



| Norwest Holst Soil Engineering Ltd.  |                           |                             |                               |                                     |                    | BOREHOLE LOG                  |                       | Borehole No. 7045A         |  |
|--|---------------------------|-----------------------------|-------------------------------|-------------------------------------|--------------------|-------------------------------|-----------------------|----------------------------|--|
| Contract No. F9553   |                           | Method Cable Percussion     |                               | Sheet 1 of 1                        |                    | SK47SW 224                    |                       | Coords E 444,002 N 371,195 |  |
| Location Arkwright Colliery  |                           | Borehole Diam (mm)150       |                               | Ground Level 92.14 m.A.O.D          |                    |                               |                       |                            |  |
| Client British Coal  |                           | Date 13/07/92               |                               |                                     |                    |                               |                       |                            |  |
| Consultant   |                           |                             |                               |                                     |                    |                               |                       |                            |  |
| Description of Strata  | Legend                    | Depth Below G.L.(m)         | O.D. Level (m)                | Sampling & Insitu Testing           |                    | Ground Water                  | Piezometer/ Standpipe |                            |  |
|  |                           |                             |                               | Depth(m)                            | ( ) & N SCR RQD    |                               |                       |                            |  |
| TOPSOIL.   |                           | 0.30                        | 91.84                         |                                     |                    |                               |                       |                            |  |
| MADE GROUND: Dark grey clayey mudstone with some fine and medium gravel size coal fragments. |                           | 6.90                        | 85.24                         | SB 6.40                             | 6.90               | "50"                          |                       |                            |  |
| Dark grey slightly weathered laminated carbonaceous MUDSTONE, weak.                          |                           | 8.05                        | 84.09                         | SB 6.90                             | 8.00               | "118" for 246mm               |                       |                            |  |
| Borehole complete at 8.05m.  |                           | 8.05                        | 84.09                         | SJ 8.00                             | 8.05               | "73"                          |                       |                            |  |
| Daily Progress   |                           | Hard Strata                 |                               | Comments                            |                    | Logged by:                    |                       |                            |  |
| Date   | Final Depth (m) of:       |                             | Depth(m)                      | Time                                |                    |                               |                       |                            |  |
| 13/7/92  | Borehole 8.05             | Water Dry                   | Casing 4.50                   | 5.00-5.40<br>7.70-8.00              | 1hr30min<br>1 hour | Borehole dry whilst drilling. |                       |                            |  |
| Casing maintained just above base of borehole unless stated                                  |                           |                             |                               |                                     |                    |                               |                       |                            |  |
| Sample and Test Key  | J Small Disturbed Sample  | S Standard Penetration Test | S.P.T. "N" for full           | Rotary Core Run                     |                    | Ground Water                  |                       |                            |  |
|  | B Bulk Disturbed Sample   | C Cone Penetration Test     | C.P.T. 300mm penetration      | T.C.R. Total Core Recovery (%)      |                    | 1 → First Water Strike        |                       |                            |  |
|  | U Undisturbed U100 Sample | V Insitu Vane Test          | .../200 For given penetration | S.C.R. Solid Core Recovery (%)      |                    | → Subsequent Water Strike     |                       |                            |  |
|  | W Water Sample            | PR Pressurometer Test       | .../25° Seating blows only    | R.Q.D. Rock Quality Designation (%) |                    | — cm/pm Standing Level        |                       |                            |  |
|  | N.R. No Recovery          | Q Blows to drive U100       | N.P. No Penetration           |                                     |                    | ⚡ Level 20mins after strike   |                       |                            |  |
|  |                           |                             |                               |                                     |                    | Casing Depth                  |                       |                            |  |
|  |                           |                             |                               |                                     |                    | Piezometer                    |                       |                            |  |
|  |                           |                             |                               |                                     |                    | Upper Seal                    |                       |                            |  |
|  |                           |                             |                               |                                     |                    | Sand Cell                     |                       |                            |  |
|  |                           |                             |                               |                                     |                    | Piezometer Tip                |                       |                            |  |
|  |                           |                             |                               |                                     |                    | Lower Seal                    |                       |                            |  |
|  |                           |                             |                               |                                     |                    | Grout                         |                       |                            |  |