



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
133205
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0945826	WC0852229	---
Sample Date		Client Info		27 Jun 2024	31 Aug 2023	---
Machine Age	mls	Client Info		293468	266701	---
Oil Age	mls	Client Info		60000	0	---
Filter Age	mls	Client Info		60000	0	---
Oil Changed		Client Info		Changed	N/A	---
Filter Changed		Client Info		Changed	N/A	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	17	28	---
Chromium	ppm	ASTM D5185m	>20	<1	1	---
Nickel	ppm	ASTM D5185m	>4	<1	0	---
Titanium	ppm	ASTM D5185m		<1	0	---
Silver	ppm	ASTM D5185m	>3	<1	0	---
Aluminum	ppm	ASTM D5185m	>20	8	12	---
Lead	ppm	ASTM D5185m	>40	<1	0	---
Copper	ppm	ASTM D5185m	>330	<1	<1	---
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

There is no indication of any contamination in the oil.

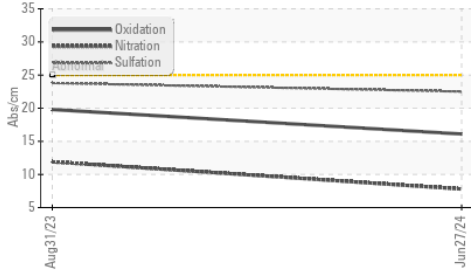
Silicon	ppm	ASTM D5185m	>25	5	5	---
Potassium	ppm	ASTM D5185m	>20	5	7	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.8	1.7	---
Nitration	Abs/cm	*ASTM D7624	>20	7.8	11.9	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.5	23.8	---
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

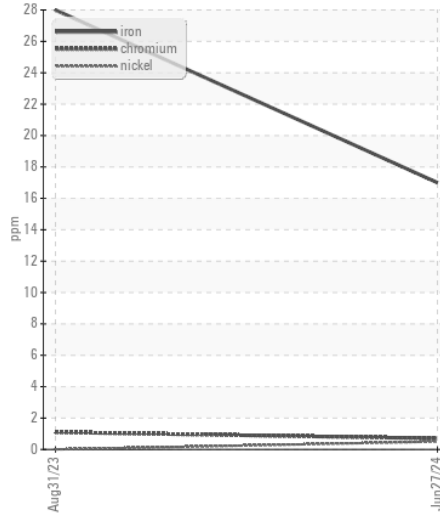
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>158	1	3	---
Boron	ppm	ASTM D5185m	250	272	3	---
Barium	ppm	ASTM D5185m	10	<1	<1	---
Molybdenum	ppm	ASTM D5185m	100	90	71	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m	450	423	1032	---
Calcium	ppm	ASTM D5185m	3000	1357	1198	---
Phosphorus	ppm	ASTM D5185m	1150	951	1118	---
Zinc	ppm	ASTM D5185m	1350	1130	1355	---
Sulfur	ppm	ASTM D5185m	4250	2708	3836	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.1	19.8	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.5	8.4	---
Visc @ 100°C	cSt	ASTM D445	14.4	13.4	12.6	---

FT-IR (Direct Trend)



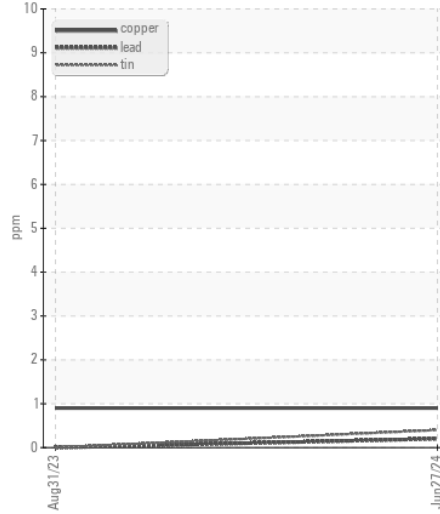
Ferrous Alloys



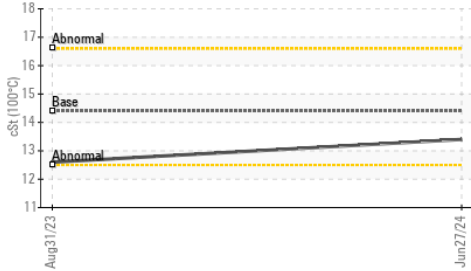
Base Number



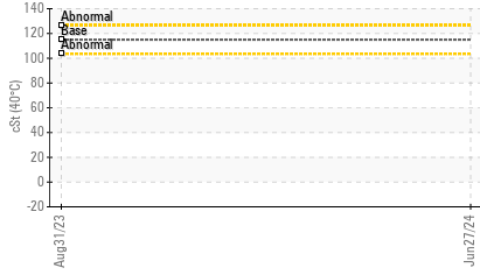
Non-ferrous Metals



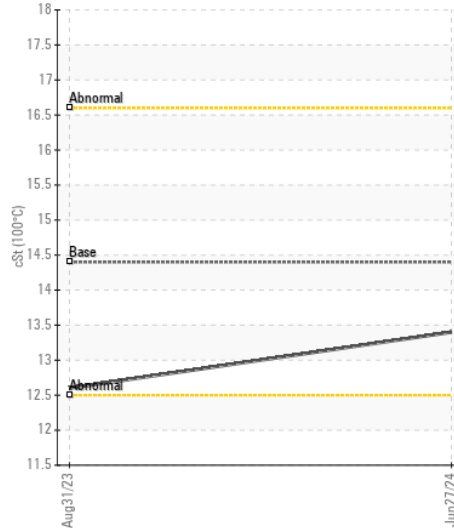
Viscosity @ 100°C



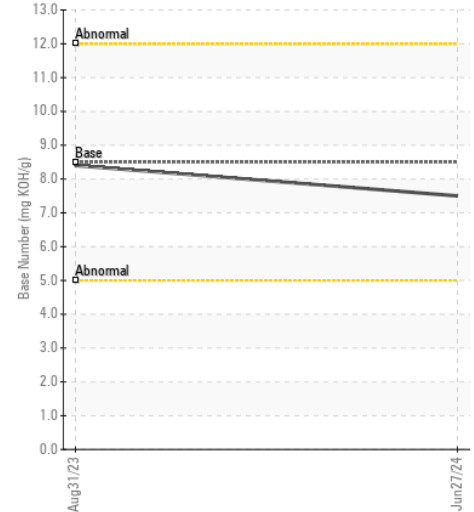
Viscosity @ 40°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0945826 **Received** : 02 Jul 2024
Lab Number : 06226037 **Tested** : 05 Jul 2024
Unique Number : 11109530 **Diagnosed** : 05 Jul 2024 - Jonathan Hester
Test Package : FLEET (Additional Tests: KV40)

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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)