IDEALEASE FLEET

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
115583
Component
Diesel Engine
Fluid
SHELL ROTELLA T 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

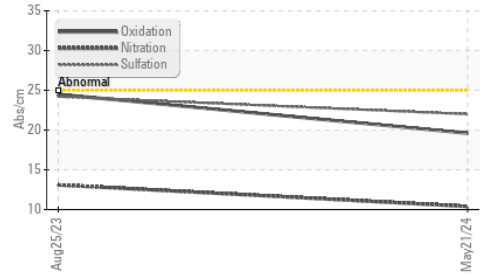
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

FLUID CONDITION

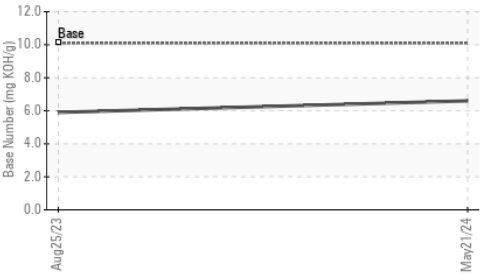
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**IL0033038**	IL0027477	---
Sample Date		Client Info		**21 May 2024**	25 Aug 2023	---
Machine Age	mls	Client Info		**33070**	19000	---
Oil Age	mls	Client Info		**14070**	19000	---
Filter Age	mls	Client Info		**14070**	19000	---
Oil Changed		Client Info		**Changed**	N/A	---
Filter Changed		Client Info		**Changed**	N/A	---
Sample Status				**NORMAL**	NORMAL	---
Iron	ppm	ASTM D5185m	>90	**29**	57	---
Chromium	ppm	ASTM D5185m	>20	**1**	1	---
Nickel	ppm	ASTM D5185m	>2	**<1**	<1	---
Titanium	ppm	ASTM D5185m	>2	**<1**	<1	---
Silver	ppm	ASTM D5185m	>2	**1**	0	---
Aluminum	ppm	ASTM D5185m	>20	**26**	32	---
Lead	ppm	ASTM D5185m	>40	**<1**	0	---
Copper	ppm	ASTM D5185m	>330	**3**	15	---
Tin	ppm	ASTM D5185m	>15	**1**	1	---
Vanadium	ppm	ASTM D5185m		**<1**	0	---
White Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Silicon	ppm	ASTM D5185m	>25	**9**	15	---
Potassium	ppm	ASTM D5185m	>20	**71**	82	---
Fuel		WC Method	>3.0	**<1.0**	<1.0	---
Water		WC Method	>0.2	**NEG**	NEG	---
Glycol		WC Method		**NEG**	NEG	---
Soot %	%	*ASTM D7844	>6	**0.5**	0.6	---
Nitration	Abs/cm	*ASTM D7624	>20	**10.4**	13.1	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	**22.0**	24.2	---
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	---
Sodium	ppm	ASTM D5185m		**3**	6	---
Boron	ppm	ASTM D5185m	316	**73**	27	---
Barium	ppm	ASTM D5185m	0.0	**1**	4	---
Molybdenum	ppm	ASTM D5185m	1.2	**31**	46	---
Manganese	ppm	ASTM D5185m		**2**	8	---
Magnesium	ppm	ASTM D5185m	24	**317**	809	---
Calcium	ppm	ASTM D5185m	2292	**1858**	1208	---
Phosphorus	ppm	ASTM D5185m	1064	**989**	658	---
Zinc	ppm	ASTM D5185m	1160	**1211**	852	---
Sulfur	ppm	ASTM D5185m	4996	**3458**	2637	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	**19.6**	24.5	---
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	**6.6**	5.9	---
Visc @ 100°C	cSt	ASTM D445	15.7	**13.3**	11.7	---

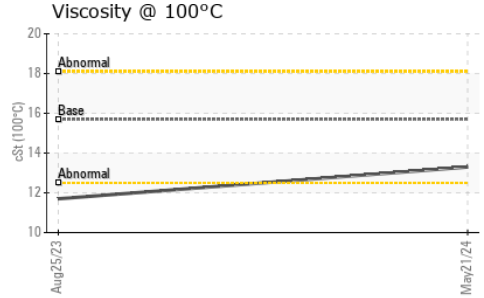
FT-IR (Direct Trend)



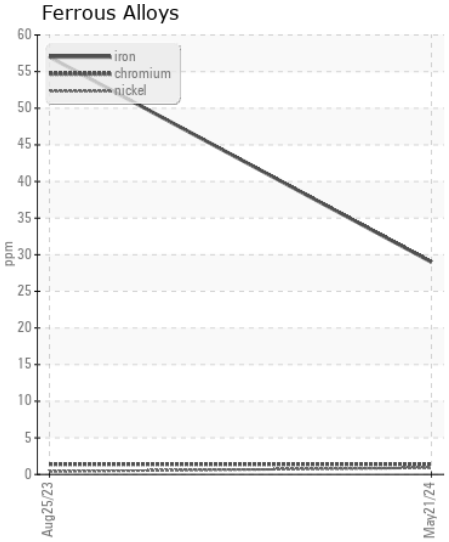
Base Number



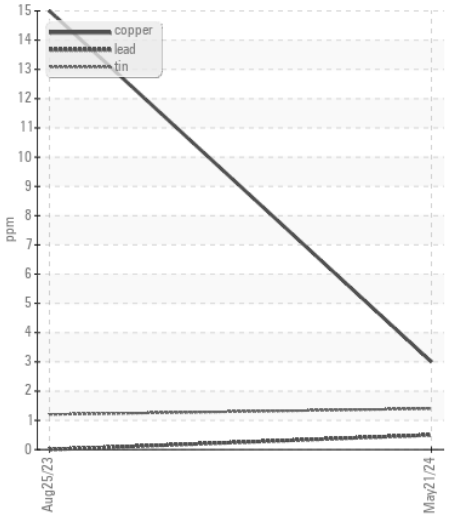
Viscosity @ 100°C



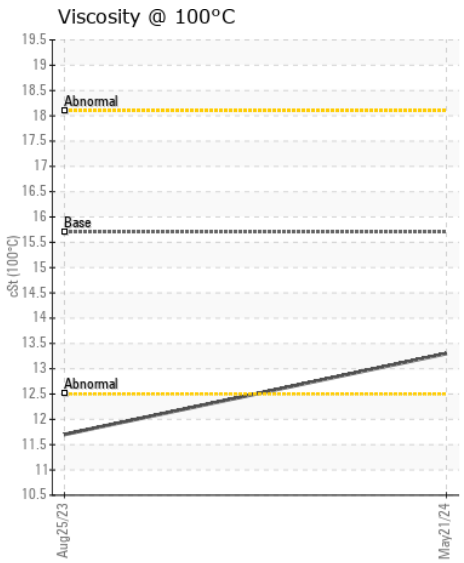
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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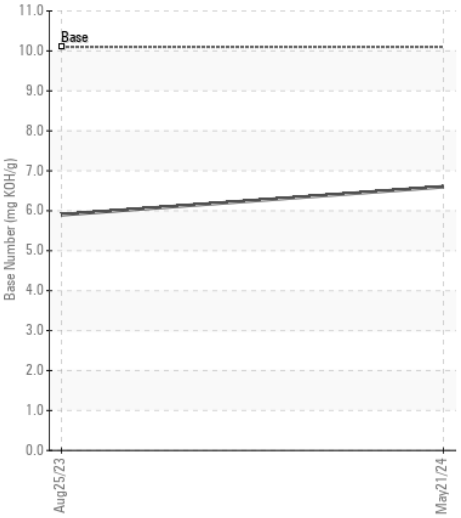

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : IL0033038
Lab Number : 06191839
Unique Number : 11048591
Test Package : FLEET

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

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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