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APPENDIX A

Stochastic rail stress distributions (Different iterations with the same model)

Figure A-1: Stochastic rail stress distributions

Figure A-2: Stochastic rail stress distributions
Figure A-3: Stochastic rail stress distributions

Figure A-4: Stochastic rail stress distributions
APPENDIX B
Histograms of Leandra test data

Figure B-1: Histograms of lateral forces at 20km/h

Figure B-2: Histograms of lateral forces at 30km/h
Figure B-3: Histograms of lateral forces at 40km/h

Figure B-4: Histograms of lateral forces at 60km/h
APPENDIX C

Lateral force graphs of Iron Ore Export line data

Figure C-1: Lateral left and right forces at 30 km/h, for 15 ton axle

Figure C-2: Lateral left and right forces at 30 km/h, for 26 ton axle
Figure C-3: Lateral left and right forces at 30 km/h, for 30 ton axle

Figure C-4: Lateral left and right forces at 70 km/h, for 15 ton axle
Development of a methodology for calculating stresses in track components

Figure C-5: Lateral left and right forces at 70 km/h, for 26 ton axle

Figure C-6: Lateral left and right forces at 70 km/h, for 30 ton axle
Figure C-7: Vertical left and right forces at 30 km/h, for 15 ton axle

Figure C-8: Vertical left and right forces at 30 km/h, for 26 ton axle
Figure C-9: Vertical left and right forces at 30 km/h, for 30 ton axle

Figure C-10: Vertical left and right forces at 70 km/h, for 26 ton axle
Figure C-11: Vertical left and right forces at 70 km/h, for 30 ton axle
APPENDIX D

Summary of dynamic factors

Figure D-1: Summary of all dynamic factors