

## MACHINE BOREHOLE LOG

BOREHOLE No: BH2

Revision A

SHEET 1 of 2 PROJECT: Blenheim Sewage Pump Station Assessment JOB NUMBER: 6517838 SITE LOCATION: Blenheim CLIENT: Marlborough District Council BOREHOLE LOCATION: NZTM Purkiss St COORDINATES: N 5,404,153 m 17.93 m E 1,678,422 m DATUM: Blenheim Borough Datum U120744. DRILLING TINO RECOVERY LOG. WATER LEVEL IN-SITU TESTS SOIL / ROCK DESCRIPTION FLUID LOSS URE METHOD SAMPLES GRAPHIC DEPTH R L (m) CORE 30D SW M Asphalt (10mm thick)
Tightly packed, silty, fine to medium gravelly, fine to coarse SAND, trace coarse gravel; brown; wet. [Basecourse] Dry. Wet SM M Firm', silty, fine to medium SAND, minor clay, trace organics; grey; moist, high plasticity. Clay content decreases with depth. SM W 17-SP W 'Loose', silty, fine to medium SAND, trace organics; grey; wet 'Loose', fine to medium SAND, some to minor silt, trace organics; grey' wet. 28/3/13 0800 30mm thick clayey SILT lense. "Loose", silty, fine to medium SAND; grey; saturated. SM 'Loose', fine to medium SAND, some silt, trace organics; grey; saturated. SP S Interbedded with clayey SILT laminations 16 2 Orange brown. SW W Medium dense, fine to coarse SAND, trace silt; orange brown; wet. 6 15-Medium dense, fine to coarse sandy, fine to coarse GRAVEL, minor silt, trace cobble; brown; saturated. Gravel: SW, subrounded, greywacke, chert. GW S 000 SPT 3 0 67 6 24/4/13 8 9 N=26 Sonic BECA.GDT % 96 14-0 P.1651165178381TGE07 GROUND INVESTIGATION/BOREHOLE INVESTIGATION RESULTS/BOREHOLES.GPJ 9 9 Dense. % 82 SPT Quaternary Depsosits 13-5 Some fine to coarse sand. 10 N=41 Sonic 95 % 12-6 0.0 13 15 15 Very dense % SPT 83 sw w Very dense, fine to coarse sandy, fine to coarse GRAVEL, minor silt; grey; wet. 7 for Gravel: SW, subrounded, greywacke. 35mm N=50+ 0 Sonic % 11 98 0 Some clay; high plasticity matrix. МН 95 % SPT Soft, clayey SILT, trace shell fragments; grey; wet, high plasticity. 10-8  $\overline{\times}$ Trace organics; grey speckled brown N=3 Sonic Minor fine to medium gravel (subangular). SM M 00 Loose, silty, fine to medium SAND, minor fine to medium gravel; grey; moist. SM M Loose, silty, fine to medium SAND; grey; moist. MH W Firm, fine to medium sandy, SILT, minor clay; grey; wet, high plasticity. 9-9 SPT 9 100 SWAW Dense, fine to coarse SAND, trace silt; grey; wet. 11 0. è GP W Dense, fine to coarse sandy, fine to medium GRAVEL, trace silt; grey; wet. % Gravel: SW, subrounded, greywacke. Sonic 12 GW M 001 N=45 Minor silt; orange brown. DATE START
DATE FINISH
LOGGED BY: 0 Dense, fine to coarse GRAVEL, some silt, fine to coarse sand, trace to minor DATE STARTED 25/3/13 DRILLED BY COMMENTS Pro-Drill Ltd DATE FINISHED: 26/3/13 EQUIPMENT: Co-ordinates from hand held GPS with error +/-3m. Rods 1.52m long. Efficiency of Fraste XL2 SPT hammer is approximately 80% DRILL METHOD: GJG Sonic SHEAR VANE No: DRILL FLUID Water and mud DIAMETER/INCLINATION: 100 mm / 90° FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS SEE KEY SHEET



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MACHINE BOREHOLE LOG SHEET 2 of 2 Blenheim Sewage Pump Station Assessment JOB NUMBER: 6517838 PROJECT: SITE LOCATION: Blenheim CLIENT: Marlborough District Council CIRCUIT: NZTM BOREHOLE LOCATION: Purkiss St COORDINATES: N 5,404,153 m 17.93 m RL: Blenheim Borough Datum U120744.2 E 1,678,422 m DATUM: DRILLING CORE RECOVERY FOG WATER LEVEL IN-SITU TESTS SOIL / ROCK DESCRIPTION FLUID LOSS DEPTH (m) METHOD GRAPHIC CASING RL(m) SOSC ROD sv (kPa) M cobble; brown; moist. Cobble/gravel: SW, subrounded, greywacke. Dense, fine to coarse GRAVEL, some silt, fine to coarse sand, trace to minor GW Sonic 100 00 cobble; brown; moist, 000 8 % SPT 000 09 9 11 Trace cobbles: brown and grey 000 N=33 Sonic % 95 000 00 Quaternary Depsosits (Contd.) 5 12 00 % SPT 8 20 00 6 0 18 Very dense, minor silt, minor fine to coarse sand. 0 0 4 for 5mm Sonic Very dense, silty, fine to coarse sandy, fine to coarse GRAVEL; brown and grey; saturated. Gravel: SW, subrounded, greywacke and quartz. 12.9m - Trace clay; low plasticity matrix. Moist. N=50-GW S 100 24/4/13 22 No recovery. Solid cone SPT. SPT 20 P:\651\6517838\TGE\07 GROUND INVESTIGATION\BOREHOLE INVESTIGATION RESULTS\BOREHOLES.GPJ BECA.GDT 4-9 for Very dense, fine to medium GRAVEL, some coarse gravel, some medium to SP S 000 15.0m @ 26/3/13 35mm coarse sand, some silt, minor fine sand; brown; saturated, Gravel: SW, subrounded, greywacke. N=50+ 0 100 % Sonic 00 00 18 32 for Sp Sp 15 No recovery. Solid cone SPT. 70mm END OF LOG @ 15.145 m N=50+ 2-16 17 18 19 DATE START
DATE FINISH
LOGGED BY: DATE STARTED: 25/3/13 DRILLED BY: Pro-Drill Ltd COMMENTS: Co-ordinates from hand held GPS with error +/-3m. Rods 1.52m long. Efficiency of DATE FINISHED: 26/3/13 **EQUIPMENT** Fraste XL2 GJG DRILL METHOD: Sonic SHEAR VANE No. DRILL FLUID: Water and mud

DIAMETER/INCLINATION: 100 mm / 90°

FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS SEE KEY SHEET