



innovation in
geotechnical
instrumentation

Calibration Record

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Vibrating Wire Piezometer

Customer: PT. Unggul Ejawantah Industri
Model: VW2100-0.35
Customer ID: PZ 31
Serial Number: VW57092
Mfg Number: P110333
Range: 350.0 kPa
Temperature: 23.0 °C
Barometric Pressure: 1028.8 millibars
Work Order Number: 220592
Cable Length: 100 meters
Cable Markings: 6770 m to 6870 m
Cable Colour Code: Red / Black (Coil) Green / White (Thermistor)
Cable Type: EL380004HDL
Thermistor Type: 3 kΩ

Applied Pressure (kPa)	First Reading (B units)	Second Reading (B units)	Average Reading (B units)	Calculated Linear (kPa)	Linearity Error (% FS)	Calculated Polynomial (kPa)	Polynomial Error (% FS)
0.0	9228	9229	9228	0.0	-0.01	-0.1	-0.02
70.0	8570	8571	8570	70.1	0.04	70.1	0.04
140.0	7915	7916	7915	140.0	0.00	140.0	0.01
210.0	7260	7261	7260	209.9	-0.04	209.9	-0.03
280.0	6603	6603	6603	280.0	-0.01	280.0	0.00
350.0	5945	5946	5946	350.1	0.02	350.0	0.01
Max. Error (%):					0.04		0.04

Linear Calibration Factor: CF = 1.0666E-01 kPa/B unit
Temperature Correction Factor: Tk = 1.0933E-02 kPa/°C rise

Polynomial Gage Factors:

A = -3.1997E-08 kPa/(B unit)² B = -1.0618E-01 kPa/B unit C = kPa

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 kPa

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

B units = Hz²/1000 ie: 1700 Hz = 2890 B units

	Date (dd/mm/yy)	VW Reading (B units)	Temperature (°C)	Baro (mbar)
Shipped Zero Readings:	29-Mar-19	9229	21.4	1027.5

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

Technician: M. Miftode MM Date: 29-Mar-19



Document Number.: ELL0130K

