



innovation in
geotechnical
instrumentation

Calibration Record

RST Instruments Ltd., 11545 Kingston St., Maple Ridge, British Columbia, Canada V2X 0Z5
Tel: 604 540 1100 • Fax: 604 540 1005 • Toll Free: 1 800 665 5599 (North America only)
e-mail: info@rstinstruments.com • Website: www.rstinstruments.com

Vibrating Wire Piezometer

Customer: PT.Unggul Ejawantah Industri
Model: VW2100-1.0-HD
Customer Number: P3
Serial Number: VW54995
Mfg Number: P105395
Range: 1.0 MPa
Temperature: 23.0 °C
Barometric Pressure: 1025.2 millibars
Work Order Number: 219492
Cable Length: 112 meters
Cable Markings: 4301 m to 4414 m
Cable Colour Code: Red / Black (Coil) Green / White (Thermistor)
Cable Type: EL380004HDL
Thermistor Type: 3 kΩ

Applied Pressure (MPa)	First Reading (B units)	Second Reading (B units)	Average Reading (B units)	Calculated Linear (MPa)	Linearity Error (% FS)	Calculated Polynomial (MPa)	Polynomial Error (% FS)
0.000	9016	9016	9016	0.002	0.17	0.000	0.01
0.200	8286	8286	8286	0.199	-0.05	0.200	-0.02
0.400	7551	7551	7551	0.399	-0.14	0.400	0.00
0.600	6812	6811	6812	0.599	-0.12	0.600	0.01
0.800	6070	6070	6070	0.800	-0.03	0.800	0.00
1.000	5325	5325	5325	1.002	0.16	1.000	-0.01
Max. Error (%):					0.17		0.02

Linear Calibration Factor: CF = 2.7089E-04 MPa/B unit
Temperature Correction Factor: Tk = -8.7364E-05 MPa/°C rise

Polynomial Gage Factors:

A = -9.0476E-10 MPa/(B unit)² B = -2.5792E-04 MPa/B unit C = _____ MPa

Pressure is calculated with the following equations:

Linear: $P = CF(L_0 - L) - Tk(T_0 - T) + (S_0 - S)$

Polynomial: $P = A(L^2) + B(L) + C - Tk(T_0 - T) + (S_0 - S)$

Users must establish site zero readings for calculation purposes

Polynomial C = - [A(L₀²) + B(L₀)]

L₀, L = initial (installation) and current readings, in B units

T₀, T = initial (installation) and current temperature, in °C

S₀, S = initial (installation) and current barometric pressure readings, in MPa

B units = B scale output of VW 2102, VW 2104, VW 2106 and DT 2011 readouts

B units = Hz/1000 ie: 1700 Hz = 2890 B units

	Date (dd/mm/yy)	VW Reading (B units)	Temperature (°C)	Baro (mbar)
Shipped Zero Readings:	5-Dec-18	9022	20.9	1024.4

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

Technician: B. Amos Date: 5-Dec-18



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