Record ID	Record
Metadata Filename	22397701_Unity_Henty_Mine
Metadata Language	English
Metadata Character Set	ASCII
Metadata File Parent Identifier	N/A
Metadata Point of Contact	Martin Bench Fugro Spatial Solutions Pty Ltd 18 Prowse Street West Perth WA 6005 ph 08 9282 4100 m.bench@fugrospatial.com.au
Metadata Date Stamp	08/03/2011
Dataset Title	Henty Mine
Dataset Reference Date	March 2011
Dataset Description Abstract	Henty Mine Lidar derived products
Dataset Language	English
Dataset Character Set	ASCII and binary
Dataset Topic Category	DEM and Contours
Geographic Location Description	Tasmania
Geographic Bounding Box	WEST LONGITUDE=145° 31' 42" E NORTH LATITUDE= 41° 35' 19" S EAST LONGITUDE=145° 50' 48" E SOUTH LATITUDE= 41° 56' 36" S
Acquisition Start Date	15th January 2011
Acquisition End Date	20th January 2011
Sensor Type Name	Leica ALS50-2
Sensor/Lens serial ID	SN087
Flying Height (AGL) meters	2220 to 3265m
INS / IMU Used	IPAS10
Number of Runs	35
Swath Width (metres)	1000
Flight Direction	Non-Cardinal
Side Overlap (%)	25
Output Data Format	DEM Model key points in ASCII XYZ, Contours in Microstation DGN and 2m DEM in ASCII and ESRI ASCII Grid
Horizontal Datum	GDA94
Vertical Datum	AHD as defined by AUSGeoid09BETA7
Map Projection	MGA Zone 55 South
Number of control points	

Number	Easting	Northing	Known Z	Laser Z	Dz
XP01	349818.580	5355146.470	7.360	7.480	+0.120
XP01B	349793.360	5355127.990	3.590	3.730	+0.140
XP02	378886.020	5374045.000	185.420	185.480	+0.060
XP02B	378882.340	5374046.060	185.360	185.360	+0.000
XP03	375408.700	5372952.310	153.980	153.970	-0.010
XP03B	375412.520	5372941.980	154.680	154.630	-0.050
XP04	382828.780	5373522.450	479.950	480.110	+0.160
XP04B	382828.700	5373526.730	479.970	480.100	+0.130
XP05	371358.280	5373918.140	172.400	172.460	+0.060
XP05B	371354.750	5373919.100	172.350	172.280	-0.070
XP06A	378966.900	5366432.710	1119.190	1119.220	+0.030
XP06B	378982.190	5366465.760	1118.190	1118.330	+0.140
XP06C	376001.710	5365066.830	932.520	932.560	+0.040
XP06D	376055.440	5365138.090	939.310	939.440	+0.130
XP07	352321.990	5357794.690	192.480	192.420	-0.060
XP07B	351211.220	5357399.260	186.740	186.720	-0.020
XP07C	351218.490	5357452.120	189.020	189.010	-0.010
XP08	356070.340	5359871.490	229.320	229.150	-0.170
XP08B	356087.380	5360326.510	218.610	218.540	-0.070
XP09	349278.570	5356865.980	126.100	126.000	-0.100
XP09B	348698.330	5356568.820	7.190	7.180	-0.010

XP09C	349199.060	5357563.070	161.490	161.450	-0.040
XP10	367533.590	5366516.620	228.720	228.560	-0.160
XP10B	367510.610	5366503.780	228.550	228.380	-0.170
XP11	365479.750	5365794.030	187.960	187.890	-0.070
XP11B	365476.490	5365792.730	187.940	187.830	-0.110
XP12	365404.360	5368826.360	246.190	246.080	-0.110
XP12B	365408.560	5368829.000	246.330	246.210	-0.120
XP13	368282.710	5368464.530	311.270	311.190	-0.080
XP13B	368287.810	5368606.310	298.680	298.650	-0.030
XP14	377746.840	5378933.100	164.040	163.890	-0.150
XP14B	377747.930	5378928.750	163.990	163.880	-0.110
XP15	385415.630	5381027.370	190.860	190.860	+0.000
XP15B	385443.600	5380962.520	187.370	187.470	+0.100
XP16	380850.190	5356549.720	512.280	512.320	+0.040
XP16B	380754.610	5356191.190	514.310	514.340	+0.030
XP16C	379643.330	5362477.160	525.170	outside	*
XP16D	379646.430	5362477.230	525.170	525.150	-0.020
XP17	381770.820	5359599.670	500.570	500.590	+0.020
XP17B	381761.900	5359600.090	500.910	500.870	-0.040
XP18	386555.900	5368585.820	558.360	558.490	+0.130
XP18B	386448.700	5368467.090	562.620	562.640	+0.020
XP19	384989.910	5375184.040	174.890	174.920	+0.030
XP19B	385009.530	5375187.510	174.740	174.740	+0.000
XP20	387552.670	5373451.010	249.080	249.020	-0.060
XP20B	388284.870	5374291.440	266.300	266.220	-0.080
XP20C	388075.470	5374108.960	191.940	191.960	+0.020
PID01B	376003.380	5365066.520	932.590	932.680	+0.090
PID01NAIL	376001.560	5365064.490	932.490	932.580	+0.090
PID02BUSH	382515.090	5365456.480	851.410	851.280	-0.130
PID02SQUARE	382522.610	5365465.610	853.030	852.880	-0.150
PID02CROSS	382516.340	5365461.630	851.520	851.550	+0.030
PID03SQUARE	383948.900	5385117.260	308.030	308.130	+0.100
PID03TARGET	383951.590	5385114.960	307.830	307.900	+0.070
PID04CROSS	376415.030	5384964.920	415.750	415.710	-0.040
PID04TREE	376427.130	5384954.190	414.850	414.730	-0.120

Average dz	-0.011
Minimum dz	-0.170
Maximum dz	+0.160
Average magnitude	0.075
Root mean square	0.091
Std deviation	0.09

Spatial Accuracy (Hz) metres	0.25m @ 67 % CI
Spatial Accuracy Vt) metres	0.13m @ 67 % CI
Surface Type	Various
Average Point Separation	Target spacing 1 pnt/m^2
Laser Return Types	All Returns
Data Thinning	None
Laser Footprint Size (metres)	0.60
Data Tile size (km 2)	1km2
Processing / Derivation Lineage	Ground classifications Fugro Spatial Solutions Pty Ltd aim is to select those points that are part of a clean ground surface, which might not be 100% of the ground hits. This results in a cleaner dataset, without compromising on terrain detail and accuracy. Ground filtering algorithms, tailored for this project, data type and terrain type, are applied to the full dataset. The ground filtered dataset is then visually checked by an operator, and incorrectly classified data is corrected or the ground filtering algorithm is adjusted and then visually checked. For the verification of the ground classifications, intensity imagery is used as a backdrop image. **Bare_Earth_DEM_2m** A 2m DEM has been generated from the lidar ground surface. The method of deriving the height for each grid point is by triangulation between the three nearest lidar ground points. **Model keypoints** A resampled ground dataset, consisting of only those points that actually contribute to the shape of the terrain (+/- 15cm), with a minimum point density of 1 point every 20m. **Contours** From the modelkeypoints, triangles are being built. At 0.5m intervals in height, points or interpolated points on triangle edges with that same height are being connected using smoothed curved lines. The lines for each height interval are then merged to become the final contours. **Note:** Returns on water have not been removed from the (classified) point clouds. Gridded datasets have been interpolated across voids (up to 500m in diameter) caused by either no-return due to water bodies, or removal of buildings, vegetation or other above ground features. Contour datasets are interpolated across voids, and contours across waterbodies have not been removed/clipped. Above ground datasets only start at 30cm above the classified ground surface, to avoid low grasses/system noise to become part of this above ground dataset. All data has been cut into 2km tiles, where the file name prefix corresponds with the Upper Left coordinate of the 2km block.
Limitations of Data	This data has not been field tested for completeness or accuracy.
Conditions of Supply	1. This Metadata file is always to be stored with the unaltered data contained in this volume. 2. Any supplied data is to be used only for the purpose for which it was commissioned and in accordance with the terms of engagement. 3. Use of any supplied data for purposes other than those stated is entirely at the risk of the Client.