WSDOT

SAM User Manual for Contractors

2010

State Materials Lab
11/30/2010

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New Specifications

In 2010, the Washington State DOT Standard Specifications were changed. The change deleted the time requirements for the DOT to give the contractor test results and the Composite Pay Factor, CPF. The Contractors can now go the WSDOT website to view the test data and CPF.

Another change that was made is the size of the lot has been redefined to be 15-sublots except for the last lot may be up to 25-sublots. With changes to the SAM program used by WSDOT to calculate CPF's it is no longer necessary to start a new lot when a JMF has been changed so the requirement that a new JMF will trigger a new lot has been deleted.

SAM 2010 application now has the ability for a Contractor to view the test data and the CPF reports.

Getting Started

If you need an account to access the testing data and CPF reports for your WSDOT contracts in SAM, the following steps will guide you through the process:

Go to the WSDOT website home page, and open the Business page. Then open the Materials Laboratory home page. On this page you will find links to all of the Materials Laboratory programs.

Go to the SAM Home Page https://business.wsdot.wa.gov/Materials/Analysis/SAMui/samlogin.aspx

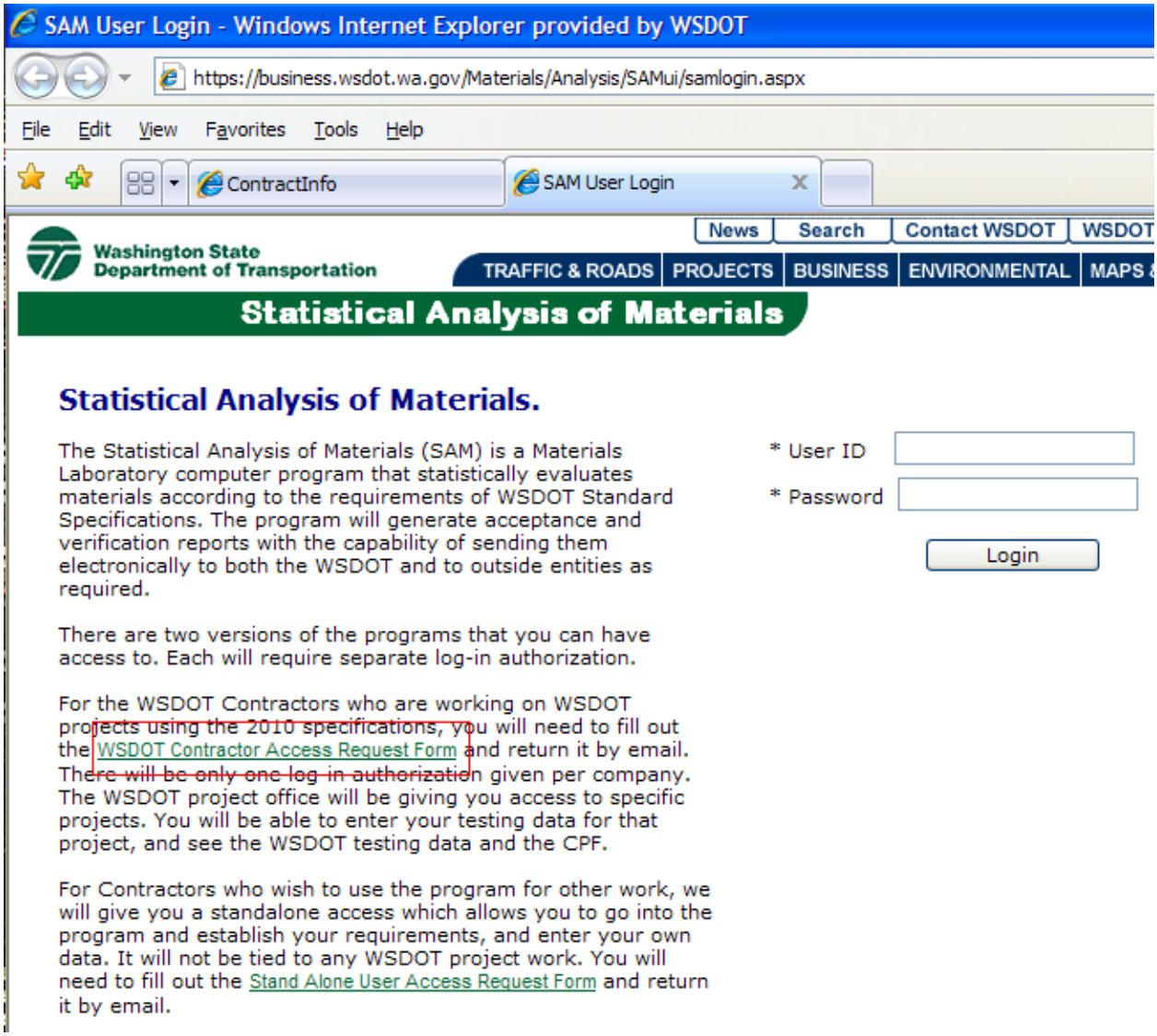
There are two different types of access:

The "Standalone Access" is the permission level where you can use the program for other work. This will allow you to establish your own requirements and enter your own testing data into the SAM program. SAM will perform calculations and retrieve reports. Your data will not be connected to WSDOT projects and associated with any WSDOT data.

The "WSDOT Contractor Access" is the permission level where a WSDOT Contractor doing WSDOT work will be able to view the testing data and the CPF for a project that you are working on. You can also enter your quality control testing data if you wish, however it will not be used for acceptance.

Note, if you previously had permissions to SAM, it is possible that you had access to the standalone application and do not have the correct permissions to view the WSDOT project data. Contact the Materials Laboratory Help Desk if you are not sure what type of permissions you have. There will only be one account given per company. So, it is not necessary to have individual accounts within the company. The Materials Laboratory will let you know if your company already has an account.

The first step is to click on “WSDOT Contractor Access Request Form”



Contractor Request Form

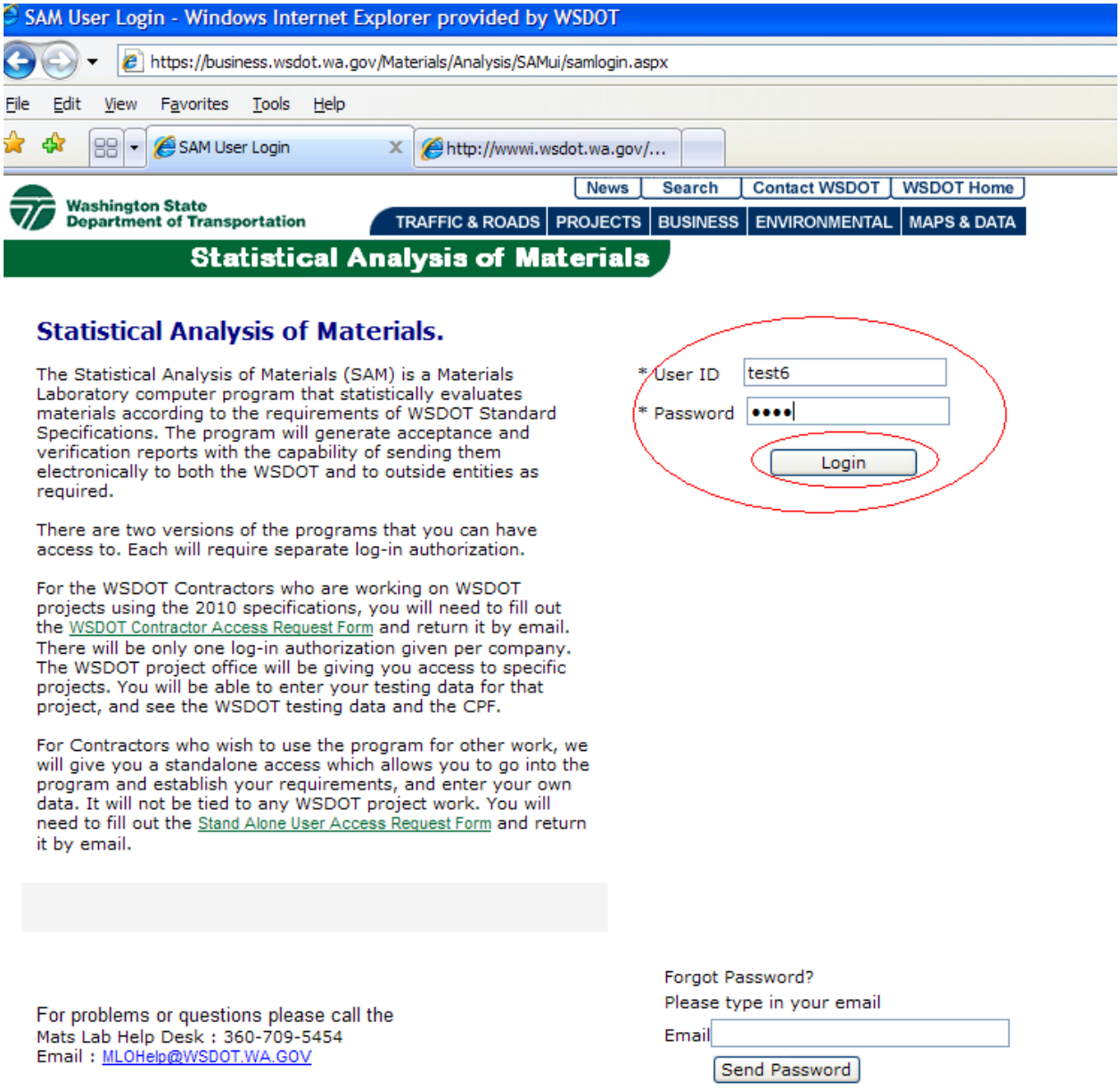
This link opens an email message to be sent to the Materials Laboratory Help Desk. Fill out the information in the body of the email and send the message. The Materials Laboratory will process this request and sent you a confirmation email with a userid and password. Share these logon credentials with others in your company who will be using SAM. We will usually have your request processed within one business day or less.

Once you have received your logon information, contact the Project Office that is administrating your project for permissions to the contract or contracts that you will be working on.

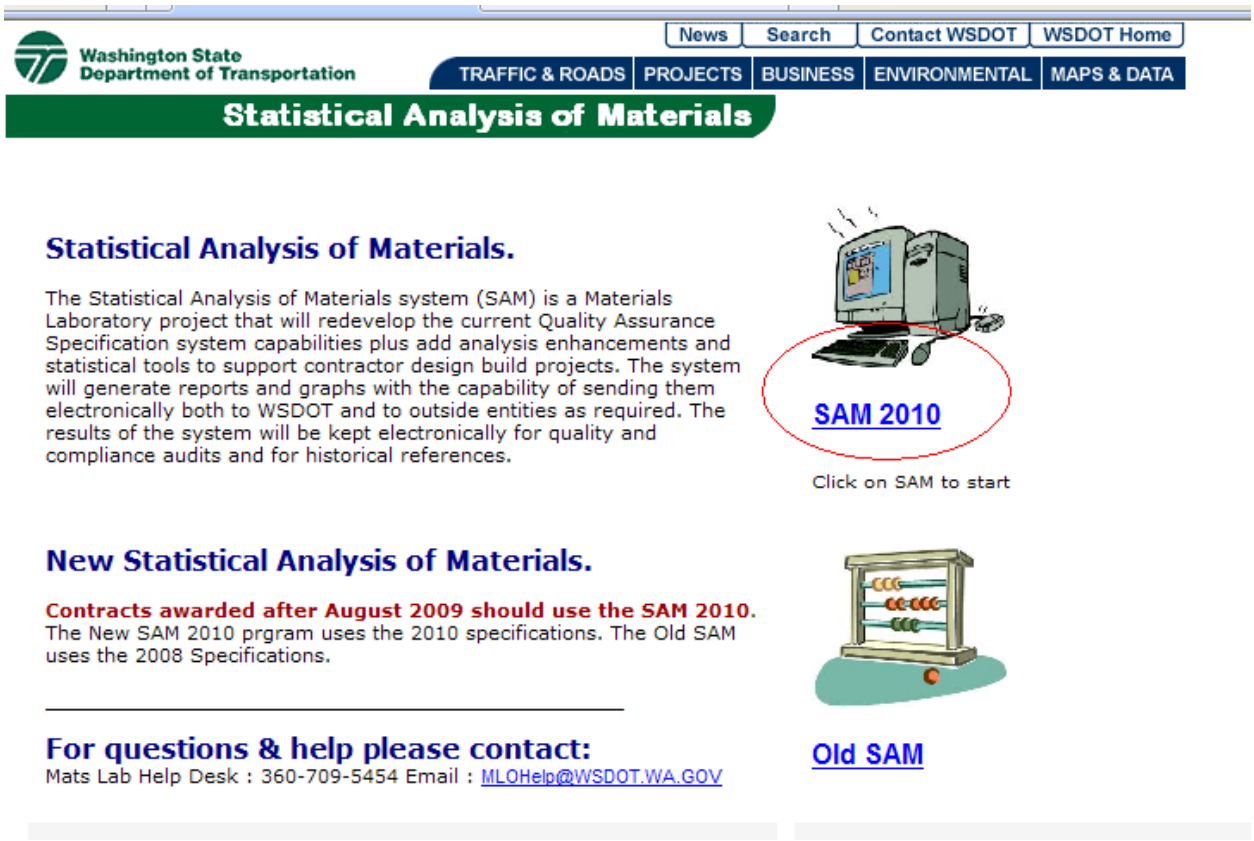
Important: The Materials Laboratory Help Desk will give you permissions to the system, but the Project Engineers office will give you permissions to the contracts.

Login to SAM

To login to SAM, type in your userid and password you were given from the Materials Laboratory.



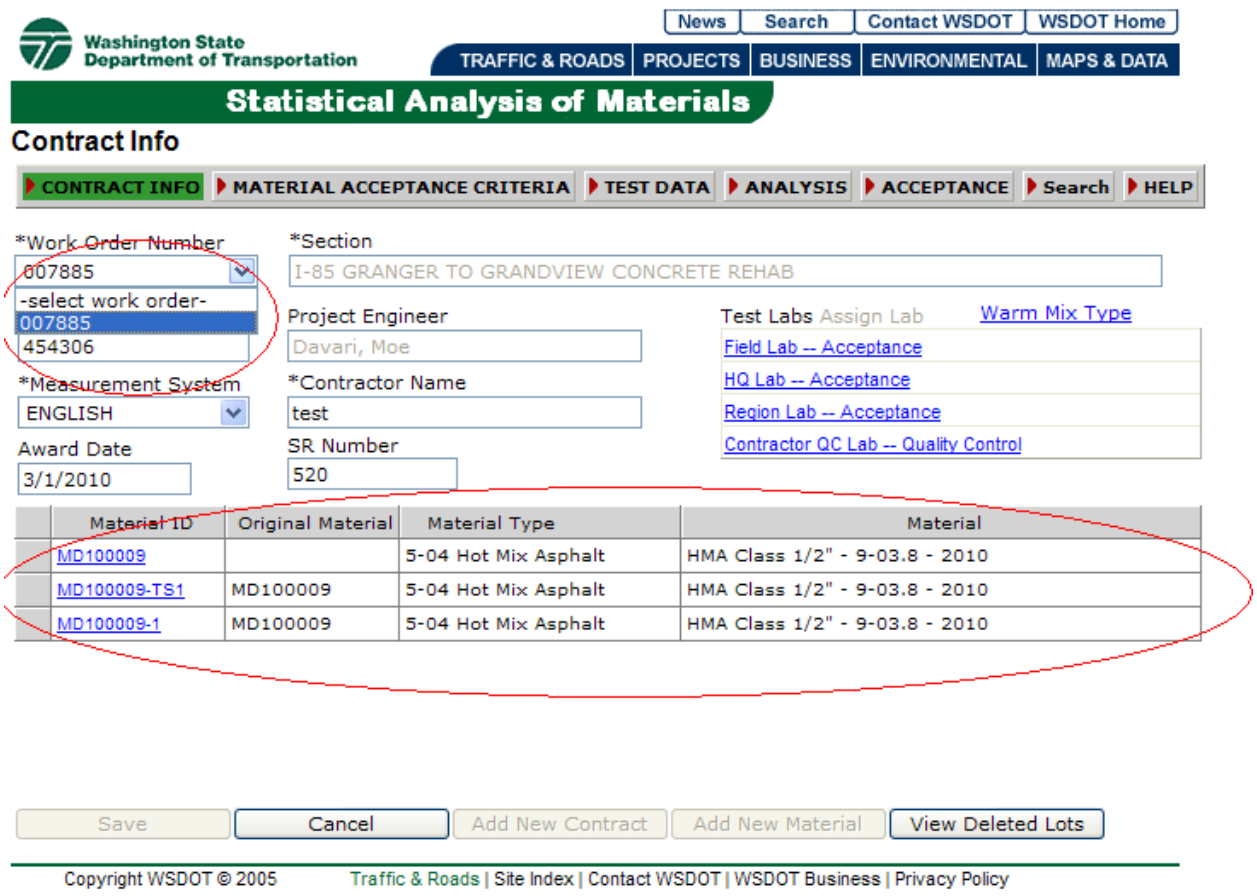
Click on SAM 2010, you will not have access to old SAM.



Contract Information Page

The Contract Info tab displays what work orders are available to you. You will also see the materials that have been setup. You cannot access and view any data from this page.

If there are no contracts in the drop down list box, you haven't been granted access to any contracts yet. Please contact the appropriate Project Office to get access. If the contract or contracts are there, select from the drop down. You will see all the material that has been associated with that contract. The material criteria have been entered by the Project office. If there are no materials listed, then there is no data in SAM yet.



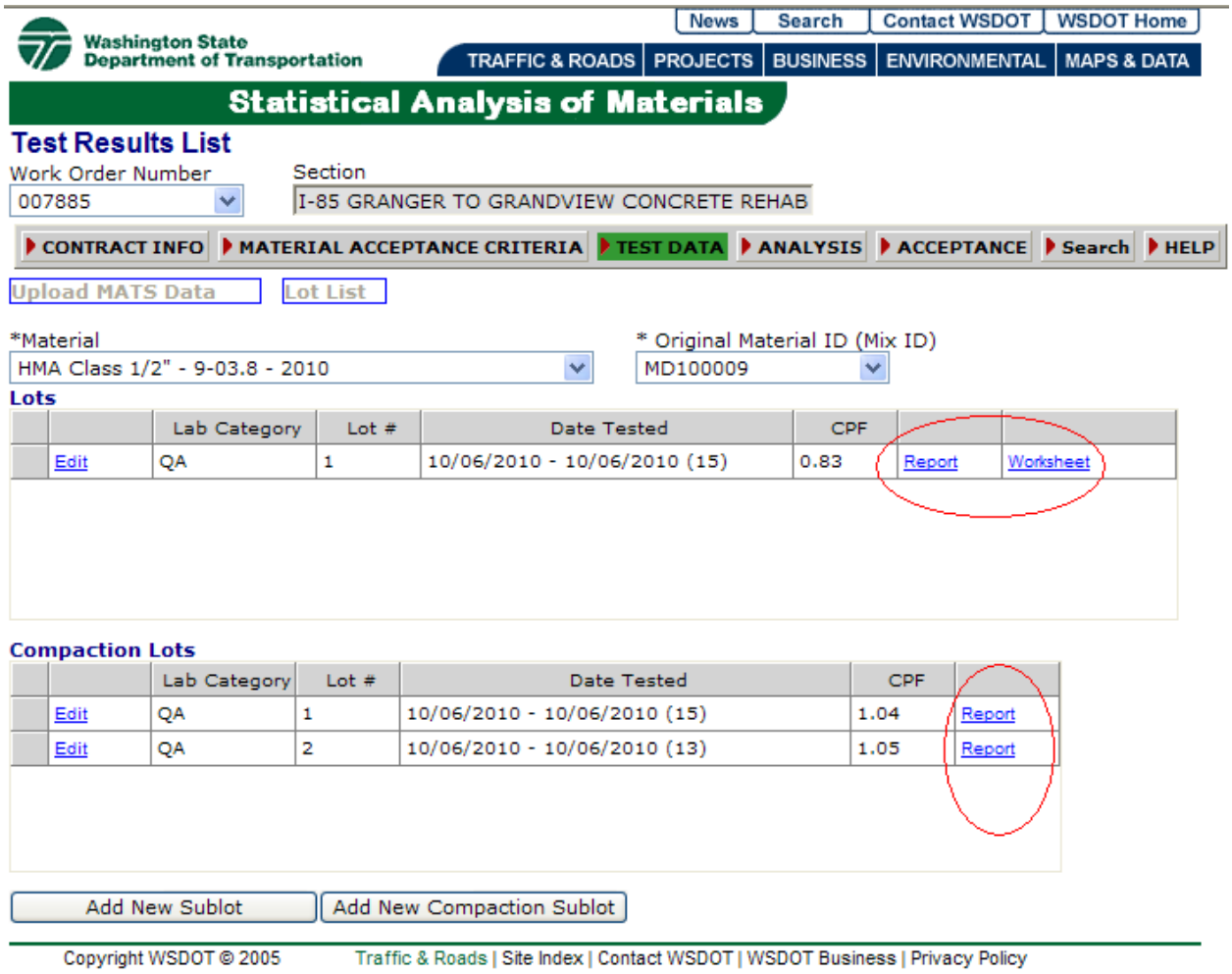
Report and Worksheets

There are two ways to view the reports, one from the test data page, and the other from the acceptance page. To access just the reports from the test data page, go to the test data tab.

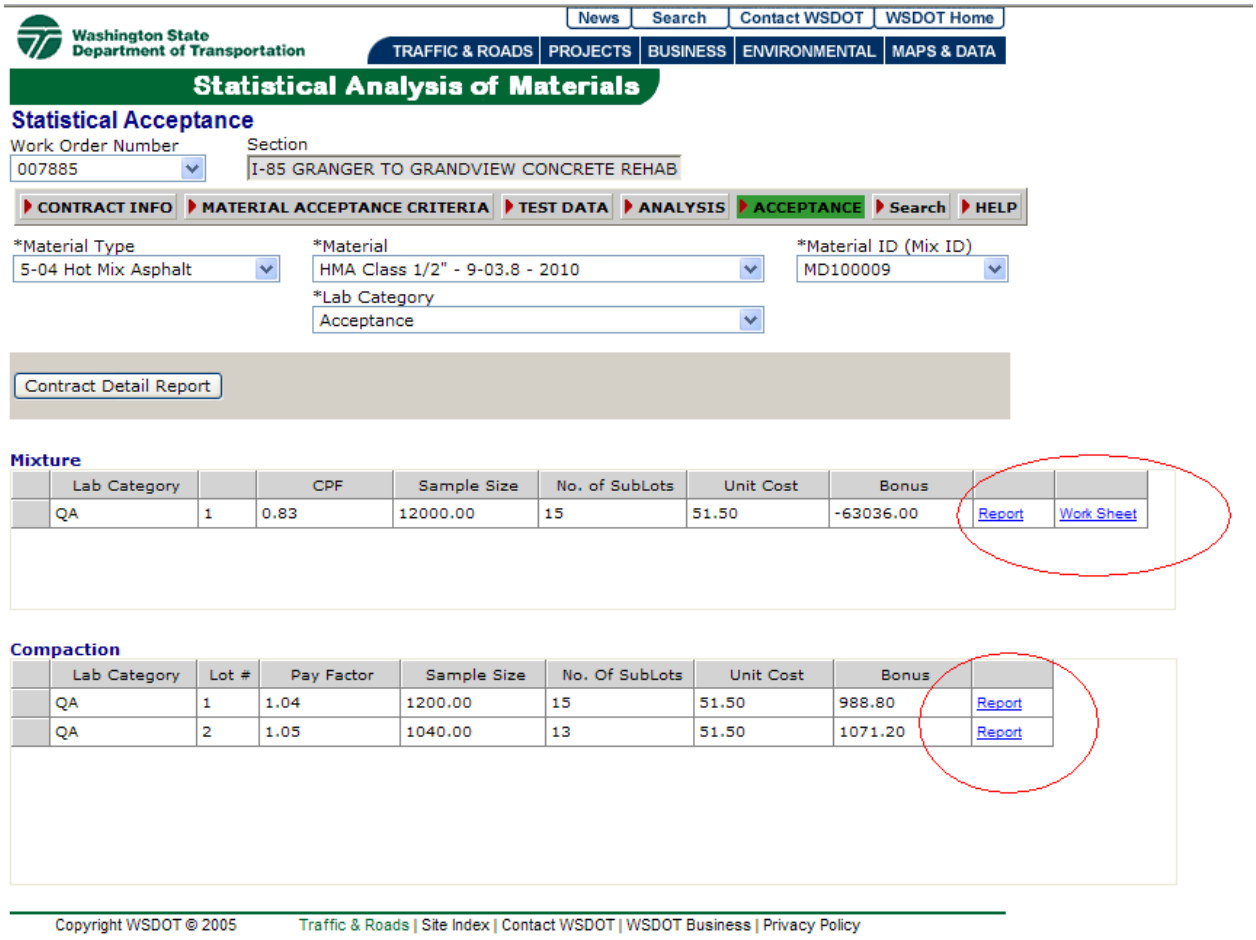
You will have to select the material that you are looking for by selecting the material Original Material ID (Mix ID). The table will list all of the lots for the material, including compaction for HMA. You will see the date tested for the lot that you selected. In the parentheses, it shows the number of sublots that are included in the lot.

The composite pay factor, CPF column on the table will display the current CPF for the lot.

The report will display all of the information relating to the Material including the bonus and Composite Pay Factor. The worksheet will displays the calculations involved in arriving at the pay factors for each test property. The reports and worksheets are in Adobe PDF.



To access the reports and worksheets from the acceptance page, go to the acceptance tab and select the Material ID for the material that you are looking for.



There are two parts of the report. The first part will display all of the information relating to the Material including the item pay factors, the bonus, and the Composite Pay Factor.

Washington State Department of Transportation

Test Results Report

Date : 12/8/2010

Contract Number : 007885, I-85 GRANGER TO GRANDVIEW CONCRETE REHAB

Orgcode: 454306

Project Engineer : Davari, Moe

Lot No : 1

Original Material Id : MD100009 HMA Class 1/2" - 9-03.8 - 2010

Bid Item:025.1

Comment :

Lab Category : Acceptance

Unit Cost: 51.50

Total Tons : 12000.00

CPF : 0.83

Bonus : -63036.00

Test Property

Test Property Description	Price adjustment factor	Standard deviation	Pay Factor
3/4 in	2	0	1.05
1/2 in	2	1.03	1.05
3/8 in	2	0	0
No. 4	2	0	1.05
No. 8	15	0	1.05
No. 16		0	
No. 30		0	
No. 50		0	
No. 100		0	
No. 200	20	0	1.05
Pct Binder	40	0.03	1.05
Pct Air Voids (Va)	20	2.67	0
Voids in Mineral Aggregate (VMA)		0.45	
Voids Filled with Asphalt (VFA)		0	0
Dust to Asphalt Ratio (D/A)		0	0
Fracture			
Uncompacted Voids			
Sand Equivalent (SE)			
Pbe		0	
Gmb		0.0134	
Gmm		0.0612	

SAM

Date Printed 12/8/2010

The second part of the report shows the test data based on the JMF for each sublot. It displays the JMF, the upper and lower acceptance criteria, the standard deviation for that population of sublots, and the average.

Washington State Department of Transportation

Test Results Report

Date : 12/8/2010

Test Property Description	Price adjustment factor	Standard deviation	Pay Factor
Gsb		0	
Gb		0	

Material Id: MD100009

	3/4 in	1/2 in	3/8 in	No. 4	No. 8	No. 16	No. 30	No. 50	No. 100	No. 200	Pct Bind	Va	VMA	VFA	D/A	% Frac	FAA	SE	Pbe	Gmb	Gmm	Gsb	Gb
JMF Percent	100	97	81	48	34	24	16	11	8	5.9	5.1	4	14.4	73	1.3	99	48	77	4.5	2.382	2.482	2.64	1.032
Upper Acceptance	100	100	87	53	38					7	5.6	6.3		80	1.6								
Lower Acceptance	99	91	75	43	30					3.9	4.6	0.7		68	0.6	90		45					
Std Deviation	0	1	0	0	0	0	0	0	0	0	0	2.7	0.5	0	0				0	0.013	0.061	0	0
Mean	100	94.7	74	51	32	22	16	12	8	6.1	5.2	13	15.8	0	0				0	2.346	2.697	2.64	1.032

Test Data for MD100009

Sub Lot	Date Tested	Tons	3/4 in	1/2 in	3/8 in	No. 4	No. 8	No. 16	No. 30	No. 50	No. 100	No. 200	Pct Bind	Va	VMA	VFA	D/A	% Frac	FAA	SE	Pbe	Gmb	Gmm	Gsb	Gb
001	10/06/2010	800.00	100	95	74	51	32	22	16	12	8	6.1	5.3	3.7	14.2	0	0				0	2.392	2.484	2.64	1.032
002	10/06/2010	800.00	100	95	74	51	32	22	16	12	8	6.1	5.2	13.7	15.9	0	0				0	2.342	2.713	2.64	1.032
003	10/06/2010	800.00	100	95	74	51	32	22	16	12	8	6.1	5.2	13.7	15.9	0	0				0	2.342	2.713	2.64	1.032
004	10/06/2010	800.00	100	95	74	51	32	22	16	12	8	6.1	5.2	13.7	15.9	0	0				0	2.342	2.713	2.64	1.032
005	10/06/2010	800.00	100	95	74	51	32	22	16	12	8	6.1	5.2	13.7	15.9	0	0				0	2.342	2.713	2.64	1.032
006	10/06/2010	800.00	100	95	74	51	32	22	16	12	8	6.1	5.2	13.7	15.9	0	0				0	2.342	2.713	2.64	1.032
007	10/06/2010	800.00	100	95	74	51	32	22	16	12	8	6.1	5.2	13.7	15.9	0	0				0	2.342	2.713	2.64	1.032
008	10/06/2010	800.00	100	95	74	51	32	22	16	12	8	6.1	5.2	13.7	15.9	0	0				0	2.342	2.713	2.64	1.032
009	10/06/2010	800.00	100	95	74	51	32	22	16	12	8	6.1	5.2	13.7	15.9	0	0				0	2.342	2.713	2.64	1.032
010	10/06/2010	800.00	100	95	74	51	32	22	16	12	8	6.1	5.2	13.7	15.9	0	0				0	2.342	2.713	2.64	1.032
011	10/06/2010	800.00	100	95	74	51	32	22	16	12	8	6.1	5.2	13.7	15.9	0	0				0	2.342	2.713	2.64	1.032
012	10/06/2010	800.00	100	95	74	51	32	22	16	12	8	6.1	5.2	13.7	15.9	0	0				0	2.342	2.713	2.64	1.032
013	10/06/2010	800.00	100	95	74	51	32	22	16	12	8	6.1	5.2	13.7	15.9	0	0				0	2.342	2.713	2.64	1.032
014	10/06/2010	800.00	100	95	74	51	32	22	16	12	8	6.1	5.2	13.7	15.9	0	0				0	2.342	2.713	2.64	1.032

Washington State Department of Transportation

Test Results Report

Date : 12/8/2010

Material Id: MD100009-1

	3/4 in	1/2 in	3/8 in	No. 4	No. 8	No. 16	No. 30	No. 50	No. 100	No. 200	Pct Bind	Va	VMA	VFA	D/A	% Frac	FAA	SE	Pbe	Gmb	Gmm	Gsb	Gb
JMF Percent	100	97	81	48	34	24	16	11	8	5.9	5.1	4	14.4	73	1.3	99	48	77	4.5	2.382	2.482	2.64	1.032
Upper Acceptance	100	100	87	53	38					7	5.6	6.3		80	1.6								
Lower Acceptance	99	91	75	43	30					3.9	4.6	0.7		68	0.6	90		45					
Std Deviation	0	1	0	0	0	0	0	0	0	0	0	2.7	0.5	0	0				0	0.013	0.061	0	0
Mean	100	94.7	74	51	32	22	16	12	8	6.1	5.2	13	15.8	0	0				0	2.346	2.697	2.64	1.032

Test Data for MD100009-1

Sub Lot	Date Tested	Tons	3/4 in	1/2 in	3/8 in	No. 4	No. 8	No. 16	No. 30	No. 50	No. 100	No. 200	Pct Bind	Va	VMA	VFA	D/A	% Frac	FAA	SE	Pbe	Gmb	Gmm	Gsb	Gb
016	10/06/2010	800.00	100	91																					

The worksheet displays the calculations involved in arriving at the pay factors for each test property.

Gradation Bonus :-63036.00

Pay Factor Calculations For Test Property

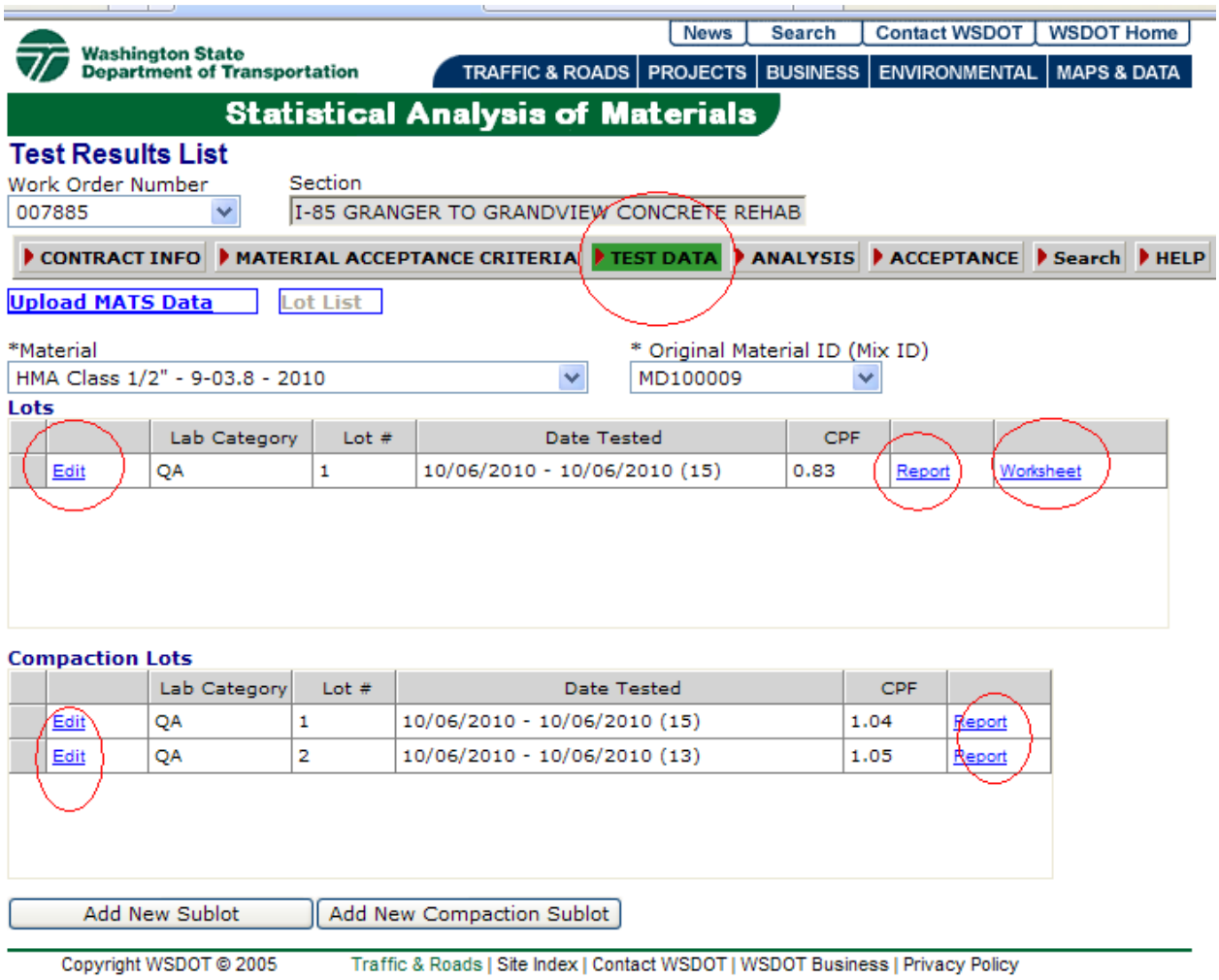
Test property Description	*Mean	Upper Limit	Lower Limit	*Standard Deviation	QU	QL	PU	PL	Quality level	pay factor	price adjustment factor
3/4 in	100	100	99	0	100.00	100.00	100	100	100	1.05	2
1/2 in	-2.3	3	-6	1.03	5.15	3.59	100	100	100	1.05	2
3/8 in	-7	6	-6	0						0	2
No. 4	3	5	-5	0	100.00	100.00	100	100	100	1.05	2
No. 8	-2	4	-4	0	100.00	100.00	100	100	100	1.05	15
No. 16	22			0							
No. 30	16			0							
No. 50	12			0							
No. 100	8			0							
No. 200	0.2	1.1	-2	0	100.00	100.00	100	100	100	1.05	20
Pct Bind	0.1	0.5	-0.5	0.03	13.33	20.00	100	100	100	1.05	40
Va	13	6.3	0.7	2.67	-2.51	4.61	0	100	0	0	20
VMA	15.8			0.45							
VFA	0	80	68	0						0	
D/A	0	1.6	0.6	0						0	
% Frac			90								
FAA											
SE			45								
Pbe	0			0							
Gmb	2.346			0.0134							
Gmm	2.697			0.0612							
Gsb	2.64			0							

SAM Page 1 of 2 Date Printed 12/8/2010

Test Data

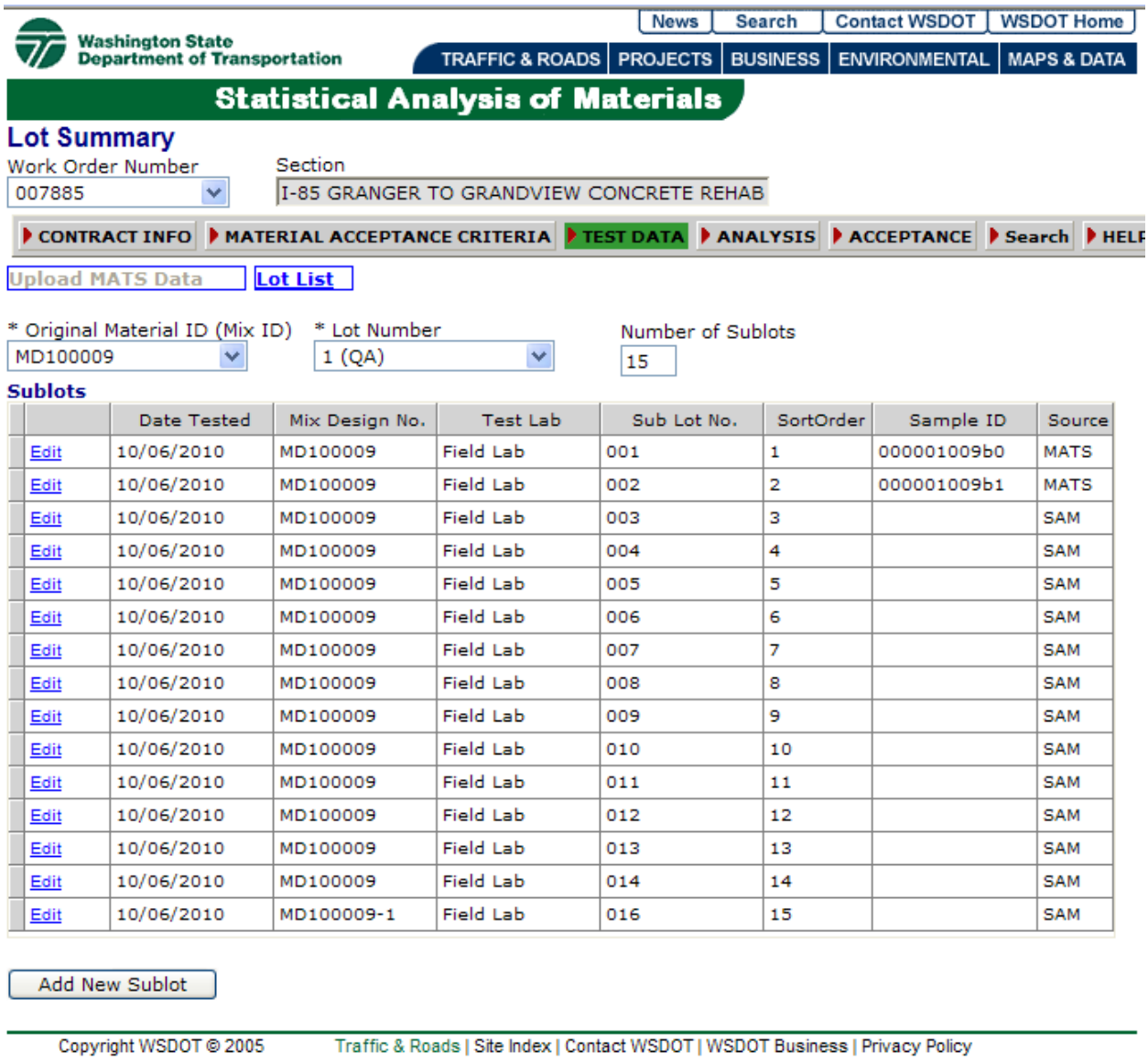
To view test data or to enter in your own QC data, click on the "Test Data" tab. You will have to select the material that you are looking for by selecting the material Original Material ID (Mix ID).

The table displays all of the lots for the material that you selected. When you click on edit, it shows all of the sublots that are part of the lot that you selected.



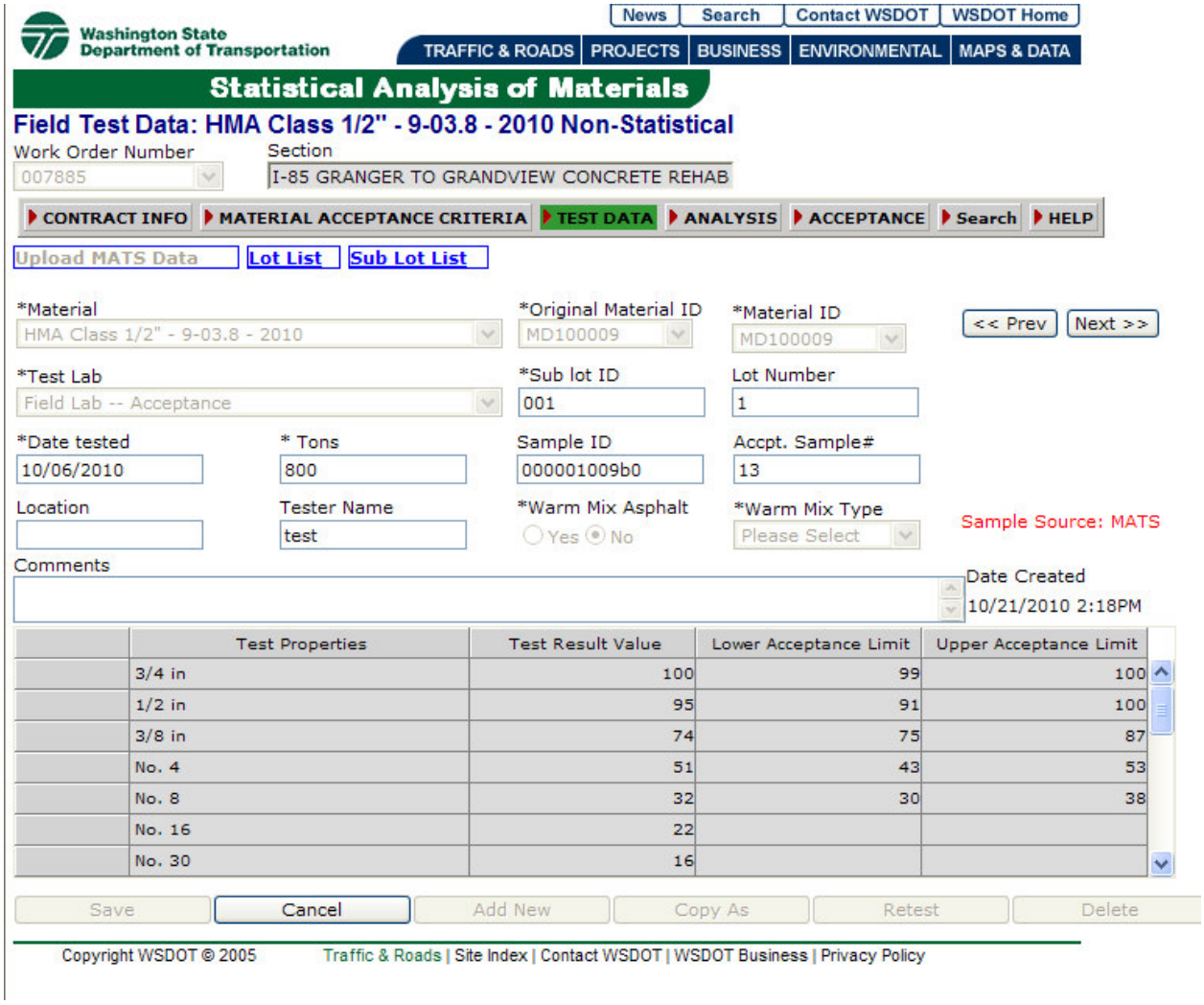
The table displays all of the sublots for the material that you selected. When you click on edit, it shows the test data for the sublot that you selected.

If you see a "-R" this means that you have requested a retest of this sublot and the new test data has been entered.

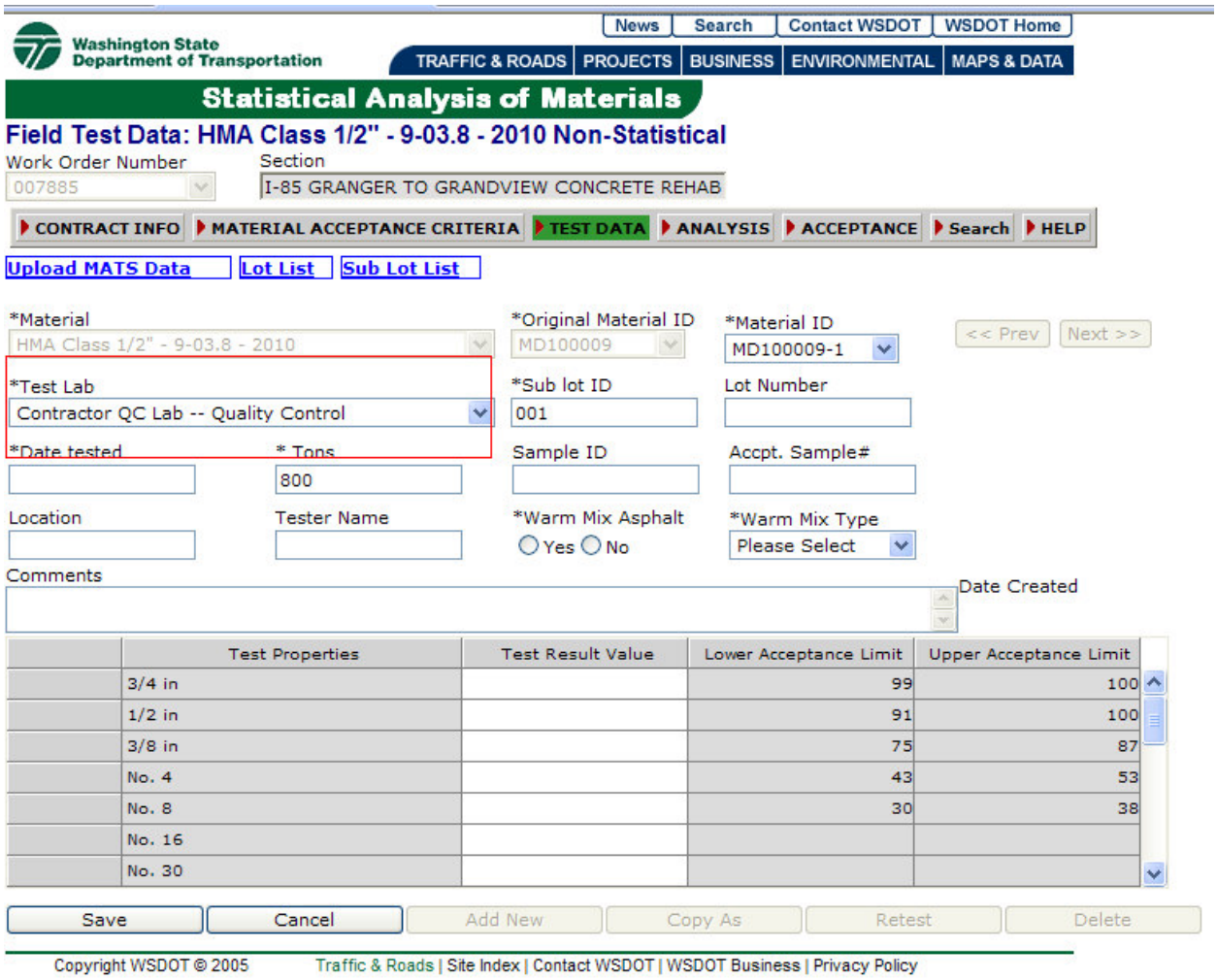


	Date Tested	Mix Design No.	Test Lab	Sub Lot No.	SortOrder	Sample ID	Source
Edit	10/06/2010	MD100009	Field Lab	001	1	000001009b0	MATS
Edit	10/06/2010	MD100009	Field Lab	002	2	000001009b1	MATS
Edit	10/06/2010	MD100009	Field Lab	003	3		SAM
Edit	10/06/2010	MD100009	Field Lab	004	4		SAM
Edit	10/06/2010	MD100009	Field Lab	005	5		SAM
Edit	10/06/2010	MD100009	Field Lab	006	6		SAM
Edit	10/06/2010	MD100009	Field Lab	007	7		SAM
Edit	10/06/2010	MD100009	Field Lab	008	8		SAM
Edit	10/06/2010	MD100009	Field Lab	009	9		SAM
Edit	10/06/2010	MD100009	Field Lab	010	10		SAM
Edit	10/06/2010	MD100009	Field Lab	011	11		SAM
Edit	10/06/2010	MD100009	Field Lab	012	12		SAM
Edit	10/06/2010	MD100009	Field Lab	013	13		SAM
Edit	10/06/2010	MD100009	Field Lab	014	14		SAM
Edit	10/06/2010	MD100009-1	Field Lab	016	15		SAM

You can access and see the DOT sublot test data, but you will not be able to change any of the data.



You can also add your own QC test data for your own laboratory by clicking on add new sublot or compaction sublot, it will take you to a data entry screen and default to “Contractor QC Lab—Quality Control”.



Help

If you have any problems are questions with the new SAM program. Please contact the MATS Lab Help Desk at mlohelp@wsdot.wa.gov or 360-709-5454.