

WEAR CONTAMINATION FLUID CONDITION

NORMAL
ATTENTION
NORMAL

Area

Mobile Fleet

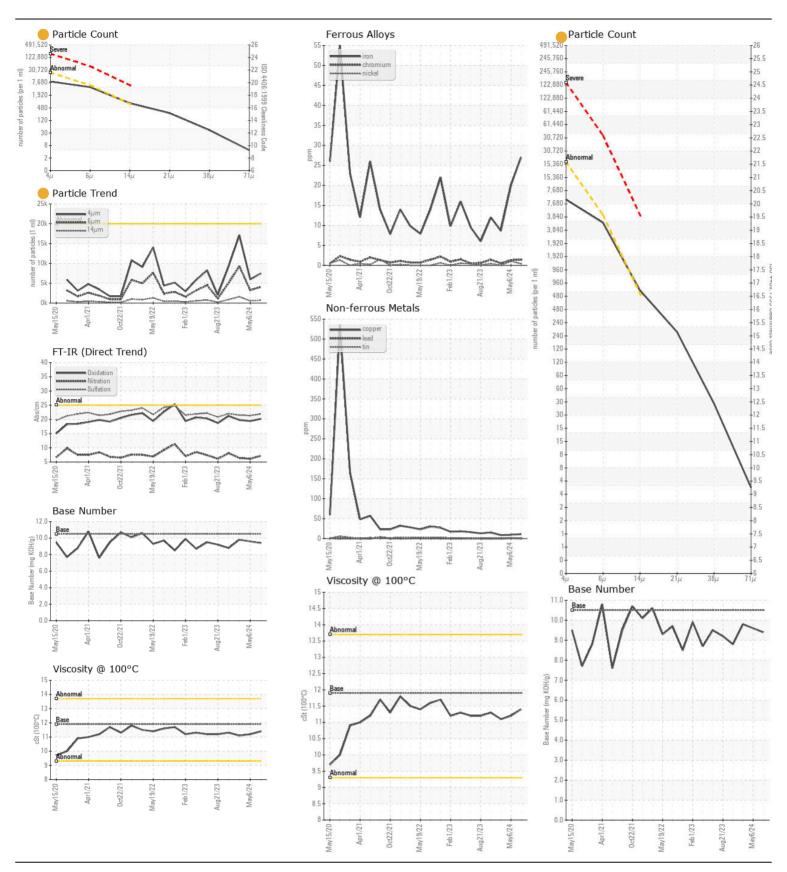
6453 6453

Diesel Engine

RECOMMENDATION Test UOM Method Limit/Abn (Current W00937749 W00937907 Sample Number Sample Number Client Info Sample Number Client Info Sample Number Sample Date Client Info Sample Number Client Info Sample Number Sample Date Client Info Sample Number Client Info Sample Number Sample Date Client Info Sample Number Client Info Sample Number Sample Date Nachine Age Nrs Client Info Sec Not Changed Filter Age Nrs Client Info Sec Not Changed Client Info Sample Status Sec Not Changed Not Changed Not Changed Sample Status Sec Not Changed Not Chan	21 Dec 202 7178 1078 1078 Changed
No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Machine Age hrs Client Info 7740 7480 Machine Age hrs Client Info 562 302 Filter Age hrs Client Info 562 302 Filter Age hrs Client Info 562 302 Filter Changed Client Info Changed Not Changed Filter Changed Sample Status	21 Dec 202 7178 1078 1078 Changed Changed ABNORMA
at the time of sampling has been noted. Resample at the next service interval to monitor. Machine Age hrs Client Info 562 302 Filter Age hrs Client Info 562 302 Filter Age hrs Client Info 562 302 Client Info Changed Client Info Changed Not Changed Not Changed Sample Status ATTENTION NORMAL WEAR	7178 1078 1078 Changed Changed ABNORMA 9 <1
interval to monitor. Oil Age	1078 1078 Changed Changed ABNORMA 9 <1
Filter Age hrs Client Info 562 302 Oil Changed Client Info Changed Not Changed Filter Changed Client Info Changed Not Changed Filter Changed Sample Status ATTENTION NORMAL Iron ppm ASTM D5185m >100 27 20 Chromium ppm ASTM D5185m >20 1 1 Nickel ppm ASTM D5185m >4 <1 1 Titanium ppm ASTM D5185m >3 <1 <1 Silver ppm ASTM D5185m >20 10 7 Aluminum ppm ASTM D5185m >20 10 7 Lead ppm ASTM D5185m >40 <1 <1 Chromium PT ASTM D5185m >20 10 7 Lead ppm ASTM D5185m >40 <1 <1 Changed Not	1078 Changed Changed ABNORMA 9 <1
VEAR	Changed Changed ABNORMA 9 <1
Filter Changed Sample Status Client Info Changed Not Changed Nort Cha	Changed ABNORMA 9 <1
Sample Status Sample Status ATTENTION NORMAL	ABNORMA 9 <1
Chromium ppm ASTM D5185m >20 1 1	<1
Chromium ppm ASTM D5185m >20 1 1	<1
All component wear rates are normal. Nickel ppm ASTM D5185m >4 <1 1 Titanium ppm ASTM D5185m >3 <1 0 Aluminum ppm ASTM D5185m >20 10 7 Lead ppm ASTM D5185m >40 <1 <1	
Titanium ppm ASTM D5185m <1	U
Silver ppm ASTM D5185m >3 <1	0
Aluminum ppm ASTM D5185m >20 10 7 Lead ppm ASTM D5185m >40 <1	0
Lead ppm ASTM D5185m >40 <1 <1	8
	0
	9
Tin ppm ASTM D5185m >15 <1 1	0
Vanadium ppm ASTM D5185m <1 <1	0
White Metal scalar *Visual NONE NONE NONE	NONE
Yellow Metal scalar *Visual NONE NONE NONE	NONE
CONTAMINATION Silicon ppm ASTM D5185m >25 5 7	12
Potassium ppm ASTM D5185m >20 11 8	10
There is a moderate amount of particulates present in the oil. Fuel WC Method >5 <1.0 <1.0	<1.0
Water WC Method >0.2 NEG NEG	NEG
Glycol WC Method NEG NEG	NEG
Soot %	0.2
Nitration Abs/cm *ASTM D7624 >20 7.2 6.1	6.4
Sulfation Abs/.1mm *ASTM D7415 >30 21.9 21.3	21.5
Particles >4μm ASTM D7647 >20000 7490 5959	17095
Particles >6μm ASTM D7647 >5000 4080 3246	9312
Particles >14μm ASTM D7647 >640 694 552	<u>1585</u>
Particles >21µm	534
Particles >38µm	<u>82</u>
Particles >71μm ASTM D7647 >10 4 3 Oil Cleanliness ISO 4406 (c) >21/19/16 20/19/17 20/19/16	8 21/20/1
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 NORML	NORM
Emulsified Water scalar *Visual >0.2 NEG NEG	NEG
ELLUD CONDITION	2
	39
FLUID CONDITION Sodium ppm ASTM D5185m <1	0
Boron ppm ASTM D5185m 40 57	
The BN result indicates that there is suitable alkalinity remaining in the Barium ppm ASTM D5185m 40 57 Sample Spron ppm ASTM D5185m 40 57 Sample Spron ppm ASTM D5185m 40 57	52
Boron ppm ASTM D5185m 40 57 The BN result indicates that there is suitable alkalinity remaining in the Barium ppm ASTM D5185m <1 0	<1
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. Boron ppm ASTM D5185m 40 57 Barium ppm ASTM D5185m <1 0 Molybdenum ppm ASTM D5185m 49 43	
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. Boron ppm ASTM D5185m 40 57 Barium ppm ASTM D5185m <1 0 Molybdenum ppm ASTM D5185m 49 43 Manganese ppm ASTM D5185m <1 1	<1
Boron ppm ASTM D5185m 40 57	<1 510 1719 745
Boron ppm ASTM D5185m 40 57	<1 510 1719 745 936
Boron ppm ASTM D5185m 40 57	<1 510 1719 745 936 2499
Boron ppm ASTM D5185m 40 57	<1 510 1719 745 936

Visc @ 100°C cSt

ASTM D445 11.9





Certificate L2367

Laboratory Sample No. Lab Number

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0937749 : 06225687 Unique Number : 11103884

To discuss this sample report, contact Customer Service at 1-800-237-1369.

Received **Tested**

Diagnosed Test Package: CONST (Additional Tests: KV40, PrtCount, TBN)

: 03 Jul 2024 : 03 Jul 2024 - Don Baldridge

: 01 Jul 2024

US 27509 Contact: Leigh Dennis rdennis@thesunrockgroup.com T: (919)575-4505

* - 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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