cases have not been reported where horses have been situated close to quarries in other areas.

(c) What is the risk of inflammatory airway disease in horses, including with reference to reported cases of the disease?

Dr Jorgensen considers that the silica particles do not make a significant contribution to inflammatory airway disease relative to other causal and proven factors i.e. mould spores and other organic material. Gareth Fitch maintains that silica particles of a particular size, sufficient to reach the alveolar airway are a cause of airway inflammation independent of other factors; of relevance to the latter, the particle type, level and distribution would be considered important and that that information is not available today.

- (d) What levels of environmental exposure to increased silicates might cause inflammatory airway disease in horses? There is nothing in the scientific literature as guideline to what level would cause IAD. Dr Jorgensen considers that if silicates were a significant causal factor in IAD that this would have been identified given that there numerous studies relating to IAD in horses.
- (e) What is the risk of exposure to silicate causing stress fractures in racehorses? This is related to silicosis, which we are in agreement is considered unlikely to occur as stated above.

. Gareth Fitch

.... Alec Jorgensen

8th November 2019