

# Pavement Technology, Inc.



**PAVEMENT PRESERVATION EXPERTS  
FOR  
39 YEARS**

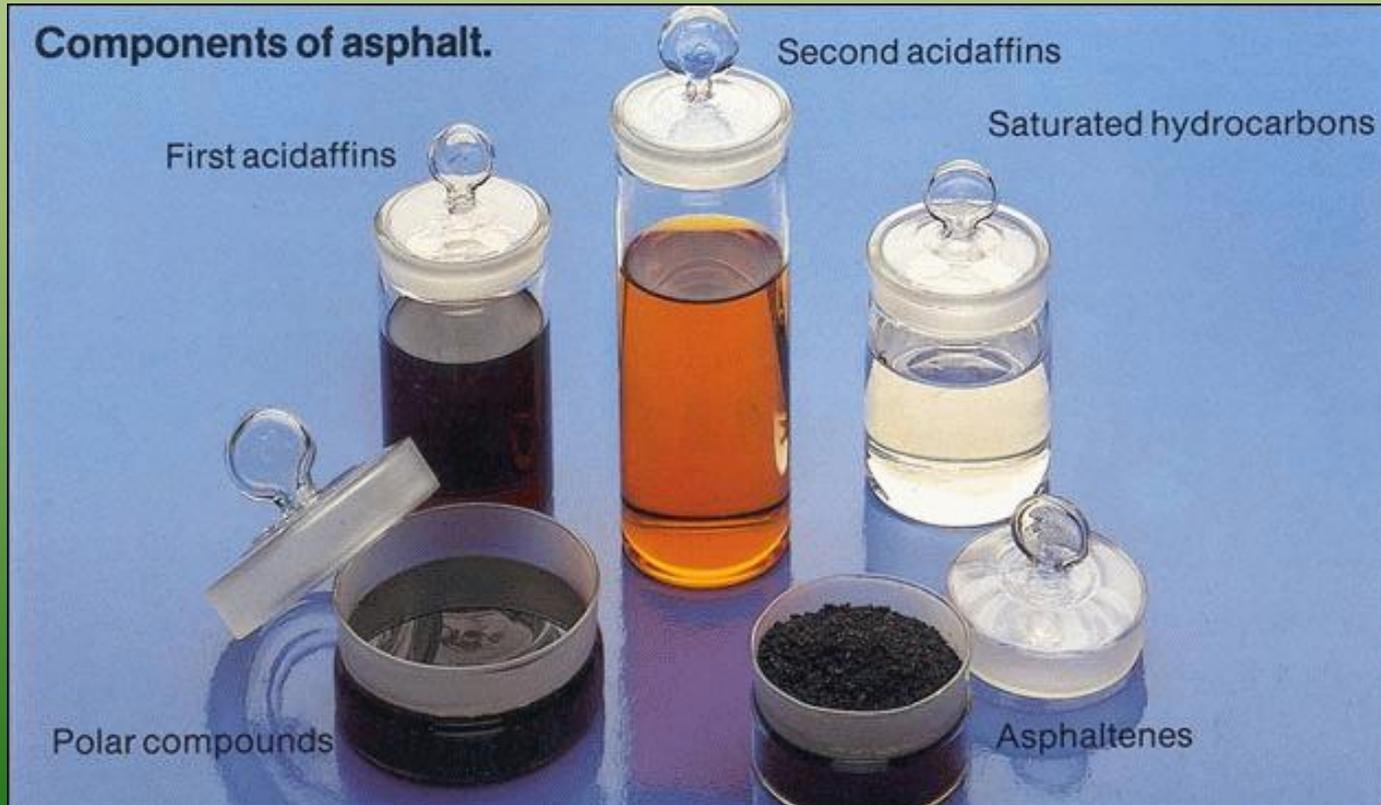
# PTI has been involved in Pavement Preservation Since 1972

- Before pavement preservation was as popular as it is today;
- Processes we provide to DOT's include:
  - Longitudinal Joint Stabilization with **JOINTBOND®**;
  - Asphalt Rejuvenation with **Reclamite®**;
  - Skidabrader-Reclamite Treatment.

**ALL ARE MALTENE REPLENISHMENT PROCESSES**

# Why MALTENE replenishment?

## Simple Asphalt Chemistry!



# Asphalt Cement = Asphaltenes & Maltenese



# Maltene Loss



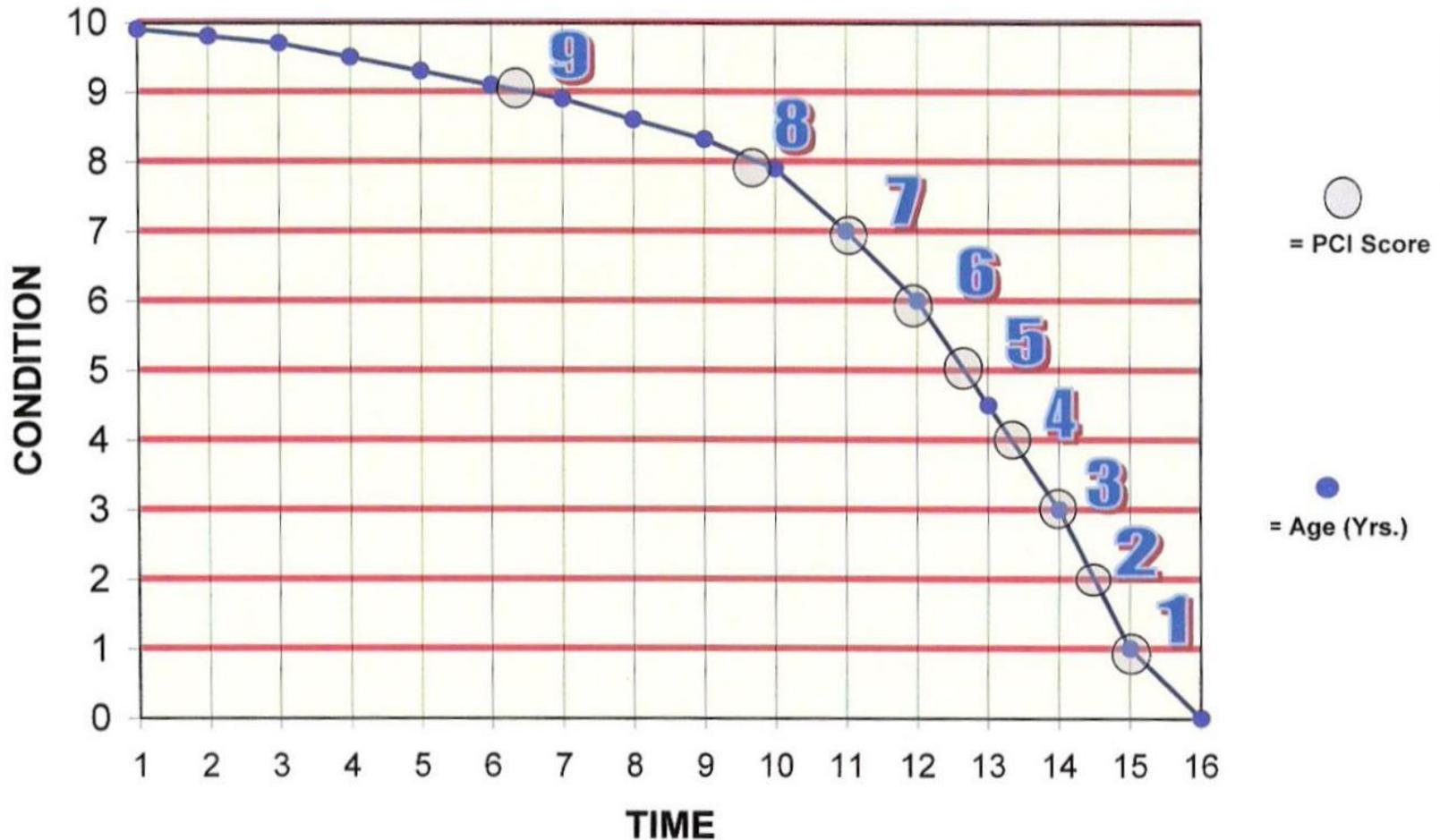
**Due to high temps during hot-mix production**

**Constant exposure to the sun's UV rays and subsequent surface flushing by rains**



# Maltene Loss = Deterioration

## Typical Pavement Deterioration Curve



# JOINTBOND®

Prevent longitudinal joint deterioration



# JOINTBOND® Polymerized Maltene Emulsion for Longitudinal Joints



# Reclamite Asphalt Rejuvenator



# Skidabrader & Reclamite® Surface Treatment



Skidabrading the surface increases Skid Numbers Prior to Reclamite Application



Reclamite Asphalt Rejuvenator is applied and penetrates down into the pavement.



Skid Testing 30 Minutes After Reclamite application verifies acceptable skid numbers

# Skidabrader & Reclamite® Surface Treatment

## PAVEMENT CORE TEST RESULTS

Testing by APART, Inc., Shafter, CA - Nov. 5, 2010

Top 3/8-inch of Treated and Untreated Core Samples

Sample Location	Viscosity 60C, Poises	% Change	Phase Angle, Deg.	MODULUS, 60C, Pa			
				Complex	Elastic	% Change	Viscous
TN SR12 Reclamite Treated	15260	41.73%	78.2	15300	3127	51.86%	14978
TN SR12 Untreated	26189		75.7	26258	6496		26442

Summary of Testing: Testing the top 3/8" of each core, the asphalt was extracted and recovered as prescribed by California Test Method 365. 60 C Viscosities, Pa's, phase angles, complex, elastic, and viscous moduli were determined on recovered asphalt binder using the Dynamic Shear Rheometer as prescribed by AASHTO T316.

## Tennessee DOT Skidabrader-Reclamite Treatment Test - State Route 12

### Skid Test Results : Day Before, Day of Treatment, and Day After Treatment

Day Before									
9/15/2010		9/16/2010		9/16/2010		9/16/2010		9/17/2010	
PM	PM	AM (30 Min. After)		AM (60 Min. After)		PM (3-1/2 Hr. After)		AM (24 Hrs. After)	
1st run	2nd run	1st run	2nd run	3rd run	4th run				
45.2	48.1	Abraded & untreated	55.7	Abraded & untreated	59.2	Abraded & untreated	52.3	Abraded & untreated	52.3
		Abraded & treated	35.0	Abraded & treated	35.8	Abraded & treated	46.9	Abraded & treated	48.7
44.7	47.7	Abraded & untreated	53.7	Abraded & treated	36.9	Abraded & treated	36.0	Abraded & treated	44.2

Note: Rain/standing water was present at this time

**Numerous studies and reports conducted over the past 30+ years have confirmed the effectiveness of Reclamite in extending pavement life.**

Report No. FHWA-RD-78-108

**TECHNIQUES FOR REHABILITATING PAVEMENTS WITHOUT OVERLAYS –  
A SYSTEMS ANALYSIS**

Vol. 1. Analysis



September 1977  
Final Report

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**Asphalt Rejuvenators  
“Fact, or Fable”**

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**VALUE ENGINEERING**

**SUBJECT:** Report on Reclamite Usage,  
Naval Weapons Center  
China Lake, Calif.



**LOWEST COST  
VERSUS  
FUNCTION**

DEPARTMENT OF THE NAVY  
WESTERN DIVISION  
NAVAL FACILITIES ENGINEERING COMMAND  
SAN BRUNO, CALIFORNIA 94066

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