WEAR CONTAMINATION **FLUID CONDITION**

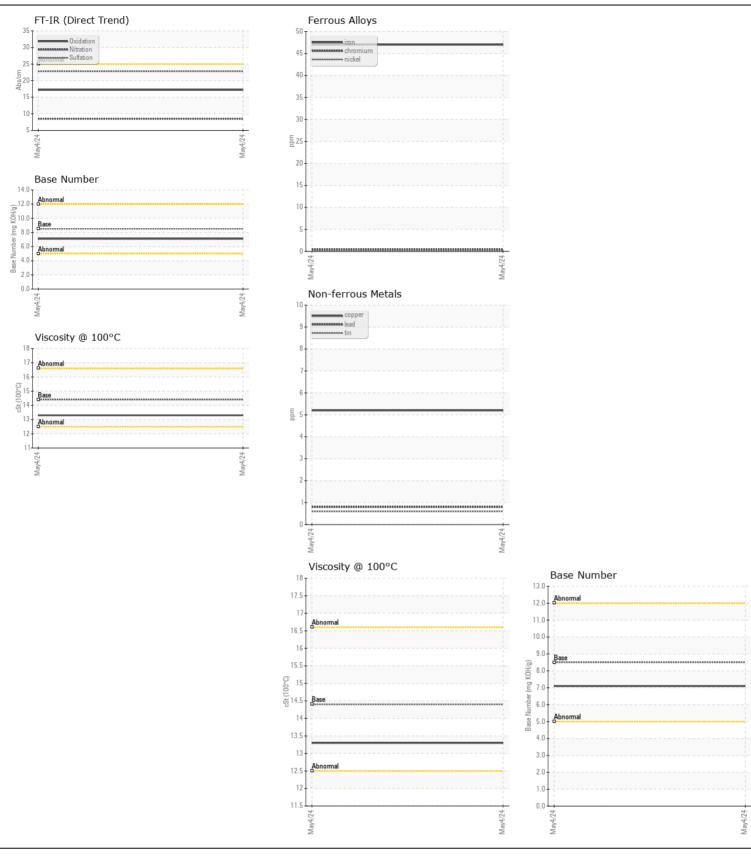
NORMAL NORMAL NORMAL

Machine Id

DFA42091

Component
Diesel Engine

Recommendation Reason specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the oil of the oil on your next sample. Please specify the oil on your next sample. Please specify the oil on your next sample. Please	DIESEL ENGINE OIL SAE 15W40 (QTS)							
Resample at the noxt service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the please specify	RECOMMENDATION	Toet	LIOM	Method	Limit/Δhn	Current	History1	History2
Resample at the next service interval to monitor. Please specify the bornouncer make and model with your next sample. Sample Date Machine Age mils Cilient Info 0	Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the		OOW		LIIIIU/ADII			
Mechine Age mis Client Info 0 0 0 0 0 0 0 0 0		•						
Column			mls			-		
Filter Age		ū						
Oil Changed Cilient Info Changed Cilient Info Changed								
Filter Changed Client Info Changed Client Info Changed		•	11110			-		
Normal N		-						
Metal levels are typical for a new component breaking in. Nickel pm		_				_		
Metal levels are typical for a new component breaking in. Nickel pm	WEAR	Iron	ppm	ASTM D5185m	>100	47		
Nicke								
Titanium ppm ASTM D5185m 3 0								
Silver ppm ASTM D5185m >20					- '			
Aluminum ppm ASTM D5185m >20 4					>3			
Lead								
Copper								
Tin								
Vanadium ppm ASTM D5185m NONE NONE								
White Metal Yellow Metal Scalar *Visual NONE NONE NONE NONE NONE NONE NONE NON								
Solicon					NONE	-		
Potassium ppm ASTM D5185m >20 0								
Potassium ppm ASTM D5185m >20 0	CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	11		
Fuel WC Method S-5 -1.0		Potassium		ASTM D5185m	>20	0		
Water WC Method 0.0.2 NEG Glycol WC Method Soot % WE Met	There is no indication of any contamination in the oil.		1-1-					
Glycol		Water		WC Method	>0.2			
Soot %		Glycol		WC Method		NEG		
Sulfation Abs/.fmm *ASTM D7415 >30 22.8 Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML			%	*ASTM D7844	>3	0.9		
Silt Scalar *Visual NONE NONE NONE Sand/Dirt Scalar *Visual NONE NONE NONE Sand/Dirt Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NONE NONE Scalar *Visual NORML NORML Scalar *Visual NORML NORML Scalar *Visual NORML NORML Scalar *Visual NORML NORML Scalar *Visual Scalar *Visual NORML Scalar *Visual NORML Scalar *Visual Scalar *Visual NORML Scalar *Visual Scal		Nitration	Abs/cm	*ASTM D7624	>20	8.5		
Debris Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NONE NORML Scalar *Visual NORML NOR		Sulfation	Abs/.1mm	*ASTM D7415	>30	22.8		
Sand/Dirt Scalar *Visual NONE NORM NORML		Silt	scalar	*Visual	NONE	NONE		
Appearance		Debris	scalar	*Visual	NONE	NONE		
Codor Scalar *Visual NORML NORML Emulsified Water Scalar *Visual Scalar *Visual *Scalar *Visual Scalar *Visual *Scalar *Scalar *Visual *Scalar *Scalar *Visual *Scalar *Scalar *Visual *Scalar		Sand/Dirt	scalar	*Visual	NONE	NONE		
Emulsified Water scalar *Visual >0.2 NEG		Appearance	scalar	*Visual	NORML	NORML		
Sodium ppm ASTM D5185m >158 1		Odor	scalar	*Visual	NORML	NORML		
Boron ppm ASTM D5185m 250 372		Emulsified Water	scalar	*Visual	>0.2	NEG		
Boron ppm ASTM D5185m 250 372 Barium ppm ASTM D5185m 10 0 Molybdenum ppm ASTM D5185m 100 84 Magnesium ppm ASTM D5185m 100 84 Magnesium ppm ASTM D5185m 450 428 Calcium ppm ASTM D5185m 3000 1338 Phosphorus ppm ASTM D5185m 1150 1048 Zinc ppm ASTM D5185m 1350 1229 Sulfur ppm ASTM D5185m 4250 3530 Sulfur ppm ASTM D5185m 4250 3530 Sulfur ppm ASTM D5185m 4250 3530 Base Number (BN) mg KOH/g ASTM D2896 8.5 7.1	FLUID CONDITION	Sodium	ppm	ASTM D5185m	>158	1		
Barium ppm ASTM D5185m 10 0 Molybdenum ppm ASTM D5185m 100 84 Magnesium ppm ASTM D5185m 100 84 Magnesium ppm ASTM D5185m 450 428 Calcium ppm ASTM D5185m 3000 1338 Phosphorus ppm ASTM D5185m 1150 1048 Zinc ppm ASTM D5185m 1350 1229 Sulfur ppm ASTM D5185m 4250 3530 Oxidation Abs/.1mm *ASTM D7414 >25 17.2 Base Number (BN) mg KOH/g ASTM D2896 8.5 7.1	The BN result indicates that there is suitable alkalinity remaining in the							
Molybdenum ppm ASTM D5185m 100 84 Manganese ppm ASTM D5185m 100 84 Manganese ppm ASTM D5185m 450 428 Calcium ppm ASTM D5185m 3000 1338 Phosphorus ppm ASTM D5185m 1150 1048 Sulfur ppm ASTM D5185m 1350 1229 Sulfur ppm ASTM D5185m 4250 3530 Oxidation Abs/.1mm *ASTM D7414 >25 17.2 Base Number (BN) mg KOH/g ASTM D2896 8.5 7.1								
Manganese ppm ASTM D5185m 1 Magnesium ppm ASTM D5185m 450 428 Calcium ppm ASTM D5185m 3000 1338 Phosphorus ppm ASTM D5185m 1150 1048 Zinc ppm ASTM D5185m 1350 1229 Sulfur ppm ASTM D5185m 4250 3530 Oxidation Abs/.1mm *ASTM D7414 >25 17.2 Base Number (BN) mg KOH/g ASTM D2896 8.5 7.1								
Magnesium ppm ASTM D5185m 450 428 Calcium ppm ASTM D5185m 3000 1338 Phosphorus ppm ASTM D5185m 1150 1048 Zinc ppm ASTM D5185m 1350 1229 Sulfur ppm ASTM D5185m 4250 3530 Oxidation Abs/.1mm *ASTM D7414 >25 17.2 Base Number (BN) mg KOH/g ASTM D2896 8.5 7.1		Manganese		ASTM D5185m		1		
Calcium ppm ASTM D5185m 3000 1338 Phosphorus ppm ASTM D5185m 1150 1048 Zinc ppm ASTM D5185m 1350 1229 Sulfur ppm ASTM D5185m 4250 3530 Oxidation Abs/.1mm *ASTM D7414 >25 17.2 Base Number (BN) mg KOH/g ASTM D2896 8.5 7.1					450			
Phosphorus ppm ASTM D5185m 1150 1048 Zinc ppm ASTM D5185m 1350 1229 Sulfur ppm ASTM D5185m 4250 3530 Oxidation Abs/.1mm *ASTM D7414 >25 17.2 Base Number (BN) mg KOH/g ASTM D2896 8.5 7.1		_						
Zinc ppm ASTM D5185m 1350 1229 Sulfur ppm ASTM D5185m 4250 3530 Oxidation Abs/.1mm *ASTM D7414 >25 17.2 Base Number (BN) mg KOH/g ASTM D2896 8.5 7.1		Phosphorus		ASTM D5185m	1150	1048		
Sulfur ppm ASTM D5185m 4250 3530 Oxidation Abs/.1mm *ASTM D7414 >25 17.2 Base Number (BN) mg KOH/g ASTM D2896 8.5 7.1		Zinc		ASTM D5185m	1350			
Oxidation Abs/.1mm *ASTM D7414 >25 17.2 Base Number (BN) mg KOH/g ASTM D2896 8.5 7.1		Sulfur		ASTM D5185m	4250	3530		
Base Number (BN) mg KOH/g ASTM D2896 8.5 7.1								
		Base Number (BN)	mg KOH/g			7.1		
		Visc @ 100°C	cSt	ASTM D445	14.4	13.3		







Certificate L2367

Laboratory Sample No.

: WC0925885 **Lab Number** : 06187100 Unique Number : 11043852 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 21 May 2024 **Tested**

: 23 May 2024 Diagnosed : 23 May 2024 - Wes Davis

SALEM NATIONALEASE CORPORATION 198 PARK PLAZA DRIVE

WINSTON SALEM, NC US 27105

Contact: Audrey Hopkins Audrey.Hopkins@salemcorp.com

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)

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