Blind Random ACP Sampling

ODOT Inspector Workshop – CCBI

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Blind Random ACP Sampling

Reasoning & Purpose

- Agency & FHWA
- Agency develops random numbers
- Agency notifies contractor when sampling required
- Transition sampling location from production facility to grade

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Common ACP Sampling Procedures (Non-Pilot Projects)

2021 Standard Specifications

- 00165.10(a) – "The most current version of the MFTP on the date of Advertisement is the version in effect for the Project."
- 00745.16(a)(1) – "Obtaining samples according to the MFTP with certified technicians."
- 00745.16(a)(3) – "Perform sampling and testing according to Section 00165 and the MFTP."

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Common ACP Sampling Procedures (Non-Pilot Projects)

Manual of Field Test Procedures (MFTP)

❑R97 – Sampling Asphalt Mixtures
- Attached Sampling Devices
- Haul Units
- Paver Auger
- Windrow
- Roadway before Compaction (Method 1 and 2)

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Common ACP Sampling Procedures (Non-Pilot Projects)

Manual of Field Test Procedures (MFTP)

❑ R97 – Sampling Asphalt Mixtures Yellow Sheet

The following sampling locations are not permitted:
- Conveyor Belts
- Stockpiles, Method 1 and 2

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Common ACP Sampling Procedures (Non-Pilot Projects)

Attached Sampling Devices

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Common ACP Sampling Procedures (Non-Pilot Projects)

Attached Sampling Devices

1. Lightly coat the container attached to the sampling device with an agency-approved release agent or preheat it, or both, to approximately the same discharge temperature of the mix.

2. Pass the container twice through the material perpendicularly without overfilling the container.

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Common ACP Sampling Procedures (Non-Pilot Projects)

Attached Sampling Devices

3. Transfer the asphalt mixture to an agency-approved container without loss of material.

4. Repeat until proper sample size has been obtained.
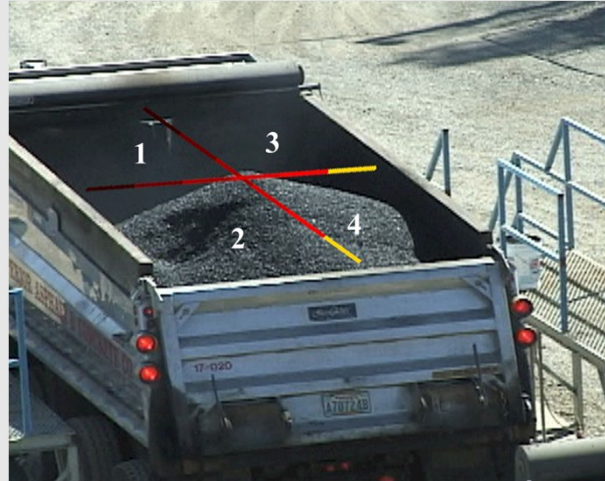
5. Combine the increments to form a single sample.

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Common ACP Sampling Procedures (Non-Pilot Projects)

Haul Units

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Common ACP Sampling Procedures (Non-Pilot Projects)

Haul Units

1. Visually divide the haul unit into approximately four equal quadrants.
2. Identify one sampling location in each quadrant.
3. Dig down and remove approximately 0.3 m (1 ft.) of material to avoid surface segregation. Obtain each increment from below this level.
4. Combine the increments to form a sample of the required size.

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Blind Random ACP Sampling (Pilot Projects)

C15280 – US26: Hayward Rd. – Mountaindale Rd.
- Advertisement date: 04-08-21

C15363 – OR58: Salt Creek Tunnel to MP 70
- Advertisement date: 02-10-22

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Blind Random ACP Sampling
C15363 – OR58: Salt Creek Tunnel to MP 70

Special Provisions
- 00745.16(a)(1) – "Obtaining samples according to the MFTP with certified technicians, except ACP grade sampling may be performed with other personnel approved by the Engineer."
- 00745.16(a)(3) – "Perform ACP sampling according to AASHTO R97. Allowable sampling methods are as follows: paver auger, windrow, or roadway before compaction (Method 1). The sampling personnel shall be available for sampling within 15 minutes of notification from the Engineer. A change in the sampling method or personnel must be approved by the Engineer."

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Blind Random ACP Sampling
C15363 – OR58: Salt Creek Tunnel to MP 70

Special Provisions

- 00745.16(a)(4) – "The Engineer will use random numbers to identify the ACP sampling locations according to ODOT TM 400."

- 00745.16(b)(1)(d) – "For the MDV start-up process only, sampling may be performed at the plant or in the field."

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Blind Random ACP Sampling
(Pilot Projects)

Windrow

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Blind Random ACP Sampling (Pilot Projects)

Windrow

1. Obtain samples from the windrow of a transport unit. Avoid the beginning or the end of the windrow section.
2. Visually divide the windrow into approximately three equal sections.
3. Remove approximately 0.3 m (1 ft) from the top of each section.
4. Fully insert the shovel into the flat surface as vertically as possible, exclude the underlying material, roll back the shovel and lift the material slowly out of the windrow to avoid material rolling off the shovel.

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Blind Random ACP Sampling (Pilot Projects)

Windrow

5. Place in a sample container.
6. Repeat, obtaining equal size increments, in each of the remaining thirds.
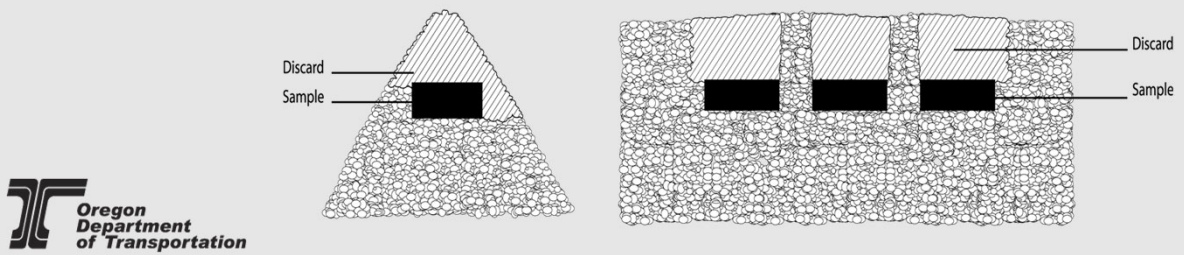7. Combine the increments to form a sample of the required size.

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Blind Random ACP Sampling (Pilot Projects)

Windrow

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C15363 – OR58: Salt Creek Tunnel to MP 70

Blind Random ACP Sampling - Windrow

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C15363 – OR58: Salt Creek Tunnel to MP 70

Initial ACP Sample Reduction in Field

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C15363 – OR58: Salt Creek Tunnel to MP 70

Initial ACP Sample Reduction in Field
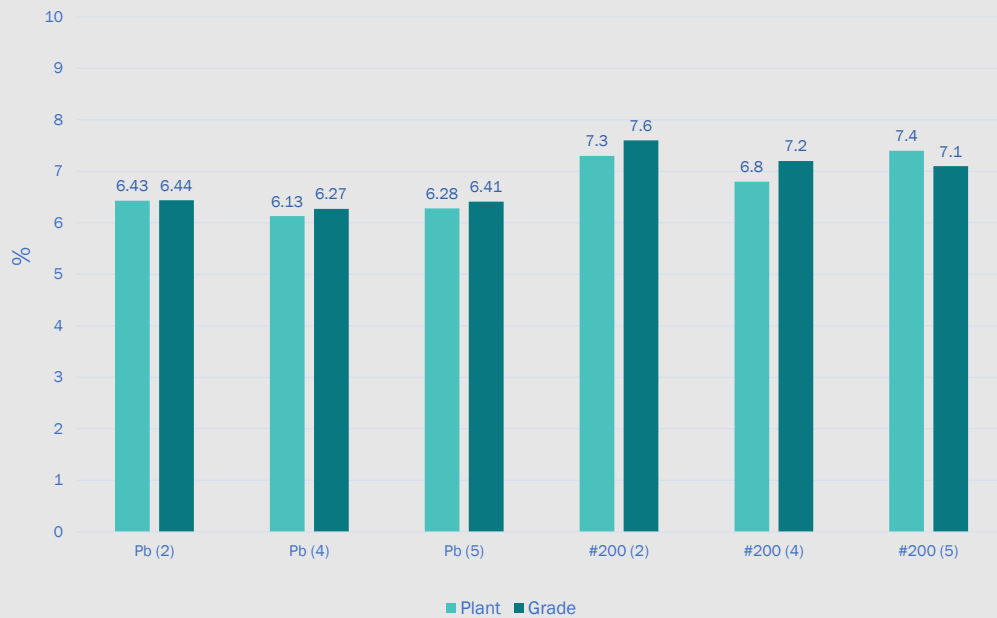
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Blind Random ACP Sampling

Future Outlook
- Pilot Projects 2023
- Feedback or Contract Language Ideas
- Pavement Services Available as a Resource

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Plant vs Grade Sampling Test Data

	Plant	Grade
Pb (2)	6.43	6.44
Pb (4)	6.13	6.27
Pb (5)	6.28	6.41
#200 (2)	7.3	7.6
#200 (4)	6.8	7.2
#200 (5)	7.4	7.1

■ Plant ■ Grade

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