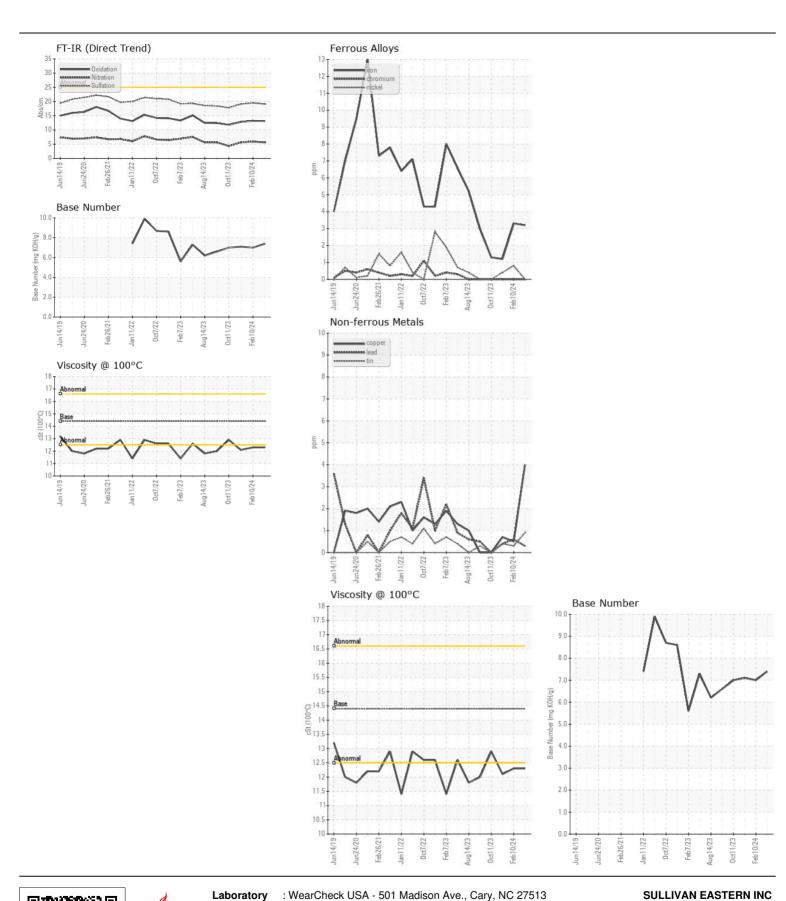
WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL

Machine Id **40401**

Component Diesel Engine

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0846447	WC0905331	WC0856795
Sample Date		Client Info		02 May 2024	10 Feb 2024	27 Nov 202
Machine Age	hrs	Client Info		12011	11783	11508
Oil Age	hrs	Client Info		1500	250	250
Filter Age	hrs	Client Info		1500	250	250
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	MARGINA
Iron	ppm	ASTM D5185m	>100	3	3	1
Chromium	ppm	ASTM D5185m	>20	0	0	0
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m		1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	4	2
Lead	ppm	ASTM D5185m	>40	<1	<1	<1
Copper	ppm	ASTM D5185m	>330	4	<1	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	mag	ASTM D5185m	>25	4	4	4
Potassium				0	<1	1
Fuel				<1.0	<1.0	<u>^</u> 2.6
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	5.6	5.9	5.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.1	19.5	19.1
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORM
Odor	scalar	*Visual		NORML	NORML	NORM
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m	>50	3	2	3
Boron	ppm	ASTM D5185m		422	387	337
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		79	83	81
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m		387	396	379
Calcium	ppm	ASTM D5185m		1325	1291	1244
Phosphorus	ppm	ASTM D5185m		998	1057	963
Zinc	ppm	ASTM D5185m		1179	1226	1148
Sulfur	ppm	ASTM D5185m		3565	3263	3010
Oxidation Base Number (BN)	Abs/.1mm	*ASTM D7414	>25	13.1	13.2	12.8 7.1
	Sample Number Sample Date Machine Age Oil Age Filter Age Oil Changed Filter Changed Sample Status Iron Chromium Nickel Titanium Silver Aluminum Lead Copper Tin Vanadium White Metal Yellow Metal Silicon Potassium Fuel Water Glycol Soot % Nitration Sulfation Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	Sample Number Sample Date Machine Age hrs Oil Age hrs Filter Age hrs Oil Changed Filter Changed Sample Status Iron ppm Chromium ppm Nickel ppm Titanium ppm Silver ppm Aluminum ppm Lead ppm Copper ppm Tin ppm Vanadium ppm White Metal scalar Yellow Metal scalar Yellow Metal scalar Silicon ppm Potassium ppm Fuel Water Glycol Soot % % Nitration Abs/.mm Silt scalar Sulfation Abs/.mm Silt scalar Sand/Dirt scalar Sand/Dirt scalar Sand/Dirt scalar Sodium ppm Boron ppm Boron ppm Barium ppm Molybdenum ppm Manganese ppm Magnesium Calcium ppm Phosphorus Zinc ppm	Sample Number Sample Date Machine Age Oil Age hrs Client Info Filter Age Oil Changed Filter Changed Sample Status Iron ppm ASTM D5185m Chromium ppm ASTM D5185m Nickel ppm ASTM D5185m Nickel ppm ASTM D5185m Aluminum ppm ASTM D5185m Copper ppm ASTM D5185m Vanadium ppm ASTM D5185m Visual Silicon ppm ASTM D5185m Fuel WC Method Glycol WC Method Soot % % ASTM D7624 Sulfation Abs/.1mm ASTM D5185m	Sample Number Client Info Sample Date Client Info Machine Age hrs Client Info Oil Age hrs Client Info Oil Age hrs Client Info Oil Changed Client Info Client Info Oil Changed Client Info Client Info Sample Status Sa	Sample Number Sample Date Client Info WC0846447 Sample Date Client Info 02 May 2024 Machine Age hrs Client Info 12011 Oil Age hrs Client Info 1500 Filter Age hrs Client Info Changed Filter Changed Client Info Changed Filter Changed Sample Status Client Info Changed Iron ppm ASTM D5185m >100 3 Chromium ppm ASTM D5185m >20 0 Nickel ppm ASTM D5185m >20 0 Nickel ppm ASTM D5185m >20 0 Silver ppm ASTM D5185m >3 0 Aluminum ppm ASTM D5185m >20 2 Lead ppm ASTM D5185m >20 2 Lead ppm ASTM D5185m >20 2 Vanadium ppm ASTM D5185m >15 <1	Sample Number Client Info Q May 2024 10 Feb 2024 11 Feb 2024 12 Feb 2024 10 Feb 2024







Laboratory

Sample No.

Lab Number : 06176769 Unique Number : 11022822

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0846447 Received **Tested**

Diagnosed

: 13 May 2024 : 14 May 2024

: 14 May 2024 - Wes Davis

US 27560 Contact: SCOTT SULLIVAN ssullivan@sullivaneastern.com

T: (919)484-8993 F: (919)484-2136

2860 C SLATER RD

MORRISVILLE, NC

Test Package : CONST (Additional Tests: TBN) Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)