SUPREME COURT OF QUEENSLAND

CITATION:	*R v Mackenzie* [2016] QCA 277
PARTIES:	**R** **v** **MACKENZIE, David Ronald** (appellant)
FILE NO/S:	CA No 133 of 2016 DC No 163 of 2014 DC No 77 of 2016
DIVISION:	Court of Appeal
PROCEEDING:	Appeal against Conviction
ORIGINATING COURT:	District Court at Mackay – Date of Conviction: 11 May 2016
DELIVERED ON:	1 November 2016
DELIVERED AT:	Brisbane
HEARING DATE:	9 September 2016
JUDGES:	Margaret McMurdo P and Gotterson JA and Atkinson J Separate reasons for judgment of each member of the Court, each concurring as to the order made
ORDER:	**Appeal dismissed.**
CATCHWORDS:	CRIMINAL LAW – EVIDENCE – OPINION EVIDENCE – EXPERT OPINION – where the appellant was involved in a vehicle collision on a highway – where, after a trial, the appellant was convicted of dangerous operation of a motor vehicle causing grievous bodily harm while adversely affected by alcohol – where the appellant was seen swerving between lanes on the highway after leaving a hotel – where the prosecution alleged the appellant was driving on the incorrect side of the highway upon collision – where the appellant alleges that the expert opinion evidence of a trained forensic investigator who was at the collision scene for "at least an hour" and assisted another officer by identifying marks on the surface of the highway "or other items" for him to photograph was wrongfully admitted, resulting in a miscarriage of justice – where it is submitted that the factual basis for the opinion was deficient and the jury were not furnished with criteria which enabled them to validate the conclusions made – where it was submitted in the alternative that the evidence ought to be excluded on a discretionary basis – where there was an identification and proof of facts which underpinned the opinion – whether the admissibility of the expert opinion evidence amounted to a miscarriage of

justice

Evidence Act 1977 (Qld), s 130

Makita (Australia) Pty Ltd v Sprowles (2001) 52 NSWLR 705; [2001] NSWCA 305, cited
R v Anderson (2000) 1 VR 1; [2000] VSCA 16, cited
R v CL Lam, Truong, Duong and VT Lam (2001) 121 A Crim R 272; [2001] QCA 279, cited

COUNSEL: A Boe, with B P Dighton, for the appellant
V A Loury, with C M O'Connor, for the respondent

SOLICITORS: Robertson O'Gorman for the appellant
Director of Public Prosecutions (Queensland) for the respondent

[1] **MARGARET McMURDO P:** I agree with Gotterson JA's reasons for dismissing this appeal against conviction.

[2] **GOTTERSON JA:** At a trial over two days in the District Court at Mackay, the appellant, David Ronald Mackenzie, was found guilty on 11 May 2016 of an offence against s 328A(4) of the *Criminal Code* (Qld). The count on which he was convicted alleged that on 10 July 2013 at Coningsby, he dangerously operated a vehicle on the Bruce Highway and caused grievous bodily harm to the complainant, a 23 year old woman. The count further alleged by way of a circumstance of aggravation that, at the time, the appellant was adversely affected by alcohol and that the concentration of alcohol in his blood exceed 150 mg per 100 ml of blood.

[3] On 12 May 2016, the appellant was sentenced to three years imprisonment. The learned trial judge ordered that he be released on parole on 11 November 2017, some 18 months after the date when he went into custody. A declaration was made that one day pre-sentence custody be deemed time served under the sentence. The appellant was disqualified from obtaining a driver's licence for 12 months. At the same sentence hearing, the appellant was convicted of an associated offence of driving under the influence of liquor to which he pleaded guilty. He was convicted of that offence but not further punished.

[4] The appellant filed a Form 26 in this Court on 18 May 2016. By that document he appealed against his conviction and applied for leave to appeal against his sentence. On the day before the hearing of the appeal on 9 September 2016, the appellant filed a Form 30 by which he abandoned his application for leave to appeal against sentence.

The circumstances of the alleged offending

[5] At about 9 pm on 10 July 2013, the appellant was observed by a witness, Mr Gauci, to leave The Leap Hotel. Mr Gauci did not know the appellant. The hotel has a carpark that is accessible from the Bruce Highway.

[6] From his own car, Mr Gauci saw the appellant exit the hotel and walk onto the verandah. He was about 15 metres away from the appellant at the time. According to Mr Gauci, the appellant "looked pretty pissed" and was "sort of staggering a bit".[1] The appellant, who was unaccompanied, made his way down the stairs and to a Toyota LandCruiser utility parked in the carpark. The appellant got into the driver's seat.

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1 AB27; Tr1-13 ll28-30.

The utility was reversed from its parking bay and then driven onto the Bruce Highway.[2]

[7] About five minutes later, Mr Gauci and a friend of his left the hotel in the former's vehicle. They travelled south on the Bruce Highway. Mr Gauci intended to drive first to Farleigh to drop off his friend and then home to Mackay.[3]

[8] The complainant left a restaurant in Mackay at about 9 pm that evening. She was driving her black Ford Fiesta sedan.[4] Her intention was to travel to her parents' home at The Leap.[5] That would have required her to drive northwards on the Bruce Highway. The complainant recalled stopping at traffic lights near the memorial pool in Mackay. Her next recollection was of being in hospital.[6]

[9] Mr Gauci testified that on the Bruce Highway, "minutes" away from the hotel, there is a shop called "Five View Tyres". In the vicinity of the shop, the road shoulder beyond the white line marking the outer edge of the south bound lane is sealed. He referred to the sealed shoulder in evidence as "the bike lane".[7]

[10] Mr Gauci said that as he approached that location, he saw ahead of him the LandCruiser utility he had seen leave the hotel. He was travelling at 100 km per hour at the time.

[11] Mr Gauci's evidence was that the utility was travelling south and it was "going slow".[8] When he first saw it, the utility was in the bike lane. He saw it swerve twice; once from the bike lane into the south bound lane and then from the south bound lane back into the bike lane.[9] He slowed down because he did not know what the utility was going to do. As he approached to go around it, he saw that the driver of the utility had clipped a sign on the side of the road.[10]

[12] Mr Gauci's passenger gave evidence that he noticed the utility "about 30 metres or so from behind it".[11] Its lights were on and it was stationary. It moved to get onto the road by turning in front of Mr Gauci's vehicle. Then it veered back off the road.[12] He believed he saw it either clip a sign beside the road or come close to it.[13]

[13] A collision occurred on the Bruce Highway between the utility and the complainant's Fiesta sedan at about 9.30 pm. A truck driver passing through shortly afterwards found the complainant and the appellant unconscious in their respective vehicles.[14] Both were transported to the Mackay Base Hospital. The appellant admitted at trial that a blood sample taken from him at the hospital revealed a blood alcohol content of 0.157 per cent.

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2 Ibid l41-AB28; Tr1-14 l26.
3 AB28; Tr1-14 l31-AB29; Tr1-15 l6.
4 AB20; Tr1-6 ll25-46.
5 AB21; Tr1-7 ll44-46.
6 Ibid ll3-27.
7 AB29; Tr1-15 l40-AB30; Tr1-16 l6.
8 AB30; Tr1-16 l44.
9 Ibid ll31-40.
10 AB31; Tr1-17 ll13-36.
11 AB46; Tr1-32 l40.
12 AB44; Tr1-30 ll3-7; AB46; Tr1-32 l42-AB47; Tr1-33 l7.
13 AB44; Tr1-30 ll27-28.
14 AB50; Tr1-36 l35-AB51; Tr1-37 l8.

[14] The collision was not witnessed by any other person. The complainant, who had no memory of it, was seriously injured. The appellant admitted that her injuries amounted to grievous bodily harm.

[15] The prosecution case was that the two vehicles collided on the north bound lane of the Bruce Highway. At the point of impact, the appellant was driving on the incorrect side of the highway. Proof that the appellant was driving on that side at the time was central to the case that he was operating his vehicle dangerously and thereby caused grievous bodily harm to the complainant.

The investigation

[16] The first police officer to the scene, Senior Constable Verri, made a telephone request for a trained forensic crash investigator to attend the scene. Their request, which was made in accordance with the Queensland Police Traffic Manual, was declined at the operations command level in Mackay.[15]

[17] However at Senior Constable Verri's request, arrangements were made for a camera to be transported to the scene. It was Sergeant P Cowan, a trained forensic investigator based in Mackay, who was requested by the police communications centre to transport the camera to Senior Constable Verri. Sergeant Cowan arrived at the scene at about 11 pm.[16] He was at the scene for an hour or so.[17] He examined the scene for himself[18] and assisted Senior Constable Verri by identifying marks on the surface of the highway "or other items" for him to photograph.[19]

[18] By the time Sergeant Cowan arrived, the highway had been cleared of debris from the collision and the traffic flow had resumed.[20] Neither officer made notes or any record of what he saw and no measurements were taken.[21] In cross-examination, Sergeant Cowan accepted that, about six months later, when he was asked by Senior Constable Verri to put together a scale plan, he told him that it was not possible to do that accurately because the highway had been resurfaced.[22]

Sergeant Cowan's evidence

[19] A pre-trial ruling was sought by the appellant that opinion evidence to be given by Sergeant Cowan as an expert was inadmissible or that it ought to be excluded in exercise of the discretion under s 130 of the *Evidence Act* 1977 (Qld). The ruling sought was refused on 27 November 2015. Sergeant Cowan gave evidence at the trial. There was no material difference between the opinions and the reasons for them given at trial and those that had been expressed and given by Sergeant Cowan at the pre-trial hearing.

[20] The ultimate opinion expressed by Sergeant Cowan concerned the point of impact between the vehicles. He was asked at the trial whether he had formed an opinion as to the lane or area where the collision occurred. He responded:

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15 AB117; Tr1-103 ll5-14.
16 AB64; Tr1-50 ll5-25.
17 AB82; Tr-68 l8.
18 AB64; Tr1-50 l41.
19 AB65; Tr1-51 ll20-28.
20 Ibid l4; AB117; Tr1-103 l45 – AB118; Tr1-104 l1.
21 AB118 Tr1-104 l14; AB83; Tr1-69 ll 4-8.
22 AB83; Tr1-69 ll15-26.

> "Yes. As a result of examining the road surface there the gouge marks identified (sic) the opinion that the impact of the vehicles was in the north bound lane in the area between the two commencements of the gouge marks".[23]

[21] In his evidence at trial concerning the basis for this opinion, Sergeant Cowan testified that he observed gouge marks in the bitumen surface of the north bound lane. There were none in the south bound lane.[24] He identified the gouge marks he saw that night on photographic exhibits.[25] They were "fresh".[26] Sergeant Cowan also observed each vehicle in the position where it had come to rest. He had regard for the post-collision movement of each vehicle until it came to rest[27] and to the damage to it in order to determine the type of collision involved and where the impact between the vehicles occurred.[28]

[22] Sergeant Cowan, acknowledged that he was told that night about debris from the collision on the road surface. It has been removed before he arrived. He placed little, if any, reliance on what he had been told about it in forming his opinion.[29]

[23] Sergeant Cowan was of the opinion that one set of gouge marks were made by damage caused to the LandCruiser utility in the collision. These marks were made from the point of collision and during the utility's post-impact travel.[30] He also identified two gouge marks which, in his opinion, were caused by the Fiesta sedan. They led towards a railway crossing sign that had been impacted by it.[31]

[24] Cross-examination of Sergeant Cowan at the trial was detailed. He was asked to explain his reliance upon his observations of the vehicles and the gouge marks. His explanation was in the following terms:

> "… Isn't your view that something to do with what happens when a smaller vehicle collide with a larger vehicle?---Yes. That has a bearing ---
>
> Please explain---?--- factor in it.
>
> ---that to me?---So the size of the vehicle has an influence on the rotation or movement of the vehicle after the collision.
>
> And doing what in this case?---In this case?
>
> Yes?---In the fact that the larger vehicle will make the smaller vehicle rotate - - -
>
> Yes:--- --- and the larger vehicle continued on – on its path of travel.
>
> Yes. Okay. Keep going. How does that relate to this opinion as to the location?---Well, that's showing where the gouge marks created by the LandCruiser ---

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23 AB76; Tr1-62 ll31-34.
24 AB79; Tr1-65 l24.
25 AB68; Tr1-54 ll5-11. Some of the photographs were taken that night when he was present. Others were taken during the following day.
26 Ibid l37.
27 AB76; Tr1-62 l45.
28 AB77; Tr1-63 ll6-8.
29 AB80; Trl-66 ll15-26.
30 AB73; Tr1-59 ll39-44.
31 AB68; Tr1-54 ll5-19.

> Right? --- - - - are in the direction of travel of that vehicle - - -
>
> Yes?--- - - - and the sideways movement of the Ford post-impact is as a result of the force applied by the LandCruiser.
>
> So you fix, don't you, the area for collision, as you said it, being on the northbound land by reference to the location of the gouge?--- Gouges – yes.
>
> Gouges – well, the gouges we've been shown?---Yes.
>
> The gouges – the two that you've identified as having been caused by the Ford Fiesta. Correct?--- Yes. Yes.
>
> Yeah?---Including that. Yes.
>
> And to get to the point ---
>
> HER HONOUR: Well, hang on. You said the point between the first two gouges of each of the vehicles, didn't you? Isn't that what you said – first gouge of the ---?--- Yes. First gouge of the Ford Fiesta – Festiva which was showing and the first gouge of the three in the big series ---
>
> MR BOE: Yes? --- - - - that was created by the - - -
>
> HER HONOUR: Yes?--- - - - LandCruiser."[32]

[25] Sergeant Cowan was then asked about his view that the gouge marks he attributed to the Fiesta sedan were closer to the point of impact than those attributed to the LandCruiser utility. He confirmed that that was the view he took and stated that it was based on an "overriding effect" which he had learned about in his training. He described that effect in these terms:

> "[I]f [there are] two vehicles of differing heights, the higher vehicle rides over the top of the lower vehicle for a period until they separate… and that holds the higher vehicle up longer and the lower vehicle gets pushed to the ground".[33]

[26] At the pre-trial hearing, Sergeant Cowan acknowledged limitations upon his appraisal of the collision: he had investigated the scene at night only with the aid of torches and headlights;[34] he was at the scene for not much more than one hour, of which only 20 minutes to half an hour were spent examining the highway surface;[35] he made neither notes nor measurements of what he saw;[36] in the months following, he did not return to the scene or inspect the vehicles to examine the damage to them;[37] that because of the resurfacing, an accurate scale plan of the highway and the gouge marks could not be made;[38] and that the factual record on which he relied for his opinions was his memory and the photographs taken that evening.[39] These limitations

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32 AB92; Tr1-78 l15 -AB93; Tr1-79 l10. This explanation corresponded with the explanation Sergeant Cowan had given in evidence in chief: AB76; Tr1-62 l31 – AB77; Tr1-63 l22.

33 AB94; Tr1-80 ll9-13.

34 SAB57: Tr1-10 l30.

35 SAB85; Tr1-38 ll38-39.

36 SAB86; Tr1-39 ll1-15.

37 Ibid ll17-19; SAB108; Tr1-61 l 37.

38 SAB86; Tr1-39 ll24-25.

39 Ibid ll17-19.

did not, however, cause Sergeant Cowan to moderate his firmly expressed opinion that the collision occurred in the north bound land.

Ground of Appeal

[27] The sole ground of appeal is:

> "The wrongful admission of the expert opinion evidence of the witness Sergeant Peter Cowan occasioned a miscarriage of justice."[40]

[28] In my view, the appropriate evidentiary frame of reference for analysis of this ground of appeal is the opinion evidence of Sergeant Cowan led at trial. A central issue raised by this ground is whether that evidence was admissible. I mention this having regard to the observations of the learned judge who conducted the pre-trial hearing. His Honour noted that not all of the material on which reliance had been placed in submissions had been the subject of evidence before him. Hence, his ruling was "in a sense, provisional and subject to review when all of the available evidence about the accident site ha[d] been heard".[41]

[29] Given that, this ground of appeal is not to be determined by an enquiry limited to the correctness of the ruling by the learned pre-trial judge. In saying this, I do not mean to imply that there is some viable basis or bases for challenging the correctness of the ruling.

Appellant's submissions

[30] The appellant referred to the observations of Winneke P in *R v Anderson*[42] that the existence of a proper factual or scientific basis for the expression of an expert opinion was a matter relevant to its admissibility. His Honour ventured that an opinion for which no factual or scientific basis was given or for which the basis given could be seen to be speculative or irrelevant to the opinion expressed, was vulnerable to exclusion on that account.

[31] Against that background, the appellant contended that the factual basis for Sergeant Cowan's opinion was deficient, firstly on account of the acknowledged limitations to which I have referred, and secondly and more specifically, because of a failure on his part to obtain measurements of the two vehicles and their respective weights to validate his application in the circumstances of the overriding effect. Drawing on that contention, the appellant submitted that such was the sparsity of facts adduced in evidence that there was "a fundamental disconnect between the limited evidence available and the opinions that [Sergeant Cowan] constructed from them".[43]

[32] A further criticism was that Sergeant Cowan was unable to elaborate his evidence that he had learned of the overriding effect from his training and text books, by naming any text involving collision analysis that used the term "overriding effect".[44]

[33] It was submitted that, in these circumstances, the jury were not furnished with criteria which enabled them to evaluate the validity of Sergeant Cowan's conclusions. His evidence ought to have been excluded on that account. Alternatively, it was submitted, if the evidence was technically admissible, it should have been

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40 Amended notice of appeal filed 12 September 2016. Leave to amend granted at the hearing of the appeal.
41 SAB166; Ruling p8 ll26-27.
42 [2000] VSCA 16; (2000) 1 VR 1 at [59].
43 Written submissions para 30.
44 AB94; Tr1-80 ll15-41.

excluded on a discretionary basis under s 130 because it was "fundamentally unreliable and of only slight probative value".[45]

Respondent's submissions

[34] The respondent submitted that the critical opinion expressed by Sergeant Cowan was as to the location of the point of impact in the north bound lane. He gave evidence of the factual matters on which the opinion was based, of the specialised training he had undertaken, and of his involvement in many investigations relying on his planning as a crash investigator.[46]

[35] As to the facts supporting the opinion, there was direct evidence of the location and appearance of the gouge marks and other marks on the road surface and on the verge, and of the location where each vehicle came to rest. It was noted that Sergeant Cowan had had the opportunity to view those features himself as well as the nature of the damage to the vehicles. It was on those facts, it was submitted, that Sergeant Cowan had relied principally for his opinion. Specifically, his opinion was not depended upon the actual dimensions and weights of the vehicles. It was their relative size and weight that were important.[47] Sergeant Cowan's opinion, it was submitted, satisfied the conditions for admissibility of expert evidence summarised by Heydon JA (as his Honour then was) in *Makita (Australia) Pty Ltd v Sprowles*.[48]

[36] With regard to discretionary exclusion, the respondent contended that Sergeant Cowan's opinion did not have tenuous foundations; it was not unreliable. Certainly, it was probative. This was not a case of opinion evidence of limited probative value overshadowed by its prejudicial effect. There was no unfairness to the appellant which warranted exclusion. Further, the respondent submitted, it was a matter for the jury to determine the degree to which any shortcomings in the formation of the opinion exposed in cross-examination, would influence their assessment of its quality.[49]

Discussion

[37] The conditions for the admissibility of expert opinion evidence, as summarised by Heydon JA in *Makita* at [85] are these:

> "In short, if evidence tendered as expert opinion evidence is to be admissible, it must be agreed or demonstrated that there is a field of 'specialised knowledge'; there must be an identified aspect of that field in which the witness demonstrates that by reason of specified training, study or experience, the witness has become an expert; the opinion proffered must be 'wholly or substantially based on the witness's expert knowledge'; so far as the opinion is based on facts 'observed' by the expert, they must be identified and admissibly proved by the expert, and so far as the opinion is based on 'assumed' or 'accepted' facts, they must be identified and proved in some other way; it must be established that the facts on which the opinion is based form a proper foundation for it; and the opinion of an expert requires demonstration

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45 Written submissions para 33.
46 Written submissions para 11.
47 Ibid paras 12, 13.
48 [2001] NSWCA 305; (2001) 52 NSWLR 705 at [85].
49 Written submissions paras 17-19.

> or examination of the scientific or other intellectual basis of the conclusions reached: that is, the expert's evidence must explain how the field of 'specialised knowledge' in which the witness is expert by reason of 'training, study or experience', and on which the opinion is 'wholly or substantially based', applies to the facts assumed or observed so as to produce the opinion propounded. If all these matters are not made explicit, it is not possible to be sure whether the opinion is based wholly or substantially on the expert's specialised knowledge. If the court cannot be sure of that, the evidence is strictly speaking not admissible, and, so far as it is admissible, of diminished weight. And an attempt to make the basis of the opinion explicit may reveal that it is not based on specialised expert knowledge, but, to use Gleeson CJ's characterisation of the evidence in *HG v The Queen*[50] (at 428 [41]), on 'a combination of speculation, inference, personal and second-hand views as to the credibility of the complainant, and a process of reasoning which went well beyond the field of expertise'."

[38] Here there is no challenge by the appellant on the basis that there is no field of specialised knowledge with respect to the causes of motor vehicle collisions. Nor is there a challenge on the basis that Sergeant Cowan had not, by practical training or experience in that field, acquired sufficient knowledge and acumen to express an expert opinion.[51]

[39] The opinion as to the point of impact was drawn from a number of facts. As described by Sergeant Cowan, the facts most influential to his opinion were the location of the respective gouge marks. These he had observed at the scene. He was able to identify them in photographs tendered at trial. He was also able to identify the gouge marks made by each vehicle by reference to the marks and the paths of travel of the vehicles after impact. The nature of the damage he observed to each vehicle excluded a full front-on collision. It indicated an off-centre collision in which the Fiesta sedan was forced into a sideways movement.

[40] Sergeant Cowan's opinion included a conclusion that the actual point of impact was closer to the beginning of the gouge marks made by the Fiesta sedan than to the beginning of the gouge marks made by the LandCruiser utility. He arrived at that conclusion by application of his understanding of the overriding effect which he explained.

[41] In my view, there was a sufficient identification and proof of the facts on which Sergeant Cowan based his opinion consistently with the conditions for admission articulated by Heydon JA. It may be that this was not an exemplary investigation in that some shortcomings in it were acknowledged. That, however, did not detract from the identification and proof of the facts which underpinned the opinion.

[42] With regard to Sergeant Cowan's reliance upon the overriding effect, it is of no real significance that he could not name a text book in which that terminology was used. It is the effect itself that was relevant. It was not put to Sergeant Cowan that there

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50 [1999] HCA 2; (1999) 197 CLR 414.

51 That sufficient knowledge might be acquired in that way was recognised in *R v CL Lam, Truong, Duong and VT Lam* [2001] QCA 279 per Thomas JA at [81] (McPherson JA and Chesterman J agreeing). Here, Sergeant Cowan gave extensive evidence to that effect: AB61; Tr1-47 l7 AB64; Tr1-50 l3.

was no such effect described in the technical writings in the field or that he had misunderstood it. That is unsurprising given the practical common sense inherent in it.

[43] Further, the absence of knowledge on Sergeant Cowan's part of the actual dimensions or weights of the vehicles was of relative insignificance. As the respondent submits, it is the relative size and weight of colliding vehicles that is critical to the theoretical integrity of the overriding effect. The relative size of the vehicles here was something that Sergeant Cowan was able to observe at the scene. From that, an inference as to their relative weight could reasonably have been drawn. I do not accept that there was an insufficiency of proof of facts which would have precluded Sergeant Cowan from applying the overriding effect.

[44] I am therefore satisfied that the opinion evidence given by Sergeant Cowan was admissible.

[45] Further, I am quite unpersuaded that this evidence should have been excluded in exercise of the discretion conferred by s 130. A sound basis for its admission was established. The evidence was of substantial probative value. Of course, it was prejudicial to the appellant. However, there was no disproportion between its cogency, on the one hand, and the prejudice, on the other, as would call for exclusion in order to avoid unfairness to the appellant.

[46] For these reasons, this ground of appeal has not been made out.

Disposition

[47] Since the only ground of appeal has failed, this appeal must be dismissed.

Order

[48] I would propose the following order:

1. Appeal dismissed.

[49] **ATKINSON J:** I have had the advantage of reading the reasons for judgment of Gotterson JA. I agree that the appeal should be dismissed for the reasons given by his Honour.