



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
114581
 Component
Diesel Engine
 Fluid
SHELL ROTELLA T 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		IL0033037	IL0032790	---
Sample Date		Client Info		21 May 2024	22 Nov 2023	---
Machine Age	mls	Client Info		61394	43406	---
Oil Age	mls	Client Info		17988	20766	---
Filter Age	mls	Client Info		17988	20766	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	35	53	---
Chromium	ppm	ASTM D5185m	>20	3	4	---
Nickel	ppm	ASTM D5185m	>4	<1	0	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m	>3	1	0	---
Aluminum	ppm	ASTM D5185m	>20	62	122	---
Lead	ppm	ASTM D5185m	>40	<1	0	---
Copper	ppm	ASTM D5185m	>330	3	11	---
Tin	ppm	ASTM D5185m	>15	<1	0	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

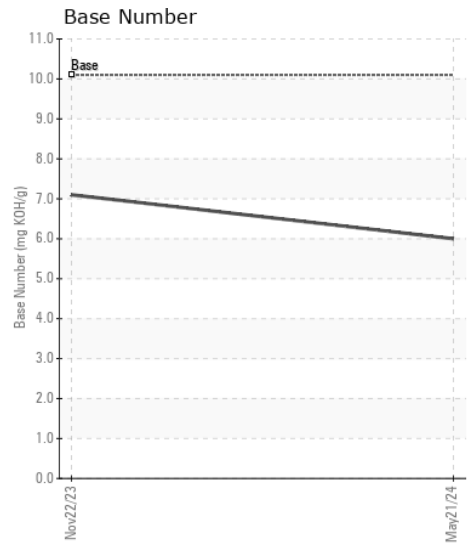
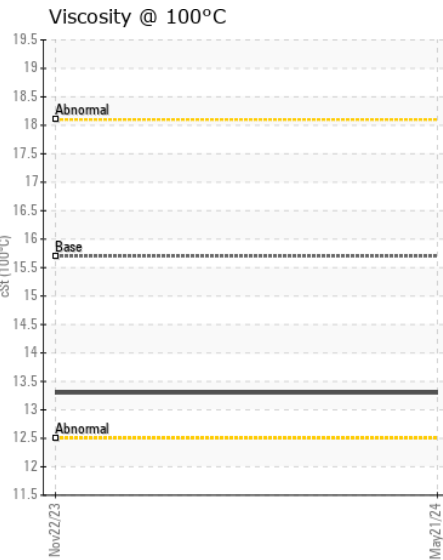
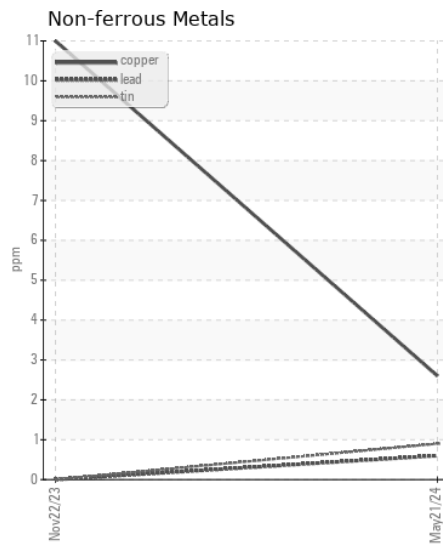
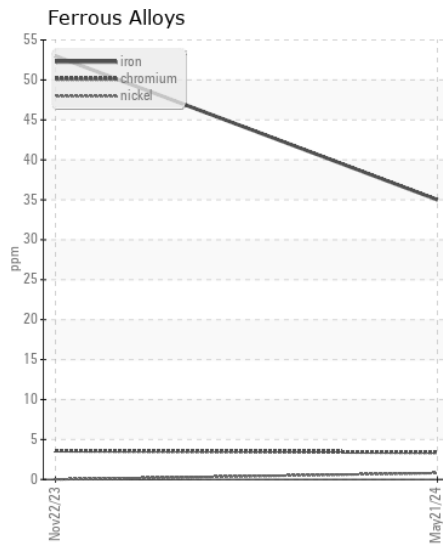
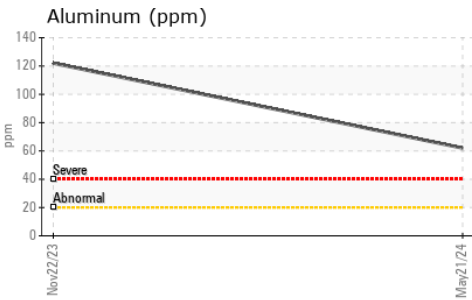
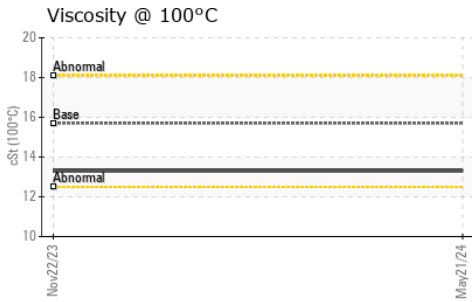
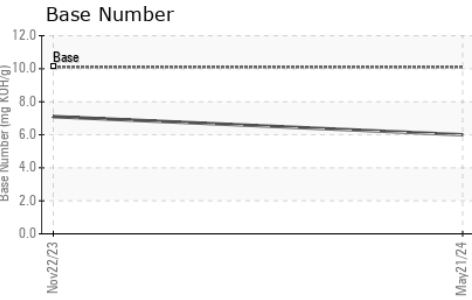
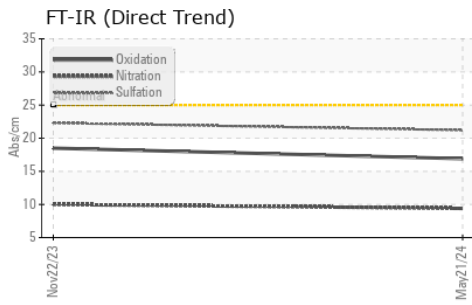
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	13	18	---
Potassium	ppm	ASTM D5185m	>20	120	296	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.7	0.8	---
Nitration	Abs/cm	*ASTM D7624	>20	9.4	10.0	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.2	22.3	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		3	0	---
Boron	ppm	ASTM D5185m	316	96	72	---
Barium	ppm	ASTM D5185m	0.0	<1	0	---
Molybdenum	ppm	ASTM D5185m	1.2	26	28	---
Manganese	ppm	ASTM D5185m		1	1	---
Magnesium	ppm	ASTM D5185m	24	254	259	---
Calcium	ppm	ASTM D5185m	2292	1893	1962	---
Phosphorus	ppm	ASTM D5185m	1064	976	960	---
Zinc	ppm	ASTM D5185m	1160	1207	1162	---
Sulfur	ppm	ASTM D5185m	4996	3440	3216	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.9	18.5	---
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	6.0	7.1	---
Visc @ 100°C	cSt	ASTM D445	15.7	13.3	13.3	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : IL0033037
Lab Number : 06191836
Unique Number : 11048588
Test Package : FLEET

Received : 28 May 2024
Tested : 29 May 2024
Diagnosed : 29 May 2024 - Wes Davis

IDEALASE OF NORTHWEST WI
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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)