

TEMPE CELL TEST - LABORATORY DATA SHEET
SAMPLE AND APPARATUS DETAILS



PROJECT Mt Nansen TA5 2013 SI
 CLIENT Government of Yukon
 PROJECT No. VM00605E.523.20
 LAB No. N/A
 PROJECT ENGINEER Renata Wood
 SOIL DESCRIPTION Sand and Silt trace Clay
 COMMENTS _____

PROJECT LOCATION Yukon
 BOREHOLE No. TP-T-13-06
 DEPTH (m) 0.8-0.9 m
 SAMPLE NUMBER GS1
 SAMPLE TYPE Sand and Silt
 DATE ORDERED 07-Dec-13

PRE-TEST MEASUREMENTS

Reported By	<u>CR/SH</u>	START DATE	<u>12-Jan-13</u>
CELL No.	<u>2</u>	TARGET SPECIMEN DRY DENSITY	<u>1462</u> kg/m ³
RING HEIGHT	<u>59.8</u> mm	PRE-TEST WEIGHT OF SPECIMEN	<u>239.4</u> g
RING DIAMETER	<u>53.8</u> mm	PRE-TEST MOISTURE CONTENT	<u>20.7</u> %
RING VOLUME	<u>136.0</u> ml		
WEIGHT OF RING	<u>140.0</u> g	BULK DENSITY OF SPECIMEN	<u>1760</u> kg/m ³
TARE + INITIAL WT OF SOIL + RING	<u>379.4</u> g	DRY DENSITY OF SPECIMEN	<u>1458</u> kg/m ³
TARE	<u>0.0</u> g		
WEIGHT OF CELL (with stone saturated, etc.)	<u> </u> g		
SPECIFIC GRAVITY	<u>2.77</u>	<input type="checkbox"/> assumed	<input checked="" type="checkbox"/> measured


TRIMMINGS/INITIAL SAMPLE

TARE	<u>0</u> g	MOISTURE CONTENT (trimmings)	<u>21.6</u> %
TARE AND SOIL (wet)	<u>120.1</u> g		
TARE AND SOIL (dry)	<u>98.8</u> g		

METHOD OF SPECIMEN PREPARATION Compacted to 86% SPDD by 3 layers

POST-TEST MEASUREMENTS

TARE	<u>140.00</u> g	WEIGHT OF WATER	<u>18.50</u> g
TARE AND SOIL (wet)	<u>356.80</u> g	WEIGHT OF DRY SOIL	<u>198.30</u> g
TARE AND SOIL (dry)	<u>338.30</u> g		
FINAL MOISTURE CONTENT	<u>9.3</u> %		

	PROJECT Mt Nansen TA5 2013 SI Program				PROJECT LOCATION Yukon											
	CLIENT Government of Yukon				BOREHOLE No. TP-T-13-06											
	PROJECT No. VM00605E.523.20				Cell No. 2											
	LAB No. N/A				SAMPLE NUMBER GS1											
	PROJECT ENGINEER Renata Wood				SAMPLE TYPE Sand and Silt											
Capillary-Moisture Relationship of Soils by Tempe Cell																
SOIL DESCRIPTION:		Sand and Silt trace Clay														
Pre-Test Wet Density		1760	kg / m ³	Porosity of compacted sample					0.47		(A) Post-Test Weight of Water				18.50	g
Initial Dry Density		1458	kg / m ³	Pre-Test Moisture content of sample					20.7	%	Post-Test Moisture Content (% weight) of Sample				9.3	%
		Saturated	DRYING CURVE													
(B) Matric Suction Applied (kPa)		0	0.5	1	2	3	5	7	10	20	40	80	110			
(C) Weight of soil + water + cell (g)		883.20	883.00	882.90	882.80	882.50	875.80	870.70	860.00	854.40	849.20	841.80	836.90			
(D) Weight of Cell (g)																
(E) Weight of soil + water (g)		263.10	262.90	262.80	262.70	262.40	255.70	250.60	239.90	234.30	229.10	221.70	216.80			
E = F + G																
(F) Weight of dry soil (g)		198.30														
(G) Weight of water (g)		64.80	64.60	64.50	64.40	64.10	57.40	52.30	41.60	36.00	30.80	23.40	18.50			
G _n = G _(n+1) + (C _n - C _(n+1)), G _(final) = A																
(H) Moisture Content (percent weight)		32.7	32.6	32.5	32.5	32.3	28.9	26.4	21.0	18.2	15.5	11.8	9.3			
H = G/F																
Wet Density of sample (kg/m ³)		1935	1933	1933	1932	1930	1880	1843	1764	1723	1685	1630	1594			
Dry Density of sample (kg/m ³)		1458														
Moisture Content (percent volume) (Volume Water / Total Volume)		47.7	47.5	47.4	47.4	47.1	42.2	38.5	30.6	26.5	22.6	17.2	13.6			
Porosity ^{note 1}		0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47			
Void Ratio ^{note 1}		0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Specific Gravity		2.77														
Saturation ^{note 1}		1.01	1.00	1.00	1.00	1.00	0.89	0.81	0.65	0.56	0.48	0.36	0.29			

Note 1. Calculated using a specific gravity of 2.77

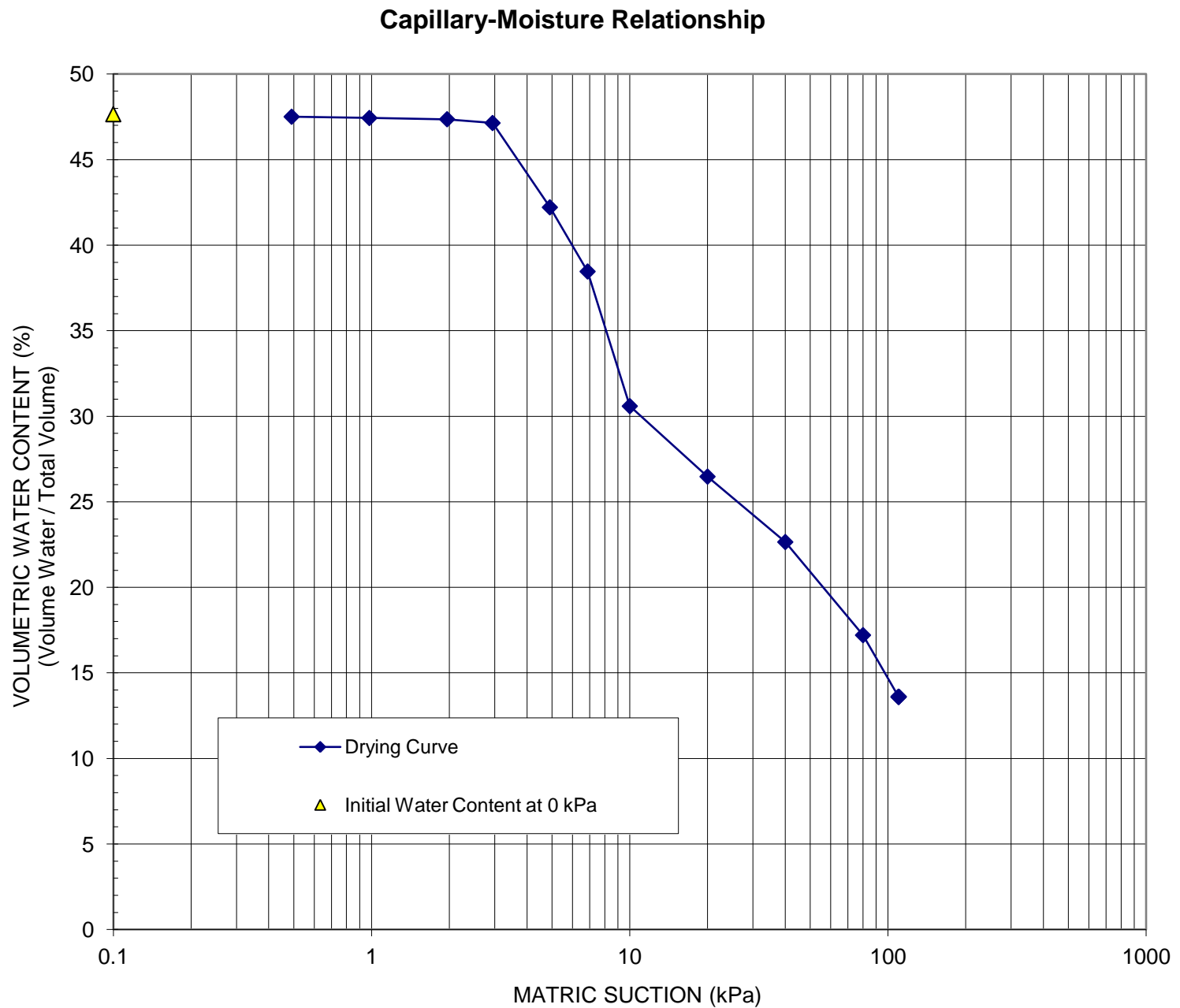
Reporting of these test results constitutes a testing service only. Engineering interpretation or evaluation of the test results is provided only on written request.



PROJECT Mt Nansen TA5 2013 SI Program
CLIENT Government of Yukon
PROJECT No. VM00605E.523.20
LAB No. N/A
PROJECT ENGINEER Renata Wood

PROJECT LOCATION Yukon
BOREHOLE No. TP-T-13-06
Cell No. 2
SAMPLE NUMBER GS1
SAMPLE TYPE Sand and Silt

Capillary-Moisture Relationship of Soils by Tempe Cell



SOIL DESCRIPTION: Sand and Silt trace Clay

VOID RATIO, e : 0.90

POROSITY, n : 0.47

Reporting of these test results constitutes a testing service only.
Engineering interpretation or evaluation of the test results is provided only on written request.