innovation in geotechnical instrumentation

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Calibration Record

Vibrating Wire Pressure Transducer

Customer :	PT Unggul Ejawantah Industri
Model :	VW-2100A-1.0
Serial Number :	VW37173
Mfg Number :	337090
Range :	1000.0 kPa
Temperature :	20.0 deg C
Barometric Pressure :	1012.0 millbars
Cable Length :	145 meters
Cable Colour Code :	red/black (coil) Green/white (thermistor)
Cable Instulation / Jacket :	PEPolyethylene / PVC 6EL380004
Thermistor Type :	3 kΩ

Applied Pressure (kPa)	Readings Up (B units)	Readings Down (B units)	Average Readings (B units)	Calculated Linear (kPa)	Linearity F.S. Error (%)	Polynomial Fit (% FS)
0.0	9567			2.3	0.22	0.01
208.0	8781			207.4	-0.06	-0.02
418.0	7988			414.2	-0.17	0.00
624.0	7190			622.3	-0.16	0.01
832.0	6388			831.6	-0.04	0.01
1040.0	5581			1040.1	0.20	-0.01
				Max. Error (%)	0.22	0.02

Linerar Calibration Factor : **C.F. = 0.26087 kPa / B unit**
Regression Zero : **At Calibratoin Bi = 9575.9 B unit**
Temperature Correction Factor : **Tk = -0.22070 kPa / deg C rise**

Polynomial gage Factors **A : -1.0229E-06** **B : -0.24537** **C : 2441.3**

Pressure is calculated with the following equations :
Linear, P (kPa) = C.F. x (Li –Lc) – [Tk(Ti-Tc)] + [0.014504 (Bi – Bc)]
Polynomial, P(kPa) = A(Lc)2+BLc+C+Tk(Tc-Ti)-[0.014504(Bc-Bi)]

	DATE (dd/mm/yy)	VW2104 Pos.B (Li)	TEMP degC (Ti)	BARO (Bi)
SHIPPED ZERO READINGS :	13-Dec-18	9570	22.3	1016.4

Li, Lc = initial (at installation) and current readings
Ti, Tc = iniital (at installation) and current temperature deg C
Bi, Bc = initial (at installation) and current barametric pressure readings, in millibars
B units = B scale output of VW 2102, VW 2104 readouts
B units = Hz2/1000 ie. 1700Hz = 2890 B units

Applied Science Technologists and Technicians of British Columbia
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ASCT

Certified By : I. Kurchavov Date : 13-Dec-18

This instrument has been calibrated using standard traceable to the NIST in compliance with ANSI Z540-1