

Hole ID

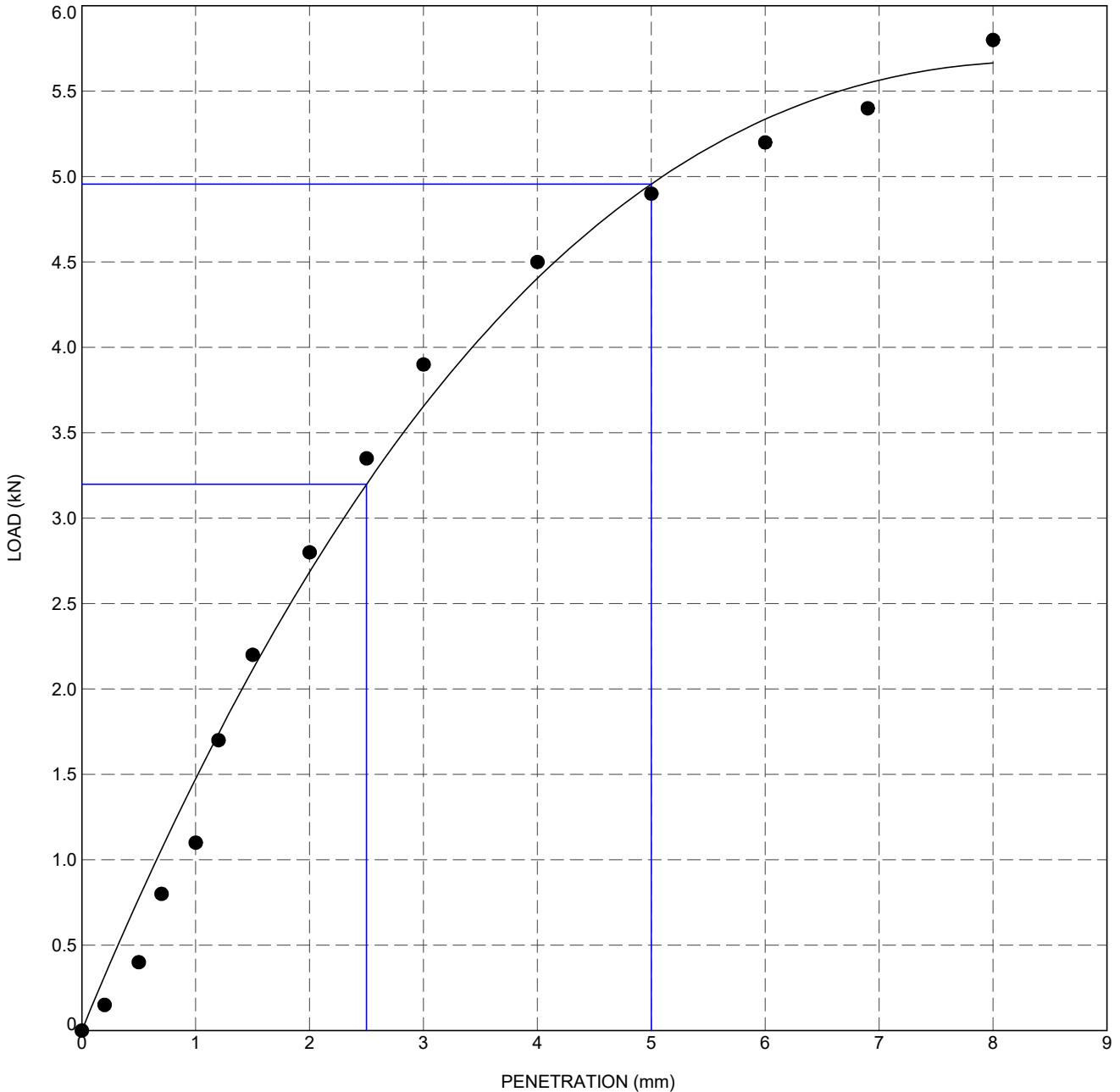
**V-DLST-Golden:0.20**

CLIENT : Datgel  
 CONTRACTOR : Contractor 1  
 PROJECT : Construction Project  
 LOCATION : Somewhere, World  
 PROJECT No. : 3.12.0

POSITION : Area 1  
 EASTING : 12345.1 m  
 NORTHING : 212345.1 m  
 COORD. SYS. : SVY21  
 GROUND RL : 0.00 m MSL

**BS 1377-9:1990:4.3**  
 SHEET : 1 OF 1  
 STATUS :  
 DATE :

**MATERIAL DESCRIPTION:**  
 SAND with shells  
 no 20 mm plus



SURCHARGE (kg) : 9.10  
 SURCHARGE (kPa) : 46.1  
 MOISTURE CONTENT (%) :

EQUIPMENT : ABC  
 KENTLEDGE : DEF

TOP CBR @ 2.5 mm (%) : 24  
 TOP CBR @ 5.0 mm (%) : 25  
**TOP CBR (%) : 25**

**REMARK:**  
 Remark about the variation in the procedure; Environmental conditions

TESTED BY :  
 CHECKED BY :  
 APPROVED BY :

DATE:  
 DATE:  
 DATE:

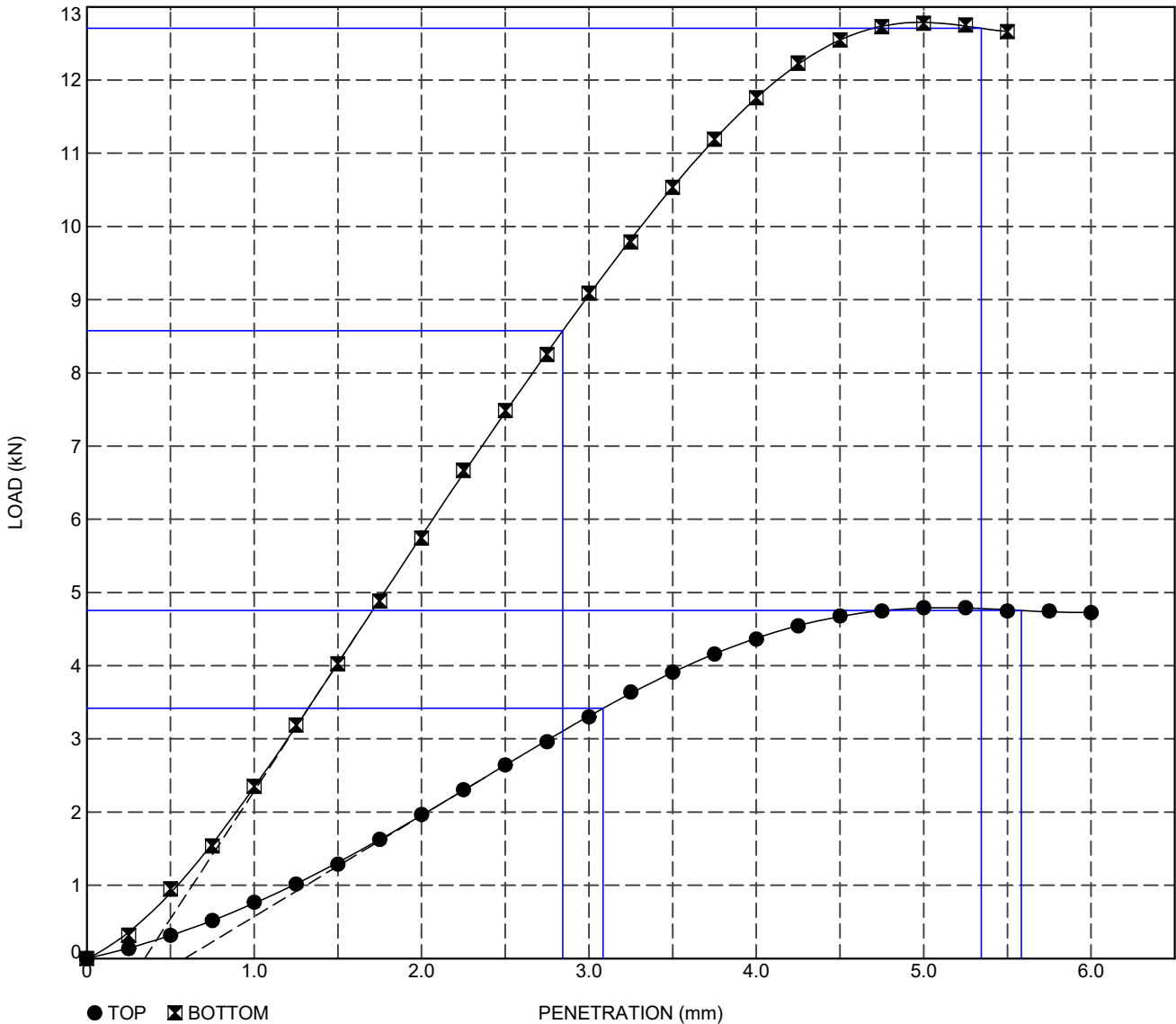
CLIENT : Datgel  
ENGINEER : Engineer 1  
PROJECT : Construction Project  
LOCATION : Somewhere, World  
PROJECT No. : 3.12.0  
LABORATORY : Lab 1

DESTINATION  
AREA : Area 1  
CH / OS :  
COORDS. : E 12345m N 212345m  
ELEVATION : 0.00 m MSL

SAMPLING DATA  
HOLE ID : V-DLST-Golden  
HOLE TYPE : BH  
SAMPLE DEPTH : 0.10-1.30 m  
SAMPLE TYPE :  
SAMPLE REF :  
SPECIMEN DEPTH : 0.10 m  
SPECIMEN REF : 1  
SAMPLE DATE :  
SAMPLED BY :

LABORATORY SPECIMEN DESCRIPTION:  
Silty very gravely poorly graded SAND (SM) medium to coarse sand, fine and coarse gravel, silt of low plasticity

TEST NUMBER : 1



DENSITY (Mg/m<sup>3</sup>)  
INITIAL BULK 2.15  
INITIAL DRY 1.98  
SOAKED DRY 1.98

RETAINED mm (%)  
SURCHARGE (kg) 4.00  
SURCHARGE (kPa) 2.2  
SOAK TIME (hr) 96.0  
SWELL (mm) 0.04  
SWELL (%) 0.03

MOISTURE CONTENT (%)  
Before compaction  
After compaction 8.2  
After soaking  
Top after penetration 12.4  
Bottom after penetration 10.2

TOP CBR @ 2.5 mm (%) 26  
TOP CBR @ 5.0 mm (%) 24  
**TOP CBR (%) 26**  
  
BOTTOM CBR @ 2.5 mm (%) 65  
BOTTOM CBR @ 5.0 mm (%) 64  
**BOTTOM CBR (%) 65**  
  
**MEAN CBR (%)**

GENERAL REMARKS:  
1;2

Fill Type  
▲ Type 1

Requirement Remark  
Not Applicable

Tested By  
TB

Tested Date

Checked By

Checked Date

Approved By

Approved Date

SPECIMEN PREPARATION:  
BS 1377-4:1990:7.2.4.4 Method 5 2.5 kg  
Rammer compaction with specified effort with 2.5 kg rammer

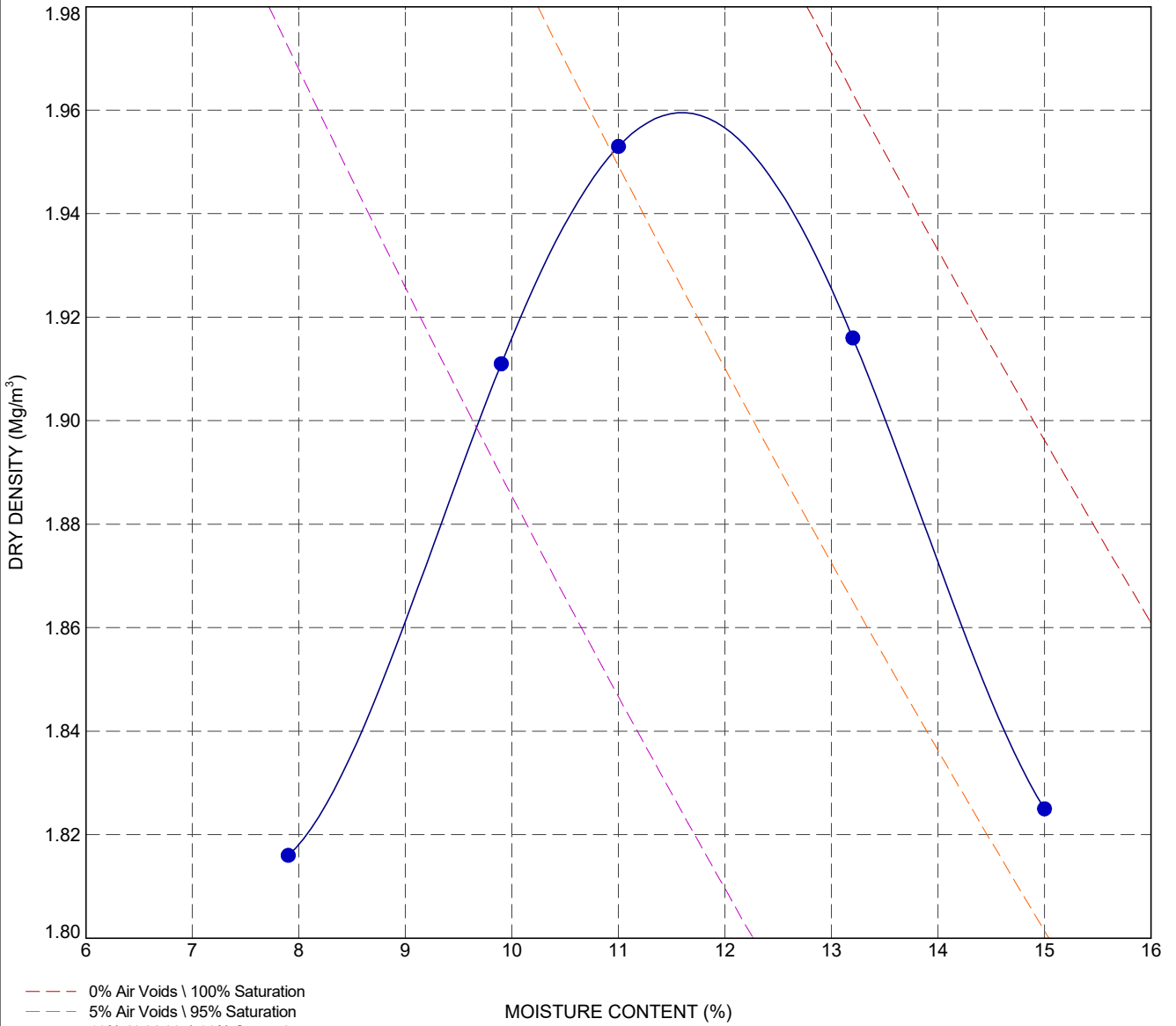
TEST METHOD:  
BS 1377-4:1990:7

CLIENT : Datgel  
ENGINEER : Engineer 1  
PROJECT : Construction Project  
LOCATION : Somewhere, World  
PROJECT No. : 3.12.0  
LABORATORY : Lab 1

DESTINATION  
AREA : Area 1  
CH / OS :  
COORDS. : E 12345m N 212345m  
ELEVATION : 0.00 m MSL

SAMPLING DATA  
HOLE ID : V-DLST-Golden  
HOLE TYPE : BH  
SAMPLE DEPTH : 0.10-1.30 m  
SAMPLE TYPE :  
SAMPLE REF :  
SPECIMEN DEPTH : 0.10 m  
SPECIMEN REF : 1  
SAMPLE DATE :  
SAMPLED BY :

LABORATORY SPECIMEN DESCRIPTION:  
Silty very gravelly poorly graded SAND (SM) medium to coarse sand, fine and coarse gravel, silt of low plasticity



PARTICLE DENSITY (Mg/m<sup>3</sup>): 2.65

**MAXIMUM DRY DENSITY:** 1.960 Mg/m<sup>3</sup>  
**OPTIMUM MOISTURE CONTENT:** 11.6 %

GENERAL REMARKS:  
General remarks; Remark about variation of the procedure;  
Remark about specimen disturbance

Fill Type	Requirement Remark
▲ Type 1	Not Applicable

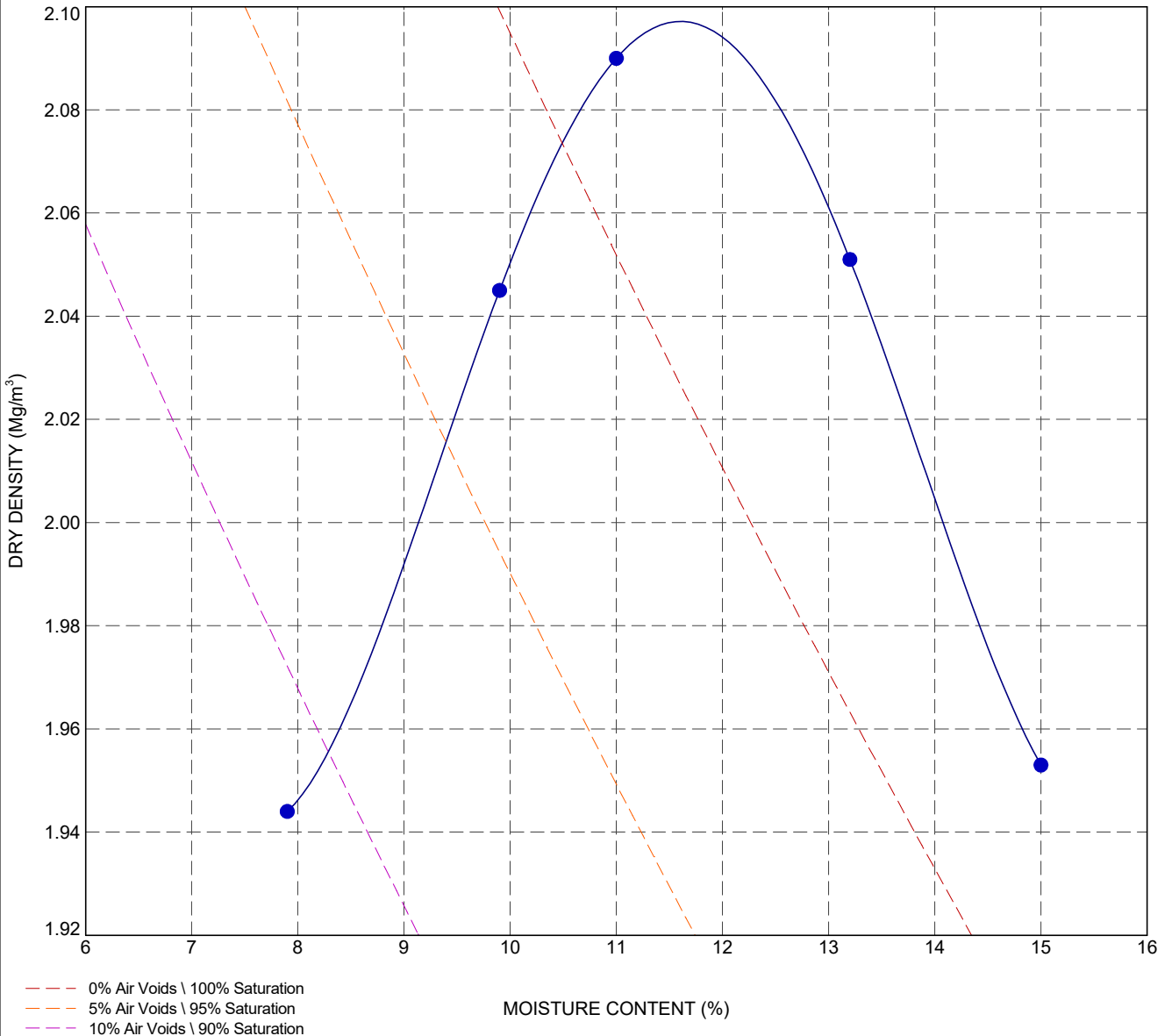
Tested By	Tested Date
TB	01/01/2016

SPECIMEN PREPARATION:

TEST METHOD:  
BS1377-4:1990:3.3.4.1

Checked By	Checked Date
CB	03/01/2016
Approved By	Approved Date
AB	04/01/2016

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10-1.30 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.10 m SPECIMEN REF : 1 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Silty very gravelly poorly graded SAND (SM) medium to coarse sand, fine and coarse gravel, silt of low plasticity		



--- 0% Air Voids \ 100% Saturation  
 --- 5% Air Voids \ 95% Saturation  
 --- 10% Air Voids \ 90% Saturation

AS RECEIVED MOISTURE CONTENT (%): 8.1  
 RAMMER TYPE: Mechanical Rammer  
 SPECIFIC GRAVITY: 2.65

**MAXIMUM DRY DENSITY:** 2.098 Mg/m<sup>3</sup>  
**OPTIMUM MOISTURE CONTENT:** 11.6 %

<b>GENERAL REMARKS:</b> General remarks; Remark about variation of the procedure; Remark about specimen disturbance	Fill Type <b>▲ Type 1</b>	Requirement Remark Not Applicable	Tested By TB	Tested Date 01/01/2016
	<b>SPECIMEN PREPARATION:</b>		Checked By CB	Checked Date 03/01/2016
		TEST METHOD: ASTM D 1557-07 Method A	Approved By AB	Approved Date 04/01/2016

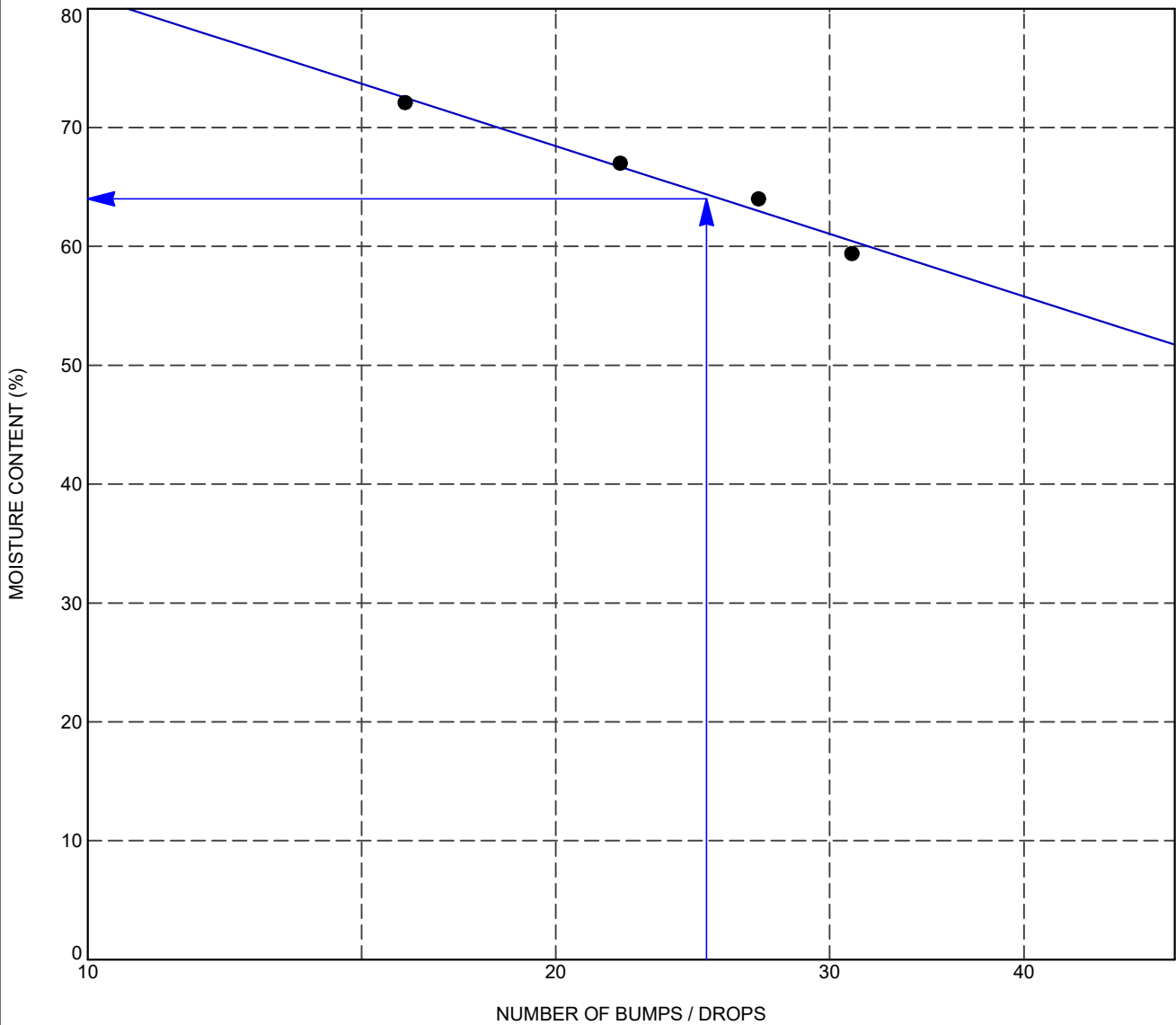
DGD-DLST 3.12.0.GLB\_Graph 1 CR-COMPACTION DGD-DLST 3.12.0.GPJ <<DrawingFile>> 10/08/2017 13:54 10.0.0.000 DatgelLab and In Situ Tool - DGD | Lib: DGD-DLST 3.11.1 2017-06-21 Proj: DGD-DLST 3.11.1 2017-06-21

CLIENT : Datgel  
ENGINEER : Engineer 1  
PROJECT : Construction Project  
LOCATION : Somewhere, World  
PROJECT No. : 3.12.0  
LABORATORY : Lab 1

*DESTINATION*  
AREA : Area 1  
CH / OS :  
COORDS. : E 12345m N 212345m  
ELEVATION : 0.00 m MSL

*SAMPLING DATA*  
HOLE ID : V-DLST-Golden  
HOLE TYPE : BH  
SAMPLE DEPTH : 0.10-1.30 m  
SAMPLE TYPE :  
SAMPLE REF :  
SPECIMEN DEPTH : 0.30 m  
SPECIMEN REF : 3  
SAMPLE DATE :  
SAMPLED BY :

LABORATORY SPECIMEN DESCRIPTION:  
Slightly silty very gravelly well graded SAND (SW) medium to coarse sand, fine to medium gravel, silt of high plasticity



D:\DLST\3.12.0\JIB\_GLB\_Graph\1\_CS\_ATTERRBEG LIQUID LIMIT\CASA\LINK\LOG\_DGD\DLST\3.12.0.GPJ -<DrawingFile> 10/08/2017 13:54 10.0.000 Datgel.Lab and In Situ Tool - DGD | Lib: DGD\DLST\3.11.1.2017-06-21 Proj: DGD\DLST\3.11.1.2017-06-21

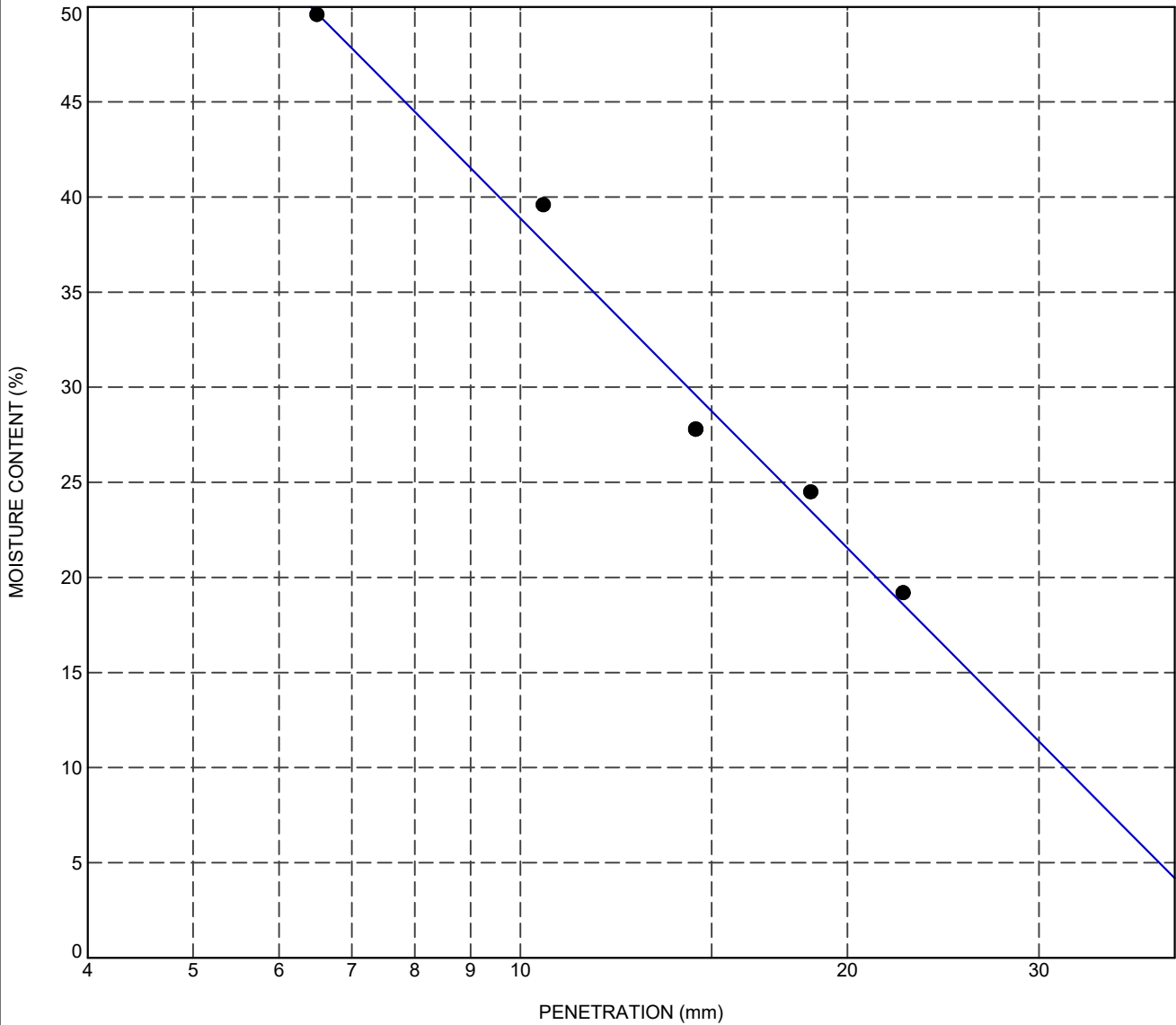
GENERAL REMARKS: General remark;Remark about the variation of the procedure	Fill Type	Requirement Remark	Tested By	Tested Date
	▲ Type 1	Not Applicable	TB	01/01/2016
SPECIMEN PREPARATION:	TEST METHOD:		Checked By	Checked Date
			CB	03/01/2016
			Approved By	Approved Date
			AB	04/01/2016

CLIENT : Datgel  
ENGINEER : Engineer 1  
PROJECT : Construction Project  
LOCATION : Somewhere, World  
PROJECT No. : 3.12.0  
LABORATORY : Lab 1

DESTINATION  
AREA : Area 1  
CH / OS :  
COORDS. : E 12345m N 212345m  
ELEVATION : 0.00 m MSL

SAMPLING DATA  
HOLE ID : V-DLST-Golden  
HOLE TYPE : BH  
SAMPLE DEPTH : 0.10-1.30 m  
SAMPLE TYPE :  
SAMPLE REF :  
SPECIMEN DEPTH : 0.60 m  
SPECIMEN REF : 6  
SAMPLE DATE :  
SAMPLED BY :

LABORATORY SPECIMEN DESCRIPTION:  
Very clayey SAND (SC) medium to coarse sand, clay of intermediate plasticity



DGD-T-DLST 3.12.0.GLB\_Graph; I\_CS ATTERRBEG LIQUID LIMIT CONE LIN-LOG DGD-T-DLST 3.12.0.GPJ <<DrawingFile>> 10/08/2017 13:54 10.0.000 Datgel Lab and In Situ Tool - DGD | Lib: DGD-T-DLST 3.11.1.2017-08-21 Proj: DGD-T-DLST 3.11.1.2017-08-21

GENERAL REMARKS:  
General remark; Remark about the variation of the procedure

Fill Type

▲ Type 1

Requirement Remark

Not Applicable

Tested By

TB

Tested Date

01/01/2016

Checked By

CB

Checked Date

03/01/2016

Approved By

AB

Approved Date

04/01/2016

SPECIMEN PREPARATION:

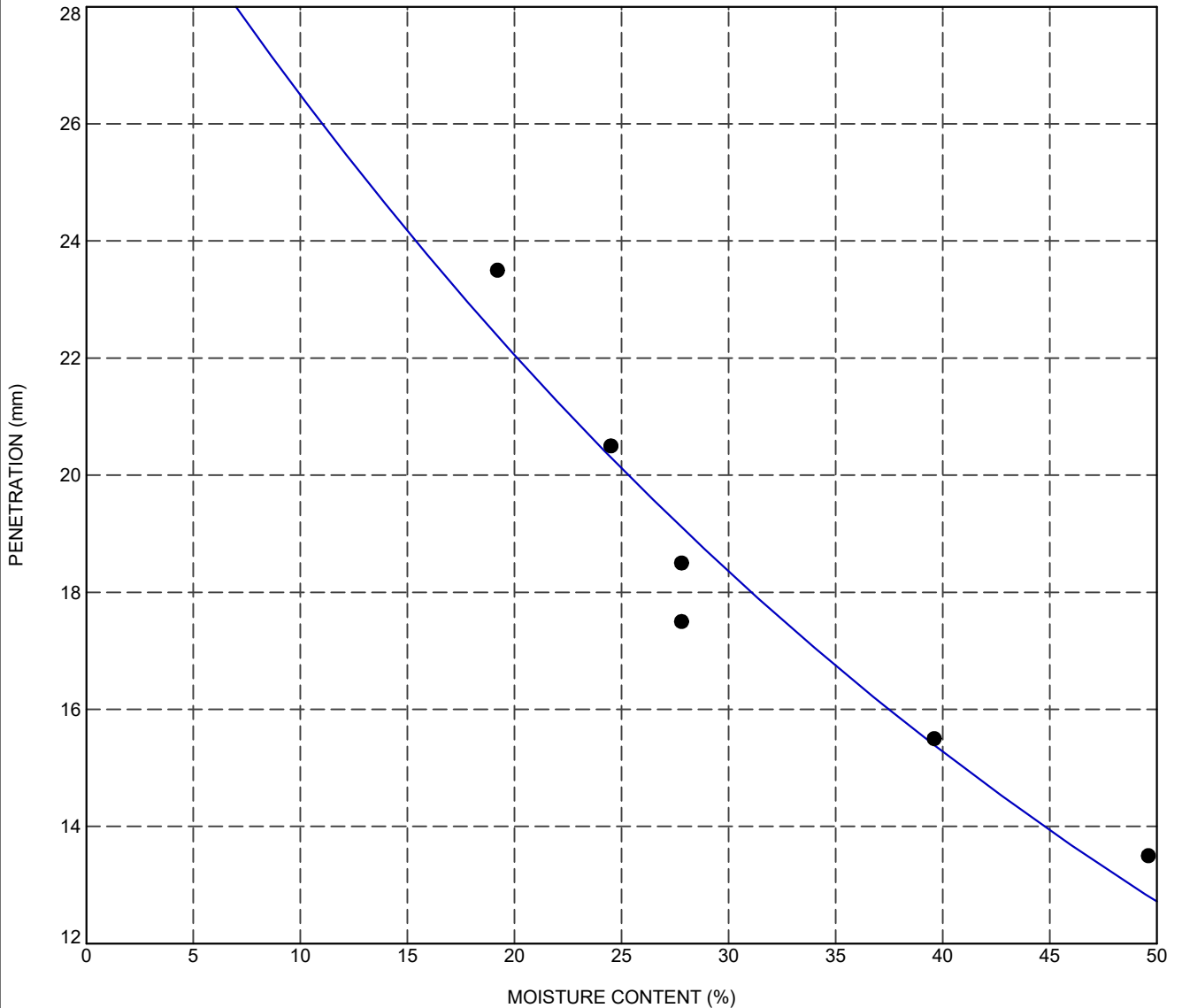
TEST METHOD:

CLIENT : Datgel  
ENGINEER : Engineer 1  
PROJECT : Construction Project  
LOCATION : Somewhere, World  
PROJECT No. : 3.12.0  
LABORATORY : Lab 1

DESTINATION  
AREA : Area 1  
CH / OS :  
COORDS. : E 12345m N 212345m  
ELEVATION : 0.00 m MSL

SAMPLING DATA  
HOLE ID : V-DLST-Golden  
HOLE TYPE : BH  
SAMPLE DEPTH : 0.10-1.30 m  
SAMPLE TYPE :  
SAMPLE REF :  
SPECIMEN DEPTH : 0.50 m  
SPECIMEN REF : 5  
SAMPLE DATE :  
SAMPLED BY :

LABORATORY SPECIMEN DESCRIPTION:  
Sandy CLAY (CL) of low plasticity, fine to medium sand



DGD-T-DLST 3.12.0.GPJ - Graph: I\_CS\_ATTERRBEG\_LIQUID\_LIMIT\_CONE\_LIN\_LIN\_DGD-T-DLST 3.12.0.GPJ - <DrawingFile> 10/09/2017 13:55 10.0.0.00 Datgel Lab and in Situ Tool - DGD Lib, DGD-T-DLST 3.11.1, 2017-06-21 Pij, DGD-T-DLST 3.11.1, 2017-06-21

GENERAL REMARKS:  
General remark; Remark about the variation of the procedure

Fill Type

▲ Type 1

Requirement Remark

Not Applicable

Tested By

TB

Tested Date

01/01/2016

Checked By

CB

Checked Date

03/01/2016

SPECIMEN PREPARATION:

TEST METHOD:

Approved By

AB

Approved Date

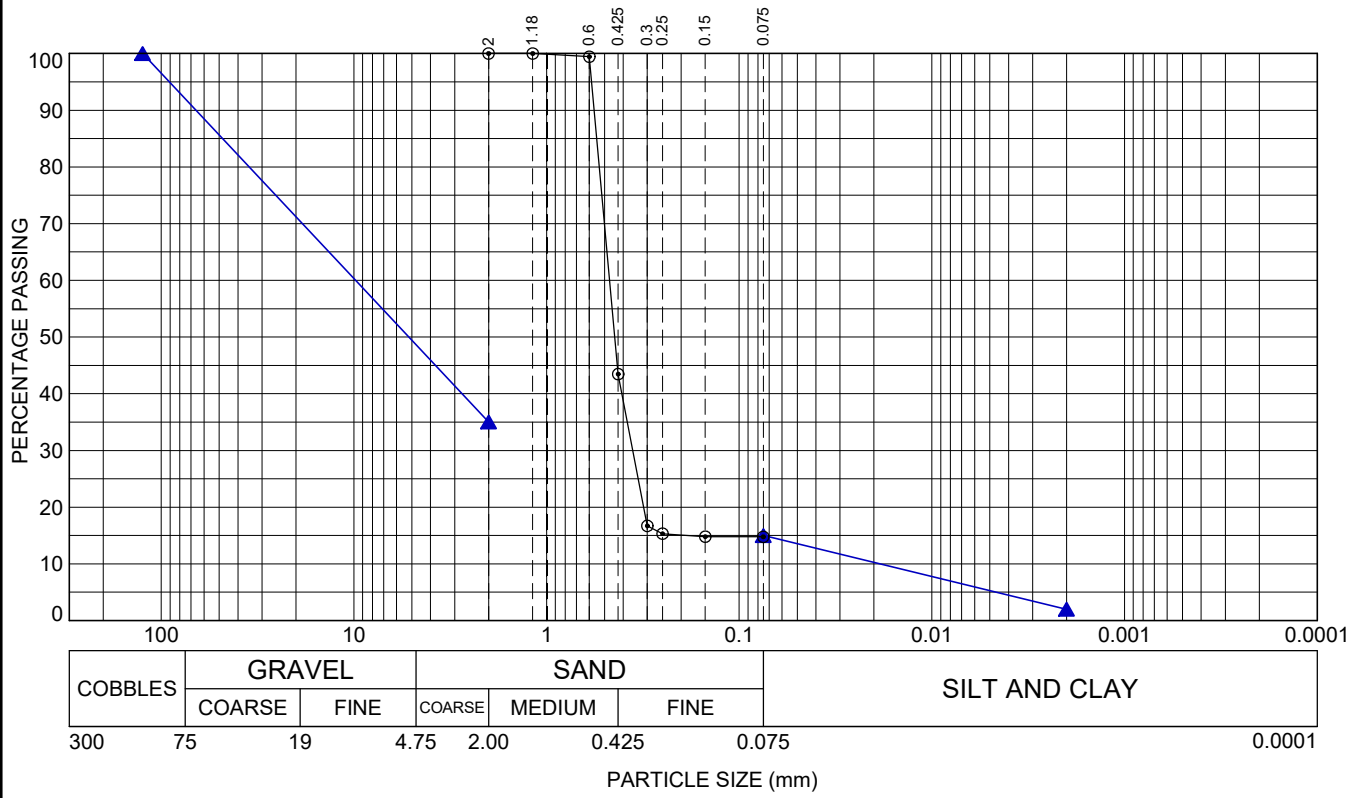
04/01/2016

<b>CLIENT</b> : Datgel <b>ENGINEER</b> : Engineer 1 <b>PROJECT</b> : Construction Project <b>LOCATION</b> : Somewhere, World <b>PROJECT No.</b> : 3.12.0 <b>LABORATORY</b> : Lab 1	<b>DESTINATION</b> <b>AREA</b> : Area 1 <b>CH / OS</b> : <b>COORDS.</b> : E 12345m N 212345m <b>ELEVATION</b> : 0.00 m MSL	<b>SAMPLING DATA</b> <b>HOLE ID</b> : V-DLST-Golden <b>HOLE TYPE</b> : BH <b>SAMPLE DEPTH</b> : 0.10-1.30 m <b>SAMPLE TYPE</b> : <b>SAMPLE REF</b> : <b>SPECIMEN DEPTH</b> : 1.00 m <b>SPECIMEN REF</b> : 10 <b>SAMPLE DATE</b> : <b>SAMPLED BY</b> :
<b>LABORATORY SPECIMEN DESCRIPTION:</b>		

PARTICLE SIZE DISTRIBUTION				SUMMARY	
PARTICLE SIZE (mm)	PERCENT PASSING	PARTICLE SIZE (mm)	PERCENT PASSING	SOIL TYPE	% FRACTION
2.00	100			CLAY	
1.18	100			SILT	
0.600	99			SILT AND CLAY	14.8
0.425	43			SAND	85.2
0.300	17			GRAVEL	0.0
0.250	15			COBBLES	0.0
0.150	15			BOULDERS	0.0
0.075	15			DMF	0.3987
				D50	0.442
				Cc	2704
				Cu	4706

Loss of mass in pretreatment:  
 Pretreatment Agent:  
 Dispersion method:  
 Hydrometer ID:  
 Type of hydrometer:

DGDT-DLST 3.12.0.GLB\_Graph 1 CS PSD ASTM DGDT-DLST 3.12.0.GPJ <DrawingFile> 10/09/2017 13:56 10.0.0.000 Datgel Lab and In Situ Tool - DGD - Lib - DGDT-DLST 3.11.1.2017-06-21 Proj - DGDT-DLST 3.11.1.2017-06-21



<b>GENERAL REMARKS:</b>	Fill Type	Requirement Remark	Tested By	Tested Date
	▲ Type 1			
<b>SPECIMEN PREPARATION:</b>	<b>TEST METHOD:</b> SIEVE: ASTM C136-06 Test method for sieve analysis of fine and coarse aggregates		Checked By	Checked Date
			Approved By	Approved Date

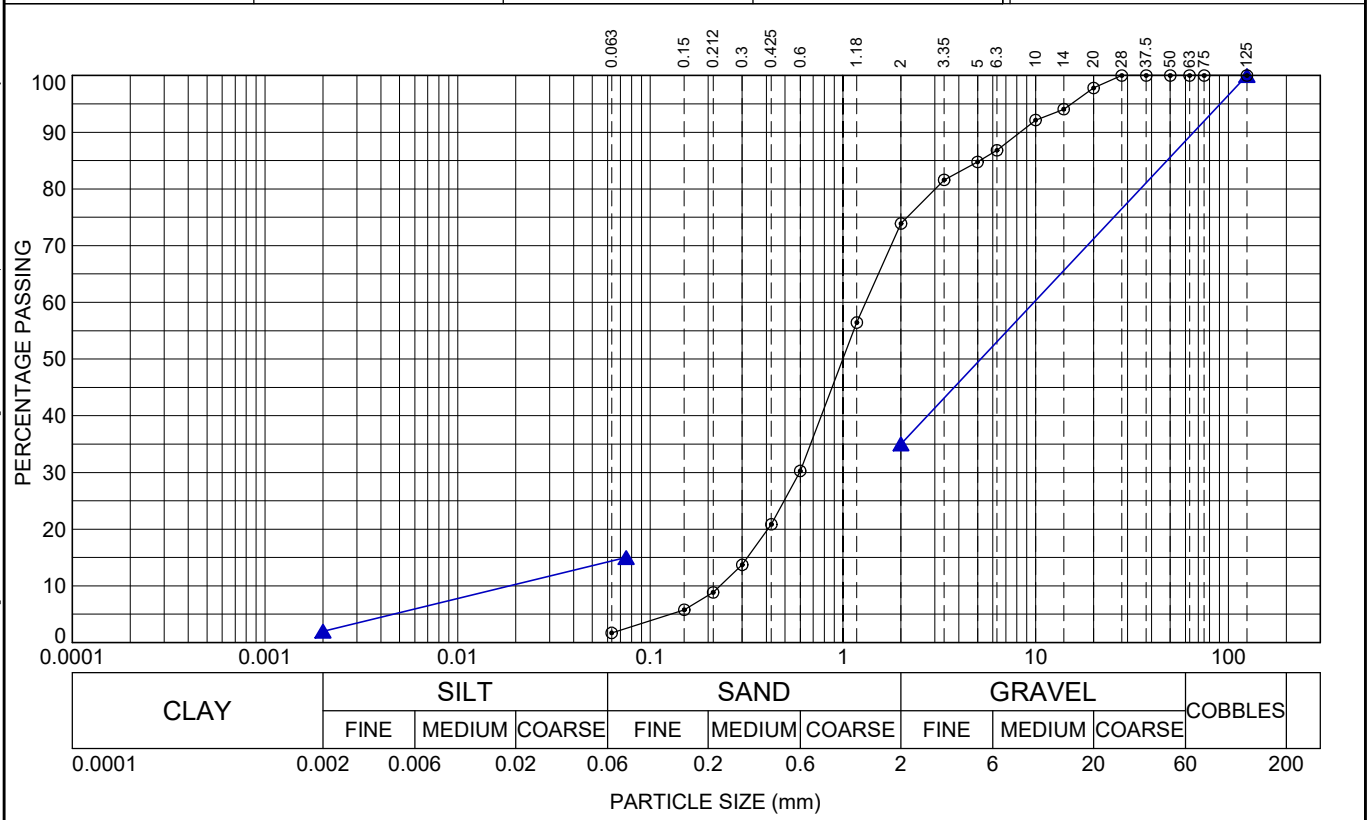


<b>CLIENT</b> : Datgel <b>ENGINEER</b> : Engineer 1 <b>PROJECT</b> : Construction Project <b>LOCATION</b> : Somewhere, World <b>PROJECT No.</b> : 3.12.0 <b>LABORATORY</b> : Lab 1	<b>DESTINATION</b> <b>AREA</b> : Area 1 <b>CH / OS</b> : <b>COORDS.</b> : E 12345m N 212345m <b>ELEVATION</b> : 0.00 m MSL	<b>SAMPLING DATA</b> <b>HOLE ID</b> : V-DLST-Golden <b>HOLE TYPE</b> : BH <b>SAMPLE DEPTH</b> : 0.10-1.30 m <b>SAMPLE TYPE</b> : <b>SAMPLE REF</b> : <b>SPECIMEN DEPTH</b> : 0.30 m <b>SPECIMEN REF</b> : 3 <b>SAMPLE DATE</b> : <b>SAMPLED BY</b> :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Slightly silty very gravelly well graded SAND (SW) medium to coarse sand, fine to medium gravel, silt of high plasticity		

PARTICLE SIZE DISTRIBUTION				SUMMARY	
PARTICLE SIZE (mm)	PERCENT PASSING	PARTICLE SIZE (mm)	PERCENT PASSING	SOIL TYPE	% FRACTION
125	100			CLAY	
75.0	100			SILT	0.8
63.0	100			SILT AND CLAY	2.5
50.0	100			SAND	73.8
37.5	100			GRAVEL	23.6
28.0	100			COBBLES	0.0
20.0	98			BOULDERS	0.0
14.0	94			DMF	1.935
10.0	92			D50	0.999
6.30	87			Cc	1.167
5.00	85			Cu	5.707
3.35	82				
2.00	74				
1.18	56				
0.600	30				
0.425	21				
0.300	14				
0.212	9				
0.150	6				
0.063	2				

Loss of mass in pretreatment:	
Pretreatment Agent:	
Dispersion method:	
Hydrometer ID:	
Type of hydrometer:	



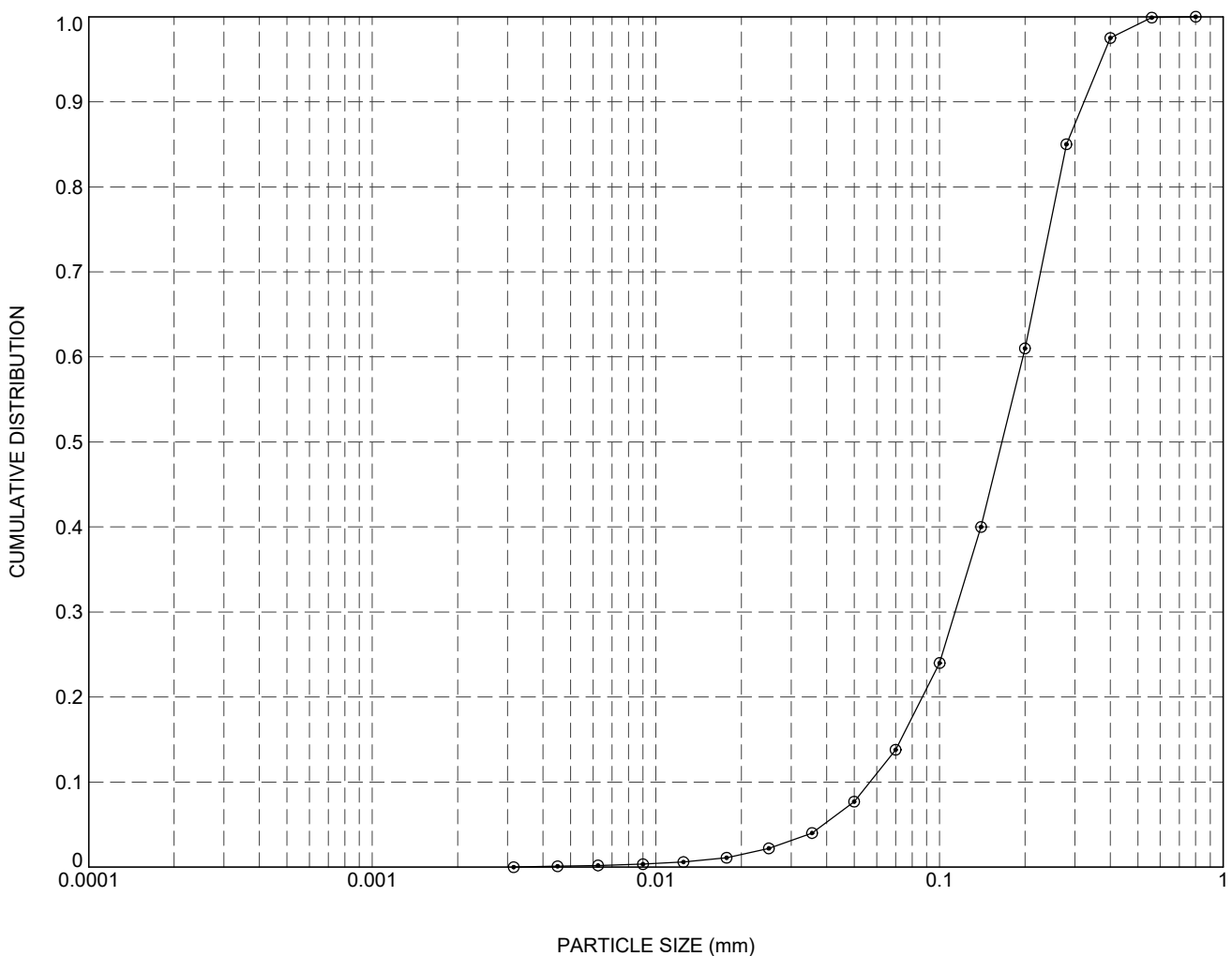
GENERAL REMARKS:	Fill Type	Requirement Remark	Tested By	Tested Date
	▲ Type 1			
SPECIMEN PREPARATION:	TEST METHOD: SIEVE: BS 1377-2:1990:9.3 Particle size distribution - Dry sieve method		Checked By	Checked Date
			Approved By	Approved Date

DGD1-DLST.3.12.0.JOB.GLB\_Comp1.L\_CS.PSD.BSI.DGD1-DLST.3.12.0.GP1\_<DrawingFile>-10/08/2017.13:57.10.0.000.DatgelLab.and.In.Situ.Tool\_DGD1.Lib.DGD1-DLST.3.11.1.2017-06-21.Prf.DGD1-DLST.3.11.1.2017-06-21

<b>CLIENT</b> : Datgel <b>ENGINEER</b> : Engineer 1 <b>PROJECT</b> : Construction Project <b>LOCATION</b> : Somewhere, World <b>PROJECT No.</b> : 3.12.0 <b>LABORATORY</b> : Lab 1	<b>DESTINATION</b> <b>AREA</b> : Area 1 <b>CH / OS</b> : <b>COORDS.</b> : E 12345m N 212345m <b>ELEVATION</b> : 0.00 m MSL	<b>SAMPLING DATA</b> <b>HOLE ID</b> : V-DLST-Golden <b>HOLE TYPE</b> : BH <b>SAMPLE DEPTH</b> : 0.10-1.30 m <b>SAMPLE TYPE</b> : <b>SAMPLE REF</b> : <b>SPECIMEN DEPTH</b> : 0.10 m <b>SPECIMEN REF</b> : 1 <b>SAMPLE DATE</b> : <b>SAMPLED BY</b> :
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**LABORATORY SPECIMEN DESCRIPTION:**  
 Silty very gravelly poorly graded SAND (SM) medium to coarse sand, fine and coarse gravel, silt of low plasticity

<b>DISPERSION DETAILS</b> Dispersion type: Wet Dispersion liquid: Dispersion Liquid Type Dispersion liquid volume: 200ml Dispersion liquid temperature: 21°C Dispersant type: Dispersants Type Dispersant quantity: Dispersants Quantity Sample concentration: 0.5%Vol Sonication unit type: Sonication Unit type Sonication frequency: 125 Sonication duration: Sonication Duration Sonication pause before start of measurement: Sonication Pause Before Pump speed: 55	<b>LASER DIFFRACTION MEASUREMENT</b> Instrument Type and Number: Inst Type no Software Version: Software Vers Focal length of lens applied: Lens Focal Length Actual size range used: Actual Size Range Date of last alignment: 01/02/2003 Date of last validation: 01/02/2003 Date and Time of Measurement: 01/02/2003 00:00:00 Optical concentration / obscuration: Optical Concentratio Obscuration Trigger Threshold: Trigger Thresholds Threshold for acquisition: Acquisition Threshold Type of Light scattering model applied: Light SScatter Model Complex refractive index: Complex Reractive Index Deconvolution fit parameter: Deconvolution Fit Parameter
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DGD-T-DLST 3.12.0-UB-GLB-Graph 1 CS PSD LASER DIFFRACTION DGD-T-DLST 3.12.0.GPJ <-DrawingFile>> 10/08/2017 13:58 10.0.0.000 Datgel Lab and In Situ Tool - DGD - Lib DGD-T-DLST 3.11.1.2017-06-21 Pj: DGD-T-DLST 3.11.1.2017-06-21

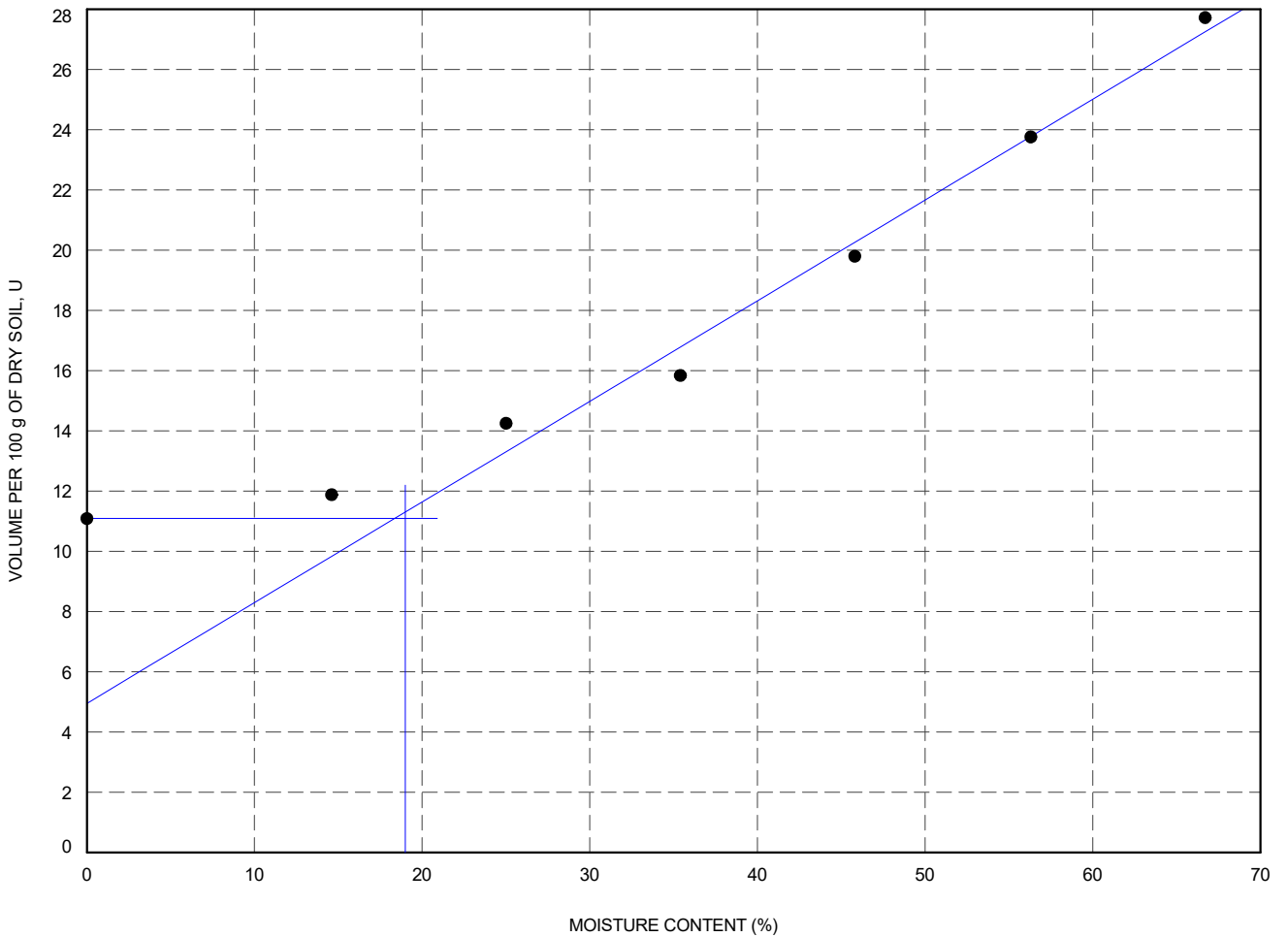
<b>GENERAL REMARKS:</b> Testing Laboratory: Lab 1; Rem; VPRem; SDRem	Tested By <b>TB</b>	Tested Date <b>01/01/2016</b>
	Checked By <b>CB</b>	Checked Date <b>03/01/2016</b>
<b>SPECIMEN PREPARATION:</b>	Approved By <b>AB</b>	Approved Date <b>04/01/2016</b>
	<b>TEST METHOD:</b> ISO 13320-1:1999(E)	

CLIENT : Datgel  
 ENGINEER : Engineer 1  
 PROJECT : Construction Project  
 LOCATION : Somewhere, World  
 PROJECT No. : 3.12.0  
 LABORATORY : Lab 1

**DESTINATION**  
 AREA : Area 1  
 CH / OS :  
 COORDS. : E 12345m N 212345m  
 ELEVATION : 0.00 m MSL

**SAMPLING DATA**  
 HOLE ID : V-DLST-Golden  
 HOLE TYPE : BH  
 SAMPLE DEPTH : 0.10-1.30 m  
 SAMPLE TYPE :  
 SAMPLE REF :  
 SPECIMEN DEPTH : 0.20 m  
 SPECIMEN REF : 2  
 SAMPLE DATE :  
 SAMPLED BY :

**LABORATORY SPECIMEN DESCRIPTION:**  
 Slightly silty very gravelly poorly graded SAND (SP) coarse sand, fine gravel, silt of low plasticity



SHRINKAGE LIMIT	19
INITIAL MOISTURE CONTENT (%)	10.42
SHRINKAGE RATIO	9
GIVEN MOISTURE CONTENT (%)	75
VOLUMETRIC SHRINKAGE	6.23
PERCENTAGE PASSING 0.425 mm (%)	14.4

GENERAL REMARKS:

Tested By \_\_\_\_\_ Tested Date \_\_\_\_\_

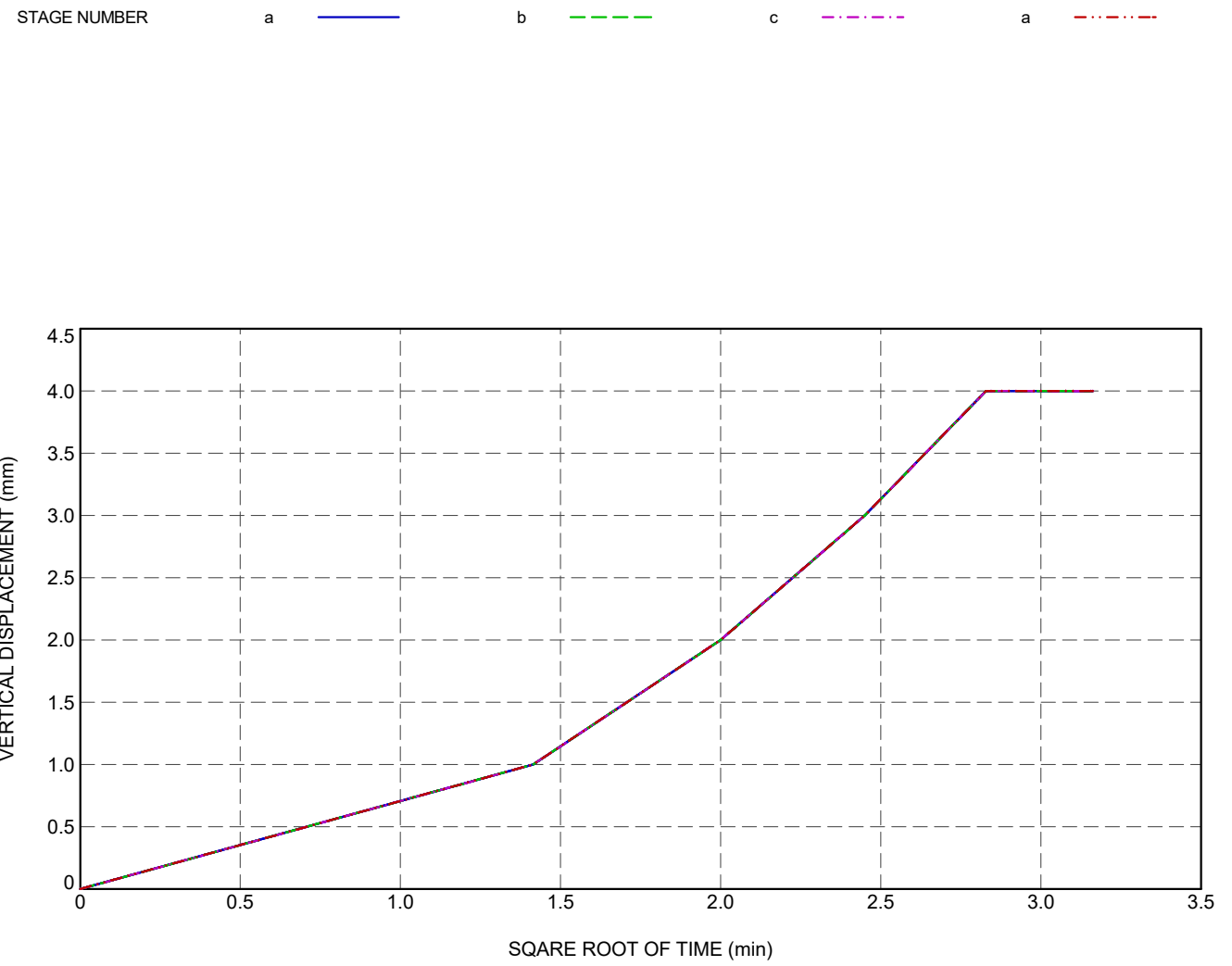
Checked By \_\_\_\_\_ Checked Date \_\_\_\_\_

SPECIMEN PREPARATION:

BS 1377-2:1990:6.3

Approved By \_\_\_\_\_ Approved Date \_\_\_\_\_

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10-1.30 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.40 m SPECIMEN REF : 4 SAMPLE DATE : SAMPLED BY :
LABORATORY SPECIMEN DESCRIPTION: SILT (ML) of low plasticity		



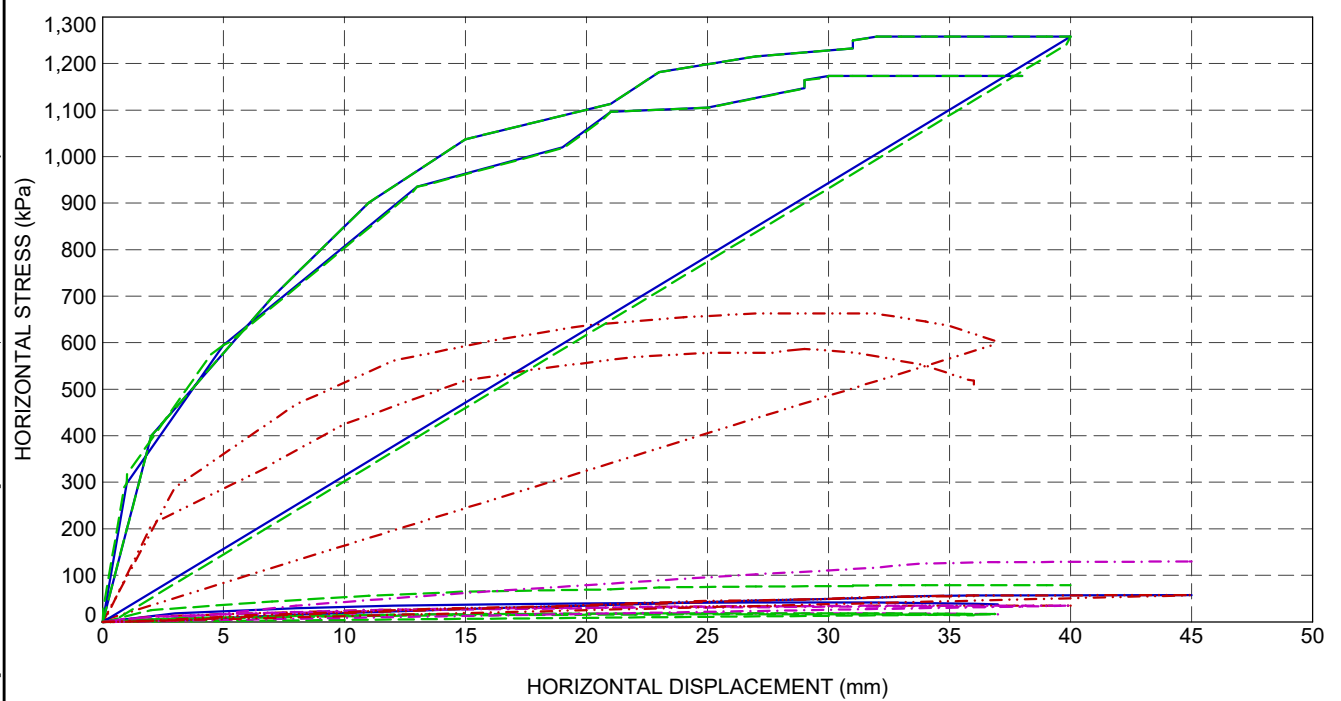
DGD-T-DLST 3.12.0.GLB\_Graph: I: S: DIRECT SHEAR - CONSOL SORT: DGD-T-DLST 3.12.0.GPJ --DrawingFile--> 10/08/2017 13:58 10.0.000 Datgel Lab and In Situ Test - DGD [Lib: DGD-T-DLST 3.11.2017-08-21] Pj: DGD-T-DLST 3.11.1.2017-08-21

GENERAL REMARKS: General remarks; Remark about variation of the procedure; Remark about specimen disturbance	Fill Type <b>▲ Type 1</b>	Requirement Remark Not Applicable	Tested By TB	Tested Date 01/01/2016
			Checked By CB	Checked Date 03/01/2016
			Approved By AB	Approved Date 04/01/2016
SPECIMEN PREPARATION: Undisturbed		TEST METHOD: BS 1377-7:1990:5.5.5 Large Shearbox - Multi-Reversal		

CLIENT : Datgel	DESTINATION	SAMPLING DATA
ENGINEER : Engineer 1	AREA : Area 1	HOLE ID : V-DLST-Golden
PROJECT : Construction Project	CH / OS :	HOLE TYPE : BH
LOCATION : Somewhere, World	COORDS. : E 12345m N 212345m	SAMPLE DEPTH : 0.10-1.30 m
PROJECT No. : 3.12.0	ELEVATION : 0.00 m MSL	SAMPLE TYPE :
LABORATORY : Lab 1		SAMPLE REF :
		SPECIMEN DEPTH : 0.40 m
		SPECIMEN REF : 4
		SAMPLE DATE :
		SAMPLED BY :

**SPECIMEN INFORMATION**

STAGE NUMBER	INITIAL				FINAL			
	a	b	c	a	a	b	c	a
DIMENSIONS (mm)	40 x 40	40 x 40	40 x 40	10 x 10				
HEIGHT (mm)	25	25	25	25	27.25	42	30	27.12
PARTICLE DENSITY (Mg/m <sup>3</sup> )	2.65	2.65	2.65	2.70				
MOISTURE CONTENT (%)	1.9	5.7	5.8	1.9	8.0	8.0	8.0	8.0
BULK DENSITY (Mg/m <sup>3</sup> )	0.14	0.14	0.14	2.20	3.10	2.01	2.81	49.78
DRY DENSITY (Mg/m <sup>3</sup> )	0.14	0.13	0.13	2.16	2.87	1.86	2.60	46.09
VOID RATIO	18.63	19.00	19.38	0.25	-0.08	0.42	0.02	-0.94
DEGREE OF SATURATION (%)	0.3	0.8	0.8	20.0	-280.1	49.9	1204.5	-22.9



SHEARING INFORMATION					SHEAR STRENGTH PARAMETERS	
STAGE NUMBER	a	b	c	a		
NORMAL STRESS (kPa)	18.4	67.4	116.5	294.3	PEAK APPARENT COHESION, c' (kPa)	10.0
TEST STATE	Dry	Dry	Dry	Dry	PEAK FRICTION ANGLE, $\phi'$ (deg)	42.0°
RATE OF DISPLACEMENT (mm/min)	0.1	0.4	0.3	0.1		
PEAK SHEAR STRESS (kPa)	41.4	78.6	129.6	663.0		
PEAK DISPLACEMENT (mm)	27.0	32.0	45.0	27.0	APPARENT COHESION, c <sub>R</sub> (kPa)	5.8
SHEAR STRESS (kPa)	37.2	78.6	129.6	510.0	FRICTION ANGLE, $\phi'_R$ (deg)	43.3°
DISPLACEMENT (mm)	37.0	40.0	45.0	36.0		
NUMBER OF TRAVELS	5	5	5	5		

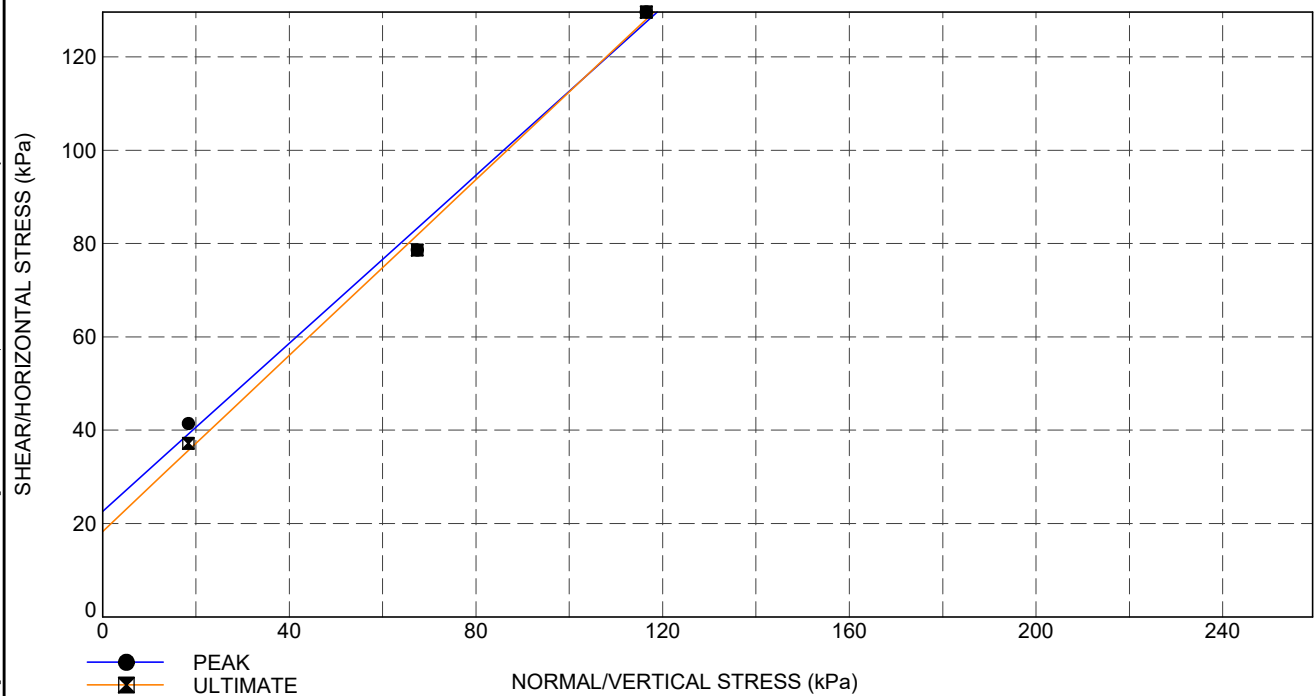
GENERAL REMARKS: General remarks; Remark about variation of the procedure; Remark about specimen disturbance	Fill Type	Requirement Remark	Tested By	Tested Date
	▲ Type 1	Not Applicable	TB	01/01/2016
			Checked By	Checked Date
SPECIMEN PREPARATION: Undisturbed	TEST METHOD: BS 1377-7:1990:5.5.5 Large Shearbox - Multi-Reversal		Approved By	Approved Date
			AB	04/01/2016

DGD01-DLST 3.12.0.GPJ - Drawing# 10082017 13:59 10.0.000 Datgel Lab and In Situ Tool - DGD01 Lib: DGD01-DLST 3.11.1.2017-08-21 Pj: DGD01-DLST 3.11.1.2017-08-21

CLIENT : Datgel	DESTINATION	SAMPLING DATA
ENGINEER : Engineer 1	AREA : Area 1	HOLE ID : V-DLST-Golden
PROJECT : Construction Project	CH / OS :	HOLE TYPE : BH
LOCATION : Somewhere, World	COORDS. : E 12345m N 212345m	SAMPLE DEPTH : 0.10-1.30 m
PROJECT No. : 3.12.0	ELEVATION : 0.00 m MSL	SAMPLE TYPE :
LABORATORY : Lab 1		SAMPLE REF :
LABORATORY SPECIMEN DESCRIPTION: Silty very gravelly poorly graded SAND (SM) medium to coarse sand, fine and coarse gravel, silt of low plasticity		SAMPLE SPECIMEN DEPTH : 0.10 m
		SAMPLE SPECIMEN REF : 1
		SAMPLE DATE :
		SAMPLED BY :

**SPECIMEN INFORMATION**

STAGE NUMBER	INITIAL			FINAL		
	a	b	c	a	b	c
DIMENSIONS (mm)	40 x 40	40 x 40	40 x 40			
HEIGHT (mm)	25	25	25	27.25	42	30
PARTICLE DENSITY (Mg/m <sup>3</sup> )	2.65	2.65	2.65			
MOISTURE CONTENT (%)	1.9	5.7	5.8	8.0	8.0	8.0
BULK DENSITY (Mg/m <sup>3</sup> )	0.14	0.14	0.14	3.10	2.01	2.81
DRY DENSITY (Mg/m <sup>3</sup> )	0.14	0.13	0.13	2.87	1.86	2.60
VOID RATIO	18.63	19.00	19.38	-0.08	0.42	0.02
DEGREE OF SATURATION (%)	0.3	0.8	0.8	-280.1	49.9	1204.5



**SHEARING INFORMATION**

**SHEAR STRENGTH PARAMETERS**

STAGE NUMBER	a	b	c		
NORMAL STRESS (kPa)	18.4	67.4	116.5	PEAK APPARENT COHESION, c' (kPa)	22.6
TEST STATE	Dry	Dry	Dry	PEAK FRICTION ANGLE, $\phi'$ (deg)	42.0°
RATE OF DISPLACEMENT (mm/min)	0.1	0.4	0.3		
PEAK SHEAR STRESS (kPa)	41.4	78.6	129.6		
PEAK DISPLACEMENT (mm)	27.0	32.0	45.0	ULTIMATE APPARENT COHESION, c <sub>R</sub> ' (kPa)	18.3
ULTIMATE SHEAR STRESS (kPa)	37.2	78.6	129.6	ULTIMATE FRICTION ANGLE, $\phi_R'$ (deg)	43.3°
ULTIMATE DISPLACEMENT (mm)	37.0	40.0	45.0		
NUMBER OF TRAVELS	5	5	5		

GENERAL REMARKS: General remarks; Remark about variation of the procedure; Remark about specimen disturbance	Fill Type	Requirement Remark	Tested By	Tested Date
	▲ Type 1	Not Applicable	TB	01/01/2016
	SPECIMEN PREPARATION: Undisturbed		TEST METHOD: BS 1377-7:1990:4.5.4 Small Shearbox - Single Stage	Checked By
			CB	03/01/2016
			Approved By	Approved Date
			AB	04/01/2016

DGDFT-DLST 3.12.0.GLB\_Graph: I:SDIRECT SHEAR-H:STVS:Y:ST\_DGDFT-DLST 3.12.0.GPJ -<DrawingFile>> 10/08/2017 14:00 10.0.0.000 Datgel Lab and In Situ Tool - DGDFT-DLST 3.11.1.2017-06-21 Pj: DGDFT-DLST 3.11.1.2017-06-21

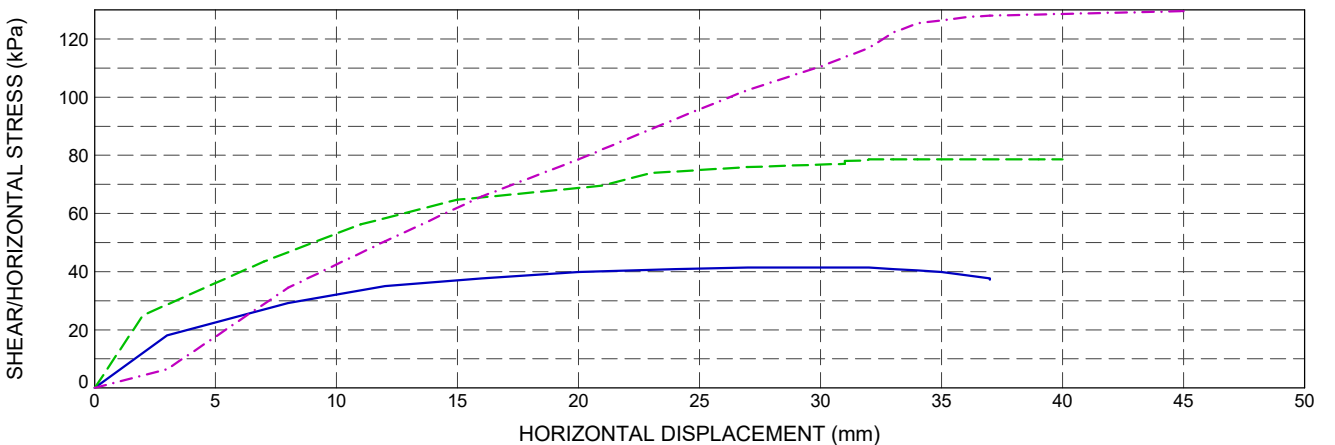
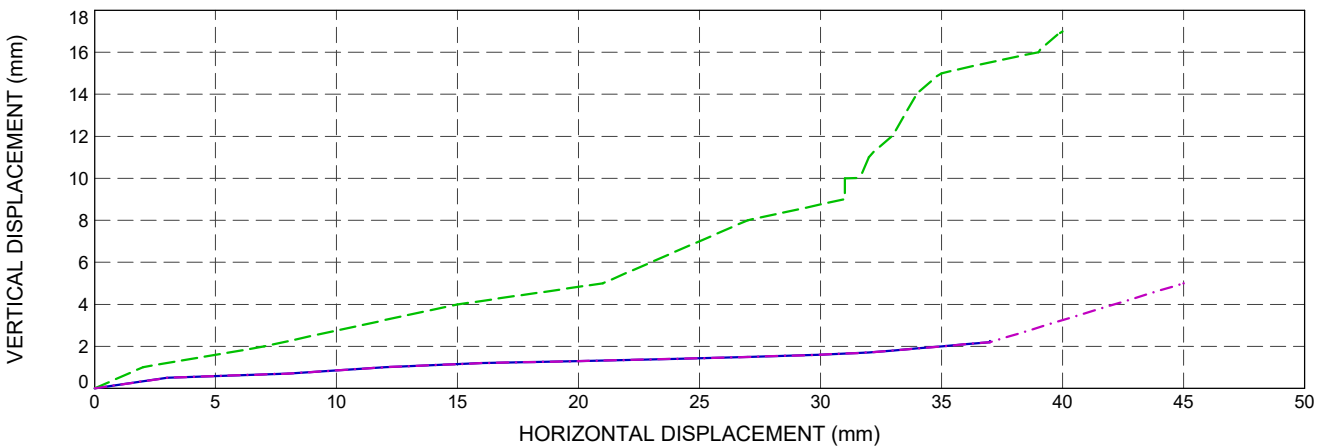
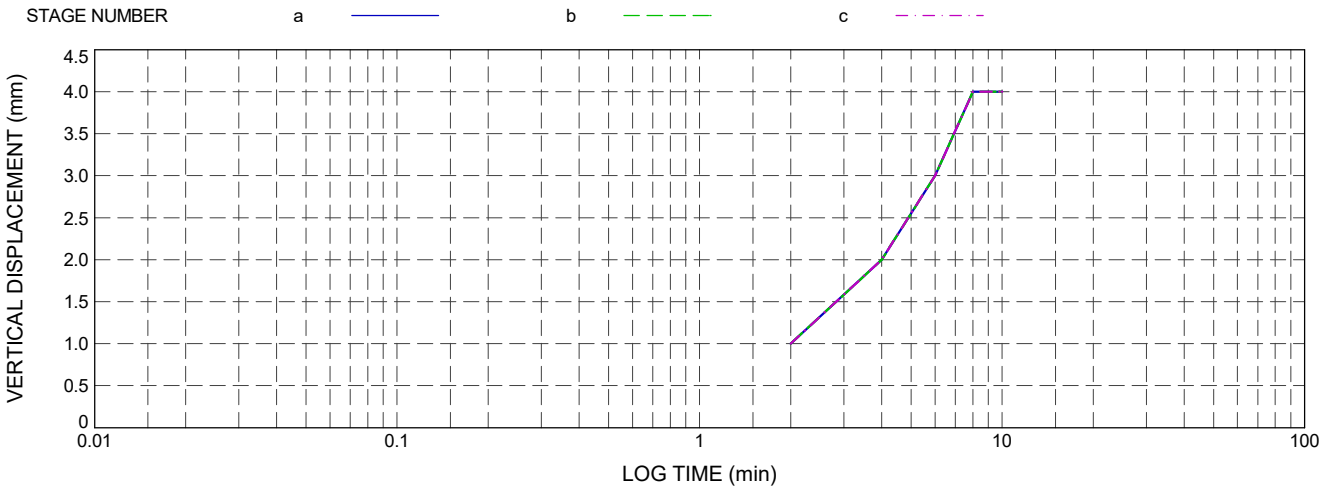
CLIENT : Datgel  
 ENGINEER : Engineer 1  
 PROJECT : Construction Project  
 LOCATION : Somewhere, World  
 PROJECT No. : 3.12.0  
 LABORATORY : Lab 1

DESTINATION  
 AREA : Area 1  
 CH / OS :  
 COORDS. : E 12345m N 212345m  
 ELEVATION : 0.00 m MSL

SAMPLING DATA  
 HOLE ID : V-DLST-Golden  
 HOLE TYPE : BH  
 SAMPLE DEPTH : 0.10-1.30 m  
 SAMPLE TYPE :  
 SAMPLE REF :  
 SPECIMEN DEPTH : 0.10 m  
 SPECIMEN REF : 1  
 SAMPLE DATE :  
 SAMPLED BY :

LABORATORY SPECIMEN DESCRIPTION:  
 Silty very gravelly poorly graded SAND (SM) medium to coarse sand, fine and coarse gravel, silt of low plasticity

DGDT-DLST.3.12.0.GLB.GLB.Gmph.L.S.DIRECT SHEAR-C.V.DIS VS H.DIS DGDT-DLST.3.12.0.GPJ.371261.GDW.10/09/2017.14:00.10.0.000.Datgel.Lab.and.In.Situ.Tool.-DGD.LIB.DGDT-DLST.3.11.1.2017-06-21.Prf.DGDT-DLST.3.11.1.2017-06-21



GENERAL REMARKS: General remarks;Remark about variation of the procedure;Remark about specimen disturbance	Fill Type	Requirement Remark	Tested By	Tested Date
	▲ Type 1	Not Applicable	TB	01/01/2016
SPECIMEN PREPARATION: Undisturbed	TEST METHOD: BS 1377-7:1990:4.5.4 Small Shearbox - Single Stage		Checked By	Checked Date
			CB	03/01/2016
			Approved By	Approved Date
			AB	04/01/2016

CLIENT : Datgel  
 ENGINEER : Engineer 1  
 PROJECT : Construction Project  
 LOCATION : Somewhere, World  
 PROJECT No. : 3.12.0  
 LABORATORY : Lab 1

LOCATION  
 DUMP AREA:  
 LAYER :  
 CH / OS :  
 COORDS. :  
 ELEVATION : -3.73 m MSL

SAMPLING DATA  
 HOLE ID : V-Lab  
 HOLE TYPE : TP  
 SAMPLE DEPTH : 0.00-2.50 m  
 SAMPLE TYPE : D  
 SAMPLE REF : 1  
 SPECIMEN DEPTH : 0.30 m  
 SPECIMEN REF : 4  
 SAMPLE DATE : 01/01/2016  
 SAMPLED BY : LB - Contactor 1

LABORATORY SPECIMEN DESCRIPTION:  
 Slightly silty sandy well graded GRAVEL (GW) medium to coarse gravel, coarse sand, silt of low plasticity

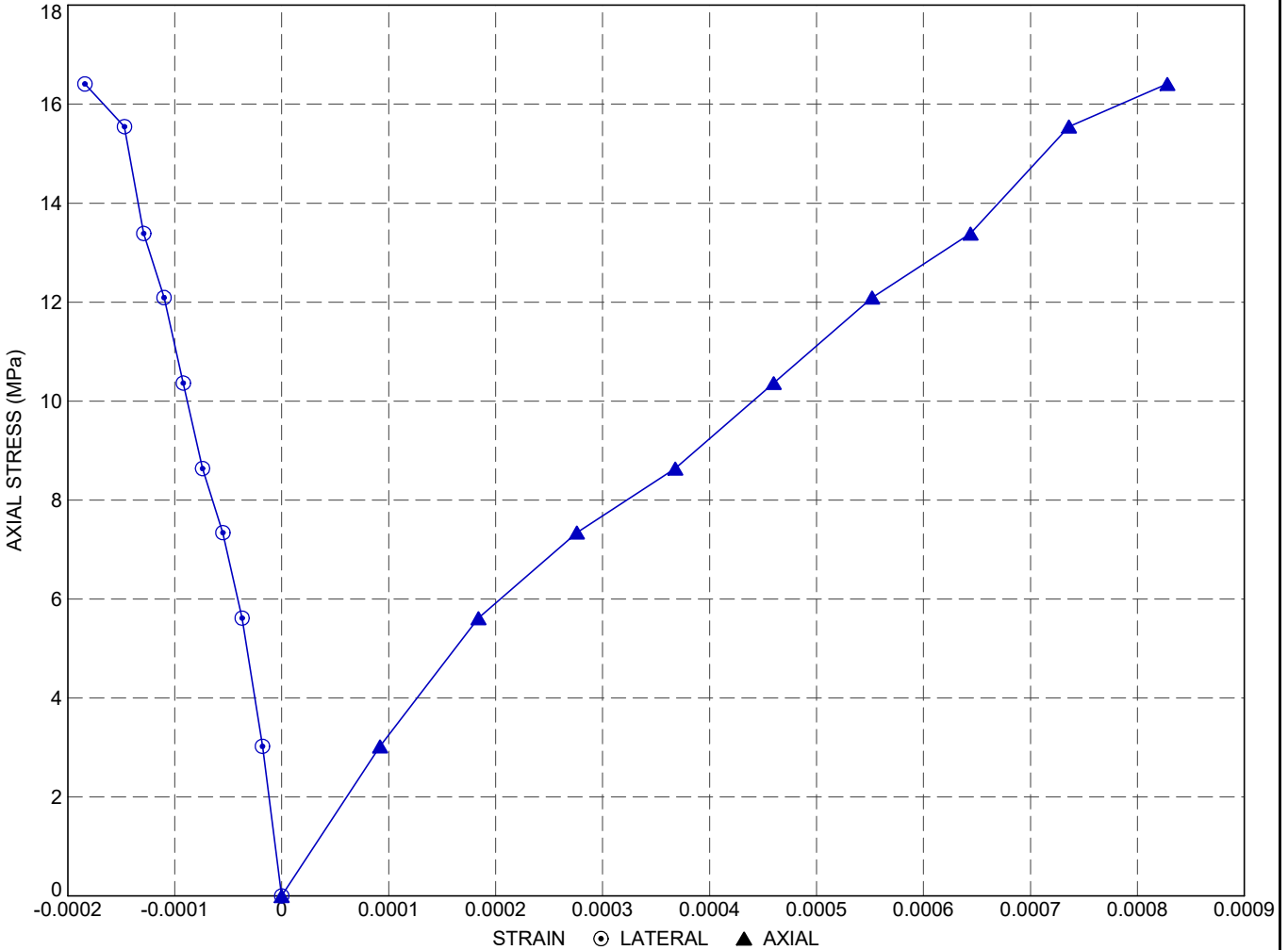


PHOTO BEFORE



PHOTO AFTER

SPECIMEN DIAMETER: 54.300 mm  
 SPECIMEN HEIGHT: 108.700 mm  
 DIAMETER TO HEIGHT RATIO: 2.002:1

METHOD OF DETERMINATION: Secant 0-50% Stress  
**UNIAXIAL COMPRESSIVE STRENGTH:** 16.4 MPa  
**POISSON'S RATIO:** 0.2  
**YOUNG'S MODULUS:** 24.3 GPa

GENERAL REMARKS:

Tested By	Tested Date
Checked By	Checked Date
Approved By	Approved Date

SPECIMEN PREPARATION:

TEST METHOD:  
 ASTM D7012-14:D





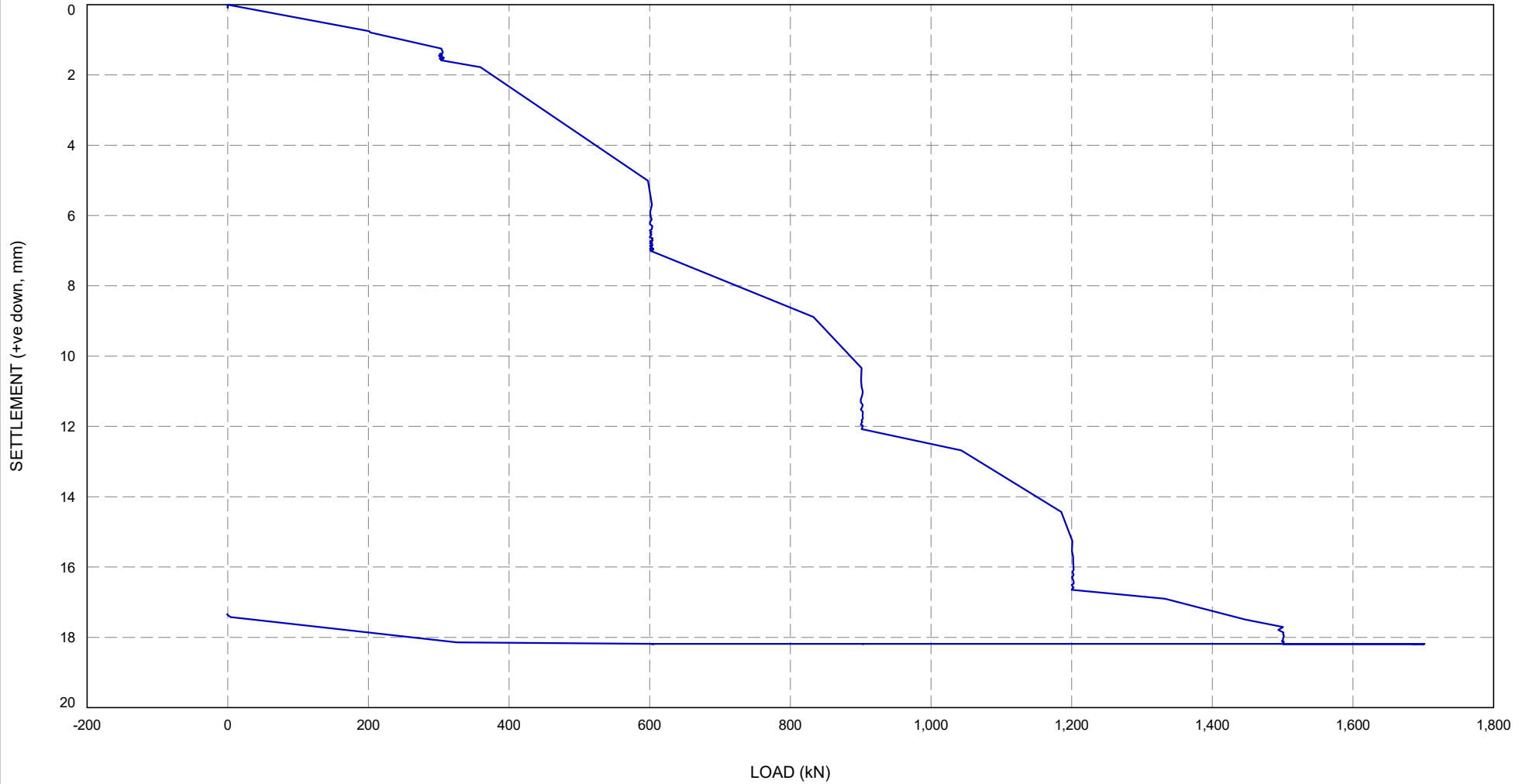
CLIENT : Datgel  
 CONTRACTOR : Contractor 1  
 PROJECT : Construction Project  
 LOCATION : Somewhere, World  
 PROJECT No. : 3.12.0

POSITION : ABCDE  
 EASTING : 240820.0 m  
 NORTHING : 388985.0 m  
 COORD. SYS. : SVY21  
 GROUND RL :

**ZLT - AVERAGE SETTLEMENT VS. LOAD**

Hole ID

**V-ZLT3 - Test**



D:\GDT\DLST\3.12.0\LIB\GUB\_Graph IS ZLT AV SETTLEMENT VS LOAD CURVE (N) DGD\T-DLST\3.12.0.GPJ <-DrawingFiles> 10/09/2017 14:01 10.0.000 Datgel Lab and In Situ Tool - DGD | Lib: DGD\T-DLST\3.11.1\2017-06-21 Proj: DGD\T-DLST\3.11.1\2017-06-21

STATUS : 0  
 LOGGED BY : LB DATE : 17/01/1900  
 CHECKED BY : CB DATE : 19/01/1900  
 APPROVED BY : DATE :



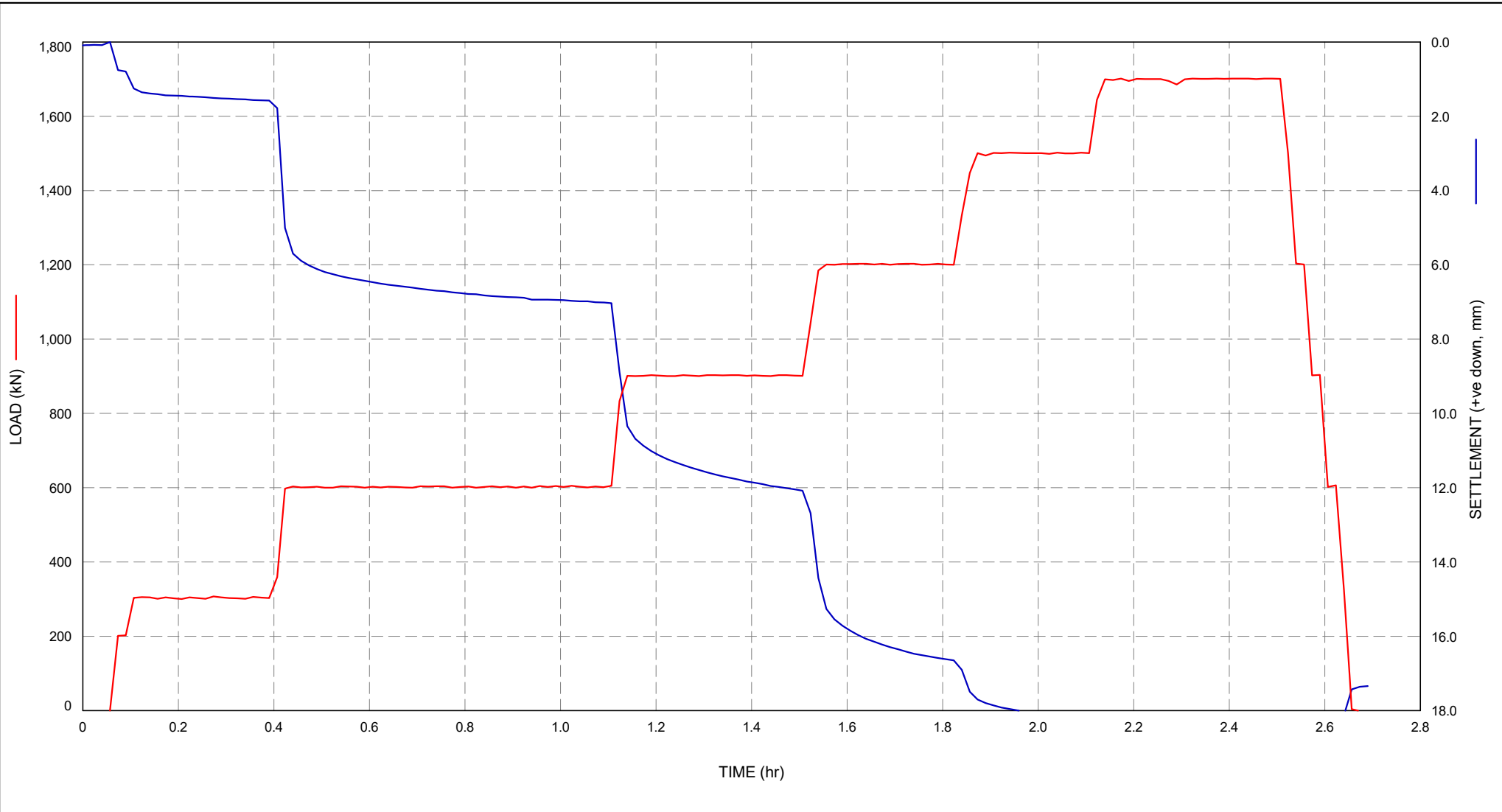
CLIENT : Datgel  
 CONTRACTOR : Contractor 1  
 PROJECT : Construction Project  
 LOCATION : Somewhere, World  
 PROJECT No. : 3.12.0

POSITION : ABCDE  
 EASTING : 240820.0 m  
 NORTHING : 388985.0 m  
 COORD. SYS. : SVY21  
 GROUND RL :

**ZLT - AV. SETTLEMENT & LOAD VS. TIME**

Hole ID

**V-ZLT3 - Test**



D:\GDT\DLST\3.12.0\GUB\_Graph IS ZLT LOAD SETTLEMENT CURVE (N) DGD\DLST\3.12.0\GFPJ <DrawingFile> 10/08/2017 14:01 100,000 Datgel Lab and In Situ Test - DGD [Lib: DGD\DLST\3.11.1\2017\08-21\Pjt\_DGD\DLST\3.11.1\2017\08-21

Fill Type	Requirement Remark

STATUS : 0  
 LOGGED BY : LB DATE : 17/01/1900  
 CHECKED BY : CB DATE : 19/01/1900  
 APPROVED BY : DATE :



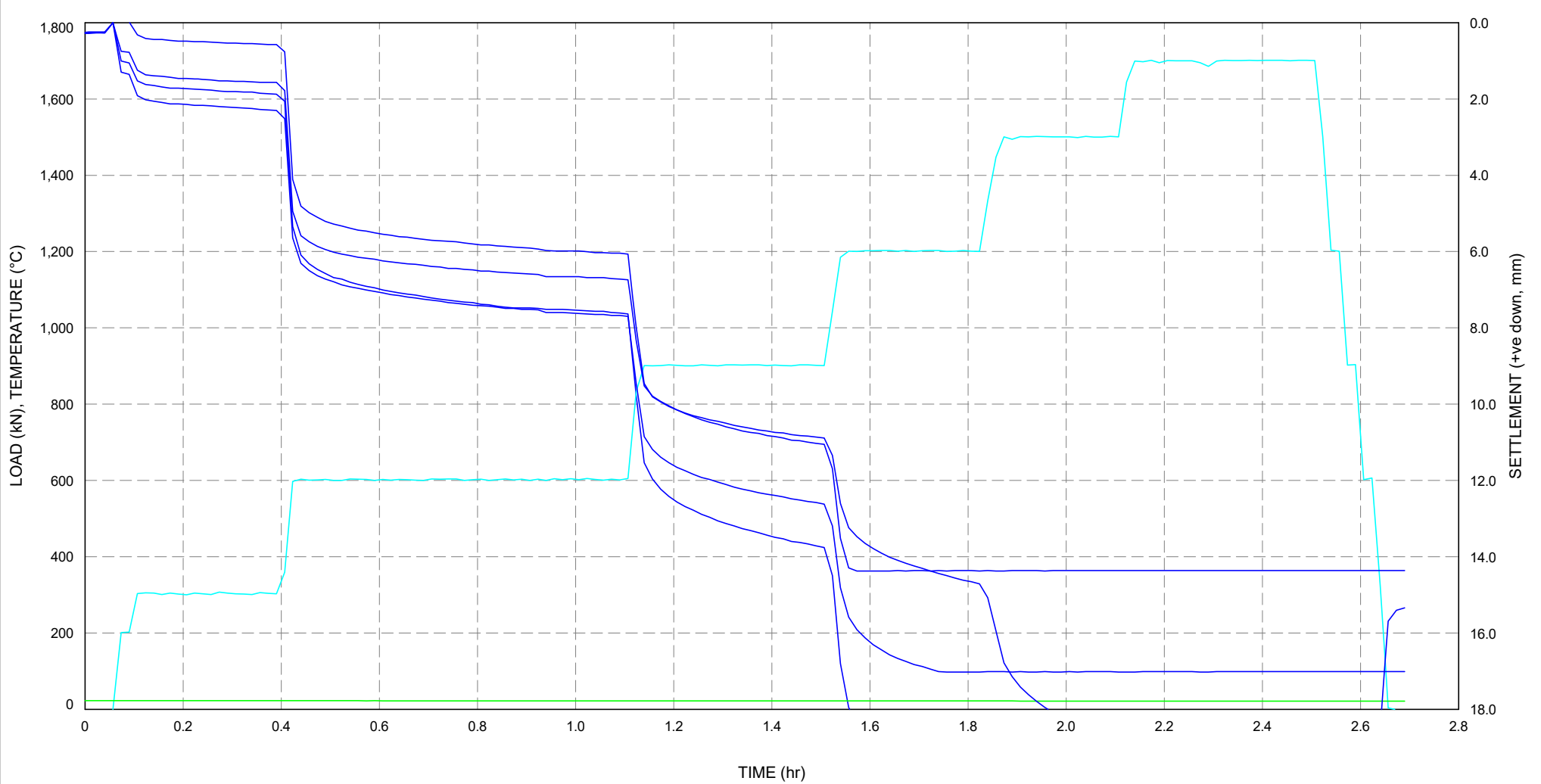
CLIENT : Datgel  
 CONTRACTOR : Contractor 1  
 PROJECT : Construction Project  
 LOCATION : Somewhere, World  
 PROJECT No. : 3.12.0

POSITION : ABCDE  
 EASTING : 240820.0 m  
 NORTHING : 388985.0 m  
 COORD. SYS. : SVY21  
 GROUND RL :

**ZLT - ALL MEASURED DATA VS. TIME**

Hole ID

**V-ZLT3 - Test**



— ESET - Electronic Settlement Gauge  
 — LC - Load Cell  
 — TS - Temperature Transducer

STATUS : 0  
 LOGGED BY : LB DATE : 17/01/1900  
 CHECKED BY : CB DATE : 19/01/1900  
 APPROVED BY : DATE :

DGD-T-DLST-3.12.0-LIB-GLB-Graph IS ZLT MEASURED VS TIME (N) DGD-T-DLST-3.12.0.GPJ <-DrawingFile> 10/08/2017 14:02 10.0.000 Datgel Lab and in Situ Tool - DGD Lib: DGD-T-DLST-3.11.1-2017-06-21 Pj: DGD-T-DLST-3.11.1-2017-06-21



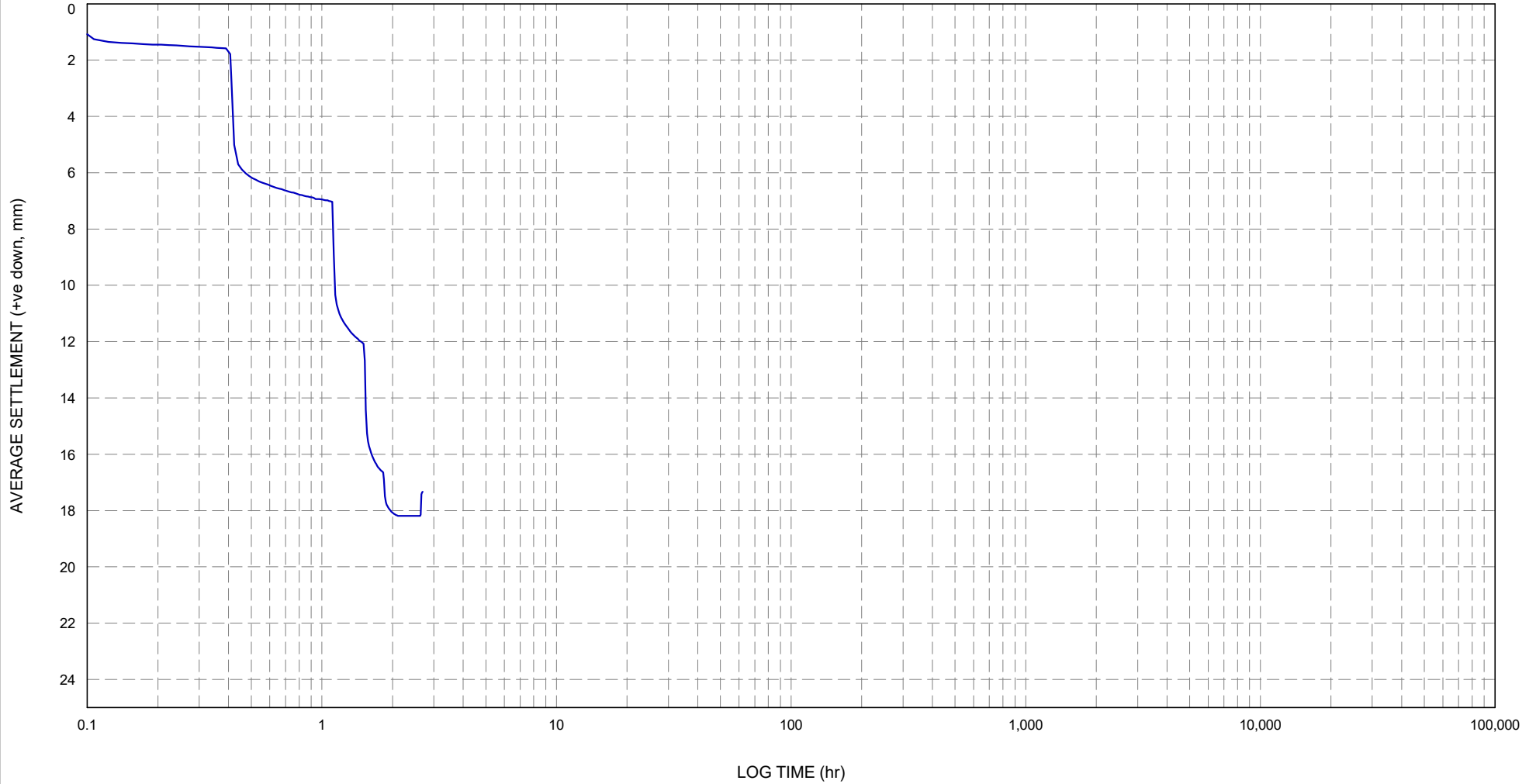
CLIENT : Datgel  
CONTRACTOR : Contractor 1  
PROJECT : Construction Project  
LOCATION : Somewhere, World  
PROJECT No. : 3.12.0

POSITION : ABCDE  
EASTING : 240820.0 m  
NORTHING : 388985.0 m  
COORD. SYS. : SVY21  
GROUND RL :

**ZLT - AV. SETTLEMENT VS. TIME**

Hole ID

**V-ZLT3 - Test**



DGDT-DLST 3.12.0 LUB.GLB Graph IS ZLT SETTLEMENT CURVE (L) DGDT-DLST 3.12.0.GPJ <<DrawingFile>> 10/08/2017 14:02 10.00000 Datgel Lab and in Situ Tool - DGD [Lib.DGDT-DLST 3.11.1.2017-06-21.Pjt; DGDT-DLST 3.11.1.2017-06-21

STATUS : 0  
LOGGED BY : LB DATE : 17/01/1900  
CHECKED BY : CB DATE : 19/01/1900  
APPROVED BY : DATE :



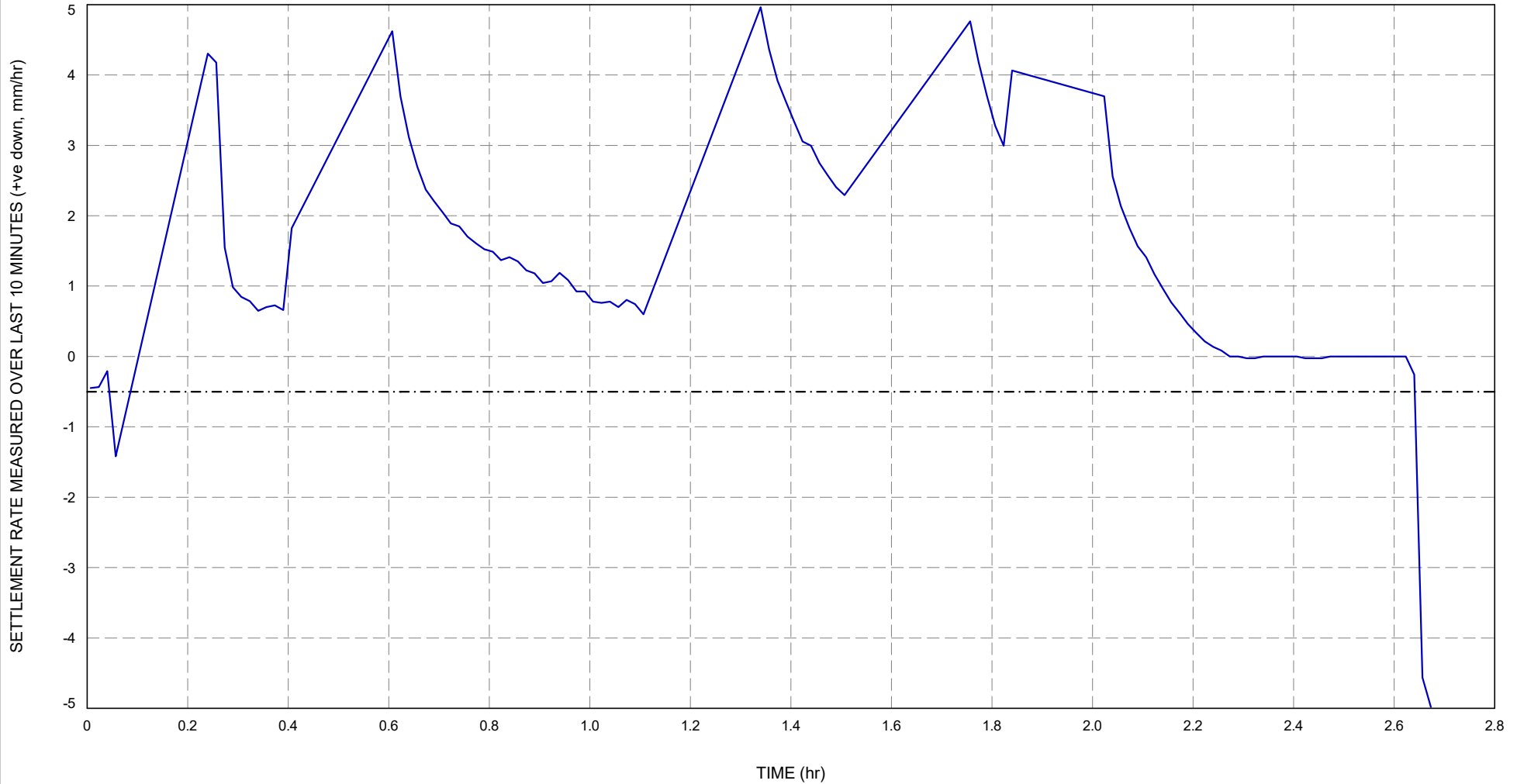
CLIENT : Datgel  
 CONTRACTOR : Contractor 1  
 PROJECT : Construction Project  
 LOCATION : Somewhere, World  
 PROJECT No. : 3.12.0

POSITION : ABCDE  
 EASTING : 240820.0 m  
 NORTHING : 388985.0 m  
 COORD. SYS. : SVY21  
 GROUND RL :

**ZLT - SETTLEMENT RATE VS. TIME**

Hole ID

**V-ZLT3 - Test**



--- REFERENCE SETTLEMENT RATE

STATUS : 0  
 LOGGED BY : LB DATE : 17/01/1900  
 CHECKED BY : CB DATE : 19/01/1900  
 APPROVED BY : DATE :

D:\GDT\DLST\3.12.0\LIB\GUB\_Graph IS ZLT SETTLEMENT RATE CURVE (N) DGD\DLST 3.12.0.GPJ <<DrawingFile>> 10/08/2017 14:02 10.01.000 Datgel Lab and In Situ Tool - DGD | Lib: DGD\DLST 3.11.1\2017\06-21\Fig: DGD\DLST 3.11.1\2017-06-21



CLIENT : Datgel  
 ENGINEER : Engineer 1  
 PROJECT : Construction Project  
 LOCATION : Somewhere, World  
 PROJECT No. : 3.12.0  
 LABORATORY :

PointID	Sample / Specimen Number	Sample Type	Depth (m)	Test Method	Liquid Limit, w <sub>L</sub> (%)	Plastic Limit, w <sub>P</sub> (%)	Plasticity Index, I <sub>P</sub> (%)	Natural Moisture Content, w (%)	Liquidity Index, I <sub>L</sub> (%)	Passing 425 μm (%)	Test Date
V-DLST-Golden	1		0.10 - 1.30	BS 1377-2:1990:5 BS 1377-2:1990:4.3 BS 1377-2:1990:5 BS 1377-2:1990:5 ASTM D2216-10	28	22	6	8.1	26	4.5	01/01/2016
V-DLST-Golden	ICBR		0.10 - 1.30					5.0			
V-DLST-Golden	2		0.20 - 1.30	BS 1377-2:1990:5 BS 1377-2:1990:4.4 BS 1377-2:1990:5 BS 1377-2:1990:5 ASTM D2216-10	25	19	6	7.0	5	14.4	01/01/2016
V-DLST-Golden	3		0.30 - 1.30	BS 1377-2:1990:5 BS 1377-2:1990:4.5 BS 1377-2:1990:5 BS 1377-2:1990:5 BS 1377-2:1990:3.2	64	40	24	5.9	-1	20.9	01/01/2016
V-DLST-Golden	4		0.40 - 1.30	BS 1377-2:1990:5 BS 1377-2:1990:4.6 BS 1377-2:1990:5 BS 1377-2:1990:5 BS 1377-2:1990:3.2	32	27	5	5.9	-4	91.6	01/01/2016
V-DLST-Golden	5		0.50 - 1.30	ISO/TS 17892-12:2004 ISO/TS 17892-12:2004 ISO/TS 17892-12:2004 ISO/TS 17892-12:2004 ISO/TS 17892-1:2004	25	10	15	5.9	0	6.5	01/01/2016
V-DLST-Golden	6		0.60 - 1.30	ISO/TS 17892-12:2004 ISO/TS 17892-12:2004 ISO/TS 17892-12:2004 ISO/TS 17892-12:2004 ISO/TS 17892-1:2004	39	25	14	5.9	-1		01/01/2016
V-DLST-Golden	7		0.70 - 1.30	ASTM D4318-05 ASTM D4318-05 A ASTM D4318-05 ASTM D4318-05 ISO/TS 17892-1:2004	64	40	24	5.9	-1		01/01/2016
V-DLST-Golden	8		0.80 - 1.30	ASTM D4318-05 ASTM D4318-05 B ASTM D4318-05 ASTM D4318-05 ISO/TS 17892-1:2004	40	18	22	5.9	-1		01/01/2016
V-DLST-Golden	9		0.90 - 1.30	ISO/TS 17892-1:2004				5.9			
V-DLST-Golden	10		1.00 - 1.30	ISO/TS 17892-1:2004				5.9			
V-DLST-Golden	11		1.10 - 1.30	BS 1377-2:1990:3.2				1.5			
V-DLST-Golden	12		1.20 - 1.30	ASTM D2216-98				2.1			

DGD\DLST\3.12.0\UB.GLB - Gfictbl - L\CSA\ATTERBERG\MULTI.DGD\DLST\3.12.0.GPJ - <<DrawingFile>> 10/08/2017 14:04 10.0.000 DatgelLab and In Situ Tool - DGD\DLST\3.12.0\UB.GLB - Gfictbl - L\CSA\ATTERBERG\MULTI.DGD\DLST\3.12.0.GPJ - 2017-06-21 Prg DGD\DLST\3.12.0\UB.GLB - Gfictbl - L\CSA\ATTERBERG\MULTI.DGD\DLST\3.12.0.GPJ - 2017-06-21

CLIENT : Datgel  
ENGINEER : Engineer 1  
PROJECT : Construction Project  
LOCATION : Somewhere, World  
PROJECT No. : 3.12.0  
LABORATORY :

PointID	Sample / Specimen Number	Depth (m)	Elevation (m MSL)	Wet Density, $\rho_b$ (Mg/m <sup>3</sup> )	Dry Density, $\rho_d$ (Mg/m <sup>3</sup> )	Natural Moisture Content, w (%)	Particle Density, $\rho_s$ (Mg/m <sup>3</sup> )	Void Ratio, e	Porosity, n (%)	Moisture Content By Volume, w <sub>v</sub> (%)	Degree of Saturation, S <sub>v</sub> (%)
V-DLST-Golden	1	0.10 - 1.30	-0.10 to -1.30	1.85	1.71	8.1	2.65	0.55	35.36	14	39.25
V-DLST-Golden	ICBR	0.10 - 1.30	-0.10 to -1.30			5.0					
V-DLST-Golden	2	0.20 - 1.30	-0.20 to -1.30	2.66	2.48	7.0	2.70	0.09	7.98	17	217.83
V-DLST-Golden	3	0.30 - 1.30	-0.30 to -1.30	1.88	1.78	5.9	2.73	0.54	34.95	10	29.98
V-DLST-Golden	4	0.40 - 1.30	-0.40 to -1.30	1.82	1.72	5.9	2.75	0.60	37.38	10	27.18
V-DLST-Golden	5	0.50 - 1.30	-0.50 to -1.30	1.85	1.75	5.9	2.73	0.56	35.95	10	28.70
V-DLST-Golden	6	0.60 - 1.30	-0.60 to -1.30	1.91	1.80	5.9	2.60	0.45	30.81	11	34.45
V-DLST-Golden	7	0.70 - 1.30	-0.70 to -1.30	1.88	1.78	5.9	2.55	0.44	30.35	10	34.52
V-DLST-Golden	8	0.80 - 1.30	-0.80 to -1.30	1.84	1.74	5.9	2.55	0.47	31.84	10	32.20
V-DLST-Golden	9	0.90 - 1.30	-0.90 to -1.30	6.67	6.30	5.9	2.55	-0.60	-146.87	37	-25.29
V-DLST-Golden	10	1.00 - 1.30	-1.00 to -1.30	1.91	1.80	5.9	2.55	0.42	29.45	11	36.04
V-DLST-Golden	11	1.10 - 1.30	-1.10 to -1.30	1.88	1.85	1.5	2.55	0.38	27.34	2.8	10.17
V-DLST-Golden	12	1.20 - 1.30	-1.20 to -1.30	1.86	1.82	2.1	2.55	0.40	28.71	3.8	13.30

DGD1-DLST 3.12.0.LIB.GLB - Grctb1 - L CS-DENSITY - MULTI - DGD1-DLST 3.12.0.GPJ - <<DrawingFiles>> - 10/02/2017 14:04 - 10.0.000 - Datgel Lab and in Situ Test - DGD1 - Lib - DGD1-DLST 3.11.1 - 2017-06-21 Proj: DGD1-DLST 3.11.1 - 2017-06-21



CLIENT : Datgel  
 ENGINEER : Engineer 1  
 PROJECT : Construction Project  
 LOCATION : Somewhere, World  
 PROJECT No. : 3.12.0  
 LABORATORY :

PointID	Sample / Specimen Number	Sample Type	Depth (m)	Test Method	Specimen Preparation	Linear Shrinkage (%)	Passing 425 $\mu$ m (%)	Test Date	Remark
V-DLST-Golden	1		0.10 - 1.30	BS 1377-2:1990:6.5	Dry	15	36.7		

CLIENT : Datgel  
 ENGINEER : Engineer 1  
 PROJECT : Construction Project  
 LOCATION : Somewhere, World  
 PROJECT No. : 3.12.0  
 LABORATORY :

PointID	Sample / Specimen Number	Sample Type	Depth (m)	Test Method	Specimen Preparation	Particle Density, $\rho_s$ (Mg/m <sup>3</sup> )	Test Date	Remark
V-DLST-Golden	1		0.10 - 1.30	ASTM D854-06		2.65		
V-DLST-Golden	2		0.20 - 1.30	BS 1377-2:1990:8.2		2.70		
V-DLST-Golden	3		0.30 - 1.30	BS 1377-2:1990:8.3		2.73		
V-DLST-Golden	4		0.40 - 1.30	BS 1377-2:1990:8.4		2.75		
V-DLST-Golden	5		0.50 - 1.30	ISO/TS 17892-3:2004:A		2.73		
V-DLST-Golden	6		0.60 - 1.30	ISO/TS 17892-3:2004:B		2.60		
V-DLST-Golden	7		0.70 - 1.30			2.55		
V-DLST-Golden	8		0.80 - 1.30			2.55		
V-DLST-Golden	9		0.90 - 1.30			2.55		
V-DLST-Golden	10		1.00 - 1.30			2.55		
V-DLST-Golden	11		1.10 - 1.30			2.55		
V-DLST-Golden	12		1.20 - 1.30			2.55		

DGD\DLST\3.12.0\UB.GLB\_Gr676\1\_CSPARTICLE DENSITY MULT\_DGD\DLST\3.12.0.GPJ -<DrawingFile>- 1008/2017 14:05 10.0.000 DatgelLab and H. Silt Tool - DGD | Ur: DGD\DLST\3.11.1.2017-06-21\Prj\_DGD\DLST\3.11.1.2017-06-21

Hole ID

**V-DLST-Golden:0.40:2**

CLIENT : Datgel	POSITION : Area 1	<b>ASTM D1556-07</b>
CONTRACTOR : Contractor 1	EASTING : 12345.1 m	
PROJECT : Construction Project	NORTHING : 212345.1 m	
LOCATION : Somewhere, World	COORD. SYS. : SVY21	
PROJECT No. : 3.12.0	GROUND RL : 0.00 m MSL	
		SHEET : 1 OF 1
		STATUS :
		DATE :

LABORATORY : Lab 1	MATERIAL DESCRIPTION:
SAMPLE REF :	

TEST HOLE VOLUME (cm <sup>3</sup> )	2566				
IN SITU BULK / WET DENSITY (Mg/m <sup>3</sup> )	1.24				
IN SITU DRY DENSITY (Mg/m <sup>3</sup> )					
MOISTURE CONTENT (%)					
TEST APPARATUS ID	C2				
TEST APPARATUS CALIBRATED VOLUME (cm <sup>3</sup> )	888				
BULK DENSITY OF SAND(Mg/m <sup>3</sup> )	1.52				
MASS OVERSIZED PARTICLES (g)					
PERCENT OVERSIZED PARTICLES (%)					
OVERSIZED PARTICLES REMARK					
COMPARATIVE SAMPLE REFERENCE	NA				
COMPARATIVE DRY DENSITY (Mg/m <sup>3</sup> )	NA				
PERCENT COMPARATIVE DRY DENSITY (%)	NA				
COMPARATIVE MOISTURE CONTENT (%)	NA				
VARIATION FROM COMPARATIVE MOISTURE CONTENT (%)	NA				
REQUIREMENT	<table border="1"> <tr> <td>Fill Type</td> <td>Requirement Remark</td> </tr> <tr> <td>Type 1</td> <td>Not Applicable</td> </tr> </table>	Fill Type	Requirement Remark	Type 1	Not Applicable
Fill Type	Requirement Remark				
Type 1	Not Applicable				

REMARK:	TESTED BY :	DATE:
	CHECKED BY :	DATE:
	APPROVED BY:	DATE:

DGD-DLST 3.12.0 LIB: G.LB. C/G/ret. IS CR DENSITY DGD-DLST 3.12.0.GPJ <<Drawingfile>> 1008/2017 14:05 10.0.000 Datgel/Lab and In Situ Tool - DGD | Lib: DGD-DLST 3.11.1.2017-06-21 Pj: DGD-DLST 3.11.1.2017-06-21

Hole ID

**V-DLST-Golden:0.50:3**

CLIENT : Datgel	POSITION : Area 1	<b>BS 1377-9:1990:2.1</b>
CONTRACTOR : Contractor 1	EASTING : 12345.1 m	
PROJECT : Construction Project	NORTHING : 212345.1 m	
LOCATION : Somewhere, World	COORD. SYS. : SVY21	
PROJECT No. : 3.12.0	GROUND RL : 0.00 m MSL	
	SHEET : 1 OF 1	
	STATUS :	
	DATE :	

LABORATORY : Lab 1  
SAMPLE REF :

MATERIAL DESCRIPTION:

TEST HOLE VOLUME (cm <sup>3</sup> )	2255				
IN SITU BULK / WET DENSITY (Mg/m <sup>3</sup> )	1.61				
IN SITU DRY DENSITY (Mg/m <sup>3</sup> )					
MOISTURE CONTENT (%)					
TEST APPARATUS ID	C1				
TEST APPARATUS CALIBRATED VOLUME (cm <sup>3</sup> )	882				
BULK DENSITY OF SAND(Mg/m <sup>3</sup> )	1.54				
MASS OVERSIZED PARTICLES (g)					
PERCENT OVERSIZED PARTICLES (%)					
OVERSIZED PARTICLES REMARK					
COMPARATIVE SAMPLE REFERENCE	NA				
COMPARATIVE DRY DENSITY (Mg/m <sup>3</sup> )	NA				
PERCENT COMPARATIVE DRY DENSITY (%)	NA				
COMPARATIVE MOISTURE CONTENT (%)	NA				
VARIATION FROM COMPARATIVE MOISTURE CONTENT (%)	NA				
REQUIREMENT	<table border="1"> <tr> <td>Fill Type</td> <td>Requirement Remark</td> </tr> <tr> <td>Type 1</td> <td>Not Applicable</td> </tr> </table>	Fill Type	Requirement Remark	Type 1	Not Applicable
Fill Type	Requirement Remark				
Type 1	Not Applicable				

REMARK:

TESTED BY : DATE:  
CHECKED BY : DATE:  
APPROVED BY: DATE:

Hole ID

**V-DLST-Golden:0.75:4**

CLIENT : Datgel	POSITION : Area 1	<b>BS 1377-9:1990:2.2</b>
CONTRACTOR : Contractor 1	EASTING : 12345.1 m	
PROJECT : Construction Project	NORTHING : 212345.1 m	
LOCATION : Somewhere, World	COORD. SYS. : SVY21	
PROJECT No. : 3.12.0	GROUND RL : 0.00 m MSL	
	SHEET : 1 OF 1	
	STATUS :	
	DATE :	

LABORATORY : Lab 1  
SAMPLE REF :

MATERIAL DESCRIPTION:

TEST HOLE VOLUME (cm <sup>3</sup> )	4616				
IN SITU BULK / WET DENSITY (Mg/m <sup>3</sup> )	1.31				
IN SITU DRY DENSITY (Mg/m <sup>3</sup> )					
MOISTURE CONTENT (%)					
TEST APPARATUS ID	C2				
TEST APPARATUS CALIBRATED VOLUME (cm <sup>3</sup> )	888				
BULK DENSITY OF SAND(Mg/m <sup>3</sup> )	1.51				
MASS OVERSIZED PARTICLES (g)					
PERCENT OVERSIZED PARTICLES (%)					
OVERSIZED PARTICLES REMARK					
COMPARATIVE SAMPLE REFERENCE	NA				
COMPARATIVE DRY DENSITY (Mg/m <sup>3</sup> )	NA				
PERCENT COMPARATIVE DRY DENSITY (%)	NA				
COMPARATIVE MOISTURE CONTENT (%)	NA				
VARIATION FROM COMPARATIVE MOISTURE CONTENT (%)	NA				
REQUIREMENT	<table border="1"> <tr> <td>Fill Type</td> <td>Requirement Remark</td> </tr> <tr> <td>Type 1</td> <td>Not Applicable</td> </tr> </table>	Fill Type	Requirement Remark	Type 1	Not Applicable
Fill Type	Requirement Remark				
Type 1	Not Applicable				

REMARK:

TESTED BY : DATE:  
CHECKED BY : DATE:  
APPROVED BY: DATE:

Hole ID

**V-DLST-Golden:1.00:5**

CLIENT : Datgel	POSITION : Area 1	<b>BS 1377-9:1990:2.3</b>
CONTRACTOR : Contractor 1	EASTING : 12345.1 m	
PROJECT : Construction Project	NORTHING : 212345.1 m	
LOCATION : Somewhere, World	COORD. SYS. : SVY21	
PROJECT No. : 3.12.0	GROUND RL : 0.00 m MSL	
	SHEET : 1 OF 1	
	STATUS :	
	DATE :	

 LABORATORY : Lab 1  
 SAMPLE REF :

MATERIAL DESCRIPTION:

TEST HOLE VOLUME (cm <sup>3</sup> )	3079				
IN SITU BULK / WET DENSITY (Mg/m <sup>3</sup> )	1.45				
IN SITU DRY DENSITY (Mg/m <sup>3</sup> )					
MOISTURE CONTENT (%)					
TEST APPARATUS ID	C1				
TEST APPARATUS CALIBRATED VOLUME (cm <sup>3</sup> )	882				
BULK DENSITY OF SAND(Mg/m <sup>3</sup> )	1.54				
MASS OVERSIZED PARTICLES (g)					
PERCENT OVERSIZED PARTICLES (%)					
OVERSIZED PARTICLES REMARK					
COMPARATIVE SAMPLE REFERENCE	NA				
COMPARATIVE DRY DENSITY (Mg/m <sup>3</sup> )	NA				
PERCENT COMPARATIVE DRY DENSITY (%)	NA				
COMPARATIVE MOISTURE CONTENT (%)	NA				
VARIATION FROM COMPARATIVE MOISTURE CONTENT (%)	NA				
REQUIREMENT	<table border="1"> <tr> <td>Fill Type</td> <td>Requirement Remark</td> </tr> <tr> <td>Type 1</td> <td>Not Applicable</td> </tr> </table>	Fill Type	Requirement Remark	Type 1	Not Applicable
Fill Type	Requirement Remark				
Type 1	Not Applicable				

REMARK:

TESTED BY :	DATE:
CHECKED BY :	DATE:
APPROVED BY:	DATE:

Hole ID

**V-DLST-Golden:1.25:6**

CLIENT : Datgel	POSITION : Area 1	<b>BS 1377-9:1990:2.4</b>
CONTRACTOR : Contractor 1	EASTING : 12345.1 m	
PROJECT : Construction Project	NORTHING : 212345.1 m	
LOCATION : Somewhere, World	COORD. SYS. : SVY21	
PROJECT No. : 3.12.0	GROUND RL : 0.00 m MSL	
SHEET : 1 OF 1	STATUS :	
DATE :		

LABORATORY : Lab 1	MATERIAL DESCRIPTION:
SAMPLE REF :	

TEST HOLE VOLUME (cm <sup>3</sup> )	3085				
IN SITU BULK / WET DENSITY (Mg/m <sup>3</sup> )	1.28				
IN SITU DRY DENSITY (Mg/m <sup>3</sup> )					
MOISTURE CONTENT (%)					
TEST APPARATUS ID	C2				
TEST APPARATUS CALIBRATED VOLUME (cm <sup>3</sup> )	888				
BULK DENSITY OF SAND(Mg/m <sup>3</sup> )	1.51				
MASS OVERSIZED PARTICLES (g)					
PERCENT OVERSIZED PARTICLES (%)					
OVERSIZED PARTICLES REMARK					
COMPARATIVE SAMPLE REFERENCE	NA				
COMPARATIVE DRY DENSITY (Mg/m <sup>3</sup> )	NA				
PERCENT COMPARATIVE DRY DENSITY (%)	NA				
COMPARATIVE MOISTURE CONTENT (%)	NA				
VARIATION FROM COMPARATIVE MOISTURE CONTENT (%)	NA				
REQUIREMENT	<table border="1"> <tr> <td>Fill Type</td> <td>Requirement Remark</td> </tr> <tr> <td>Type 1</td> <td>Not Applicable</td> </tr> </table>	Fill Type	Requirement Remark	Type 1	Not Applicable
Fill Type	Requirement Remark				
Type 1	Not Applicable				

REMARK:

TESTED BY : DATE:  
 CHECKED BY : DATE:  
 APPROVED BY: DATE:

Hole ID

**V-DLST-Golden:1.50:7**

CLIENT : Datgel	POSITION : Area 1	<b>BS 1377-9:1990:2.5</b>
CONTRACTOR : Contractor 1	EASTING : 12345.1 m	
PROJECT : Construction Project	NORTHING : 212345.1 m	
LOCATION : Somewhere, World	COORD. SYS. : SVY21	
PROJECT No. : 3.12.0	GROUND RL : 0.00 m MSL	
	SHEET : 1 OF 1	
	STATUS :	
	DATE :	

LABORATORY : Lab 1	MATERIAL DESCRIPTION:
SAMPLE REF :	

TEST HOLE VOLUME (cm <sup>3</sup> )					
IN SITU BULK / WET DENSITY (Mg/m <sup>3</sup> )	1.50				
IN SITU DRY DENSITY (Mg/m <sup>3</sup> )	1.14				
MOISTURE CONTENT (%)	31.7				
TEST APPARATUS ID					
TEST APPARATUS CALIBRATED VOLUME (cm <sup>3</sup> )					
BULK DENSITY OF SAND(Mg/m <sup>3</sup> )					
MASS OVERSIZED PARTICLES (g)					
PERCENT OVERSIZED PARTICLES (%)					
OVERSIZED PARTICLES REMARK					
COMPARATIVE SAMPLE REFERENCE	NA				
COMPARATIVE DRY DENSITY (Mg/m <sup>3</sup> )	NA				
PERCENT COMPARATIVE DRY DENSITY (%)	NA				
COMPARATIVE MOISTURE CONTENT (%)	NA				
VARIATION FROM COMPARATIVE MOISTURE CONTENT (%)	NA				
REQUIREMENT	<table border="1"> <tr> <td>Fill Type</td> <td>Requirement Remark</td> </tr> <tr> <td>Type 1</td> <td>Not Applicable</td> </tr> </table>	Fill Type	Requirement Remark	Type 1	Not Applicable
Fill Type	Requirement Remark				
Type 1	Not Applicable				

REMARK:

TESTED BY :           DATE:  
 CHECKED BY :       DATE:  
 APPROVED BY:       DATE:



CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<i>DESTINATION</i> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<i>SAMPLING DATA</i> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.10 m SPECIMEN REF : 1 SAMPLE DATE : SAMPLED BY :
LABORATORY SPECIMEN DESCRIPTION: Silty very gravelly poorly graded SAND (SM) medium to coarse sand, fine and coarse gravel, silt of low plasticity		

GRADING DESIGNATION USED FOR THE TEST	A
NUMBER OF SPHERES	12
INITIAL MASS SIZE FRACTIONS (g)	
12.5 - 9.5 mm	1250
19.0 - 12.5 mm	1252
25.0 - 19.0 mm	1259
37.5 - 25.0 mm	1268
TOTAL INITIAL MASS (g)	5029
FINAL MASS AFTER 500 REVOLUTIONS (g)	3750
LOSS BY ABRASION AND IMPACT (%)	25

DGD1-DLST 3.12.0.GLB\_G10101.L.A.LA.ABRASION.DGD1-DLST 3.12.0.GPJ <-DrawingFile>> 1008/2017 14:06 10.0.000 Datgel\Lab and In Situ\Tool-DGD [Lib:DGD1-DLST 3.11.1.2017-06-21]Pjt:DGD1-DLST 3.11.1.2017-06-21

GENERAL REMARKS:	Fill Type	Requirement Remark	Tested By	Tested Date
	Type 1	Not Applicable	Checked By	Checked Date
SPECIMEN PREPARATION:	TEST METHOD: ASTM C131-06		Approved By	Approved Date

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.20 m SPECIMEN REF : 2 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Slightly silty very gravelly poorly graded SAND (SP) coarse sand, fine gravel, silt of low plasticity		

GRADING DESIGNATION USED FOR THE TEST	C
NUMBER OF SPHERES	12
INITIAL MASS SIZE FRACTIONS (g)	
4.8 - 2.4 mm	350
6.3 - 4.8 mm	350
9.5 - 6.3 mm	200
12.5 - 9.5 mm	350
19.0 - 12.5 mm	300
25.0 - 19.0 mm	200
37.5 - 25.0 mm	100
TOTAL INITIAL MASS (g)	5000
FINAL MASS AFTER 500 REVOLUTIONS (g)	600
LOSS BY ABRASION AND IMPACT (%)	

DGD\DLST\3.12.0\JIB.GLB - Client\1. A.LA.ABRASION.DGD\DLST\3.12.0.GPJ <-DrawingFile> 1008/2017 14:06 10.0.000 Datgel\Lab and In Situ\Tool - DGD | Lib.DGD\DLST\3.11.1.2017-06-21 Proj.DGD\DLST\3.11.1.2017-06-21

GENERAL REMARKS:	Fill Type	Requirement Remark	Tested By	Tested Date
	Type 1	Not Applicable	Checked By	Checked Date
SPECIMEN PREPARATION:	TEST METHOD: BS EN 1097-2:1998:5		Approved By	Approved Date

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	DESTINATION AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	SAMPLING DATA HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.10 m SPECIMEN REF : 1 SAMPLE DATE : SAMPLED BY :
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LABORATORY SPECIMEN DESCRIPTION:  
Silty very gravelly poorly graded SAND (SM) medium to coarse sand, fine and coarse gravel, silt of low plasticity

FILL TYPE		Type 1	
OVEN-DRIED PARTICLE DENSITY (Mg/m <sup>3</sup> )	2.32	Meets requirement	
SATURATED AND SURFACE-DRY PARTICLE DENSITY (Mg/m <sup>3</sup> )	2.42	Meets requirement	
APPARENT PARTICLE DENSITY (Mg/m <sup>3</sup> )	2.58	Non compliance	
WATER ABSORPTION (AS % OF DRY MASS)	4.5	Meets requirement	

GENERAL REMARKS:

Tested By

Tested Date

Checked By

Checked Date

SPECIMEN PREPARATION:

TEST METHOD:  
BS 812-2:1995:5.3 Aggregates >10 mm

Approved By

Approved Date

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<i>DESTINATION</i> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<i>SAMPLING DATA</i> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.10 m SPECIMEN REF : 1 SAMPLE DATE : SAMPLED BY :
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LABORATORY SPECIMEN DESCRIPTION:  
 Silty very gravelly poorly graded SAND (SM) medium to coarse sand, fine and coarse gravel, silt of low plasticity

SOLUTION USED: Magnesium Sulfate

### IMMERSION CYCLES

CYCLE	START OF IMMERSION	END OF IMMERSION	NUMBER OF HOURS
1st	01/01/2016 00:00	02/01/2016 00:00	24
2nd	01/01/2016 13:00	02/01/2016 13:00	24
3rd	01/01/2016 14:00	02/01/2016 14:00	24
4th	01/01/2016 15:00	02/01/2016 15:00	24
5th	01/01/2016 16:00	02/01/2016 16:00	24

### TEST DATA

SIEVE SIZES (mm)		ORIGINAL GRADING (%)	INITIAL MASS (g)	GROUPED INITIAL MASS (g)	GROUPED GRADING (%)	END MASS (g)	LOSS MASS (g)	PERCENT LOSS (%)	WEIGHTED PERCENT LOSS (%)
MAX	MIN								
	50	10	7030	7030	10	6870	160	2.3	0.2
50	37.5	10	4296	11326	20	3539	7787	68.8	13.8
37.5	25	10	1507.5	1507.5	10	1280.8	226.7	15	1.5
25	19	20	1000.2	2507.7	30	786.5	1721.2	68.6	20.6
19	12.5	10	300	300	10	217.8	82.2	27.4	2.7
12.5	9.5	10	100	400	20	98	302	75.5	15.1
<b>TOTALS</b>					<b>100</b>	<b>54</b>			

### QUALITATIVE EXAMINATION OF COARSE PARTICLES

SIEVE SIZES (mm)		SPLITTING		CRUMBLING		CRACKING		FLAKING		TOTAL No. BEFORE TEST
MAX	MIN	No.	%	No.	%	No.	%	No.	%	
	50	2	20	3	30	4	40	5	50	10
	37.5	4	27	5	33	4	27	2	13	15

GENERAL REMARKS:	Fill Type  <b>Type 1</b>	Requirement Remark  <b>Meets requirement</b>	Tested By	Tested Date
SPECIMEN PREPARATION:	TEST METHOD: ASTM C88-05		Checked By	Checked Date
			Approved By	Approved Date

DGD-T-DLST 3.12.0.GPJ - Drawing File -&gt; 10/08/2017 14:07 10.0.000 Datgel Lab and In Situ Test - DGD [Lib: DGD-T-DLST 3.11.1.2017-08-21 Pj: DGD-T-DLST 3.11.1.2017-08-21]

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<i>DESTINATION</i> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<i>SAMPLING DATA</i> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.20 m SPECIMEN REF : 2 SAMPLE DATE : SAMPLED BY :
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LABORATORY SPECIMEN DESCRIPTION:  
 Slightly silty very gravelly poorly graded SAND (SP) coarse sand, fine gravel, silt of low plasticity

SOLUTION USED: Sodium Sulfate

IMMERSION CYCLES

CYCLE	START OF IMMERSION	END OF IMMERSION	NUMBER OF HOURS
1st	01/01/2016 00:00	02/01/2016 00:00	24
2nd	01/01/2016 13:00	02/01/2016 13:00	24
3rd	01/01/2016 14:00	02/01/2016 14:00	24
4th	01/01/2016 15:00	02/01/2016 15:00	24
5th	01/01/2016 16:00	02/01/2016 16:00	24

TEST DATA

SIEVE SIZE (mm)		INITIAL MASS (g)	FINAL MASS (g)	SOUNDNESS VALUE (%)
MAX	MIN			
14	10	500	450	90
14	10	501	451	90

**MEAN SOUNDNESS VALUE**

**90**

GENERAL REMARKS:	Fill Type	Requirement Remark	Tested By	Tested Date
	Type 1	Non compliance	Checked By	Checked Date
SPECIMEN PREPARATION:	TEST METHOD: BS 812-121:1989		Approved By	Approved Date

D:\DT-DLST\3.12.0\UB.GLB - Client\1. A.SOUNDNESS BS812-121.DGDT-DLST\3.12.0.GPJ -> DrawingFile -> 10082017 14:07 10.0.000 Datgel Lab and In Situ Tech - DGD [Lib: DGD\DLST\3.11.1\2017-06-21 Proj: DGD\DLST\3.11.1\2017-06-21

<b>CLIENT</b> : Datgel <b>ENGINEER</b> : Engineer 1 <b>PROJECT</b> : Construction Project <b>LOCATION</b> : Somewhere, World <b>PROJECT No.</b> : 3.12.0 <b>LABORATORY</b> : Lab 1	<b>DESTINATION</b> <b>AREA</b> : Area 1 <b>CH / OS</b> : <b>COORDS.</b> : E 12345m N 212345m <b>ELEVATION</b> : 0.00 m MSL	<b>SAMPLING DATA</b> <b>HOLE ID</b> : V-DLST-Golden <b>HOLE TYPE</b> : BH <b>SAMPLE DEPTH</b> : 0.10 m <b>SAMPLE TYPE</b> : <b>SAMPLE REF</b> : <b>SPECIMEN DEPTH</b> : 0.10 m <b>SPECIMEN REF</b> : 1 <b>SAMPLE DATE</b> : <b>SAMPLED BY</b> :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Silty very gravelly poorly graded SAND (SM) medium to coarse sand, fine and coarse gravel, silt of low plasticity		

CARBONATE CONTENT (% CO <sub>2</sub> )	3.1
CARBONATE CONTENT (% CaCO <sub>3</sub> )	7.0

DGD-T-DLST 3.12.0.GLB.G161.dwg | CH CARBONATE CONTENT DGD-T-DLST 3.12.0.GPJ <DrawingFile> | 10/08/2017 14:08 10.0.000 Datgel Lab and In Situ Tool - DGD | Lib: DGD-T-DLST 3.11.1.2017-06-21 Proj: DGD-T-DLST 3.11.1.2017-06-21

<b>GENERAL REMARKS:</b> General remarks;Remark about variation of the procedure	Fill Type ▲ Type 1	Requirement Remark	Tested By TB	Tested Date 01/01/2016
			Checked By CB	Checked Date 03/01/2016
<b>SPECIMEN PREPARATION:</b> Dry	<b>TEST METHOD:</b> BS 1377-3:1990:6.3		Approved By AB	Approved Date 04/01/2016

CLIENT : Datgel  
ENGINEER : Engineer 1  
PROJECT : Construction Project  
LOCATION : Somewhere, World  
PROJECT No. : 3.12.0  
LABORATORY : Lab 1

*DESTINATION*  
AREA : Area 1  
CH / OS :  
COORDS. : E 12345m N 212345m  
ELEVATION : 0.00 m MSL

*SAMPLING DATA*  
HOLE ID : V-DLST-Golden  
HOLE TYPE : BH  
SAMPLE DEPTH : 0.10 m  
SAMPLE TYPE :  
SAMPLE REF :  
SPECIMEN DEPTH : 0.20 m  
SPECIMEN REF : 2  
SAMPLE DATE :  
SAMPLED BY :

LABORATORY SPECIMEN DESCRIPTION:  
Slightly silty very gravelly poorly graded SAND (SP) coarse sand, fine gravel, silt of low plasticity

CARBONATE CONTENT (% CO <sub>2</sub> )	
CARBONATE CONTENT (% CaCO <sub>3</sub> )	4.0

D:\GT-DLST\3.12.0\JOB\_GLB\_Grct\ek1.CH\CARBONATE CONTENT.DGD\T-DLST.3.12.0.GPJ <DrawingFile>. 10/08/2017 14:08 10.0.0.000 Datgel Lab and In Situ Tool - DGD Lib.DGD\T-DLST.3.11.1.2017-06-21.FPJ.DGD\T-DLST.3.11.1.2017-06-21

GENERAL REMARKS: General remarks;Remark about variation of the procedure	Fill Type	Requirement Remark	Tested By	Tested Date
	▲ Type 1		TB	01/01/2016
	SPECIMEN PREPARATION: Not known		TEST METHOD: ASTM D4373-02(2007)	Checked By
			CB	03/01/2016
			Approved By	Approved Date
			AB	04/01/2016

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.10 m SPECIMEN REF : 1 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Silty very gravelly poorly graded SAND (SM) medium to coarse sand, fine and coarse gravel, silt of low plasticity		

WATER SOLUBLE CHLORIDE ION CONTENT (% of dry mass)	0.02
WATER TO SOIL RATIO	1:1-2

DGDJ-DLST 3.12.0.GLB\_Gter.tsk | CH-CHLORIDE CONTENT | DGDJ-DLST 3.12.0.GPJ -<DrawingFile> 10/08/2017 14:08 10.0.000 Datgel Lab and In Situ Tool - DGDJ | Lib: DGDJ-DLST 3.11.1.2017-06-21 Proj: DGDJ-DLST 3.11.1.2017-06-21

<b>GENERAL REMARKS:</b> Remark about variation of the procedure; Remark about specimen disturbance; General remarks	Fill Type <b>Type 1</b>	Requirement Remark Not Applicable	Tested By TB	Tested Date 01/01/2016
			Checked By CB	Checked Date 03/01/2016
			Approved By AB	Approved Date 04/01/2016
<b>SPECIMEN PREPARATION:</b> Natural state		<b>TEST METHOD:</b> BS 1377-3:1990:7.2		



CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.20 m SPECIMEN REF : 2 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Slightly silty very gravelly poorly graded SAND (SP) coarse sand, fine gravel, silt of low plasticity		

TOTAL/ACID SOLUBLE CHLORIDE ION CONTENT (% of dry mass)	0.35
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DGDJ-DLST 3.12.0.GLB\_Grlr1.rvt | CH-CHLORIDE CONTENT | DGDJ-DLST 3.12.0.GPJ -<DrawingFile> | 00/08/2017 14:08 | 10.0.000 | Datgel Lab and In Situ Tool - DGD | Lib: DGDJ-DLST 3.11.1.2017-06-21 Proj: DGDJ-DLST 3.11.1.2017-06-21

<b>GENERAL REMARKS:</b> Remark about variation of the procedure; Remark about specimen disturbance; General remarks	Fill Type <b>Type 1</b>	Requirement Remark Not Applicable	Tested By TB	Tested Date 01/01/2016
			Checked By CB	Checked Date 03/01/2016
<b>SPECIMEN PREPARATION:</b> Natural state	<b>TEST METHOD:</b> BS 1377-3:1990:7.3		Approved By AB	Approved Date 04/01/2016

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.30 m SPECIMEN REF : 3 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Slightly silty very gravelly well graded SAND (SW) medium to coarse sand, fine to medium gravel, silt of high plasticity		

WATER SOLUBLE CHLORIDE ION CONTENT (% of dry mass)	0.02
WATER TO SOIL RATIO	1:0.67

DGDJ-DLST.3.12.0.GLB\_Gfile.txt | CH-CHLORIDE CONTENT | DGDJ-DLST.3.12.0.GPJ | <<DrawingFile>> | 00/02/2017 14:08 | 10.0.000 | Datgel Lab and In Situ Tool - DGD | [Lib: DGDJ-DLST.3.11.1.2017-06-21 Proj: DGDJ-DLST.3.11.1.2017-06-21]

<b>GENERAL REMARKS:</b> Remark about variation of the procedure; Remark about specimen disturbance; General remarks	Fill Type <b>Type 1</b>	Requirement Remark Not Applicable	Tested By TB	Tested Date 01/01/2016
			Checked By CB	Checked Date 03/01/2016
			Approved By AB	Approved Date 04/01/2016
<b>SPECIMEN PREPARATION:</b> Natural state		<b>TEST METHOD:</b> BS 812-117:1988		

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.50 m SPECIMEN REF : 5 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Sandy CLAY (CL) of low plasticity, fine to medium sand		

WATER SOLUBLE CHLORIDE ION CONTENT (% of dry mass)	0.04
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DGD-T-DLST 3.12.0.GLB - Client: L CH-CHLORIDE CONTENT - DGD-T-DLST 3.12.0.GPJ - <<DrawingFile>> - 00/08/2017 14:08 - 10.0.000 - Datgel Lab and In Situ Tool - DGD - [Lib: DGD-T-DLST 3.11.1.2017-06-21 Proj: DGD-T-DLST 3.11.1.2017-06-21]

<b>GENERAL REMARKS:</b> Remark about variation of the procedure; Remark about specimen disturbance; General remarks	Fill Type <b>Type 1</b>	Requirement Remark Not Applicable	Tested By TB	Tested Date 01/01/2016
			Checked By CB	Checked Date 03/01/2016
			Approved By AB	Approved Date 04/01/2016
<b>SPECIMEN PREPARATION:</b> Natural state	<b>TEST METHOD:</b> BS 812-117:1988:B Quantab Test Strips			

# CHLORIDE CONTENT USING A NITRIC ACID EXTRACT

BS 812-117:1988:C

STATUS: 2

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.60 m SPECIMEN REF : 6 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Very clayey SAND (SC) medium to coarse sand, clay of intermediate plasticity		

TOTAL/ACID SOLUBLE CHLORIDE ION CONTENT (% of dry mass)	0.32
WATER TO SOIL RATIO	1:1

D:\DLST\3.12.0\GIB\_GLB\_Grct\ek1.CH\CHLORIDE CONTENT\_DGDT-DLST\3.12.0.GPJ -<DrawingFile> 10/08/2017 14:08 10.0.000 Datgel Lab and In Situ Tool - DGD [Lib: DGD-T-DLST\3.11.1\2017-06-21 Proj: DGD-T-DLST\3.11.1\2017-06-21

<b>GENERAL REMARKS:</b> Remark about variation of the procedure; Remark about specimen disturbance; General remarks	Fill Type <b>Type 1</b>	Requirement Remark Not Applicable	Tested By TB	Tested Date 01/01/2016
			Checked By CB	Checked Date 03/01/2016
			Approved By AB	Approved Date 04/01/2016
<b>SPECIMEN PREPARATION:</b> Natural state		<b>TEST METHOD:</b> BS 812-117:1988:C Nitric Acid Extract		

<b>CLIENT</b> : Datgel <b>ENGINEER</b> : Engineer 1 <b>PROJECT</b> : Construction Project <b>LOCATION</b> : Somewhere, World <b>PROJECT No.</b> : 3.12.0 <b>LABORATORY</b> : Lab 1	<b>DESTINATION</b> <b>AREA</b> : Area 1 <b>CH / OS</b> : <b>COORDS.</b> : E 12345m N 212345m <b>ELEVATION</b> : 0.00 m MSL	<b>SAMPLING DATA</b> <b>HOLE ID</b> : V-DLST-Golden <b>HOLE TYPE</b> : BH <b>SAMPLE DEPTH</b> : 0.10 m <b>SAMPLE TYPE</b> : <b>SAMPLE REF</b> : <b>SPECIMEN DEPTH</b> : 0.10 m <b>SPECIMEN REF</b> : 1 <b>SAMPLE DATE</b> : <b>SAMPLED BY</b> :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Silty very gravelly poorly graded SAND (SM) medium to coarse sand, fine and coarse gravel, silt of low plasticity		

		FILL TYPE	
		Type 1	
WATER SOLUBLE CHLORIDE CONTENT (%)	0.02	Not Applicable	
WATER TO SOIL RATIO	1:1-2		

		FILL TYPE	
		Type 1	
SULPHATE CONTENT 2:1 EXTRACTS (g/L)	4.0	Not Applicable	

<b>GENERAL REMARKS:</b> Chloride: Remark about variation of the procedure;Remark about specimen disturbance;General remarks	Tested By	TB	Tested Date	01/01/2016
	Checked By	CB	Checked Date	03/01/2016
	Approved By	AB	Approved Date	04/01/2016
<b>SPECIMEN PREPARATION:</b> Chloride: Natural state	<b>TEST METHOD:</b> Chloride: BS 1377-3:1990:7.2 Sulphate: BS 812-118:1988:5.5.2.1 Extract - Ion-Exchange Method			

10/08/2017 14:09 10.0.000 Datgel Lab and In Situ Tool - DGD - DGD-DLST 3.11.1.2017-06-21 Pj: DGD-DLST 3.11.1.2017-06-21

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.20 m SPECIMEN REF : 2 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Slightly silty very gravelly poorly graded SAND (SP) coarse sand, fine gravel, silt of low plasticity		

		FILL TYPE	
		Type 1	
TOTAL CHLORIDE CONTENT (%)	0.35	Not Applicable	

		FILL TYPE	
		Type 1	
SULPHATE CONTENT 2:1 EXTRACTS (g/L)	6.6	Not Applicable	

<b>GENERAL REMARKS:</b> Chloride: Remark about variation of the procedure;Remark about specimen disturbance;General remarks	Tested By TB	Tested Date 01/01/2016
	Checked By CB	Checked Date 03/01/2016
	Approved By AB	Approved Date 04/01/2016
<b>SPECIMEN PREPARATION:</b> Chloride: Natural state	<b>TEST METHOD:</b> Chloride: BS 1377-3:1990:7.3 Sulphate: BS 812-118:1988:5.5.2.2 Extract - Gravimetric Method	

10/08/2017 14:10 10.0.000 Datgel Lab and In Situ Tool - DGD Lib: DGD-DLST 3.11.1.2017-06-21 Pj: DGD-DLST 3.11.1.2017-06-21  
 DGD-DLST 3.12.0.GLB - Client: L CH CL AND SO3 CONTENT DGD-DLST 3.12.0.GPJ -<DrawingFile>>

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.50 m SPECIMEN REF : 5 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Sandy CLAY (CL) of low plasticity, fine to medium sand		

		FILL TYPE	
		Type 1	
WATER SOLUBLE CHLORIDE CONTENT (%)	0.04	Not Applicable	

		FILL TYPE	
		Type 1	
SULPHATE CONTENT 2:1 EXTRACTS (g/L)	13.8	Not Applicable	

<b>GENERAL REMARKS:</b> Chloride: Remark about variation of the procedure;Remark about specimen disturbance;General remarks	Tested By TB	Tested Date 01/01/2016
	Checked By CB	Checked Date 03/01/2016
	Approved By AB	Approved Date 04/01/2016
<b>SPECIMEN PREPARATION:</b> Chloride: Natural state	<b>TEST METHOD:</b> Chloride: BS 812-117:1988:B Quantab Test Strips Sulphate: BS 1377-3:1990:5.3 & 5.5	

10/08/2017 14:10 10.0.000 Datgel Lab and In Situ Tool - DGD - DGD-DLST 3.11.1.2017-06-21 Pj: DGD-DLST 3.11.1.2017-06-21

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.10 m SPECIMEN REF : 1 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Silty very gravelly poorly graded SAND (SM) medium to coarse sand, fine and coarse gravel, silt of low plasticity		

MASS LOSS ON IGITION (%)	31
PERCENTAGE PASSING 2 mm SIEVE (%)	42

DGD\DLST\3.12.0\JOB.GLB - Client\1 - CH LOSS ON IGNITION - DGD\DLST\3.12.0.GPJ --DrawingFile--> 10/08/2017 14:10 10.0.000 Datgel Lab and its Silu Tool - DGD | Luk: DGD\DLST\3.11.1\2017\08-21\Prj\_DGD\DLST\3.11.1\2017\08-21

GENERAL REMARKS:	Fill Type	Requirement Remark	Tested By	Tested Date
	▲ Type 1	Meets requirement	Checked By	Checked Date
SPECIMEN PREPARATION:	TEST METHOD: BS 1377-3:1990:4		Approved By	Approved Date



CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.10 m SPECIMEN REF : 1 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Silty very gravelly poorly graded SAND (SM) medium to coarse sand, fine and coarse gravel, silt of low plasticity		

WATER SOLUBLE SULPHATE CONTENT (g/L)	4.0
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DGD\DLST\3.12.0\JIB\_GLB\_Grct\ek1.CH\SULPHATE CONTENT.DGD\DLST\3.12.0.GPJ <-DrawingFile>> 10/08/2017 14:11 10.0.000 Datgel.Lab.and\In Situ Tool - DGD [Lib: DGD\DLST\3.11.1.2017-06-21 Proj: DGD\DLST\3.11.1.2017-06-21

GENERAL REMARKS:	Fill Type	Requirement Remark	Tested By	Tested Date
	Type 1	Not Applicable	Checked By	Checked Date
SPECIMEN PREPARATION:	TEST METHOD: BS 812-118:1988:5.5.2.1 Extract - Ion-Exchange Method		Approved By	Approved Date

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.20 m SPECIMEN REF : 2 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Slightly silty very gravelly poorly graded SAND (SP) coarse sand, fine gravel, silt of low plasticity		

WATER SOLUBLE SULPHATE CONTENT (g/L)	6.6
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DGD\DLST\3.12.0\JLB\_GLB\_GrGel\1.CH.SULPHATE.CONTENT.DGD\DLST\3.12.0.GPJ <-DrawingFile>> 10/08/2017 14:11 10.0.000 Datgel.Lab.and.In.Situ.Tool.DGD | Lib: DGD\DLST\3.11.1.2017-06-21 Proj: DGD\DLST\3.11.1.2017-06-21

GENERAL REMARKS:	Fill Type	Requirement Remark	Tested By	Tested Date
	Type 1	Not Applicable	Checked By	Checked Date
SPECIMEN PREPARATION:	TEST METHOD: BS 812-118:1988:5.5.2.2 Extract - Gravimetric Method		Approved By	Approved Date

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.30 m SPECIMEN REF : 3 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Slightly silty very gravelly well graded SAND (SW) medium to coarse sand, fine to medium gravel, silt of high plasticity		

TOTAL SULPHATE CONTENT (% of dry mass)	0.14
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DGD\DLST\3.12.0\JIB.GLB - Client\1 - CH SULPHATE CONTENT - DGD\DLST\3.12.0.GPJ - <<DrawingFile>> - 10/08/2017 14:11 - 10.0.000 - Datgel.Lab.and.In.Situ.Tool - DGD - [Lib: DGD\DLST\3.11.1.2017-06-21 - Proj: DGD\DLST\3.11.1.2017-06-21]

GENERAL REMARKS:	Fill Type	Requirement Remark	Tested By	Tested Date
	Type 1	Not Applicable	Checked By	Checked Date
SPECIMEN PREPARATION:	TEST METHOD: BS 812-118:1988:6 Total by Acid Extraction		Approved By	Approved Date

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<i>DESTINATION</i> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<i>SAMPLING DATA</i> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.40 m SPECIMEN REF : 4 SAMPLE DATE : SAMPLED BY :
LABORATORY SPECIMEN DESCRIPTION: SILT (ML) of low plasticity		

TOTAL SULPHATE CONTENT (% of dry mass)	22.83
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DGD\DLST\3.12.0\JIB.GLB - Client\1 - CH SULPHATE CONTENT - DGD\DLST\3.12.0.GPJ - <<DrawingFile>> - 10/08/2017 14:11 - 10.0.000 - Datgel.Lab.and.In.Situ.Tool - DGD - [Lib: DGD\DLST\3.11.1.2017-06-21 - Proj: DGD\DLST\3.11.1.2017-06-21]

GENERAL REMARKS:	Fill Type	Requirement Remark	Tested By	Tested Date
	Type 1	Not Applicable	Checked By	Checked Date
SPECIMEN PREPARATION:	TEST METHOD: BS 1377-3:1990:5.2 & 5.5		Approved By	Approved Date

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.50 m SPECIMEN REF : 5 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Sandy CLAY (CL) of low plasticity, fine to medium sand		

WATER SOLUBLE SULPHATE CONTENT (g/L)	13.8
WATER SOLUBLE SULPHATE CONTENT (%)	2.8

DGD\DLST\3.12.0\JOB.GLB - Client\1 - CH SULPHATE CONTENT - DGD\DLST\3.12.0.GPJ - <<DrawingFile>> - 10/08/2017 14:12 - 10.0.000 - Datgel.Lab.and\In Situ Tool - DGD - [Lib: DGD\DLST\3.11.1.2017-06-21 Proj: DGD\DLST\3.11.1.2017-06-21]

GENERAL REMARKS:	Fill Type	Requirement Remark	Tested By	Tested Date
	Type 1	Not Applicable	Checked By	Checked Date
SPECIMEN PREPARATION:	TEST METHOD: BS 1377-3:1990:5.3 & 5.5		Approved By	Approved Date

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.60 m SPECIMEN REF : 6 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Very clayey SAND (SC) medium to coarse sand, clay of intermediate plasticity		

SULPHATE CONTENT OF GROUNDWATER (g/L)	13.8
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DGD\DLST\3.12.0\JOB.GLB - Client\1.CH\SULPHATE CONTENT.DGD\DLST\3.12.0.GPJ <-DrawingFile>> 10/08/2017 14:12 10.0.000 Datgel.Lab and In Situ Tool - DGD [Lib: DGD\DLST\3.11.1.2017-06-21.Pjt\_DGD\DLST\3.11.1.2017-06-21

GENERAL REMARKS:	Fill Type	Requirement Remark	Tested By	Tested Date
	Type 1	Not Applicable	Checked By	Checked Date
SPECIMEN PREPARATION:	TEST METHOD: BS 1377-3:1990:5.4 & 5.5		Approved By	Approved Date

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.70 m SPECIMEN REF : 7 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Very sandy poorly graded GRAVEL (GP) medium to coarse gravel, fine and coarse sand		

WATER SOLUBLE SULPHATE CONTENT (g/L)	4.1
WATER SOLUBLE SULPHATE CONTENT (%)	0.8

DGD\DLST 3.12.0\JIB.GLB\_Grct\ek1.CH\SULPHATE CONTENT\_DGD\DLST 3.12.0.GPJ <<DrawingFile>> 10/08/2017 14:12 10.0.000 Datgel.Lab.and\In Situ Tool - DGD [Lib: DGD\DLST 3.11.1, 2017-06-21; Proj: DGD\DLST 3.11.1, 2017-06-21]

GENERAL REMARKS:	Fill Type	Requirement Remark	Tested By	Tested Date
	Type 1	Not Applicable	Checked By	Checked Date
SPECIMEN PREPARATION:	TEST METHOD: BS 1377-3:1990:5.3 & 5.6		Approved By	Approved Date

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.80 m SPECIMEN REF : 8 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Slightly clayey sandy well graded GRAVEL (GW) medium to coarse gravel, coarse sand, clay of intermediate plasticity		

SULPHATE CONTENT OF GROUNDWATER (g/L)	2.1
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DGD\DLST\3.12.0\JIB.GLB - Client\1 - CH SULPHATE CONTENT - DGD\DLST\3.12.0.GPJ - <<DrawingFile>> - 10/08/2017 14:12 - 10.0.000 - Datgel.Lab.and.In.Situ.Tool - DGD - Lib: DGD\DLST\3.11.1.2017-06-21 - Proj: DGD\DLST\3.11.1.2017-06-21

GENERAL REMARKS:	Fill Type	Requirement Remark	Tested By	Tested Date
	Type 1	Not Applicable	Checked By	Checked Date
SPECIMEN PREPARATION:	TEST METHOD: BS 1377-3:1990:5.4 & 5.6		Approved By	Approved Date



CLIENT : Datgel  
ENGINEER : Engineer 1  
PROJECT : Construction Project  
LOCATION : Somewhere, World  
PROJECT No. : 3.12.0  
LABORATORY : Lab 1

*DESTINATION*  
AREA : Area 1  
CH / OS :  
COORDS. : E 12345m N 212345m  
ELEVATION : 0.00 m MSL

*SAMPLING DATA*  
HOLE ID : V-DLST-Golden  
HOLE TYPE : BH  
SAMPLE DEPTH : 0.10 m  
SAMPLE TYPE :  
SAMPLE REF :  
SPECIMEN DEPTH : 1.00 m  
SPECIMEN REF : 10  
SAMPLE DATE :  
SAMPLED BY :

LABORATORY SPECIMEN DESCRIPTION:

APPARENT TURBIDITY	Yes
--------------------	-----

GENERAL REMARKS:

Fill Type

Requirement Remark

Tested By

Tested Date

Type 1

Not Applicable

Checked By

Checked Date

SPECIMEN PREPARATION:

TEST METHOD:  
BS 812-118:1988:A Meth 2 Turbidity

Approved By

Approved Date

CLIENT : Datgel  
ENGINEER : Engineer 1  
PROJECT : Construction Project  
LOCATION : Somewhere, World  
PROJECT No. : 3.12.0  
LABORATORY : Lab 1

*DESTINATION*  
AREA : Area 1  
CH / OS :  
COORDS. : E 12345m N 212345m  
ELEVATION : 0.00 m MSL

*SAMPLING DATA*  
HOLE ID : V-DLST-Golden  
HOLE TYPE : BH  
SAMPLE DEPTH : 0.10 m  
SAMPLE TYPE :  
SAMPLE REF :  
SPECIMEN DEPTH : 0.10 m  
SPECIMEN REF : 1  
SAMPLE DATE :  
SAMPLED BY :

LABORATORY SPECIMEN DESCRIPTION:  
Silty very gravelly poorly graded SAND (SM) medium to coarse sand, fine and coarse gravel, silt of low plasticity

FILTER	manufacturer and designation of the filter
SUSPENDED SOLIDS (mg/L)	500

GENERAL REMARKS:  
Remark about variation of the procedure;General remarks

Fill Type

▲ Type 1

Requirement Remark

Meets requirement

Tested By

TB

Tested Date

01/01/2016

Checked By

CB

Checked Date

03/01/2016

SPECIMEN PREPARATION:  
Dry

TEST METHOD:  
BS EN 872:2005 BS 6068-2.54:2005

Approved By

AB

Approved Date

04/01/2016

## MINIMUM AND MAXIMUM DENSITY OF SOIL

ASTM D4254-00(2006)e1 A & ASTM D4253-00(2006) 1A

STATUS: 0

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.10 m SPECIMEN REF : 1 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Silty very gravelly poorly graded SAND (SM) medium to coarse sand, fine and coarse gravel, silt of low plasticity		

MINIMUM DRY DENSITY MOULD VOLUME (cm <sup>3</sup> )	2807.0
MINIMUM DRY DENSITY (Mg/m <sup>3</sup> )	1.07
MAXIMUM DRY DENSITY MOULD VOLUME (cm <sup>3</sup> )	2807.0
MAXIMUM DRY DENSITY (Mg/m <sup>3</sup> )	1.45
DOUBLE AMPLITUDE (mm)	0.3
FREQUENCY (Hz)	66

DGD\DLST\3.12.0\JOB.GLB - Client\1 - CR MINIMUM MAXIMUM DENSITY - DGD\DLST\3.12.0\GP - <Damingf> - 10/08/2017 14:13 10.0.0.000 Datgel Lab and In Situ Tool - DGD - Lib - DGD\DLST\3.11.1.2017-06-21 Proj - DGD\DLST\3.11.1.2017-06-21

GENERAL REMARKS:	Fill Type	Requirement Remark	Tested By	Tested Date
	▲ Type 1		Checked By	Checked Date
SPECIMEN PREPARATION:	TEST METHOD: ASTM D4254-00(2006)e1 A ASTM D4253-00(2006) 1A		Approved By	Approved Date

<b>CLIENT</b> : Datgel <b>ENGINEER</b> : Engineer 1 <b>PROJECT</b> : Construction Project <b>LOCATION</b> : Somewhere, World <b>PROJECT No.</b> : 3.12.0 <b>LABORATORY</b> : Lab 1	<b>DESTINATION</b> <b>AREA</b> : Area 1 <b>CH / OS</b> : <b>COORDS.</b> : E 12345m N 212345m <b>ELEVATION</b> : 0.00 m MSL	<b>SAMPLING DATA</b> <b>HOLE ID</b> : V-DLST-Golden <b>HOLE TYPE</b> : BH <b>SAMPLE DEPTH</b> : 0.10 m <b>SAMPLE TYPE</b> : <b>SAMPLE REF</b> : <b>SPECIMEN DEPTH</b> : 0.20 m <b>SPECIMEN REF</b> : 2 <b>SAMPLE DATE</b> : <b>SAMPLED BY</b> :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Slightly silty very gravelly poorly graded SAND (SP) coarse sand, fine gravel, silt of low plasticity		

MINIMUM DRY DENSITY MOULD VOLUME (cm <sup>3</sup> )	N/A
MINIMUM DRY DENSITY (Mg/m <sup>3</sup> )	N/A
MAXIMUM DRY DENSITY MOULD VOLUME (cm <sup>3</sup> )	3540.4
MAXIMUM DRY DENSITY (Mg/m <sup>3</sup> )	2.90
DOUBLE AMPLITUDE (mm)	N/A
FREQUENCY (Hz)	N/A

DGD\DLST\3.12.0\JOB.GLB - Client\1 - CR MINIMUM MAXIMUM DENSITY - DGD\DLST\3.12.0\GP - <Damingf> - 10/08/2017 14:13 10.0.0.00 Datgel Lab and In Situ Tool - DGD - Lib - DGD\DLST\3.11.1\2017-06-21\FI - DGD\DLST\3.11.1\2017-06-21

<b>GENERAL REMARKS:</b>	Fill Type	Requirement Remark	Tested By	Tested Date
	▲ Type 1			
<b>SPECIMEN PREPARATION:</b>	<b>TEST METHOD:</b> ASTM D4253-00(2006) 1A		Checked By	Checked Date
			Approved By	Approved Date

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.30 m SPECIMEN REF : 3 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Slightly silty very gravelly well graded SAND (SW) medium to coarse sand, fine to medium gravel, silt of high plasticity		

MINIMUM DRY DENSITY MOULD VOLUME (cm <sup>3</sup> )	N/A
MINIMUM DRY DENSITY (Mg/m <sup>3</sup> )	N/A
MAXIMUM DRY DENSITY MOULD VOLUME (cm <sup>3</sup> )	3540.4
MAXIMUM DRY DENSITY (Mg/m <sup>3</sup> )	2.90
DOUBLE AMPLITUDE (mm)	N/A
FREQUENCY (Hz)	N/A

DGD\DLST\3.12.0\JOB.GLB\_Chr\Tel.L\_CR\MINIMUM MAXIMUM DENSITY DGD\DLST\3.12.0\GP.J <Damingf>> 10/08/2017 14:14 10.0.0.00 Datgel Lab and In Situ Tool - DGD | Lib: DGD\DLST\3.11.1.2017-06-21 | Proj: DGD\DLST\3.11.1.2017-06-21

GENERAL REMARKS:	Fill Type	Requirement Remark	Tested By	Tested Date
	▲ Type 1		Checked By	Checked Date
SPECIMEN PREPARATION:	TEST METHOD: ASTM D4253-00(2006) 1B		Approved By	Approved Date

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<i>DESTINATION</i> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<i>SAMPLING DATA</i> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.40 m SPECIMEN REF : 4 SAMPLE DATE : SAMPLED BY :
LABORATORY SPECIMEN DESCRIPTION: SILT (ML) of low plasticity		

MINIMUM DRY DENSITY MOULD VOLUME (cm <sup>3</sup> )	N/A
MINIMUM DRY DENSITY (Mg/m <sup>3</sup> )	N/A
MAXIMUM DRY DENSITY MOULD VOLUME (cm <sup>3</sup> )	3540.4
MAXIMUM DRY DENSITY (Mg/m <sup>3</sup> )	2.90
DOUBLE AMPLITUDE (mm)	N/A
FREQUENCY (Hz)	N/A

DGD\DLST\3.12.0\JOB.GLB - Client\1 - CR MINIMUM MAXIMUM DENSITY - DGD\DLST\3.12.0\GP - <Damingf> - 10/08/2017 14:14 10.0.0.00 Datgel Lab and In Situ Tool - DGD - Lib - DGD\DLST\3.11.1.2017-06-21 Pj - DGD\DLST\3.11.1.2017-06-21

GENERAL REMARKS:	Fill Type	Requirement Remark	Tested By	Tested Date
	▲ Type 1		Checked By	Checked Date
SPECIMEN PREPARATION:	TEST METHOD: ASTM D4253-00(2006) 2A		Approved By	Approved Date

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<i>DESTINATION</i> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<i>SAMPLING DATA</i> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.50 m SPECIMEN REF : 5 SAMPLE DATE : SAMPLED BY :
LABORATORY SPECIMEN DESCRIPTION: Sandy CLAY (CL) of low plasticity, fine to medium sand		

MINIMUM DRY DENSITY MOULD VOLUME (cm <sup>3</sup> )	N/A
MINIMUM DRY DENSITY (Mg/m <sup>3</sup> )	N/A
MAXIMUM DRY DENSITY MOULD VOLUME (cm <sup>3</sup> )	3540.4
MAXIMUM DRY DENSITY (Mg/m <sup>3</sup> )	2.90
DOUBLE AMPLITUDE (mm)	N/A
FREQUENCY (Hz)	N/A

DGD\DLST\3.12.0\JUB\_GLB\_Chr\Tel.L\_Cr\MINIMUM MAXIMUM DENSITY DGD\DLST\3.12.0\GP.J <Damingf>> 10/08/2017 14:14 10.0.0.00 Datgel Lab and In Situ Tool - DGD | Lib - DGD\DLST\3.11.1\2017-06-21 Pj: DGD\DLST\3.11.1\2017-06-21

GENERAL REMARKS:	Fill Type	Requirement Remark	Tested By	Tested Date
	▲ Type 1		Checked By	Checked Date
SPECIMEN PREPARATION:	TEST METHOD: ASTM D4253-00(2006) 2B		Approved By	Approved Date

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<i>DESTINATION</i> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<i>SAMPLING DATA</i> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.60 m SPECIMEN REF : 6 SAMPLE DATE : SAMPLED BY :
LABORATORY SPECIMEN DESCRIPTION: Very clayey SAND (SC) medium to coarse sand, clay of intermediate plasticity		

MINIMUM DRY DENSITY MOULD VOLUME (cm <sup>3</sup> )	3540.4
MINIMUM DRY DENSITY (Mg/m <sup>3</sup> )	2.26
MAXIMUM DRY DENSITY MOULD VOLUME (cm <sup>3</sup> )	N/A
MAXIMUM DRY DENSITY (Mg/m <sup>3</sup> )	N/A
DOUBLE AMPLITUDE (mm)	N/A
FREQUENCY (Hz)	N/A

DGD\DLST\3.12.0\JOB.GLB - Client\1 - CR MINIMUM MAXIMUM DENSITY - DGD\DLST\3.12.0\GP - <Daming> - 10/08/2017 14:14 10.0.0.000 Datgel Lab and In Situ Tool - DGD - Lib - DGD\DLST\3.11.1\2017-06-21\Fij - DGD\DLST\3.11.1\2017-06-21

GENERAL REMARKS:	Fill Type	Requirement Remark	Tested By	Tested Date
	▲ Type 1		Checked By	Checked Date
SPECIMEN PREPARATION:	TEST METHOD: ASTM D4254-00(2006)e1 A		Approved By	Approved Date



CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.10 m SPECIMEN REF : 1 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Silty very gravelly poorly graded SAND (SM) medium to coarse sand, fine and coarse gravel, silt of low plasticity		

		Fill Type & Requirement Remark
PERCENTAGE PASSING 0.425 mm TEST SIEVE (%)	5	▲ Type 1
LIQUID LIMIT BS 1377-2:1990:4.3	28	Meets requirement
PLASTIC LIMIT BS 1377-2:1990:5	22	
PLASTICITY INDEX BS 1377-2:1990:5	6	Meets requirement
LIQUIDITY INDEX BS 1377-2:1990:4.3	26.3	

<b>GENERAL REMARKS:</b> Remark about the variation of the procedure;Remark about the disturbance;General remark	Tested By <b>TB</b>	Tested Date <b>01/01/2016</b>
	Checked By <b>CB</b>	Checked Date <b>03/01/2016</b>
	Approved By <b>AB</b>	Approved Date <b>04/01/2016</b>
<b>SPECIMEN PREPARATION:</b> Undisturbed	<b>TEST METHOD:</b> BS 1377-2:1990:4.3; BS 1377-2:1990:5; BS 1377-2:1990:5; BS 1377-2:1990:5; BS 1377-2:1990:5	

DGD\DLST\3.12.0\JUB.GLB - Client\1. CS ATTERBERG - DGD\DLST\3.12.0.GPJ <-DrawingFile>> 10/08/2017 14:14 10.0.000 Datgel Lab and B. Shu Tool - DGG | Lib: DGD\DLST\3.11.1\2017-06-21\Proj: DGD\DLST\3.11.1\2017-06-21

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.20 m SPECIMEN REF : 2 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Slightly silty very gravelly poorly graded SAND (SP) coarse sand, fine gravel, silt of low plasticity		

		Fill Type & Requirement Remark
PERCENTAGE PASSING 0.425 mm TEST SIEVE (%)	14	▲ Type 1
LIQUID LIMIT BS 1377-2:1990:4.4	25	Meets requirement
PLASTIC LIMIT BS 1377-2:1990:5	19	
PLASTICITY INDEX BS 1377-2:1990:5	6	Meets requirement
LIQUIDITY INDEX BS 1377-2:1990:4.4	4.9	

<b>GENERAL REMARKS:</b> Remark about the variation of the procedure;Remark about the disturbance;General remark	Tested By TB	Tested Date 01/01/2016
	Checked By CB	Checked Date 03/01/2016
	Approved By AB	Approved Date 04/01/2016
<b>SPECIMEN PREPARATION:</b> Undisturbed	<b>TEST METHOD:</b> BS 1377-2:1990:4.4; BS 1377-2:1990:5; BS 1377-2:1990:5; BS 1377-2:1990:5; BS 1377-2:1990:5	

DGD-DLST 3.12.0.GPJ - C:\tek1\CS ATTEBERG DGD-DLST 3.12.0.GPJ -<DrawingFile>> 10/08/2017 14:15:10.0.000 Datgel Lab and H. Shu Tool - DGD | Lib: DGD-DLST 3.11.1.2017-06-21 Proj: DGD-DLST 3.11.1.2017-06-21

<b>CLIENT</b> : Datgel <b>ENGINEER</b> : Engineer 1 <b>PROJECT</b> : Construction Project <b>LOCATION</b> : Somewhere, World <b>PROJECT No.</b> : 3.12.0 <b>LABORATORY</b> : Lab 1	<b>DESTINATION</b> <b>AREA</b> : Area 1 <b>CH / OS</b> : <b>COORDS.</b> : E 12345m N 212345m <b>ELEVATION</b> : 0.00 m MSL	<b>SAMPLING DATA</b> <b>HOLE ID</b> : V-DLST-Golden <b>HOLE TYPE</b> : BH <b>SAMPLE DEPTH</b> : 0.10 m <b>SAMPLE TYPE</b> : <b>SAMPLE REF</b> : <b>SPECIMEN DEPTH</b> : 0.30 m <b>SPECIMEN REF</b> : 3 <b>SAMPLE DATE</b> : <b>SAMPLED BY</b> :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Slightly silty very gravelly well graded SAND (SW) medium to coarse sand, fine to medium gravel, silt of high plasticity		

		Fill Type & Requirement Remark
PERCENTAGE PASSING 0.425 mm TEST SIEVE (%)	21	▲ Type 1
LIQUID LIMIT BS 1377-2:1990:4.5	64	Non compliance
PLASTIC LIMIT BS 1377-2:1990:5	40	
PLASTICITY INDEX BS 1377-2:1990:5	24	Non compliance
LIQUIDITY INDEX BS 1377-2:1990:4.5	-0.5	

<b>GENERAL REMARKS:</b> Remark about the variation of the procedure; Remark about the disturbance; General remark	Tested By <b>TB</b>	Tested Date <b>01/01/2016</b>
	Checked By <b>CB</b>	Checked Date <b>03/01/2016</b>
	Approved By <b>AB</b>	Approved Date <b>04/01/2016</b>
<b>SPECIMEN PREPARATION:</b> Undisturbed	<b>TEST METHOD:</b> BS 1377-2:1990:4.5; BS 1377-2:1990:5; BS 1377-2:1990:5; BS 1377-2:1990:5; BS 1377-2:1990:5	

DGD-DLST 3.12.0.GPJ - Client: L. CS ATTEBERG - DGD-DLST 3.12.0.GPJ - Drawing File -> 1008/2017 14:15 10.0.000 Datgel Lab and B. Stu. Tool - DGD | Lib: DGD-DLST 3.11.1.2017-06-21 Proj: DGD-DLST 3.11.1.2017-06-21

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.40 m SPECIMEN REF : 4 SAMPLE DATE : SAMPLED BY :
LABORATORY SPECIMEN DESCRIPTION: SILT (ML) of low plasticity		

		Fill Type & Requirement Remark
PERCENTAGE PASSING 0.425 mm TEST SIEVE (%)	92	▲ Type 1
LIQUID LIMIT BS 1377-2:1990:4.6	32	Not Applicable
PLASTIC LIMIT BS 1377-2:1990:5	27	
PLASTICITY INDEX BS 1377-2:1990:5	5	Meets requirement
LIQUIDITY INDEX BS 1377-2:1990:4.6	-4.1	

GENERAL REMARKS: Remark about the variation of the procedure;Remark about the disturbance;General remark	Tested By TB	Tested Date 01/01/2016
	Checked By CB	Checked Date 03/01/2016
SPECIMEN PREPARATION: Undisturbed	TEST METHOD: BS 1377-2:1990:4.6; BS 1377-2:1990:5; BS 1377-2:1990:5; BS 1377-2:1990:5	Approved By AB
		Approved Date 04/01/2016

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.50 m SPECIMEN REF : 5 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Sandy CLAY (CL) of low plasticity, fine to medium sand		

		Fill Type & Requirement Remark
PERCENTAGE PASSING 0.425 mm TEST SIEVE (%)	7	▲ Type 1
LIQUID LIMIT ISO/TS 17892-12:2004	25	Meets requirement
PLASTIC LIMIT ISO/TS 17892-12:2004	10	
PLASTICITY INDEX ISO/TS 17892-12:2004	15	Meets requirement
LIQUIDITY INDEX ISO/TS 17892-12:2004	-0.3	

<b>GENERAL REMARKS:</b> Remark about the variation of the procedure; Remark about the disturbance; General remark	Tested By TB	Tested Date 01/01/2016
	Checked By CB	Checked Date 03/01/2016
	Approved By AB	Approved Date 04/01/2016
<b>SPECIMEN PREPARATION:</b> Undisturbed	<b>TEST METHOD:</b> ISO/TS 17892-12:2004; ISO/TS 17892-12:2004; ISO/TS 17892-12:2004; ISO/TS 17892-12:2004; ISO/TS 17892-12:2004	

DGD\DLST.3.12.0\JIB.GLB - Client\1. CS ATTERBERG - DGD\DLST.3.12.0.GPJ -<DrawingFile>> 10/08/2017 14:15:10.0.000 Datgel Lab and B. Shu Tool - DGG | Lib: DGD\DLST.3.11.1.2017-06-21 Proj: DGD\DLST.3.11.1.2017-06-21

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.60 m SPECIMEN REF : 6 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Very clayey SAND (SC) medium to coarse sand, clay of intermediate plasticity		

		Fill Type & Requirement Remark
PERCENTAGE PASSING 0.425 mm TEST SIEVE (%)		▲ Type 1
LIQUID LIMIT ISO/TS 17892-12:2004	39	Non compliance
PLASTIC LIMIT ISO/TS 17892-12:2004	25	
PLASTICITY INDEX ISO/TS 17892-12:2004	14	Meets requirement
LIQUIDITY INDEX ISO/TS 17892-12:2004	-1.4	

**GENERAL REMARKS:**  
 Remark about the variation of the procedure; Remark about the disturbance; General remark

Tested By TB	Tested Date 01/01/2016
Checked By CB	Checked Date 03/01/2016
Approved By AB	Approved Date 04/01/2016

**SPECIMEN PREPARATION:**  
 Undisturbed

**TEST METHOD:**  
 ISO/TS 17892-12:2004; ISO/TS 17892-12:2004;  
 ISO/TS 17892-12:2004; ISO/TS 17892-12:2004;  
 ISO/TS 17892-12:2004

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.70 m SPECIMEN REF : 7 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Very sandy poorly graded GRAVEL (GP) medium to coarse gravel, fine and coarse sand		

		Fill Type & Requirement Remark
PERCENTAGE PASSING 0.425 mm TEST SIEVE (%)		▲ Type 1
LIQUID LIMIT ASTM D4318-05 A	64	Non compliance
PLASTIC LIMIT ASTM D4318-05	40	
PLASTICITY INDEX ASTM D4318-05	24	Non compliance
LIQUIDITY INDEX ASTM D4318-05 A	-1.4	

<b>GENERAL REMARKS:</b> Remark about the variation of the procedure; Remark about the disturbance; General remark	Tested By TB	Tested Date 01/01/2016
	Checked By CB	Checked Date 03/01/2016
	Approved By AB	Approved Date 04/01/2016
<b>SPECIMEN PREPARATION:</b> Undisturbed	<b>TEST METHOD:</b> ASTM D4318-05 A; ASTM D4318-05; ASTM D4318-05; ASTM D4318-05; ASTM D4318-05; ASTM D4318-05	

DGD-DLST 3.12.0.GPJ - C:\tek\1\_CS ATTEBERG DGD-DLST 3.12.0.GPJ -> Drawing File -> 10/08/2017 14:16 10.0.000 Datgel Lab and B. Shu Tool - DGG | Lib: DGD-DLST 3.11.1.2017-06-21 Proj: DGD-DLST 3.11.1.2017-06-21

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.80 m SPECIMEN REF : 8 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Slightly clayey sandy well graded GRAVEL (GW) medium to coarse gravel, coarse sand, clay of intermediate plasticity		

		Fill Type & Requirement Remark
PERCENTAGE PASSING 0.425 mm TEST SIEVE (%)		▲ Type 1
LIQUID LIMIT ASTM D4318-05 B	40	Non compliance
PLASTIC LIMIT ASTM D4318-05	18	
PLASTICITY INDEX ASTM D4318-05	22	Non compliance
LIQUIDITY INDEX ASTM D4318-05 B	-0.5	

<b>GENERAL REMARKS:</b> Remark about the variation of the procedure; Remark about the disturbance; General remark	Tested By TB	Tested Date 01/01/2016
	Checked By CB	Checked Date 03/01/2016
	Approved By AB	Approved Date 04/01/2016
<b>SPECIMEN PREPARATION:</b> Undisturbed	<b>TEST METHOD:</b> ASTM D4318-05 B; ASTM D4318-05; ASTM D4318-05; ASTM D4318-05; ASTM D4318-05; ASTM D4318-05	

DGD-DLST 3.12.0.GPJ - C:\tek\1\_CS\ATTEBERG\_DGD-DLST 3.12.0.GPJ -<DrawingFile> 10/8/2017 14:16:10.0000 Datgel Lab and B. Shu Tool - DGG | Lib: DGD-DLST 3.11.1.2017-06-21 Proj: DGD-DLST 3.11.1.2017-06-21



CLIENT : Datgel  
 ENGINEER : Engineer 1  
 PROJECT : Construction Project  
 LOCATION : Somewhere, World  
 PROJECT No. : 3.12.0  
 LABORATORY : Lab 1

 DESTINATION  
 AREA : Area 1  
 CH / OS :  
 COORDS. : E 12345m N 212345m  
 ELEVATION : 0.00 m MSL

 SAMPLING DATA  
 HOLE ID : V-DLST-Golden  
 HOLE TYPE : BH  
 SAMPLE DEPTH : 0.10 m  
 SAMPLE TYPE :  
 SAMPLE REF :  
 SPECIMEN DEPTH : 0.10 m  
 SPECIMEN REF : 1  
 SAMPLE DATE :  
 SAMPLED BY :

 LABORATORY SPECIMEN DESCRIPTION:  
 Silty very gravelly poorly graded SAND (SM) medium to coarse sand, fine and coarse gravel, silt of low plasticity

BULK DENSITY (Mg/m <sup>3</sup> )	1.85
DRY DENSITY (Mg/m <sup>3</sup> )	1.71
MOISTURE CONTENT (% DRY MASS)	8.1

DGD1-DLST 3.12.0.GLB\_Glob\_Glob | CS DENSITY\_DGD1-DLST 3.12.0.GP | &lt;&lt;DrawingFile&gt;&gt; 1008/2017 14:16 10.0.000 DatgelLab and In Situ Tool-DGD | Lib: DGD1-DLST 3.11.1.2017-06-21 Proj: DGD1-DLST 3.11.1.2017-06-21

 GENERAL REMARKS:  
 Remark about the variation of the procedure; Remark about the disturbance; General remark

Fill Type

Type 1

Requirement Remark

Tested By

TB

Tested Date

01/01/2016

Checked By

CB

Checked Date

03/01/2016

 SPECIMEN PREPARATION:  
 As received

 TEST METHOD:  
 BS 1377-2:1990:7.2

Approved By

AB

Approved Date

04/01/2016

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.30 m SPECIMEN REF : 3 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Slightly silty very gravelly well graded SAND (SW) medium to coarse sand, fine to medium gravel, silt of high plasticity		

BULK DENSITY (Mg/m <sup>3</sup> )	1.88
DRY DENSITY (Mg/m <sup>3</sup> )	1.78
MOISTURE CONTENT (% DRY MASS)	5.9

DGD\DLST\3.12.0\JIB\_GLB\_Grc\tek1.LCS DENSITY\_DGD\DLST\3.12.0.GPJ <-DrawingFile> 1008/2017 14:17 10.0.000 DatgelLab and In Situ Tool-DGD | Lib: DGD\DLST\3.11.1.2017-06-21 Proj: DGD\DLST\3.11.1.2017-06-21

<b>GENERAL REMARKS:</b> Remark about the variation of the procedure; Remark about the disturbance; General remark	Fill Type <b>Type 1</b>	Requirement Remark	Tested By TB	Tested Date 01/01/2016
	<b>SPECIMEN PREPARATION:</b> As received		Checked By CB	Checked Date 03/01/2016
	TEST METHOD: BS 1377-2:1990:7.3		Approved By AB	Approved Date 04/01/2016

CLIENT : Datgel  
ENGINEER : Engineer 1  
PROJECT : Construction Project  
LOCATION : Somewhere, World  
PROJECT No. : 3.12.0  
LABORATORY : Lab 1

*DESTINATION*  
AREA : Area 1  
CH / OS :  
COORDS. : E 12345m N 212345m  
ELEVATION : 0.00 m MSL

*SAMPLING DATA*  
HOLE ID : V-DLST-Golden  
HOLE TYPE : BH  
SAMPLE DEPTH : 0.10 m  
SAMPLE TYPE :  
SAMPLE REF :  
SPECIMEN DEPTH : 0.40 m  
SPECIMEN REF : 4  
SAMPLE DATE :  
SAMPLED BY :

LABORATORY SPECIMEN DESCRIPTION:  
SILT (ML) of low plasticity

BULK DENSITY (Mg/m <sup>3</sup> )	1.82
DRY DENSITY (Mg/m <sup>3</sup> )	1.72
MOISTURE CONTENT (% DRY MASS)	5.9

D:\DLST\3.12.0\G.B. GIC\tek\1\_CS DENSITY\_DGDT-DLST\_3.12.0.GPJ <-DrawingFile> 1008/2017 14:17 10.0.000 Datgel Lab and In Situ Tool-DGD | Lib: DGDT-DLST\_3.11.1.2017-06-21 Proj: DGDT-DLST\_3.11.1.2017-06-21

GENERAL REMARKS:  
Remark about the variation of the procedure; Remark about the disturbance; General remark

Fill Type

Type 1

Requirement Remark

Tested By

TB

Tested Date

01/01/2016

Checked By

CB

Checked Date

03/01/2016

SPECIMEN PREPARATION:  
As received

TEST METHOD:  
BS 1377-2:1990:7.4

Approved By

AB

Approved Date

04/01/2016

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.50 m SPECIMEN REF : 5 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Sandy CLAY (CL) of low plasticity, fine to medium sand		

BULK DENSITY (Mg/m <sup>3</sup> )	1.85
DRY DENSITY (Mg/m <sup>3</sup> )	1.75
MOISTURE CONTENT (% DRY MASS)	5.9

DGD\DLST\3.12.0\G.B. Grc\tek\1\_CS DENSITY\_DGD\DLST\3.12.0\G.P. <-DrawingFile> 1008\2017 14:17 10.0.000 DatgelLab and In Situ Tool-DGD | Lib: DGD\DLST\3.11.1\2017-06-21 Proj: DGD\DLST\3.11.1\2017-06-21

<b>GENERAL REMARKS:</b> Remark about the variation of the procedure; Remark about the disturbance; General remark	Fill Type <b>Type 1</b>	Requirement Remark	Tested By TB	Tested Date 01/01/2016
	<b>SPECIMEN PREPARATION:</b> As received		Checked By CB	Checked Date 03/01/2016
	TEST METHOD: ISO/TS 17892-2:2004:5.1		Approved By AB	Approved Date 04/01/2016

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.70 m SPECIMEN REF : 7 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Very sandy poorly graded GRAVEL (GP) medium to coarse gravel, fine and coarse sand		

BULK DENSITY (Mg/m <sup>3</sup> )	1.88
DRY DENSITY (Mg/m <sup>3</sup> )	1.78
MOISTURE CONTENT (% DRY MASS)	5.9

DGD1-DLST 3.12.0.GLB\_Glob.GLB\_Ctrickel.L\_CS DENSITY\_DGD1-DLST 3.12.0.GP1\_<<DrawingFile>> 1008/2017 14:17 10.0.000 Datgel.Lab and In Situ Tool-DGD | Lib: DGD1-DLST 3.11.1.2017-06-21 Proj: DGD1-DLST 3.11.1.2017-06-21

<b>GENERAL REMARKS:</b> Remark about the variation of the procedure; Remark about the disturbance; General remark	Fill Type <b>Type 1</b>	Requirement Remark	Tested By TB	Tested Date 01/01/2016
	<b>SPECIMEN PREPARATION:</b> As received		Checked By CB	Checked Date 03/01/2016
	TEST METHOD: ISO/TS 17892-2:2004:5.2		Approved By AB	Approved Date 04/01/2016

CLIENT : Datgel  
ENGINEER : Engineer 1  
PROJECT : Construction Project  
LOCATION : Somewhere, World  
PROJECT No. : 3.12.0  
LABORATORY : Lab 1

*DESTINATION*  
AREA : Area 1  
CH / OS :  
COORDS. : E 12345m N 212345m  
ELEVATION : 0.00 m MSL

*SAMPLING DATA*  
HOLE ID : V-DLST-Golden  
HOLE TYPE : BH  
SAMPLE DEPTH : 0.10 m  
SAMPLE TYPE :  
SAMPLE REF :  
SPECIMEN DEPTH : 0.80 m  
SPECIMEN REF : 8  
SAMPLE DATE :  
SAMPLED BY :

LABORATORY SPECIMEN DESCRIPTION:  
Slightly clayey sandy well graded GRAVEL (GW) medium to coarse gravel, coarse sand, clay of intermediate plasticity

BULK DENSITY (Mg/m <sup>3</sup> )	1.84
DRY DENSITY (Mg/m <sup>3</sup> )	1.74
MOISTURE CONTENT (% DRY MASS)	5.9

GENERAL REMARKS:  
Remark about the variation of the procedure; Remark about the disturbance; General remark

Fill Type

Type 1

Requirement Remark

Tested By

TB

Tested Date

01/01/2016

Checked By

CB

Checked Date

03/01/2016

SPECIMEN PREPARATION:  
As received

TEST METHOD:  
ISO/TS 17892-2:2004:5.3

Approved By

AB

Approved Date

04/01/2016

CLIENT : Datgel  
ENGINEER : Engineer 1  
PROJECT : Construction Project  
LOCATION : Somewhere, World  
PROJECT No. : 3.12.0  
LABORATORY : Lab 1

*DESTINATION*  
AREA : Area 1  
CH / OS :  
COORDS. : E 12345m N 212345m  
ELEVATION : 0.00 m MSL

*SAMPLING DATA*  
HOLE ID : V-DLST-Golden  
HOLE TYPE : BH  
SAMPLE DEPTH : 0.10 m  
SAMPLE TYPE :  
SAMPLE REF :  
SPECIMEN DEPTH : 0.10 m  
SPECIMEN REF : ICBR  
SAMPLE DATE :  
SAMPLED BY :

LABORATORY SPECIMEN DESCRIPTION:

MOISTURE CONTENT (%)

5.0

GENERAL REMARKS:

Tested By

Tested Date

Checked By

Checked Date

SPECIMEN PREPARATION:  
As received

TEST METHOD:

Approved By

Approved Date

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.20 m SPECIMEN REF : 2 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Slightly silty very gravelly poorly graded SAND (SP) coarse sand, fine gravel, silt of low plasticity		

MOISTURE CONTENT (%)	7.0
FLUID CONTENT (%)	7.3

D:\DLST\3.12.0\JOB.GLB - Client\1 - CS MOISTURE CONTENT - DGD\DLST\3.12.0.GPJ - <<DrawingFile>> 10/08/2017 14:18 10.0.000 Datgel.Lab and In Situ Tool - DGD | Lib: DGD\DLST\3.11.1.2017-06-21 Proj: DGD\DLST\3.11.1.2017-06-21

<b>GENERAL REMARKS:</b>  <b>SPECIMEN PREPARATION:</b> As received	<b>TEST METHOD:</b> ASTM D2216-10	Tested By	Tested Date
		Checked By	Checked Date
		Approved By	Approved Date



CLIENT : Datgel  
ENGINEER : Engineer 1  
PROJECT : Construction Project  
LOCATION : Somewhere, World  
PROJECT No. : 3.12.0  
LABORATORY : Lab 1

*DESTINATION*  
AREA : Area 1  
CH / OS :  
COORDS. : E 12345m N 212345m  
ELEVATION : 0.00 m MSL

*SAMPLING DATA*  
HOLE ID : V-DLST-Golden  
HOLE TYPE : BH  
SAMPLE DEPTH : 0.10 m  
SAMPLE TYPE :  
SAMPLE REF :  
SPECIMEN DEPTH : 0.30 m  
SPECIMEN REF : 3  
SAMPLE DATE :  
SAMPLED BY :

LABORATORY SPECIMEN DESCRIPTION:  
Slightly silty very gravelly well graded SAND (SW) medium to coarse sand, fine to medium gravel, silt of high plasticity

MOISTURE CONTENT (%)	5.9
FLUID CONTENT (%)	6.2

GENERAL REMARKS:

Tested By

Tested Date

Checked By

Checked Date

SPECIMEN PREPARATION:  
As received

TEST METHOD:  
BS 1377-2:1990:3.2

Approved By

Approved Date

CLIENT : Datgel  
ENGINEER : Engineer 1  
PROJECT : Construction Project  
LOCATION : Somewhere, World  
PROJECT No. : 3.12.0  
LABORATORY : Lab 1

*DESTINATION*  
AREA : Area 1  
CH / OS :  
COORDS. : E 12345m N 212345m  
ELEVATION : 0.00 m MSL

*SAMPLING DATA*  
HOLE ID : V-DLST-Golden  
HOLE TYPE : BH  
SAMPLE DEPTH : 0.10 m  
SAMPLE TYPE :  
SAMPLE REF :  
SPECIMEN DEPTH : 0.40 m  
SPECIMEN REF : 4  
SAMPLE DATE :  
SAMPLED BY :

LABORATORY SPECIMEN DESCRIPTION:  
SILT (ML) of low plasticity

MOISTURE CONTENT (%)	5.9
FLUID CONTENT (%)	6.2

GENERAL REMARKS:

SPECIMEN PREPARATION:  
As received

TEST METHOD:  
BS 1377-2:1990:3.2

Tested By	Tested Date
Checked By	Checked Date
Approved By	Approved Date

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.20 m SPECIMEN REF : 2 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Slightly silty very gravelly poorly graded SAND (SP) coarse sand, fine gravel, silt of low plasticity		

AVERAGE PARTICLE DENSITY (Mg/m <sup>3</sup> )	2.70
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DGDJ-DLST 3.12.0.GPJ -DrawingFile-> 10/08/2017 14:19 10.0.000 Datgel Lab and In Situ Tool -DGDJ Lib: DGDJ-DLST 3.11.1 2017-06-21 Pj: DGDJ-DLST 3.11.1 2017-06-21

GENERAL REMARKS:	Fill Type	Requirement Remark	Tested By	Tested Date
	▲ Type 1	Non compliance	Checked By	Checked Date
SPECIMEN PREPARATION:	TEST METHOD: BS 1377-2:1990:8.2 Gas Jar		Approved By	Approved Date

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<i>DESTINATION</i> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<i>SAMPLING DATA</i> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.30 m SPECIMEN REF : 3 SAMPLE DATE : SAMPLED BY :
LABORATORY SPECIMEN DESCRIPTION: Slightly silty very gravelly well graded SAND (SW) medium to coarse sand, fine to medium gravel, silt of high plasticity		

AVERAGE PARTICLE DENSITY (Mg/m <sup>3</sup> )	2.73
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GENERAL REMARKS:	Non compliance	Tested By	Tested Date
		Checked By	Checked Date
SPECIMEN PREPARATION:	TEST METHOD: BS 1377-2:1990:8.3 Small Pyknometer	Approved By	Approved Date

DGD-DLST 3.12.0.GPJ -DrawingFile-> 10/08/2017 14:19 10.0.000 Datgel Lab and In Situ Tool -DGD -DGD Lib: DGD-DLST 3.11.1 2017-06-21 Pj: DGD-DLST 3.11.1 2017-06-21

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<i>DESTINATION</i> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<i>SAMPLING DATA</i> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.40 m SPECIMEN REF : 4 SAMPLE DATE : SAMPLED BY :
LABORATORY SPECIMEN DESCRIPTION: SILT (ML) of low plasticity		

AVERAGE PARTICLE DENSITY (Mg/m <sup>3</sup> )	2.75
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GENERAL REMARKS:	Non compliance	Tested By	Tested Date
		Checked By	Checked Date
SPECIMEN PREPARATION:	TEST METHOD: BS 1377-2:1990:8.4 Large Pyknometer	Approved By	Approved Date

DGD-DLST 3.12.0.GPJ -DrawingFile-> 10/08/2017 14:19 10.0.000 Datgel Lab and In Situ Tool -DGD Lib: DGD-DLST 3.11.1 2017-06-21 Pj: DGD-DLST 3.11.1 2017-06-21

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.10 m SPECIMEN REF : 1 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Silty very gravelly poorly graded SAND (SM) medium to coarse sand, fine and coarse gravel, silt of low plasticity		

LINEAR SHRINKAGE (%)	15
PERCENTAGE PASSING 0.425 mm (%)	36.7

<b>GENERAL REMARKS:</b>  <b>SPECIMEN PREPARATION:</b> Dry	<b>TEST METHOD:</b> BS 1377-2:1990:6.5	Tested By	Tested Date
		Checked By	Checked Date
		Approved By	Approved Date

D:\DLST\3.12.0\JOB.GLB\_Chr\tek1.L\_CS\_SHRINKAGE\_LINEAR\_DGD\DLST\_3.12.0.GPJ <-DrawingFile>> 10/08/2017 14:19 10.0.0.000 Datgel Lab and In Situ Tool - DGD Lib - DGD\DLST\_3.11.1.2017-06-21 Pj\ DGD\DLST\_3.11.1.2017-06-21

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : COORDS. : E 12345m N 212345m ELEVATION : 0.00 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-DLST-Golden HOLE TYPE : BH SAMPLE DEPTH : 0.10 m SAMPLE TYPE : SAMPLE REF : SPECIMEN DEPTH : 0.10 m SPECIMEN REF : 1 SAMPLE DATE : SAMPLED BY :
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Silty very gravelly poorly graded SAND (SM) medium to coarse sand, fine and coarse gravel, silt of low plasticity		

SHRINKAGE LIMIT	18
SHRINKAGE RATIO	1.9
GIVEN MOISTURE CONTENT (%)	30.0
VOLUMETRIC SHRINKAGE	23.3
LINEAR SHRINKAGE	6.8

GENERAL REMARKS:  SPECIMEN PREPARATION:	TEST METHOD: ASTM D4943-08	Tested By	Tested Date
		Checked By	Checked Date
		Approved By	Approved Date

DGD\DLST\3.12.0\JOB.GLB - Client\1 - CS SHRINKAGE VOLUMETRIC DGD\DLST\3.12.0\CPJ -<DrawingFile>- 10/08/2017 14:20 10.0.0.000 Datgel Lab and In Situ Tool - DGD - Lib - DGD\DLST\3.11.1\2017\06-21 P:\DGD\DLST\3.11.1\2017\06-21

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : 100 / 5 m V-SAC-A-01 COORDS. : E 12345m N 212345m ELEVATION : 0.50 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-Lab-Val HOLE TYPE : BH SAMPLE DEPTH : 1.00 m SAMPLE TYPE : AMAL SAMPLE REF : 1 - Lab Id 1 SPECIMEN DEPTH : 1.10 m SPECIMEN REF : IDEN SAMPLE DATE : 01/01/2016 SAMPLED BY : LB - Contactor 1
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Silty very gravelly poorly graded SAND (SM) medium to coarse sand, fine and coarse gravel		

MEDIAN SAMPLE WEIGHT BEFORE TESTING, $W_{50i}$ (kg)	1.5
MEDIAN SAMPLE WEIGHT AFTER TESTING, $W_{50f}$ (kg)	1.46
DROP TEST BREAKAGE INDEX, $I_d$ (%)	5

DGD\T-DLST\3.12.0\JOB.GLB - Client\1. R-DROP TEST DGD\T-DLST\3.12.0\CPU -<DrawingFile>> 10/08/2017 14:20 10.0.000 Datgel Lab and In Situ Tool -DGD\T-DLST\3.11.1\2017-06-21

<b>GENERAL REMARKS:</b> Remark about specimen disturbance; Remark about variation of the procedure; General remarks	Rock Type	Requirement Remark	Tested By TB	Tested Date 01/01/2016
	<b>SPECIMEN PREPARATION:</b> Natural state		Checked By CB	Checked Date 03/01/2016
			Approved By AB	Approved Date 04/01/2016
		<b>TEST METHOD:</b> CIRIA SP 83/CUR Rpt 154 A2.11		



<b>CLIENT</b> : Datgel <b>ENGINEER</b> : Engineer 1 <b>PROJECT</b> : Construction Project <b>LOCATION</b> : Somewhere, World <b>PROJECT No.</b> : 3.12.0 <b>LABORATORY</b> : Lab 1	<b>DESTINATION</b> <b>AREA</b> : Area 1 <b>CH / OS</b> : 100 / 5 m V-SAC-A-01 <b>COORDS.</b> : E 12345m N 212345m <b>ELEVATION</b> : 0.50 m MSL	<b>SAMPLING DATA</b> <b>HOLE ID</b> : V-Lab-Val <b>HOLE TYPE</b> : BH <b>SAMPLE DEPTH</b> : 1.00 m <b>SAMPLE TYPE</b> : AMAL <b>SAMPLE REF</b> : 1 - Lab Id 1 <b>SPECIMEN DEPTH</b> : 1.20 m <b>SPECIMEN REF</b> : IDEN <b>SAMPLE DATE</b> : 01/01/2016 <b>SAMPLED BY</b> : LB - Contactor 1
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Slightly silty very gravelly poorly graded SAND (SP) coarse sand, fine gravel		

MEDIAN SAMPLE WEIGHT BEFORE TESTING, $W_{50i}$ (kg)	1.4
MEDIAN SAMPLE WEIGHT AFTER TESTING, $W_{50f}$ (kg)	1.31
DROP TEST BREAKAGE INDEX, $I_d$ (%)	4

DGD\T-DLST\3.12.0\JOB.GLB - Client\1. R-DROP TEST DGD\T-DLST\3.12.0\CPU -<DrawingFile>> 10/08/2017 14:20 10.0.000 Datgel Lab and In Situ Tool - DGD\T-DLST\3.11.1\2017-06-21

<b>GENERAL REMARKS:</b> Remark about specimen disturbance; Remark about variation of the procedure; General remarks	Rock Type	Requirement Remark	Tested By TB	Tested Date 01/01/2016
	<b>SPECIMEN PREPARATION:</b> Natural state		Checked By CB	Checked Date 03/01/2016
			Approved By AB	Approved Date 04/01/2016
		<b>TEST METHOD:</b> CIRIA SP 83/CUR Rpt 154 A2.11		

CLIENT : Datgel ENGINEER : Engineer 1 PROJECT : Construction Project LOCATION : Somewhere, World PROJECT No. : 3.12.0 LABORATORY : Lab 1	<b>DESTINATION</b> AREA : Area 1 CH / OS : 100 / 5 m V-SAC-A-01 COORDS. : E 12345m N 212345m ELEVATION : 0.50 m MSL	<b>SAMPLING DATA</b> HOLE ID : V-Lab-Val HOLE TYPE : BH SAMPLE DEPTH : 1.00 m SAMPLE TYPE : AMAL SAMPLE REF : 1 - Lab Id 1 SPECIMEN DEPTH : 1.10 m SPECIMEN REF : IDEN SAMPLE DATE : 01/01/2016 SAMPLED BY : LB - Contactor 1
<b>LABORATORY SPECIMEN DESCRIPTION:</b> Silty very gravelly poorly graded SAND (SM) medium to coarse sand, fine and coarse gravel		

		ROCK TYPE	
PERCENT WEIGHT OF STONES WITH L/d > 3 (%)	5.0	Not Applicable	
PERCENT WEIGHT OF STONES WITH L/d > 2 (%)	5.0	Not Applicable	
PERCENT NUMBER OF STONES WITH L/d > 3 (%)	5.0		
PERCENT NUMBER OF STONES WITH L/d > 2 (%)	5.0		

<b>GENERAL REMARKS:</b> Remark about variation of the procedure; Remark about specimen disturbance; General remarks	Tested By <b>TB</b>	Tested Date <b>01/01/2016</b>
	Checked By <b>CB</b>	Checked Date <b>03/01/2016</b>
	Approved By <b>AB</b>	Approved Date <b>04/01/2016</b>
<b>SPECIMEN PREPARATION:</b> Natural state	<b>TEST METHOD:</b> CIRIA SP 83/CUR Rpt 154 A2.3	

D:\GDT-DLST\3.12.0\GIB\_GIB\_CHEK\1.L\LENGTH-TO-THICKNESS RATIO\_DGDT-DLST\_3.12.0.GPJ <DrawingFile> 10/08/2017 14:21 100,000 Datgel Lab and In Situ Tool - DGD - Lib - DGD-DLST\_3.11.1.2017-08-21.Pj; DGD-DLST\_3.11.1.2017-08-21



PROJECT  
 CLIENT : Datgel  
 PROJECT : Construction Project  
 LOCATION : Somewhere, World  
 PROJECT No. : 3.12.0  
 RFI No. :

DESTINATION  
 AREA : Area 1  
 CH / OS :  
 COORDS. : E 12345m N 212345m  
 ELEVATION : 0.00 m MSL

**POINT LOAD TEST**  
 ISRM: 1985

LABORATORY SPECIMEN DESCRIPTION:  
 Silty very gravelly poorly graded SAND (SM) medium to coarse sand, fine and coarse gravel, silt of low plasticity

SAMPLING DATA  
 HOLE ID : V-DLST-Golden  
 HOLE TYPE : BH  
 SAMPLE DEPTH : 0.10 m

SAMPLE TYPE :  
 SAMPLE REF :  
 SAMPLE DATE :

SPECIMEN DEPTH (m)	TEST NUMBER	MOISTURE CONTENT (%)	MOISTURE CONDITION	TEST TYPE	ORIENTATION	L (mm)	W (mm)	D (mm)	D' (mm)	P (kN)	D <sub>s</sub> (mm)	I <sub>s</sub> (MPa)	F	I <sub>s(50)</sub> (MPa)	REMARK
0.1	1	8.1	F	I	IS		30.4	17.2	17.2	2.687	25.8	4.04	0.743	3	
0.1	10	8.1	F	I	IS		30.4	17.2	17.2	2.687	25.8	4.04	0.743	3	
0.1	2	8.1	F	I	IS		16	8	8	0.977	12.8	5.99	0.541	3.24	
0.1	3	8.1	F	A	IS		91.5	35	35	5	63.9	1.23	1.116	1.37	
0.1	4	8.1	F	A	IS		35.8	18.1	18.1	3.641	28.7	4.41	0.779	3.44	Discarded
0.1	5	8.1	F	B	IS	16	42.5	29	29	6.119	39.6	3.9	0.901	3.51	
0.1	6	8.1	F	B	IS	14	10	35	35	7.391	21.1	16.59	0.678	11.25	
0.1	7	8.1	F	D	IS		44	35	35	4.6	35	3.76	0.852	3.2	Discarded
0.1	8	8.1	F	D	IS	14	40	30	30	5.94	30	6.6	0.795	5.24	
0.1	9	8.1	F	I	IS		19.5	15	15	2.04	19.3	5.48	0.652	3.57	
													<b>Mean</b>	<b>4.35</b>	

GENERAL REMARKS:  
 A total of 1 tests are performed, the highest and the lowest value are discarded. The remaining -1 are averaged. D', the platen separation at failure, is used when recorded as stated in ISRM:1985 Note 6.

A - Axial  
 B - Block  
 D - Diametral  
 I - Irregular lump

Orientation  
 L - Parallel to planes of weakness  
 P - Perpendicular to planes of weakness  
 IS - Isotropic

Moisture Condition  
 D - Dry  
 F - Field  
 S - Saturated

Tested By

Tested Date

SPECIMEN PREPARATION:  
 As defined above.

Requirement Remark

Not Applicable

TEST METHOD:  
 Point Load: ISRM Part II:1985:6  
 Moisture Content: ASTM D2216-10; ASTM D2216-98; BS 1377-2:1990:3.2; ISO/TS 17892-1:2004

Checked By

Checked Date

Approved By

Approved Date

D:\DLST\3.12.0.LIB.GLB.C\IC\Text\ L R POINT LOAD STRENGTH SAMP. DGD-T-DLST.3.12.0.GPJ --> Drawing Files >> 1008\2017 4-21 10.0.000 Datgel Lab and in Situ Tool - DGD [Lib.DGD-T-DLST.3.11.1.2017-06-21 Pj].DGD-T-DLST.3.11.1.2017-06-21