FLEET NationaleLease

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ATTENTION

Area
PATRIOT TRANSPORT LLC
Machine Id
FREIGHTLINER 28793
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

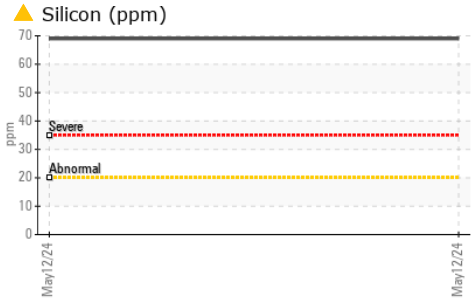
Elemental level of silicon (Si) above normal indicating ingress of seal material. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. Tests indicate that there is no fuel present in the oil.

FLUID CONDITION

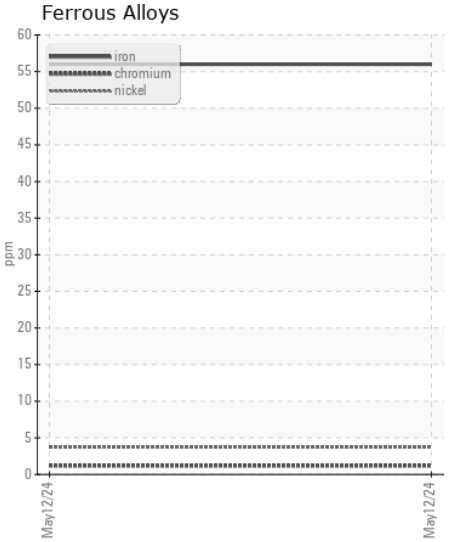
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		NL0002156	---	---
Sample Date		Client Info		12 May 2024	---	---
Machine Age	mls	Client Info		43522	---	---
Oil Age	mls	Client Info		0	---	---
Filter Age	mls	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				ABNORMAL	---	---
Iron	ppm	ASTM D5185m	>80	56	---	---
Chromium	ppm	ASTM D5185m	>5	1	---	---
Nickel	ppm	ASTM D5185m	>2	4	---	---
Titanium	ppm	ASTM D5185m		1	---	---
Silver	ppm	ASTM D5185m	>3	2	---	---
Aluminum	ppm	ASTM D5185m	>30	26	---	---
Lead	ppm	ASTM D5185m	>30	0	---	---
Copper	ppm	ASTM D5185m	>150	23	---	---
Tin	ppm	ASTM D5185m	>5	5	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Silicon	ppm	ASTM D5185m	>20	▲ 69	---	---
Potassium	ppm	ASTM D5185m	>20	68	---	---
Fuel	%	ASTM D3524	>5	0.4	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.4	---	---
Nitration	Abs/cm	*ASTM D7624	>20	12.1	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.4	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---
Sodium	ppm	ASTM D5185m		6	---	---
Boron	ppm	ASTM D5185m	0	43	---	---
Barium	ppm	ASTM D5185m	0	0	---	---
Molybdenum	ppm	ASTM D5185m	60	107	---	---
Manganese	ppm	ASTM D5185m	0	4	---	---
Magnesium	ppm	ASTM D5185m	1010	697	---	---
Calcium	ppm	ASTM D5185m	1070	1517	---	---
Phosphorus	ppm	ASTM D5185m	1150	770	---	---
Zinc	ppm	ASTM D5185m	1270	925	---	---
Sulfur	ppm	ASTM D5185m	2060	2639	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	24.4	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	5.1	---	---
Visc @ 100°C	cSt	ASTM D445	15.4	● 10.0	---	---

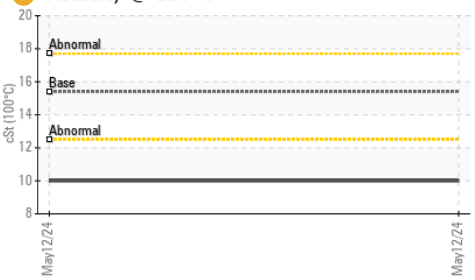
Silicon (ppm)



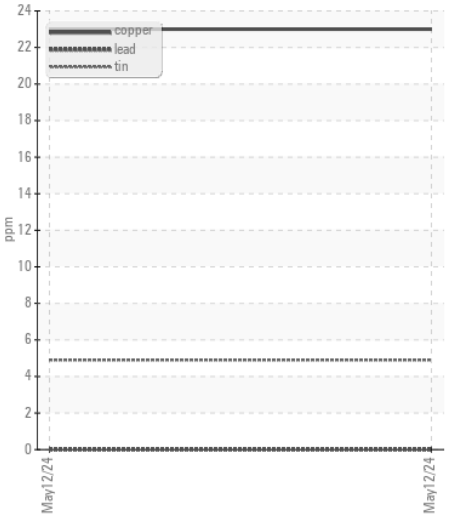
Ferrous Alloys



Viscosity @ 100°C

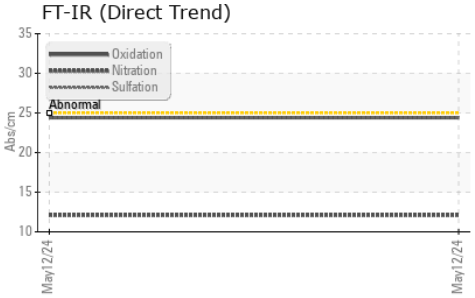


Non-ferrous Metals

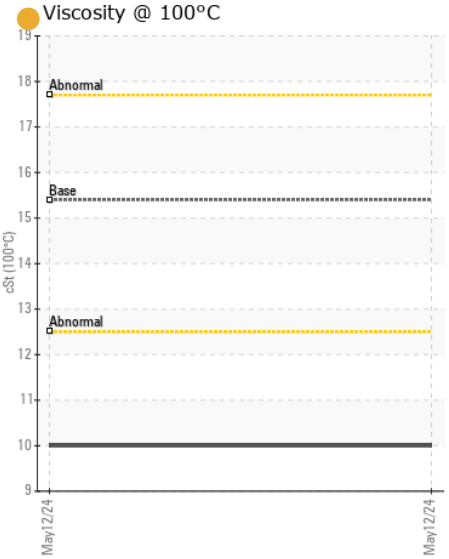


Fuel Dilution

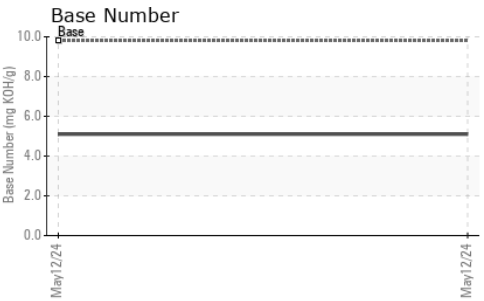
FT-IR (Direct Trend)



Viscosity @ 100°C



Base Number



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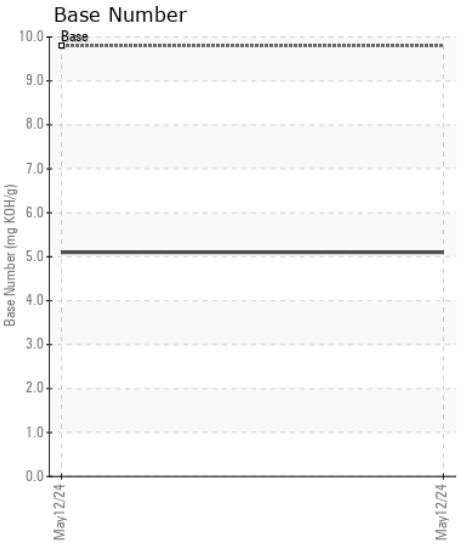

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : NL0002156
Lab Number : 06176684
Unique Number : 11022737
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

Received : 13 May 2024
Tested : 15 May 2024
Diagnosed : 15 May 2024 - Sean Felton

FOX & JAMES NATIONALEASE - YORK
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YORK, PA
US 17408
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T:
F:

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)