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Title	Zonation of the Newry Igneous Complex, Northern Ireland, based on geochemical and geophysical data
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ANALYTICAL GEOCHEMISTRY LABORATORIES

ANALYSIS REPORT COVER NOTE

This report consists of a 2 page Analysis Report Cover Note and 12 pages of test data

Report Number:	12883/1	Customer Ref/Order No:	email 14/12/2011
Report Date:	29 June 2012	Sample(s) received on:	30 January 2012
Issue Status:	Complete	Analysis commenced on:	24 February 2012

Sample Details

All samples were received in good condition. Samples were crushed and milled before analysis (0.9 g split) by lithium borate fused bead XRFS and (0.2 g split) by sodium peroxide fusion ICP-MS. Loss on ignition was determined gravimetrically (1 g split).

Unless previously agreed otherwise in writing, samples will be retained for three months from the date of issue of this report prior to disposal. Please contact the Laboratory if you wish to make alternative arrangements. This excludes any subcontracted analysis.

Analysis Details

Determinands	Test Method	Procedure	Notes
Li, Be, B, P, Ti, V, Cr, Mn, Co, Ni, Cu, Zn, Ga, As, Se, Rb, Sr, Y, Zr, Nb, Mo, Ag, Cd, Sn, Sb, Cs, Ba, La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Hf, Ta, W, Tl, Pb, Bi, Th, U	ICP-MS		N
Loss on Ignition (LOI)	Physical measurement		S1
SiO_2, TiO_2, Al_2O_3, Fe_2O_3t, Mn_3O_4, MgO, CaO, Na_2O, K_2O, P_2O_5, SO_3, V_2O_5, Cr_2O_3, NiO, CuO, ZnO, SrO, ZrO_2, BaO, HfO_2, PbO, F, Cl	WD-XRFS fused glass beads		S1

Tests marked S have been subcontracted to an outside laboratory who either hold (S1) or do not hold (S2) UKAS accreditation for the method concerned.

The samples were dried overnight at 105°C before LOI and fusion. Loss on ignition was determined after 1 hour at 1050°C. Fe_2O_3t represents total iron expressed as Fe_2O_3. F, Cl and SO_3 represent respectively fluorine, chlorine and sulphur retained in the fused bead after fusion at 1200°C.

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation. The BGS does not accept responsibility for the validity of methods used to obtain or preserve the samples provided to the Laboratory and does not accept liability for the consequences of any acts taken or omissions made on the basis of the analysis or advice or interpretation provided. The results given relate only to the items tested.

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ANALYSIS REPORT COVER NOTE

The high totals in samples 12883-0001, -0003, -0005, -0012, -0014, -0017, -0019, -0020, -0022, -0025, -0032, -0033, -0035, -0036, -0038, -0040, -0041, -0043, -0045, -0046, -0048, -0051, -0054, -0056, -0059, -0061, -0063, -0064, -0071, -0075, -0076, -0077, -0083, -0085, -0089, -0092 and -0099 fails one of the routine QC criteria (Total <101%) but passes all other QC criteria. The low totals in samples 12883-0130 and -0142 fails one of the routine QC criteria (Total >99%) but passes all other QC criteria. The variable totals may have been due to the presence of FeO in the samples which would have resulted in a partial gain on ignition that has not been fully accounted for. Data are reported with this caveat as agreed.

Because of limitations with the current software used for reporting data, the number of significant figures quoted in the attached table may not be representative of the actual uncertainty. Data should be considered accurate to no more than three significant figures.

This report is issued under complete status. All analyses requested have been completed and results are issued with full compliance of data verification.

We would be pleased to receive any feedback you may have on the quality of our service.

Report authorised by: ……. Date: …….

Dr Charles Gowing
UKAS Quality Manager

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