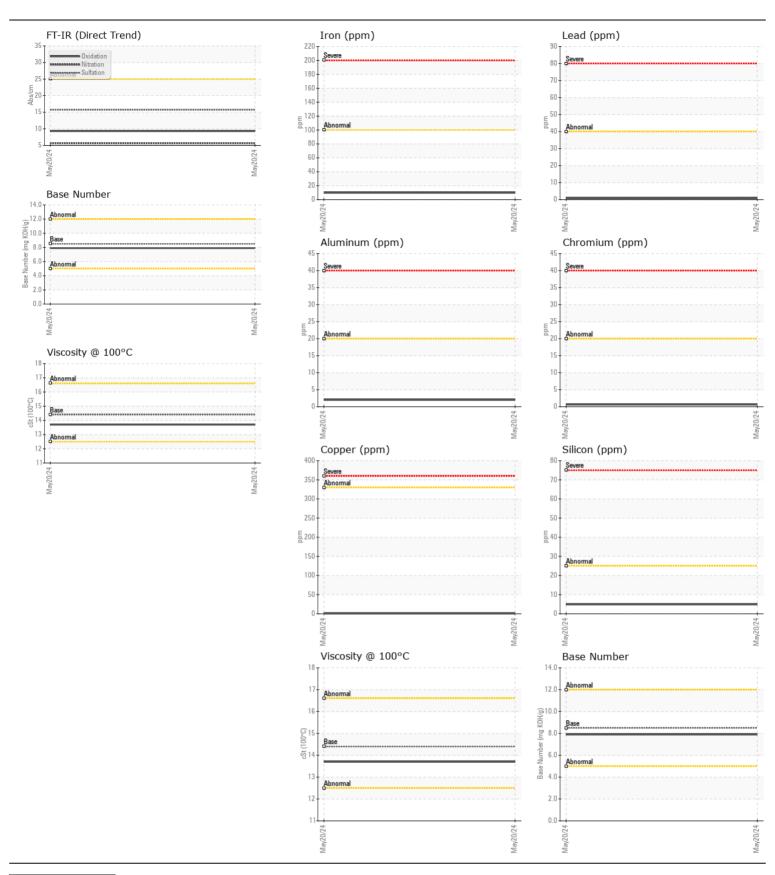
WEAR CONTAMINATION **FLUID CONDITION**

NORMAL NORMAL NORMAL

Machine Id

M02221
Component
Diesel Engine

Machine Age mis Cilient Info 0	DIESEL ENGINE OIL SAE 15W40 (QTS)					.,		
Sample Number Client Info Close Client Info Sample Number Client Info Sample Date Client Info Cl	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Sompto-Date Sompto-Date Sompto-Date Sompto-Date Some Date Sompto-Date Some Date Sompto-Date Some Date Sompto-Date Sompto		Sample Number		Client Info		DC0036424		
Machine Age mis Client Info 0 0 0 0 0 0 0 0 0	Resample at the next service interval to monitor. Please specify the component make and model with your next sample.	Sample Date		Client Info		20 May 2024		
Filter Age		Machine Age	mls	Client Info		3957		
Oil Changed Client Info Changed		Oil Age	mls	Client Info		0		
Filter Changed Sample Status Sample Stat		Filter Age	mls	Client Info		0		
NORMAL		Oil Changed		Client Info		Changed		
Iron		Filter Changed		Client Info		Changed		
Chromium ppm ASTM D5185m >20 <1		Sample Status				NORMAL		
Chromium ppm ASTM D5185m >20 <1	WEAR	Iron	ppm	ASTM D5185m	>100	10		
Nicke	WEAR			ASTM D5185m	>20			
Titanium ppm ASTM D5185m <1	Metal levels are typical for a new component breaking in.							
Silver ppm								
Aluminum ppm ASTM D5185m >20 2					>3			
Lead								
Copper								
Tin								
Vanadium ppm ASTM DS185m <1								
White Metal Yellow Metal Scalar Visual NONE NONE								
Silicon ppm ASTM D5185m >25 5 Potassium ppm ASTM D5185m >20 2 Fuel WC Method >5 <1.0 Water WC Method >5 <1.0 Water WC Method >6 >6 Glycol WC Method NEG Soot % % ASTM D7844 >3 0.1 Nitration Abs/cm Abs/tmm ASTM D7845 >30 15.7 Silit scalar Visual NONE NONE NONE Appearance scalar Visual NONE NONE NONE Appearance scalar Visual NORML NORM		White Metal			NONE	NONE		
Potassium ppm ASTM D5185m 2-0 2		Yellow Metal	scalar	*Visual	NONE			
Potassium ppm ASTM D5185m 2-0 2	CONTAMINATION	Silicon	nnm	ASTM D5185m	-25	5		
Fuel WC Method So.2 NEG So.5 S	CONTAMINATION							
Water WC Method >0.2 NEG	There is no indication of any contamination in the oil.		ррпп					
Glycol								
Soot %					<i>></i> 0.2			
Nitration		•	0/2		~3			
Sulfation Abs/.1mm *ASTM D7415 >30 15.7 Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NOR								
Silt scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NORML NORML								
Debris Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NONE NONE NONE Sand/Dirt Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NORML NORML NORML Scalar *Visual NORML								
Sand/Dirt Scalar *Visual NONE NONE Appearance Scalar *Visual NORML NORM								
Appearance Scalar *Visual NORML NORML NORML Emulsified Water Scalar *Visual NORML NORML NORML NORML Emulsified Water Scalar *Visual NORML								
Codor Scalar *Visual NORML N								
Emulsified Water scalar *Visual >0.2 NEG								
Boron ppm ASTM D5185m 250 7								
Boron ppm ASTM D5185m 250 7	EL LUD CONDITION	O - alliana		AOTA DE LOS	450			
The BN result indicates that there is suitable alkalinity remaining in the bil. The condition of the oil is suitable for further service. Barium ppm ASTM D5185m 10 0 Molybdenum ppm ASTM D5185m 100 5 Manganese ppm ASTM D5185m 450 60 Magnesium ppm ASTM D5185m 3000 2348 Calcium ppm ASTM D5185m 1150 963 Zinc ppm ASTM D5185m 1350 1062 Sulfur ppm ASTM D5185m 4250 4411 Oxidation Abs/.1mm *ASTM D7414 >25 9.3 Base Number (BN) mg KOH/g ASTM D2896 8.5 7.9	FLUID CONDITION							
Molybdenum ppm ASTM D5185m 100 5 Magnesium ppm ASTM D5185m 450 60 Calcium ppm ASTM D5185m 1150 963 Zinc ppm ASTM D5185m 1350 1062 Sulfur ppm ASTM D5185m 4250 4411 Oxidation Abs/.1mm *ASTM D7414 >25 9.3 Base Number (BN) mg KOH/g ASTM D2896 8.5 7.9	The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.							
Manganese ppm ASTM D5185m <1 Magnesium ppm ASTM D5185m 450 60 Calcium ppm ASTM D5185m 3000 2348 Phosphorus ppm ASTM D5185m 1150 963 Zinc ppm ASTM D5185m 1350 1062 Sulfur ppm ASTM D5185m 4250 4411 Oxidation Abs/.1mm *ASTM D7414 >25 9.3 Base Number (BN) mg KOH/g ASTM D2896 8.5 7.9								
Magnesium ppm ASTM D5185m 450 60 Calcium ppm ASTM D5185m 3000 2348 Phosphorus ppm ASTM D5185m 1150 963 Zinc ppm ASTM D5185m 1350 1062 Sulfur ppm ASTM D5185m 4250 4411 Oxidation Abs/.1mm *ASTM D7414 >25 9.3 Base Number (BN) mg KOH/g ASTM D2896 8.5 7.9					100			
Calcium ppm ASTM D5185m 3000 2348 Phosphorus ppm ASTM D5185m 1150 963 Zinc ppm ASTM D5185m 1350 1062 Sulfur ppm ASTM D5185m 4250 4411 Oxidation Abs/.1mm *ASTM D7414 >25 9.3 Base Number (BN) mg KOH/g ASTM D2896 8.5 7.9					150			
Phosphorus ppm ASTM D5185m 1150 963 Zinc ppm ASTM D5185m 1350 1062 Sulfur ppm ASTM D5185m 4250 4411 Oxidation Abs/.1mm *ASTM D7414 >25 9.3 Base Number (BN) mg KOH/g ASTM D2896 8.5 7.9		•						
Zinc ppm ASTM D5185m 1350 1062 Sulfur ppm ASTM D5185m 4250 4411 Oxidation Abs/.1mm *ASTM D7414 >25 9.3 Base Number (BN) mg KOH/g ASTM D2896 8.5 7.9								
Sulfur ppm ASTM D5185m 4250 4411 Oxidation Abs/.1mm *ASTM D7414 >25 9.3 Base Number (BN) mg KOH/g ASTM D2896 8.5 7.9		•						
Oxidation Abs/.1mm *ASTM D7414 >25 9.3 Base Number (BN) mg KOH/g ASTM D2896 8.5 7.9								
Base Number (BN) mg KOH/g ASTM D2896 8.5 7.9								
VISC @ 100 O COL NOTWIDATO 14.4		()						
		VISC @ 100 C	601	AUTIVI D440	17.4	13.1		





Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513

: DC0036424 Lab Number : 06194815

Unique Number : 11056938

Diagnosed Test Package : MOB 1 (Additional Tests: TBN)

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.

: 29 May 2024 : 30 May 2024 : 30 May 2024 - Wes Davis

US 20781 Contact: June McClosky office@mmfleet.net T: (301)779-4545 F: x:

5046 BUCHANAN ST.

HYATTSVILLE, MD

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

Received

Tested

M&M FLEET