

ALTURA MINING LTD

2009 LIBERATOR & LONG ISLAND AIRBORNE MAG-RAD SURVEYS

Located Data - GDF ASCII Format, and Survey Report

- Liberator_magdtm.DAT (DES, DFN)
- Liberator_rads.DAT (DES, DFN)
- Liberator_rad256.DAT (DES, DFN)
- LongIsland_magdtm.DAT (DES, DFN)
- LongIsland_rads.DAT (DES, DFN)
- LongIsland_rad256.DAT (DES, DFN)
- HaddingtonResourcesProcessingReport.doc

Delivered ERMappper Grids

- | | |
|-----------------------|---|
| • Liberator_elev.ers | - Digital Elevation Model grid |
| • Liberator_tmi.ers | - Total Magnetic Intensity grid |
| • Liberator_tot.ers | - Dose Rate (ground equiv concentration) grid |
| • Liberator_pot.ers | - Potassium (ground equiv concentration) grid |
| • Liberator_th.ers | - Thorium (ground equiv concentration) grid |
| • Liberator_ura.ers | - Uranium (ground equiv concentration) grid |
| • LongIsland_elev.ers | - Digital Elevation Model grid |
| • LongIsland_tmi.ers | - Total Magnetic Intensity grid |
| • LongIsland_tot.ers | - Dose Rate (ground equiv concentration) grid |
| • LongIsland_pot.ers | - Potassium (ground equiv concentration) grid |
| • LongIsland_th.ers | - Thorium (ground equiv concentration) grid |
| • LongIsland_ura.ers | - Uranium (ground equiv concentration) grid |

SGC Processed ERMappper Grids

(Merged Long Island & Thunderball overfly data)

- | | |
|---------------------------|---|
| • LongIsland-TB_DEM.ers | - Digital Elevation Model grid |
| • LongIsland-TB_TMI.ers | - Total Magnetic Intensity grid |
| • LongIsland-TB_RTP.ers | - Reduced-to-Pole Total Magnetic Intensity grid |
| • LongIsland-TB_Dose.ers | - Dose Rate (ground equiv concentration) grid |
| • LongIsland-TB_Kpct.ers | - Potassium (ground equiv concentration) grid |
| • LongIsland-TB_THppm.ers | - Thorium (ground equiv concentration) grid |
| • LongIsland-TB_Uppm.ers | - Uranium (ground equiv concentration) grid |

MapInfo Compilaton

Flightpaths

- Liberator_FlightPath
- LongIsland_FlightPath
- ThunderBall_Flightpath

Contours (best plotted at 1:10000 scale)

- | | |
|-----------------------------|---|
| • Liberator_TMI_10Kconts | - TMI Contours (Interval @ 10,50, 250, 1000nT) |
| • Liberator_TMI1VD_10Kconts | - TMI1VD Contours (Interval @ 0.1, 0.5, 2.5nT/m) |
| • Liberator_RTP_10Kconts | - RTP Contours (Interval @ 10,50, 250, 1000nT) |
| • Liberator_RTP1VD_10Kconts | - RTP1VD Contours (Interval @ 0.1, 0.5, 2.5nT/m) |
| • Liberator_AnSig_10Kconts | - Analytic Signal Contours (Interval @ 0.1, 0.5, 2.5 units) |
| • Liberator_DEM_10Kconts | - DEM Contours (Interval @ 1, 5, 25m) |
| • Liberator_Dose_10Kconts | - Dose Rate Contours (Interval @ 5, 25, 100 nGy/hr) |
| • Liberator_Kpct_10Kconts | - Potassium Contours (Interval @ 0.1, 0.5, 2.5%) |

- Liberator_Thppm_10Kconts - Thorium Contours (Interval @ 1, 5, 25 ppm)
- Liberator_Uppm_10Kconts - Uranium Contours (Interval @ 0.5, 2.5, 10 ppm)
- Liberator_Th_10Kconts - U/Th Ratio Contours (Interval @ 0.05, 0.25, 1.0)
- LongIsland_TMI_10Kconts - TMI Contours (Interval @ 2, 10, 50, 500 nT)
- LongIsland_TMI1VD_10Kconts - TMI1VD Contours (Interval @ 0.02, 0.1, 0.5 nT/m)
- LongIsland_RTP_10Kconts - RTP Contours (Interval @ 2, 10, 50, 500 nT)
- LongIsland_RTP1VD_10Kconts - RTP1VD Contours (Interval @ 0.02, 0.1, 0.5 nT/m)
- LongIsland_AnSig_10Kconts - Analytic Signal Contours (Interval @ 0.02, 0.1, 0.5 units)
- LongIsland_DEM_10Kconts - DEM Contours (Interval @ 1, 5, 25m)
- LongIsland_Dose_10Kconts - Dose Rate Contours (Interval @ 5, 25, 100 nGy/hr)
- LongIsland_Kpct_10Kconts - Potassium Contours (Interval @ 0.1, 0.5, 2.5%)
- LongIsland_Thppm_10Kconts - Thorium Contours (Interval @ 1, 5, 25 ppm)
- LongIsland_Uppm_10Kconts - Uranium Contours (Interval @ 0.5, 2.5, 10 ppm)
- LongIsland_Th_10Kconts - U/Th Ratio Contours (Interval @ 0.05, 0.25, 1.0)

Uranium Stack Profiles (best plotted at 1:10000 scale)

- Liberator_U_10Kprof_vs10ppm_b10ppm - Uranium Stack Profiles (baseline = 0, vertical scale = 10ppm/cm)
- LongIsland_U_10Kprof_vs10ppm_b4ppm - Uranium Stack Profiles (baseline = 4, vertical scale = 10ppm/cm)

Geotiffs

- {Area}_AnSig_*shadeL - Analytic Signal (lin) Shaded with 50% SE or NE Gradient
- {Area}_TMI_* - TMI Image (NL) - SE or NE Gradient - Greyscale
- {Area}_TMI_*shadeL - TMI Image (Lin) Shaded with 50% SE or NE Gradient
- {Area}_TMI_*shadeNL - TMI Image (NL) Shaded with 50% SE or NE Gradient
- {Area}_TMI_*agcsL - TMI Image (Lin) Shaded with 50% SE or NE AGC Gradient
- {Area}_TMI_*agcsNL - TMI Image (NL) Shaded with 50% SE or NE Gradient
- {Area}_TMI1VD_*shadeL - TMI 1VD Image (Lin) Shaded with 50% SE or NE Gradient
- {Area}_TMI1VD_*shadeNL - TMI 1VD Image (NL) Shaded with 50% SE or NE Gradient
- {Area}_RTP_* - RTP Image (NL) SE or NE Gradient - Greyscale
- {Area}_RTP_*shadeL - RTP Image (Lin) Shaded with 50% SE or NE Gradient
- {Area}_RTP_*shadeNL - RTP Image (NL) Shaded with 50% SE or NE Gradient
- {Area}_RTP_*agcsL - RTP Image (Lin) Shaded with 50% SE or NE AGC Gradient
- {Area}_RTP_*agcsNL - RTP Image (NL) Shaded with 50% SE or NE Gradient
- {Area}_RTP1VD_*shadeL - RTP 1VD Image (Lin) Shaded with 50% SE or NE Gradient
- {Area}_RTP1VD_*shadeNL - RTP 1VD Image (NL) Shaded with 50% SE or NE Gradient
- {Area}_RTP1VD - RTP Image (NL) First Vertical Derivative - Greyscale
- {Area}_RTP2VD - RTP Image (NL) Second Vertical Derivative - Greyscale
- {Area}_RTPtilt_*agcsL - RTP Tilt Image (Lin) Shaded with 50% SE or NE AGC Gradient
- {Area}_RTP_1VDagcs75 - RTP Image (Lin) Shaded with 75% 1VD AGC
- {Area}_RTP_2VDagcs75 - RTP Image (Lin) Shaded with 75% 2VD AGC
- {Area}_DEM_*shadeL - Digital Terrain Image (Lin) Shaded with 50% NE or SE Gradient
- {Area}_K_NshadeL - Potassium Image (Lin) Shaded with 50% SE or NE Gradient
- {Area}_Th_NshadeL - Thorium Image (Lin) Shaded with 50% SE or NE Gradient
- {Area}_U_NshadeL - Uranium Image 1-99% (Lin) Shaded with 50% SE or NE Gradient
- {Area}_U_0-100_NshadeL - Uranium Image 0-100% (Lin) Shaded with 50% SE or NE Gradient
- {Area}_TC_NshadeL - Dose Rate Image (Lin) Shaded with 50% SE or NE Gradient
- {Area}_KTh_NshadeL - K/Th Ratio Image (Lin) Shaded with 50% SE or NE Gradient
- {Area}_UTh_NshadeL - U/Th Ratio Image (Lin) Shaded with 50% SE or NE Gradient
- {Area}_U2Th_NshadeL - U²/Th Ratio Image (Lin) Shaded with 50% SE or NE Gradient
- {Area}_Tern_L - Ternary Radiometric Image (Lin) – Red = K, Green = Th, Blue = U
- {Area}_Tern_NL - Ternary Radiometric Image (NL) – Red = K, Green = Th, Blue = U
- {Area}_Tern_TC_NshadeL - Ternary Radiometric Image (Lin) – Red = K, Green = Th, Blue = U shaded with 50% SE or NE Total Count Gradient
- {Area}_Tern_TC_NshadeNL - Ternary Radiometric Image (NL) – Red = K, Green = Th, Blue = U shaded with 50% SE or NE Total Count Gradient

* Liberator Images are shaded from the NE, Long Island Images shaded from the SE.

Image Details

Liberator Magnetic/DEM Images

Top Left Coordinate:

745000 mE, 8500200 mN

Cell Size = 10 m

Lines = 647

Pixels = 517

Liberator Radiometric Images

Top Left Coordinate:

744712.5 mE, 8500222.5 mN

Cell Size = 15 m

Lines = 441

Pixels = 364

Long Island Magnetic/DEM Images

Top Left Coordinate:

761300 mE, 8500700 mN

Cell Size = 10 m

Lines = 871

Pixels = 744

Long Island Radiometric Images

Top Left Coordinate:

761343 mE, 8500706mN

Cell Size = 12.5 m

Lines = 674

Pixels = 592

CO-ORDINATE SYSTEM

- *GDA94 Datum*
- *MGA Zone 52*
- *Southern Hemisphere*

PROCESSING DETAILS

- *202 Mb*
- *8 January 2010*
- *SGC*

