OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	ABNORMAL

Machine Id
PACCAR 8464359
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMENDATION

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

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

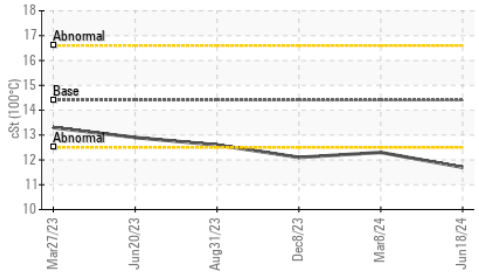
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. Light fuel dilution occurring.

FLUID CONDITION

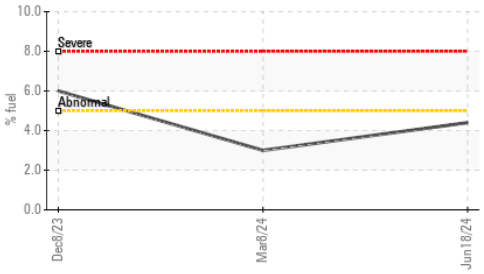
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RPL0021842	RPL0017955	RPL0016805
Sample Date		Client Info		18 Jun 2024	08 Mar 2024	08 Dec 2023
Machine Age	mls	Client Info		72924	67571	64524
Oil Age	mls	Client Info		0	67571	64524
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	N/A	Not Changd
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>100	16	11	18
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	<1	<1
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	<1	0	<1
Aluminum	ppm	ASTM D5185m	>20	13	10	12
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	26	25	56
Tin	ppm	ASTM D5185m	>15	0	<1	<1
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	4	4	5
Potassium	ppm	ASTM D5185m	>20	32	27	28
Fuel	%	ASTM D3524	>5	▲ 4.4	▲ 3.0	▲ 6.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.2	0.3
Nitration	Abs/cm	*ASTM D7624	>20	8.3	6.4	9.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.4	18.9	21.0
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	>216	2	<1	2
Boron	ppm	ASTM D5185m	250	3	4	6
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	59	59	51
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	450	878	895	835
Calcium	ppm	ASTM D5185m	3000	1061	1062	1002
Phosphorus	ppm	ASTM D5185m	1150	1143	996	884
Zinc	ppm	ASTM D5185m	1350	1227	1200	1133
Sulfur	ppm	ASTM D5185m	4250	3135	3276	2678
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.8	14.9	18.6
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.1	8.6	6.3
Visc @ 100°C	cSt	ASTM D445	14.4	▲ 11.7	▲ 12.3	▲ 12.1

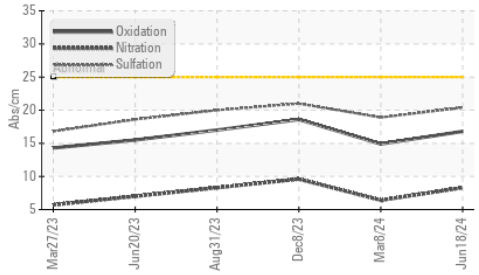
Viscosity @ 100°C



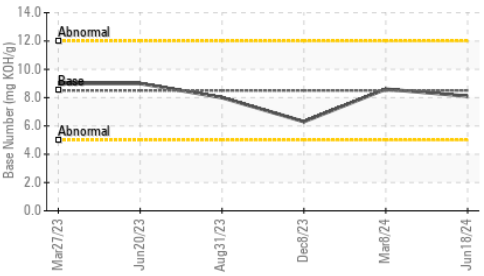
Fuel Dilution



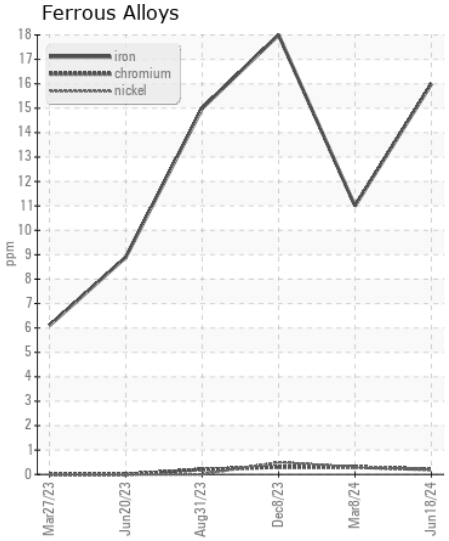
FT-IR (Direct Trend)



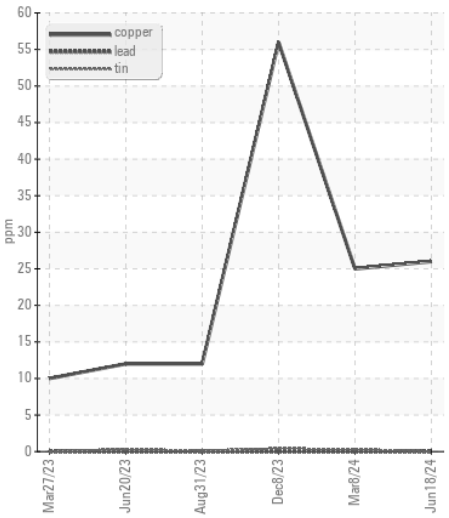
Base Number



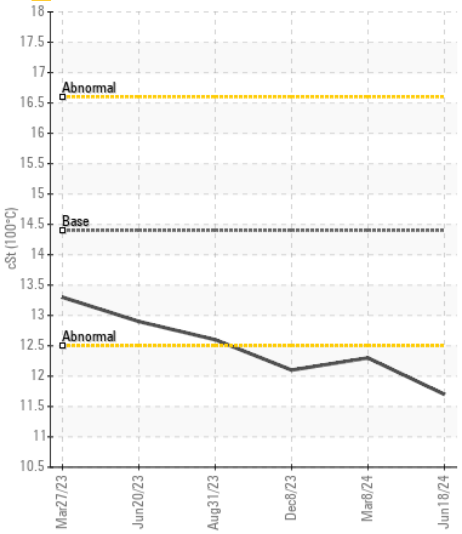
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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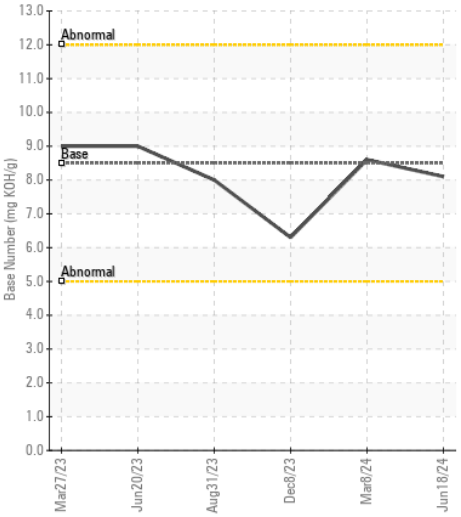

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RPL0021842
Lab Number : 06230037
Unique Number : 11113530
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

Received : 08 Jul 2024
Tested : 11 Jul 2024
Diagnosed : 11 Jul 2024 - Wes Davis

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)

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