



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
1461397
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RPL0017011	RPL0002221	---
Sample Date		Client Info		14 Jun 2024	23 May 2022	---
Machine Age	mls	Client Info		429190	315545	---
Oil Age	mls	Client Info		0	20000	---
Filter Age	mls	Client Info		0	20000	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	5	6	---
Chromium	ppm	ASTM D5185m	>20	0	<1	---
Nickel	ppm	ASTM D5185m	>4	0	<1	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m	>3	0	<1	---
Aluminum	ppm	ASTM D5185m	>20	3	2	---
Lead	ppm	ASTM D5185m	>40	0	<1	---
Copper	ppm	ASTM D5185m	>330	0	<1	---
Tin	ppm	ASTM D5185m	>15	0	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.

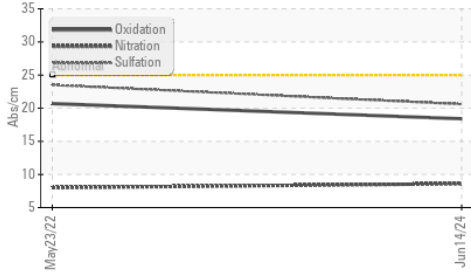
Silicon	ppm	ASTM D5185m	>25	6	22	---
Potassium	ppm	ASTM D5185m	>20	2	<1	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.4	0.4	---
Nitration	Abs/cm	*ASTM D7624	>20	8.6	8.0	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.6	23.5	---
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

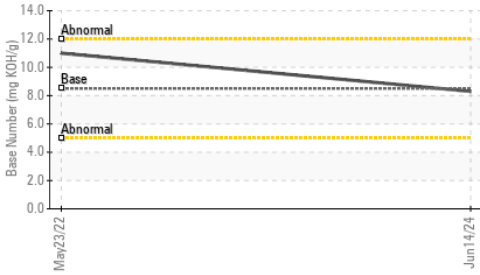
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>158	2	1	---
Boron	ppm	ASTM D5185m	250	56	46	---
Barium	ppm	ASTM D5185m	10	0	0	---
Molybdenum	ppm	ASTM D5185m	100	79	45	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m	450	617	586	---
Calcium	ppm	ASTM D5185m	3000	1570	1526	---
Phosphorus	ppm	ASTM D5185m	1150	606	749	---
Zinc	ppm	ASTM D5185m	1350	914	928	---
Sulfur	ppm	ASTM D5185m	4250	3207	2969	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.4	20.7	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.3	11	---
Visc @ 100°C	cSt	ASTM D445	14.4	13.5	13.3	---

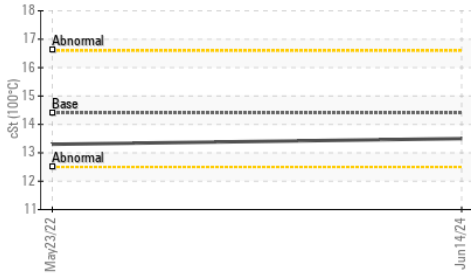
FT-IR (Direct Trend)



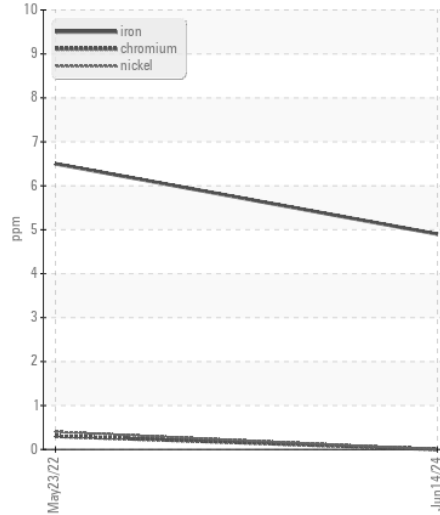
Base Number



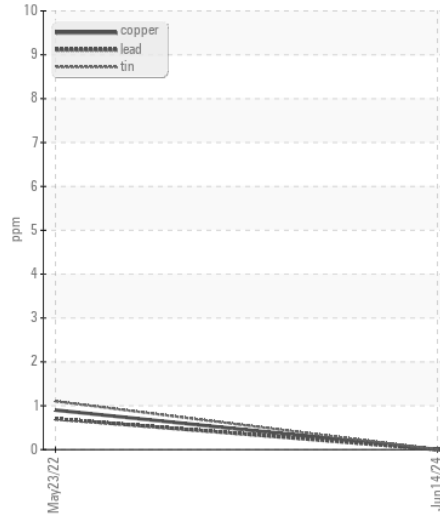
Viscosity @ 100°C



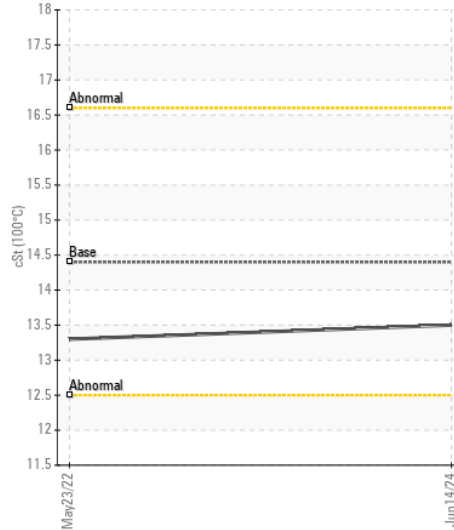
Ferrous Alloys



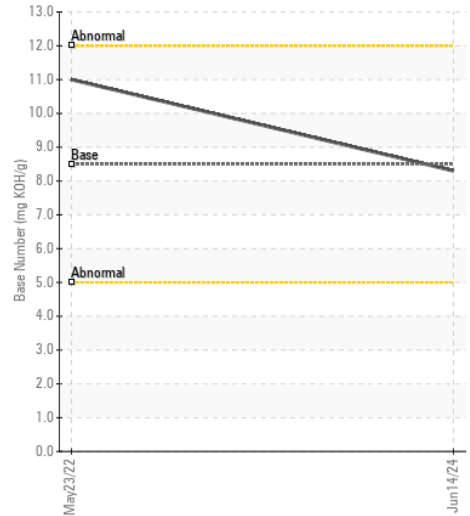
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : RPL0017011
 Lab Number : 06222085
 Unique Number : 11100282
 Test Package : FLEET

Received : 27 Jun 2024
 Tested : 28 Jun 2024
 Diagnosed : 28 Jun 2024 - Wes Davis

RTL PACLEASE - 7008 - Phoenix
 625 South 27th Ave
 Phoenix, AZ
 US 85009

Contact: Maurice Pilotte
 PilotteM@rushenterprises.com

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)

T: (602)566-5712

F: