

Concrete Field and Cylinder Casting Samples - DWR App

Revised 02/03/23

Select **Contract**
Click **MATERIALS** on toolbar
Select **Date** from calendar
Choose **SAMPLES** or **REQUIREMENTS**

• **SAMPLES**
Click + **Add Material**
Scroll to find **Material Code**
Clicking on the **Material Code** begins the Sample

OR

• **REQUIREMENTS**
Click **Lookup work item**
Scroll to find **Item Code**
Clicking on the **Item Code** displays required tests
for the item selected
Clicking **Create Sample** begins the Sample

Concrete Field Test

SAMPLE DETAILS

Select **Sampled By**
Record **Represented Quantity**
Record **Cylinder Numbers**

Note: Required Average Minimum Design Strength in parentheses.

Example: 12A, 12A (3500)

VENDORS

Select **Producer/Supplier**
Select **Design Type**
Select **Mix Id**

LOCATION

Select **Geographic Area** (Choose Region AND County)
Record **Sampled From** location
Record **Station, Offset, Offset Distance, Distance From Grade and From Grade Unit**, information as applicable

ITEMS

Select **Item(s)** associated with the test(s)

TESTS

Choose **DEST – TDOT Field** for Destination Lab
Select test(s)

VENDORS LOCATION ITEMS TESTS **REMARKS** ATTACHMENTS

Initial Curing Equipment - Curing Box
Min Temp Recorded - 65
Max Temp Recorded - 80

REMARKS (Required) and **ATTACHMENTS (Optional)**

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Add **REMARKS**:

- **Initial Curing Equipment**
- **Min Temp Recorded**
- **Max Temp Recorded**

ATTACHMENTS if applicable, add additional information regarding the Sample

LIMS

Select **Send to LIMS**

SAVE

Concrete Cylinder Castings

Return to **SAMPLE DETAILS**

Click **Copy Sample** icon

Select **Yes** to Copy Lab Control Number

Record **Sample ID** onto Concrete Cylinder Test

Edit **Cylinder Numbers** field (if necessary)

Note: Required Average Minimum Design Strength in parentheses.

Example: 12A / 12 A (3500)

Record **Date Transported to Wet Curing**



Report

TESTS

Choose **DEST – Headquarters/Receiving Dock**

Select test(s)

REMARKS (Required) and **ATTACHMENTS (Optional)**

Check **REMARKS** to be sure the information from the fresh properties sample copied:

- **Initial Curing Equipment**
- **Min Temp Recorded**
- **Max Temp Recorded**

VENDORS LOCATION ITEMS TESTS **REMARKS** A

Initial Curing Equipment - Curing Box

Min Temp Recorded - 65

Max Temp Recorded - 80

ATTACHMENTS if applicable, add additional information regarding the Sample

LIMS

Select **Send to LIMS**

SAVE

After the next Sync, your sample will be available for Headquarters to receive and enter LIMS results

Quick Reference Guides (QRGs) developed by Materials & Tests can be seen here:

<https://www.tn.gov/tdot/materials-and-tests/field-operations/site-manager-materials.html>

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FIELD - Operations Inspector Prepares and Delivers the Cylinders to the Regional M&T Lab

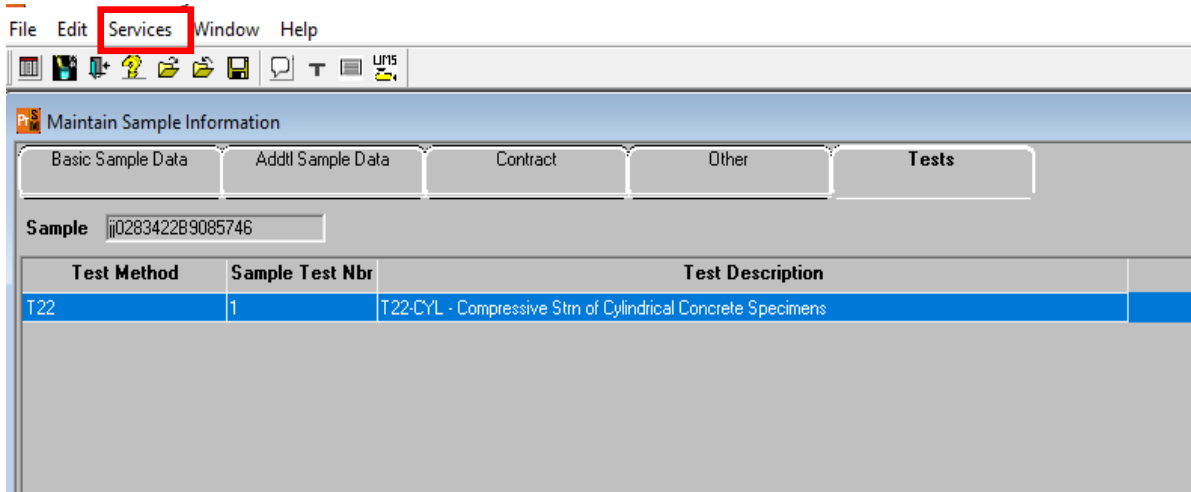
On the side of the cylinder mold **clearly** write the sample ID provided by SiteManager, the mix design strength, class of concrete, cylinder number, date made, and contract number for the cylinders. **Before any concrete is placed in the cylinder mold. (See Appendix for examples)**

1. Before cylinders are shipped from the Regional Lab to the HQ Lab, cylinder samples in SiteManager should be reviewed for accuracy.
2. Strip the molds from the cylinders.
3. Transfer/Verify information from the cylinder mold to the stripped cylinder. (See Appendix)
4. Deliver the cylinders to the regional M&T lab.

HQ Lab performs testing

If cylinders break above required strength, no notifications will be sent to Operations or Regional M&T Staff. There are several methods anyone who wants/needs to see the results can access the data

- i. Open sample record in SiteManager, go to "Tests" tab. Select test T22. Then go to "Services" menu and select "Enter/View Test Results". Read only version of the test template w/ results will open in new window.



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Material Test Template Usage

Sample ID : Test Method : Test Number:

Material Code : Mix Type : Mix Id :

Effective Date:

T22-CYL Compressive Strength of Cylindrical Concrete Specimens

In Spec Out of Spec No Spec

Equipment

Procedure

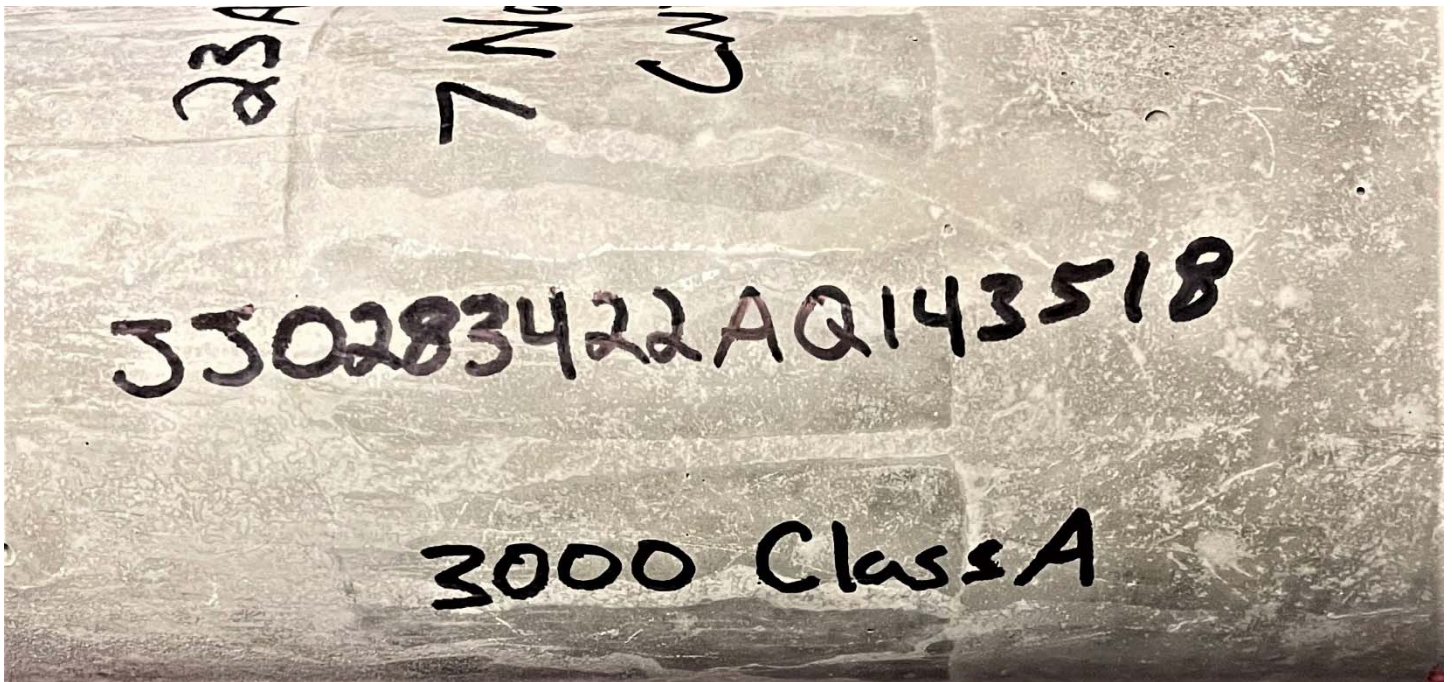
Cylinder number	<input type="text" value="1"/>	<input type="text" value="2"/>	<input type="text"/>
Diameter (in)	<input type="text" value="4.000"/>	<input type="text" value="4.000"/>	<input type="text" value="4.000"/>
Cross-sectional Area (sq in)	<input type="text" value="12.56"/>	<input type="text" value="12.56"/>	<input type="text" value="12.56"/>

Calculate By

If the cylinders break below required strength, automatic notifications will be sent to the Operations unit & Materials & Tests office in charge of the contract.

Appendix

Example Cylinder Mark Up:



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23
7 No
CNT

J50283422AQ143518

3000 Class A

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550283422A0143518

23A

7 Nov 22

CNT123

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Be sure to transfer the contract number, cylinder number, and date to the smooth end of the cylinder.