Test Plan Template: Triaxial Shear Test

File Name: [Enter Text]

| Starting Conditions | Logging Conditions | Stopping Conditions |

Shear speed will be: [Enter Text] mm/min **[IC1]**

☑ Engage Speed : [Enter Text] mm/min **[IC3]**

Until the load changes by [Enter Text] N **[IC4]**

[Apply]

Logging Conditions

◎ Log data at this rate   HH:MM:SS   **[LC1]**

◎ Use the following displacement table for data logging:

TABLE-1 ▾   Edit   **[LC2]**

#	Displacement(mm)
1	0.50
2	1.00
3	2.00
4	3.00

add 1 more option "Log data at this Axial Strain rate" box in percentage

Stopping Conditions

◎ When the Maximum Deviator Stress falls by the percentage entered here   Enter Text   %   **[SC1]**

◎ When the Axial Strain extends beyond the percentage entered here   Enter Text   %   **[SC2]**

☑ Return the load frame to home position   **[SC6]**

☑ Reset Cell And Back Pressure Control to Zero Pressure   **[SC7]**

remove the radio button
Change option Max Deviator to tick box
compulsory the axia strain value

Instrument Variables
Load_Control :>> referenced to Global variable that controls Device
CP_Control :>> referenced to Global variable that controls Device
BP_Control :>> referenced to Global variable that controls Device

Load :>> referenced to Global variable that assigned to channel 1 of Load_Control

Displacement :>> referenced to Global variable that assigned to channel 2 of Load_Control

CP :>> referenced to Global variable that assigned to channel 1 of CP-Control

BP :>> referenced to Global variable that assigned to channel 1 of BP-Control

PWP :>> referenced to Global variable that assigned to channel 2 of CP-Control

Volume :>> referenced to Global variable that assigned to channel 2 of BP-Control

Other Variables
Area= [(specimen diameter/2)2 * 3.142]/1000000
SpecimenHeight
MaxDeviatorStress
InitPWP = PWP
InitVolume = Volume
InitDisp = Displacement
InitLoad = Load
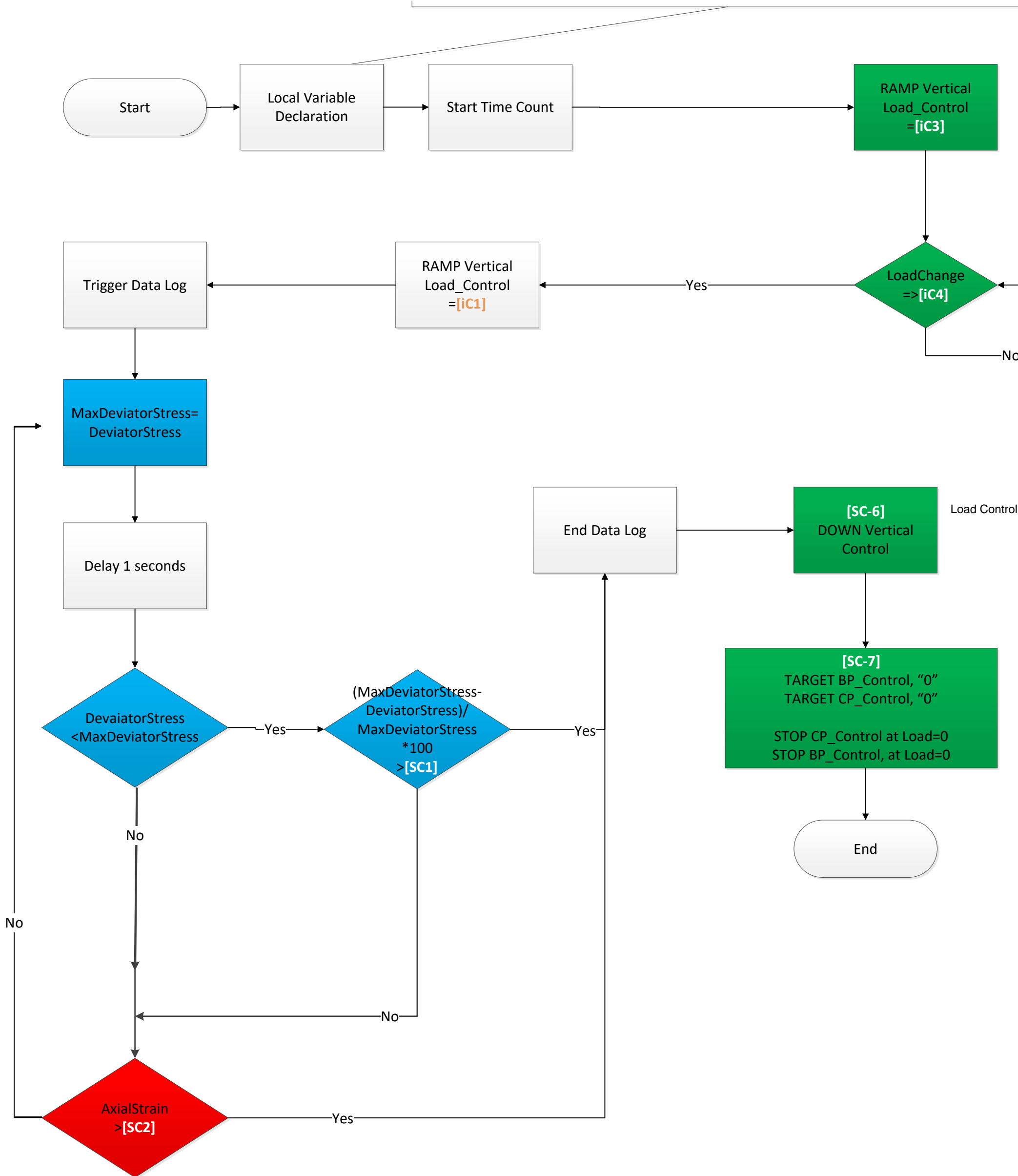**LoadChange = Load-InitLoad**
PWPChange = PWP-InitPWP
VolumeChange = Volume-InitVolume
DispChange = Displacement-InitDisp
AxialStrain = (SpecimenHeight-DispChange)/SpecimenHeight*100
DeviatorStress = LoadChange / Area

Triaxial Shear Test

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Volume :>> referenced to Global variable that assigned to channel 2 of BP-Control

Other Variables
Area = [(specimen diameter/2)2 * 3.142]/1000000
SpecimenHeight
MaxDeviatorStress
LastLoadRead
InitPWPRead = PWP
InitVolumeRead = Volume
InitDispRead = Displacement
InitLoadRead = Load

Calculated Parameters:

1. **Pore Water Pressure Dissipation = PWP-InitPWP**
2. **Volume Change = Volume – InitVolume**
3. **Axial Load change = Load-InitLoad**
4. **Specimen Height Change = SpecimenHeight – Displacement - InitDisplacement**
5. **Deviator Stress = (Load-InitLoad)/Area**
6. **Axial Strain = (Displacement-InitDisplacement)/SpecimenHeight x 100**

Test Parameters | For TRIAXIAL SHEAR TEST

Cell Pressure, kPa	Enter Text	Load, kN	Enter Text	Axial Load Change, kN	Enter Text	
Back Pressure, Kpa	Enter Text	Displacement, mm	Enter Text	Change in Length, mm	Enter Text	
Pore Water Pressure, kPa	Enter Text	Change in Pore Water Pressure, kPa	Enter Text	Deviator Stress, kPa	Enter Text	
Volume, cm3	Enter Text	Volume Change, cm3	Enter Text	Axial Strain, %	Enter Text	