



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
846-5135
 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		RPL0018132	RPL0017496	RPL0015992
Sample Date		Client Info		04 Apr 2024	05 Feb 2024	21 Nov 2023
Machine Age	mls	Client Info		41319	30024	17000
Oil Age	mls	Client Info		41319	0	17000
Filter Age	mls	Client Info		41319	0	17000
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	40	27	20
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	<1	<1
Aluminum	ppm	ASTM D5185m	>20	17	13	4
Lead	ppm	ASTM D5185m	>40	6	5	2
Copper	ppm	ASTM D5185m	>330	16	16	8
Tin	ppm	ASTM D5185m	>15	3	3	2
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	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.

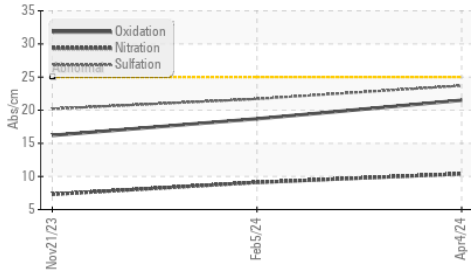
Silicon	ppm	ASTM D5185m	>25	19	17	16
Potassium	ppm	ASTM D5185m	>20	63	47	18
Fuel		WC Method	>5	<1.0	1.4	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	10.4	9.1	7.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.7	21.7	20.2
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

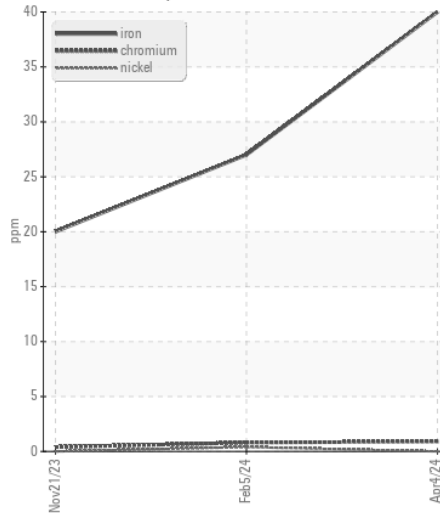
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>158	1	2	0
Boron	ppm	ASTM D5185m	250	5	7	6
Barium	ppm	ASTM D5185m	10	0	<1	0
Molybdenum	ppm	ASTM D5185m	100	60	56	60
Manganese	ppm	ASTM D5185m		2	2	<1
Magnesium	ppm	ASTM D5185m	450	994	914	951
Calcium	ppm	ASTM D5185m	3000	1178	1027	1136
Phosphorus	ppm	ASTM D5185m	1150	1015	925	1041
Zinc	ppm	ASTM D5185m	1350	1282	1216	1228
Sulfur	ppm	ASTM D5185m	4250	3077	2776	3174
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.5	18.7	16.2
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.0	7.1	8.3
Visc @ 100°C	cSt	ASTM D445	14.4	12.9	12.4	12.7

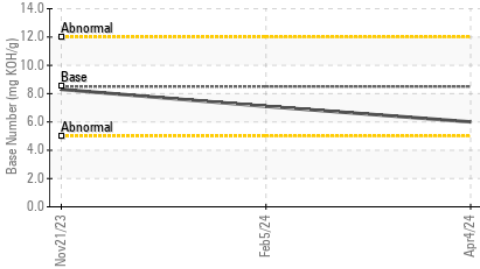
FT-IR (Direct Trend)



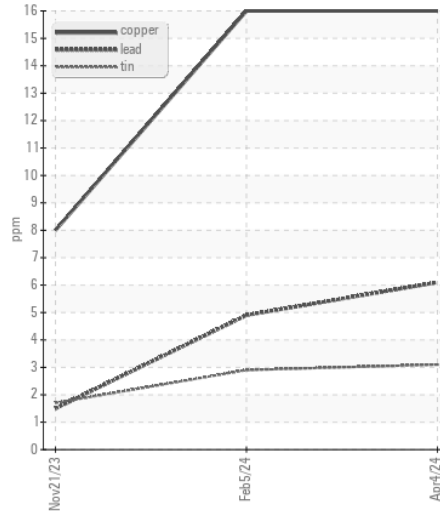
Ferrous Alloys



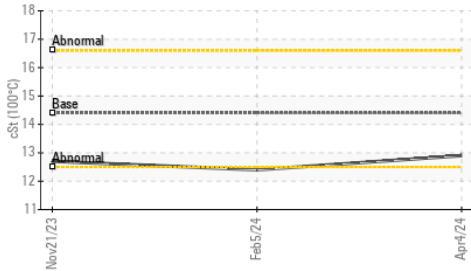
Base Number



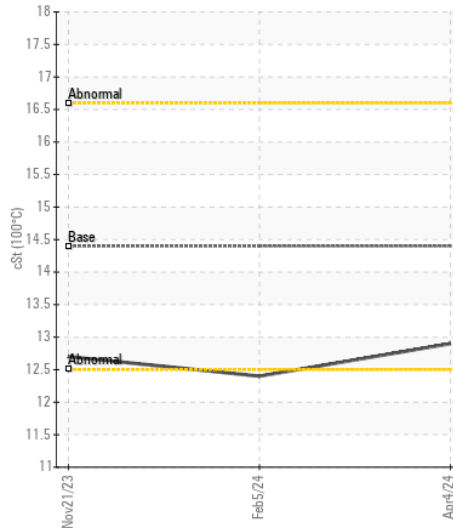
Non-ferrous Metals



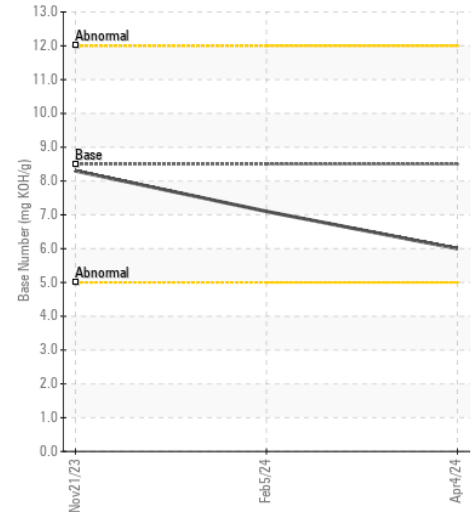
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RPL0018132
Lab Number : 06158782
Unique Number : 10994205
Test Package : FLEET

Received : 24 Apr 2024
Tested : 25 Apr 2024
Diagnosed : 25 Apr 2024 - Wes Davis

RTL PACLEASE - 7007 - Fontana
 3121 South Riverside
 Bloomington, CA
 US 92316
 Contact: Rudy Trevizo
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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)