

**Geochemical results for  
basalt in 16/28-sb01**

Sample	2139	2140		2139	2140		2139	2140
SiO <sub>2</sub>	47.87	46.92	Ba	164	168	Y	30.4	30.1
TiO <sub>2</sub>	2.60	2.57	Co	56	49	Zn	118	196
Al <sub>2</sub> O <sub>3</sub>	15.50	15.89	Cr	94	84	Zr	163	163.4
Fe <sub>2</sub> O <sub>3</sub>	11.40	11.35	Cu	28	34	Ce	34.25	36.15
MnO	0.11	0.13	Ga	22.2	22.7	Pr	4.20	4.14
MgO	6.15	6.51	La	16.4	18.8	Nd	19.49	18.70
CaO	9.73	9.75	Nb	17.1	17.3	Sm	5.52	5.83
Na <sub>2</sub> O	3.14	3.26	Ni	175	91	Eu	2.09	2.10
K <sub>2</sub> O	0.96	0.67	Rb	14	8.7	Gd	6.71	6.34
P <sub>2</sub> O <sub>5</sub>	0.24	0.24	Sc	26.2	30.5	Dy	5.88	5.52
LOI	2.40	2.42	Sr	371	380	Er	2.90	2.66
Total	100.08	99.70	Th	3.3	2.7	Yb	2.40	1.90
Mg#	47.84	49.37	V	255	260	Lu	0.34	0.30
Delta Nb	0.09	0.09						

  

Isotopic results				
	<sup>87</sup> Sr/ <sup>86</sup> Sr	2 S.E.	<sup>143</sup> Nd/ <sup>144</sup> Nd	2 S.E.
2139	0.703523	26	0.512945	30
2140	0.703591	36	0.512952	18

Table 5: Summary of geochemistry results for basalt samples from the base of borehole 16/28-sb01. The basalt was resampled (samples 2139 and 2140) to collect the freshest available material away from the common fractures. The major and trace elements were determined by X-ray fluorescence spectrometry at Leicester University. ICP-AES REE analysis of a selection of samples was also carried out at Leicester University. Sr and Nd were separated using conventional ion-exchange techniques and <sup>143</sup>Nd/<sup>144</sup>Nd and <sup>87</sup>Sr/<sup>86</sup>Sr analyses were performed on a single collector VG Micromass 30 Mass Spectrometer at University College Dublin. To correct for mass fractionation effects, measured <sup>87</sup>Sr/<sup>86</sup>Sr and <sup>143</sup>Nd/<sup>144</sup>Nd values were normalised to <sup>86</sup>Sr/<sup>88</sup>Sr = 0.1194 and <sup>146</sup>Nd/<sup>144</sup>Nd = 0.7219, respectively. Mean values and 2σ<sub>pop</sub> errors for repeated analyses of standards performed during the course of this study are as follows: NBS 987 <sup>87</sup>Sr/<sup>86</sup>Sr = 0.710281 ± 16 (n = 6); and La Jolla <sup>143</sup>Nd/<sup>144</sup>Nd = 0.511858 ± 8 (n = 4) where the errors relate to the least significant digits. The total procedural blank for Sr and Nd was 1 and 0.2 ng respectively and contributes negligibly to these analyses. Age correction is insignificant for measured isotopic ratios because of very low Rb/Sr ratios.