LiDAR surveying EL31/2003

AAM was engaged by Venture Minerals to conduct a LiDAR survey over much of the Mt. Lindsay Project area including part of EL31/2003. The Airborne Laser Scanning (ALS) data was acquired from a fixed wing aircraft on April 5th and April 6th 2011. GPS base station support was acquired by Tritech Professional Services using an Optech ALTM Gemini 70 kHz Static RTK system. This allowed an assessment of the accuracy of the ALS data. Reduction of the ALS data proceeded without any significant problems. Laser strikes were classified into ground and non-ground points using a single algorithm across the project area. Manual checking and editing of the data classification further improved the quality of the terrain model. Datum Projection Geoid Model was GDA94 MGA Zone 55 and Ausgeoid98, and Primary Reference Station WCP1 357205.518, E 5380864.729 N, 268.738 RL. Project specifications and technical processes were designed to achieve vertical data accuracy of 0.30 m and horizontal <0.30 m (1/5500 flying height). Ground definition in vegetated terrain may contain localized areas with systematic errors or outliers which fall outside this accuracy estimate. Laser strikes were classified into “ground” and “non-ground”, based upon algorithms tailored for major terrain/vegetation combinations existing in the project area. The definition of the ground may be less accurate in isolated pockets of dissimilar terrain/vegetation combinations. Ground data in this volume was compared to 231 test points obtained by field survey on clear ground and assumed to be error-free, achieving a mean difference of -0.250 m, standard deviation of 0.041 m and RMS 0.254 m. The thinned laser strikes classified as “ground” for EL31/2003 have been supplied to MRT in comma delimited text format.