



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
846-4101
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL 10W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RPL0022006	RPL0011229	---
Sample Date		Client Info		02 Jul 2024	14 Apr 2023	---
Machine Age	mls	Client Info		113263	87784	---
Oil Age	mls	Client Info		0	3272	---
Filter Age	mls	Client Info		0	3272	---
Oil Changed		Client Info		Changed	Not Changed	---
Filter Changed		Client Info		Changed	Not Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	7	17	---
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	0	0	---
Aluminum	ppm	ASTM D5185m	>20	3	2	---
Lead	ppm	ASTM D5185m	>40	0	0	---
Copper	ppm	ASTM D5185m	>330	13	11	---
Tin	ppm	ASTM D5185m	>15	<1	<1	---
Vanadium	ppm	ASTM D5185m		0	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.

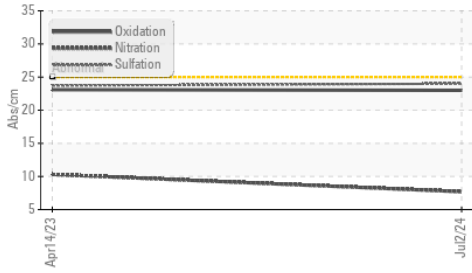
Silicon	ppm	ASTM D5185m	>25	11	5	---
Potassium	ppm	ASTM D5185m	>20	2	0	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0	0	---
Nitration	Abs/cm	*ASTM D7624	>20	7.7	10.3	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.0	23.7	---
Silt	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

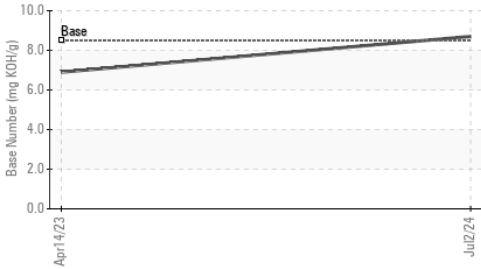
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		6	5	---
Boron	ppm	ASTM D5185m	250	57	31	---
Barium	ppm	ASTM D5185m	10	0	0	---
Molybdenum	ppm	ASTM D5185m	100	42	41	---
Manganese	ppm	ASTM D5185m		2	<1	---
Magnesium	ppm	ASTM D5185m	450	492	502	---
Calcium	ppm	ASTM D5185m	3000	1578	1608	---
Phosphorus	ppm	ASTM D5185m	1150	726	684	---
Zinc	ppm	ASTM D5185m	1350	884	895	---
Sulfur	ppm	ASTM D5185m	4250	2756	2761	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	23.0	23.1	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.7	6.9	---
Visc @ 100°C	cSt	ASTM D445	14.4	13.8	13.3	---

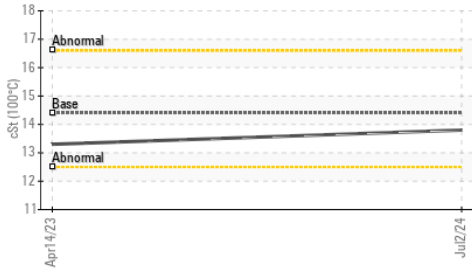
FT-IR (Direct Trend)



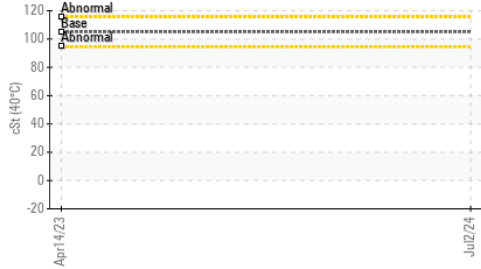
Base Number



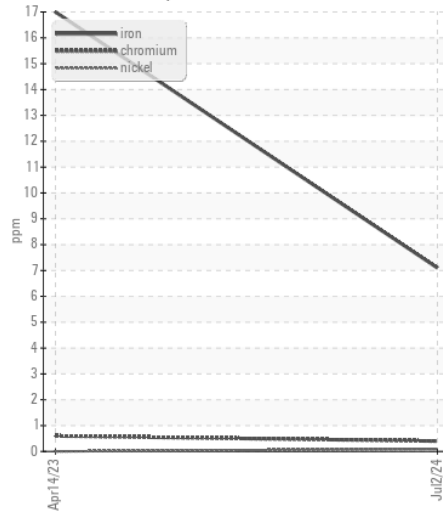
Viscosity @ 100°C



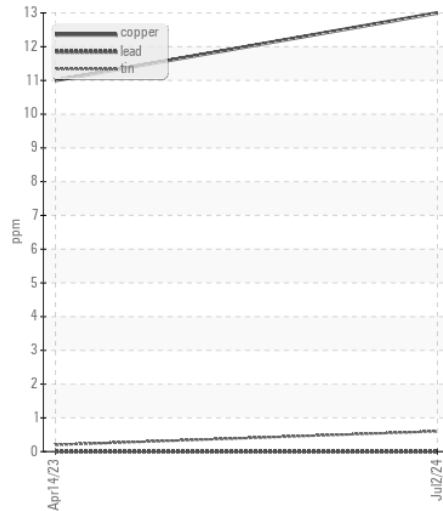
Viscosity @ 40°C



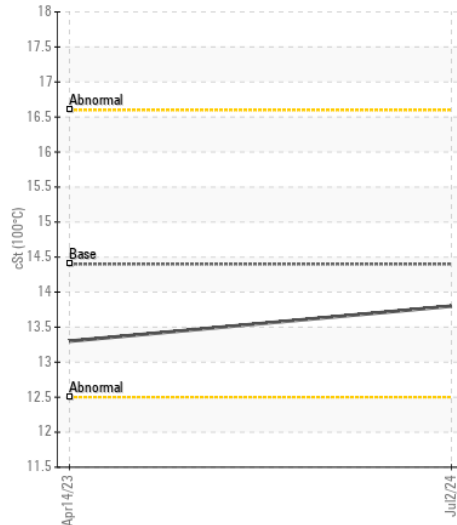
Ferrous Alloys



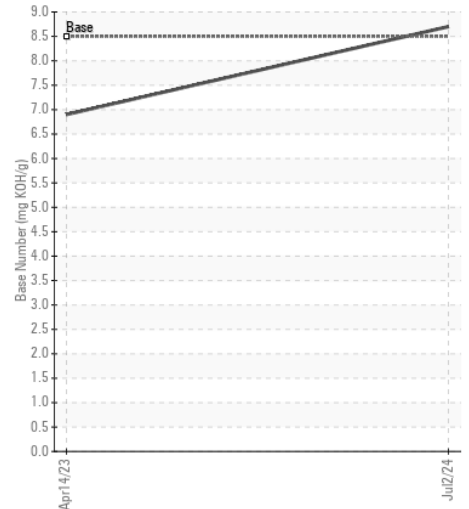
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : RPL0022006 Received : 17 Jul 2024
 Lab Number : 06238837 Tested : 18 Jul 2024
 Unique Number : 11127671 Diagnosed : 18 Jul 2024 - Sean Felton
 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)