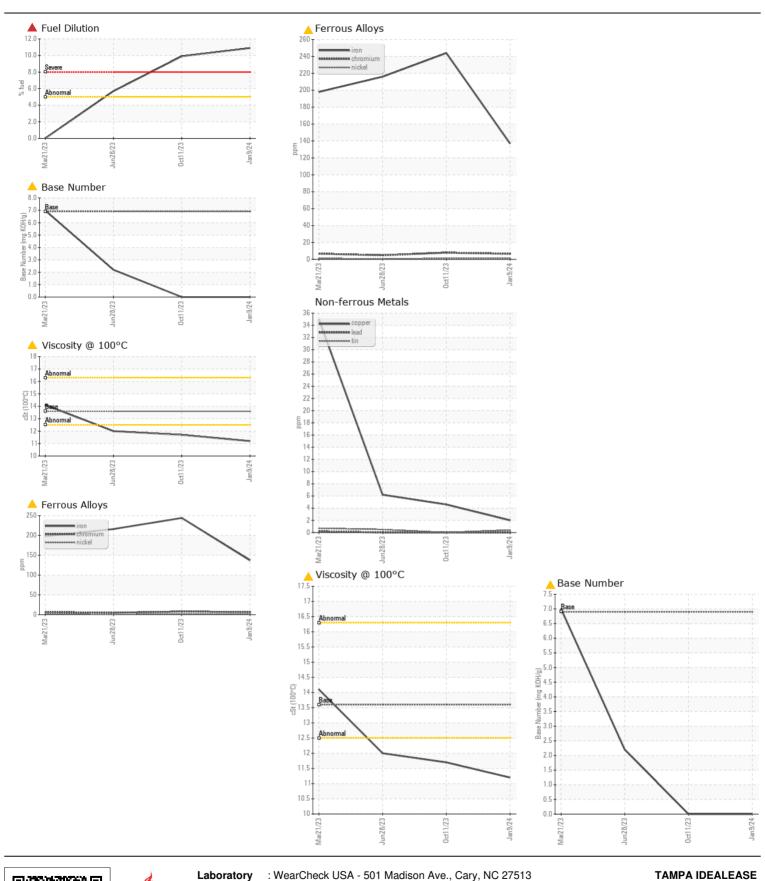
WEAR CONTAMINATION FLUID CONDITION

ABNORMAL SEVERE ABNORMAL

YRD 8

Component

Part Commendation Current Sample Number Client Info On On On On On On On O	Component Diesel Engine							
Test	Fluid							
Sample Number Client Info Changed Client Info Changed Client Info Changed Client Info Changed Changed Client Info Changed Changed Client Info Changed Changed Changed Sample Status SEVERE SEVERE SEVERE SEVERE Changed								
We advise that you check the fuel injection system. Oll and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Comparison	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Date	We advise that you should the fuel injection eveters. Oil and filter	Sample Number		Client Info		IL0028432	IL0034303	IL05900946
Second S	• • • • • • • • • • • • • • • • • • • •	Sample Date		Client Info		09 Jan 2024	11 Oct 2023	28 Jun 2023
Dil Age Mis Cilent Info Dil O O O O O O O O O O		Machine Age	mls	Client Info		30015	0	13222
Dil Changed Client Info Changed Changed Changed Changed Changed Changed NA	carry resample to morner this condition.	Oil Age	mls	Client Info		0	0	
Filter Changed Sample Status		•	mls			0	0	0
WEAR Iron ppm ASTM D5185m > 100 ▲ 137 ▲ 244 ▲ 216 Cylinder, crank, or cam shaft wear is indicated. Chromium ppm ASTM D5185m > 20 7 8 5 Nickel ppm ASTM D5185m > 20 7 8 5 Nikel ppm ASTM D5185m > 4 1 1 -1 Alluminum ppm ASTM D5185m > 20 9 6 8 Alluminum ppm ASTM D5185m > 20 9 6 8 Alluminum ppm ASTM D5185m > 20 9 6 8 Alluminum ppm ASTM D5185m > 30 0 0 0 0 Alluminum ppm ASTM D5185m > 30 2 6 8 Alluminum ppm ASTM D5185m > 30 0 0 0 0 0 0 0 0 0 0 0 0 0				Client Info		Changed	Changed	N/A
Iron		•		Client Info		•	0	
Cylinder, crank, or cam shaft wear is indicated.		Sample Status				SEVERE	SEVERE	SEVERE
Cylinder, crank, or cam shaft wear is indicated.	WEAR	Iron	nnm	ASTM D5185m	>100	▲ 137	A 244	<u>^</u> 216
Nickel ppm ASTM D5185m >4 1 1 <1 Titanium ppm ASTM D5185m 1 0 <1 Titanium ppm ASTM D5185m 1 0 <1 ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >2 0 9 6 8 Lead ppm ASTM D5185m >4 0 0 0 0 Copper ppm ASTM D5185m >3 0 0 0 0 Copper ppm ASTM D5185m >4 0 0 0 0 Vanadium ppm ASTM D5185m >15 <1 0 <1 Vanadium ppm ASTM D5185m >15 <1 0 <1 Vanadium ppm ASTM D5185m >15 <1 0 <1 Vanadium ppm ASTM D5185m >2 10 15 Value NONE NONE NONE NONE NONE NONE NONE NONE NONE Vellow Metal scalar Visual NONE NONE NONE NONE NONE Value Potassium ppm ASTM D5185m >2 10 15 15 Fuel % ASTM D5185m >3 46.7 47.9 39.0 Fuel is present in the oil and is lowering the viscosity. The BN level is lowering the public	WEAIT							
Titanium ppm ASTM D5185m 3 0 0 0 0 0	Cylinder, crank, or cam shaft wear is indicated.							
Silver ppm ASTM D5185m >3 0 0 0 0 Aluminum ppm ASTM D5185m >20 9 6 8 8 Lead ppm ASTM D5185m >40 0 0 0 0 Copper ppm ASTM D5185m >30 2 5 6 Tin ppm ASTM D5185m >15 <1 0 <1 Vanadium ppm ASTM D5185m >25 10 15 15 Vanadium ppm ASTM D5185m >20 17 6 68 △ 355 Valer WC Method >0.2 NEG NE							·	
Aluminum ppm ASTM D5185m >20 9 6 8 Lead ppm ASTM D5185m >30 2 5 6 Tin ppm ASTM D5185m >30 2 5 6 Tin ppm ASTM D5185m >15 <1 0 <1 Vanadium ppm ASTM D5185m >20 NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE					>3			
Lead ppm ASTM D5185m >40 0 0 0 0 0 0 0 0 0						-		
Copper						-		
Tin								
Vanadium ppm ASTM D5185m Visual NONE N								
White Metal Scalar *Visual NONE N		Vanadium					0	
Yellow Metal Scalar Visual NONE N					NONE	NONE	NONE	
Silicon ppm ASTM D5185m >25 10 15 15 15 Potassium ppm ASTM D5185m >20 17 68 A 355 Fuel % ASTM D5185m >20 17 68 A 355 Fuel % ASTM D5185m >20 NEG N		Yellow Metal	scalar		NONE	NONE	NONE	NONE
Potassium ppm ASTM D5185m >20 17 68 AS55								
Fuel % ASTM D3524 >5 № 10.9 № 9.9 № 5.7	CONTAMINATION		ppm					
Water WC Method >0.2 NEG	There is a high amount of fuel present in the oil		ppm			17		
Glycol WC Method NEG NEG 0.10	There is a high amount of fuel present in the oil.		%					
Soot %					>0.2			
Nitration Abs/cm *ASTM D7624 >20 24.0 22.1 17.1					-			
Sulfation Abs/1mm *ASTM D7415 >30 46.7 47.9 39.0								
Silt scalar *Visual NONE NORML								
Debris Scalar *Visual NONE NONE NONE NONE NONE Sand/Dirt Scalar *Visual NONE NORML NORM								
Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML								
Appearance Odor Scalar *Visual Pomble NORML NORML NORML NORML NORML NORML								
Dodor Emulsified Water scalar scalar *Visual scalar NORML Scalar NORML								
Emulsified Water scalar *Visual >0.2 NEG NEG NEG						-		
FLUID CONDITION Boron ppm ASTM D5185m 5 8 ▲ 53 Barium ppm ASTM D5185m 39 22 26 60 Barium ppm ASTM D5185m 1 0 0 0 Molybdenum ppm ASTM D5185m 49 56 76 97 Manganese ppm ASTM D5185m 1 2 2 4								
Boron ppm ASTM D5185m 39 22 26 60				v 150aa1				IVEG
Boron ppm ASTM D5185m 39 22 26 60	FLUID CONDITION	Sodium	ppm	ASTM D5185m		5	8	△ 53
Note		Boron	ppm	ASTM D5185m	39	22	26	60
Molybdenum ppm ASTM D5185m 49 56 76 97 Manganese ppm ASTM D5185m 1 2 2 4	,	Barium	ppm			0	0	0
	iow.	Molybdenum	ppm	ASTM D5185m	49	56	76	97
		Manganese	ppm	ASTM D5185m	1	2	2	4
Magnesium ppm ASTM D5185m 616 610 607 514		•	ppm			610	607	514
Calcium ppm ASTM D5185m 1554 998 1259 1286			ppm					
Phosphorus ppm ASTM D5185m 899 643 810 856			ppm					
Zinc ppm ASTM D5185m 1069 818 987 1080								
Sulfur ppm ASTM D5185m 2624 2072 2785 3159								
Oxidation Abs/.1mm *ASTM D7414 >25 82.1 76.2 49.3								
Base Number (BN) mg KOH/g ASTM D2896 6.9								
Visc @ 100°C cSt ASTM D445 13.6 ▲ 11.2 ▲ 11.7 ▲ 12.0		Visc @ 100°C	cSt	ASTM D445	13.6	11.2	11.7	<u>12.0</u>





Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : IL0028432 Lab Number : 06104090

Unique Number : 10902320

Received **Tested** Diagnosed

: 29 Feb 2024 : 04 Mar 2024

: 04 Mar 2024 - Don Baldridge

Test Package : FLEET (Additional Tests: PercentFuel) To discuss this sample report, contact Customer Service at 1-800-237-1369.

US 33610-9565 Contact: Russ Cook russcook@idealease.com T: (813)626-9285

5951 ORIENT ROAD

TAMPA, FL

* - 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)

Contact/Location: Russ Cook - IDETAMFL

F: (844)270-1356