OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Machine Id
8464928
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL 10W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

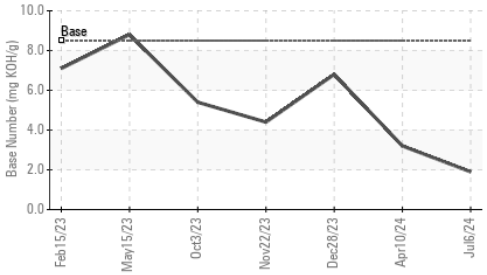
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

FLUID CONDITION

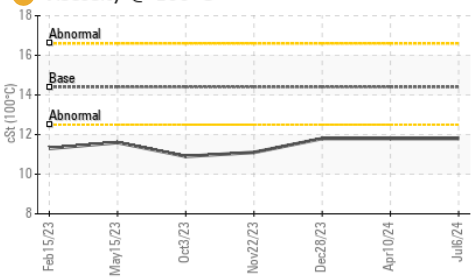
The oil viscosity is lower than normal. The BN level is low. Confirm oil type.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RPL0022015	RPL0018119	RPL0016915
Sample Date		Client Info		06 Jul 2024	10 Apr 2024	28 Dec 2023
Machine Age	mls	Client Info		72756	56238	37953
Oil Age	mls	Client Info		0	24122	0
Filter Age	mls	Client Info		0	24122	0
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				ABNORMAL	ABNORMAL	ATTENTION
Iron	ppm	ASTM D5185m	>100	65	26	6
Chromium	ppm	ASTM D5185m	>20	2	<1	0
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	33	26	6
Lead	ppm	ASTM D5185m	>40	4	2	<1
Copper	ppm	ASTM D5185m	>330	13	5	2
Tin	ppm	ASTM D5185m	>15	2	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	13	10	7
Potassium	ppm	ASTM D5185m	>20	96	74	16
Fuel	%	ASTM D3524	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.5	0.3	0.1
Nitration	Abs/cm	*ASTM D7624	>20	13.0	11.5	7.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	32.0	26.5	21.1
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
Sodium	ppm	ASTM D5185m		6	2	1
Boron	ppm	ASTM D5185m	250	26	36	79
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	96	96	85
Manganese	ppm	ASTM D5185m		3	1	0
Magnesium	ppm	ASTM D5185m	450	647	651	612
Calcium	ppm	ASTM D5185m	3000	1389	1417	1269
Phosphorus	ppm	ASTM D5185m	1150	731	732	657
Zinc	ppm	ASTM D5185m	1350	906	870	865
Sulfur	ppm	ASTM D5185m	4250	3048	3082	2750
Oxidation	Abs/.1mm	*ASTM D7414	>25	39.3	30.8	20.2
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	▲ 1.9	▲ 3.2	6.8
Visc @ 100°C	cSt	ASTM D445	14.4	● 11.8	● 11.8	● 11.8

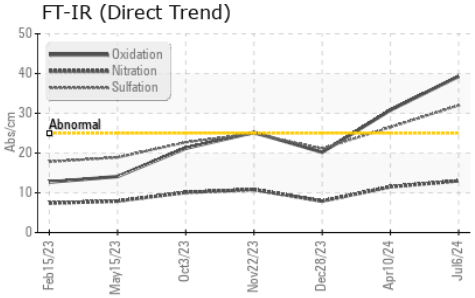
Base Number



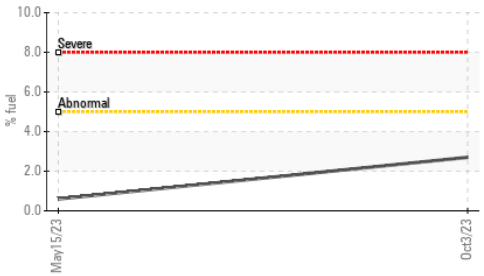
Viscosity @ 100°C



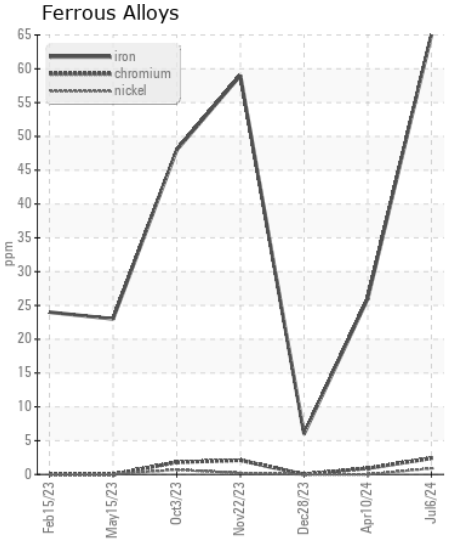
FT-IR (Direct Trend)



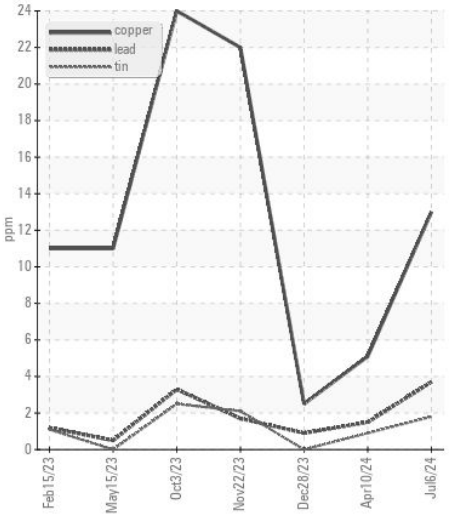
Fuel Dilution



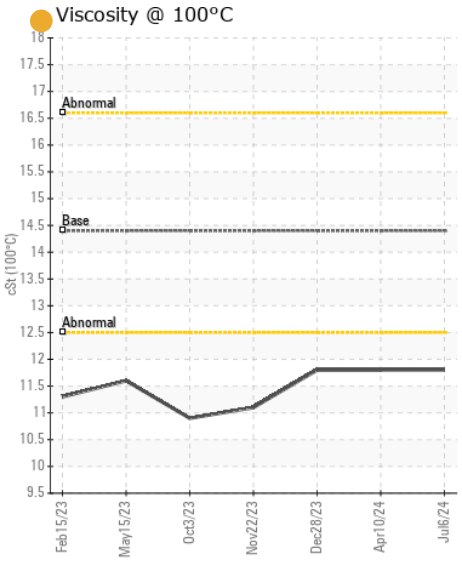
Ferrous Alloys



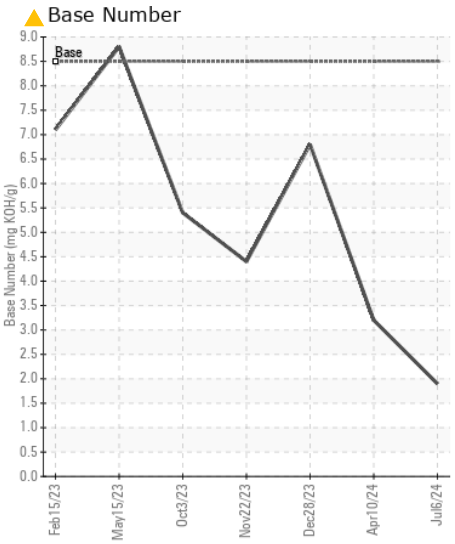
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RPL0022015
Lab Number : 06238826
Unique Number : 11127660
Test Package : FLEET (Additional Tests: FuelDilution)

Received : 17 Jul 2024
Tested : 17 Jul 2024
Diagnosed : 17 Jul 2024 - Jonathan Hester

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)

RTL PACLEASE - 7007 - Fontana
3121 South Riverside
Bloomington, CA
US 92316
Contact: Rudy Trevizo
TrevizoR@RushEnterprises.Com
T: (909)829-1044
F: