

INSTRUCTIONS FOR TESTING AND REPORTING BITUMINOUS CONCRETE REFERENCE SAMPLES 49 AND 50

One bag of material is provided for each sample. All testing should be performed by a certified technician that normally works in that participating lab using that lab's equipment. All tests should be conducted on each of the two samples according to the Standard Test Methods as indicated below and on the report form. Report the results of a single determination only, not the average of two or more, except in cases where an average is called for in the method. Each individual test should be made on both samples by the same operator, but it is not necessary that all tests be made by the same person. Please use the same set of sieves for both samples. Indicate any tests that you do not have equipment to perform or you choose not to perform by inserting "NA" in the appropriate spaces. However, if you are a qualified asphalt lab, you will be required to respond to that nonconformity just as you would for all ratings of 0, -1, 1, -2, and 2. Qualified labs are expected to perform all tests. While the absorption criterion to perform OHD L-45 or AASHTO T 275 may not be met, the test should still be performed for this program.

Notes: AASHTO T 312, Preparing and Determining the Density of Hot Mix Asphalt (HMA) Specimens by Means of the Superpave Gyrotory Compactor, requires an internal angle verification and calibration if needed. If the date of the last internal angle verification is missing or older than one year from the date tested for these samples, the data will not be accepted.

If rounding and reporting is not according to this program's instructions, the data will not be accepted. Be sure to save your raw data, material, and lab molded specimens. These may be needed to investigate problems with the reported results.

ASPHALT CONTENT BY IGNITION OVEN, [OHD L-26](#):

Assume that the sample is moisture and volatile free. Assume that the asphalt mixture is a Superpave Type S3 (PG 70-28 OK). Split or quarter the sample according to AASHTO R 47 to obtain a test sample of the required size. See the table listed in OHD L-26 for sample sizes to be used for these sample tests.

Report the make and model of the ignition oven used. Report the asphalt content to the nearest 0.01% for each sample. Save the aggregate from each sample for sieve analysis.

IOC Factor = **0.39**

SIEVE ANALYSIS, AASHTO T 30:

Report the total material passing each of the following sieves: 1", 3/4", 1/2", 3/8", #4, #8, #16, #30, #50, and #100 to the nearest 0.1% for each sample. Report the total material passing the #200 sieve to the nearest 0.01% for each sample.

MAXIMUM SPECIFIC GRAVITY (RICES'S GRAVITY), AASHTO T 209:

The nominal maximum aggregate (NMS) size for the mixture is 1/2". Split or quarter the remaining sample to obtain two test specimen of the required size. Determine the maximum specific gravity (Gmm) for each test specimen and report the average Gmm for each sample to the nearest 0.001. Report the manufacturer and model of your mechanical shaker. Report the frequency of your shaker. If not adjustable and preset by the manufacturer put "Not Adjustable" or "Preset".

SGC SPECIFIC GRAVITY, AASHTO T 312 and [OHD L-14](#) METHOD B:

The SGC's internal angle, height and pressure, must have been verified within the last year. If it has not, do not proceed until it is verified to be within specification limits.

There is sufficient material to mold two specimens of approximately **4800 grams** for each sample. Mold the specimens, within 2-4 hours, at 300°F for **65 gyrations**. No dwell gyrations are allowed. Determine the lab-molded specific gravity (Gmb) of each specimen and report the average lab-molded specific gravity (Gmb) for

each sample to the nearest 0.001 for OHD L-14 Method B. Report the SGC manufacturer and SGC model number. Report the internal angle verification date.

PERCENT WATER ABSORPTION, [OHD L-14](#) Method B:

Determine and report the average percent absorption for each sample according to OHD L-14 to the nearest 0.01%.

SGC SPECIFIC GRAVITY, [OHD L-45](#) or AASHTO T 275:

OHD L-45 may be performed before the first Gmb test using the SSD Method B of OHD L-14. Report an “X” under the L-45 or “T 275” headings to indicate which of the two required test methods that you choose to perform. While OHD L-14 requires that absorption be greater than 2.0% percent by the SSD method, perform this test regardless of that requirement. Determine the lab-molded specific gravity (Gmb) of each specimen and report the average lab-molded specific gravity (Gmb) for each sample to the nearest 0.001 for either of the two methods indicated by your choice.

REPORTING RESULTS:

Report your results by **March 11, 2012**. It is very important that you list the correct OMRL lab number. This is NOT the SiteManager™ number though that should be listed as well. If you are in doubt, contact Kenneth Hobson or Eric Roberts. Include the testing technician’s certification number on the report.

The report should be submitted using only one method. You may choose your preferred method but we prefer email. You may email the results to khobson@odot.org. Attach a PDF scanned copy of the report form or more preferably a completed Excel file as published on our website as an attachment. For the Excel file, rename the file. It should be named “**OMRL 4950 Lab 13 Results.xls**” where 13 is replaced with your OMRL lab number. Other methods may be used to report your test results. In the subject line of the email, use this format, “**OMRL 4950 Lab 13 Results**”, where 13 is replaced with your OMRL lab number. Our fax number is (405) 522-0552. In the cover page, put Attn: Kenneth Hobson. Standard mail may be used. The address is shown on the report form. In all cases, submit the fully completed form as published on our website:

<http://www.okladot.state.ok.us/materials/omrinfo.htm>.

FINAL REPORT:

You will be mailed a copy of the final report. Qualified asphalt labs, will be required to respond within 60 days of the report to any nonconformity. Nonconformities are low ratings or missing data. Low ratings are: 0, -1, 1, -2, and 2. The final report for OMRL samples **49** and **50** should be completed after **April 1, 2013**.

IMPORTANT:

Materials Division has a limited number of extra OMRL samples. They can be useful as a standard check for SGC equipment if calibration problems occur during the year. They will be available from the Materials Division to help resolve compaction issues on an as-needed basis. If extra samples are available, additional samples may be requested should you experience a problem with your sample or to help investigate problems for a nonconformity response.