



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
MACK 2204
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PCA0096096	---	---
Sample Date		Client Info		18 Jul 2023	---	---
Machine Age	mls	Client Info		152176	---	---
Oil Age	mls	Client Info		21853	---	---
Filter Age	mls	Client Info		21853	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				NORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	23	---	---
Chromium	ppm	ASTM D5185m	>20	1	---	---
Nickel	ppm	ASTM D5185m	>5	0	---	---
Titanium	ppm	ASTM D5185m	>2	1	---	---
Silver	ppm	ASTM D5185m	>2	0	---	---
Aluminum	ppm	ASTM D5185m	>20	1	---	---
Lead	ppm	ASTM D5185m	>40	0	---	---
Copper	ppm	ASTM D5185m	>330	4	---	---
Tin	ppm	ASTM D5185m	>15	<1	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

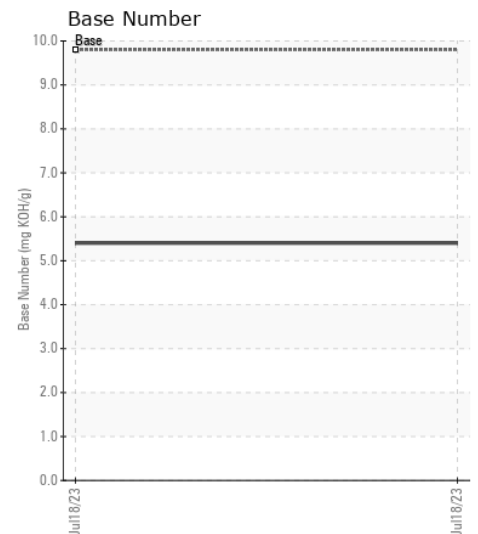
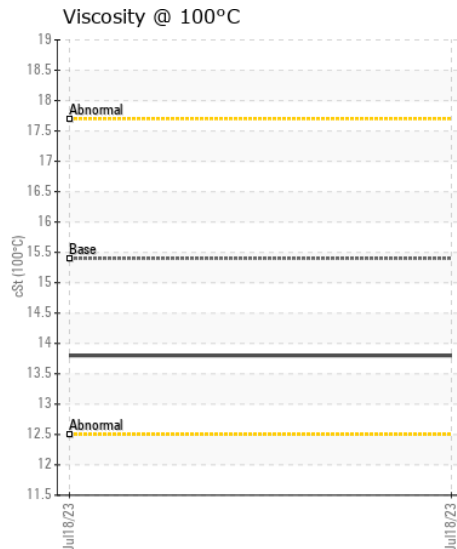
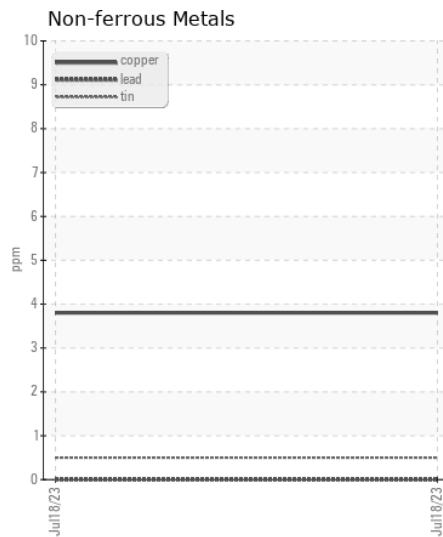
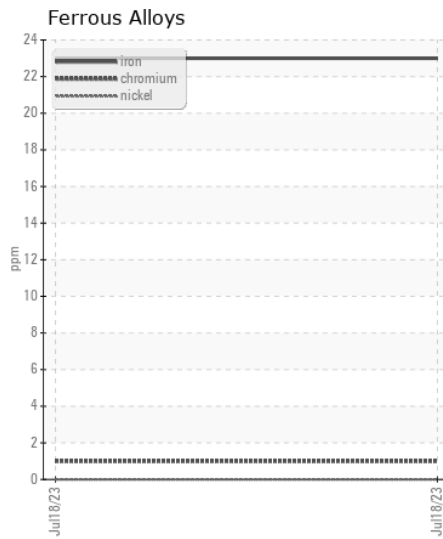
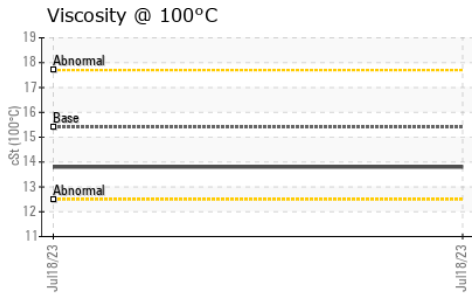
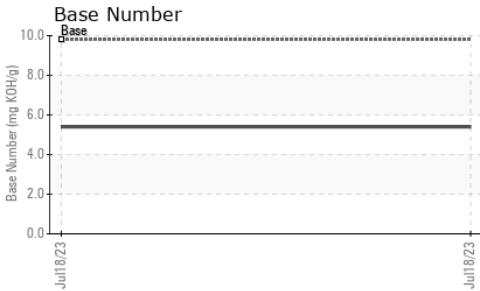
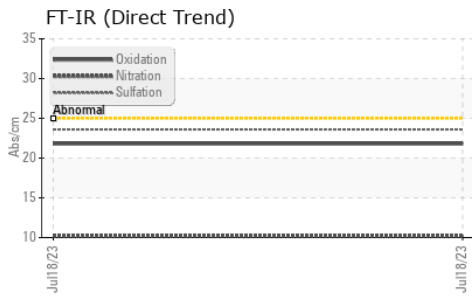
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	7	---	---
Potassium	ppm	ASTM D5185m	>20	1	---	---
Fuel		WC Method	>3.0	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>4	0.5	---	---
Nitration	Abs/cm	*ASTM D7624	>20	10.2	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.6	---	---
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	---	---

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		3	---	---
Boron	ppm	ASTM D5185m	0	0	---	---
Barium	ppm	ASTM D5185m	0	0	---	---
Molybdenum	ppm	ASTM D5185m	60	62	---	---
Manganese	ppm	ASTM D5185m	0	<1	---	---
Magnesium	ppm	ASTM D5185m	1010	1010	---	---
Calcium	ppm	ASTM D5185m	1070	1163	---	---
Phosphorus	ppm	ASTM D5185m	1150	1020	---	---
Zinc	ppm	ASTM D5185m	1270	1283	---	---
Sulfur	ppm	ASTM D5185m	2060	3249	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.8	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	5.4	---	---
Visc @ 100°C	cSt	ASTM D445	15.4	13.8	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0096096
Lab Number : 05929218
Unique Number : 10609165
Test Package : FLEET

Received : 21 Aug 2023
Tested : 22 Aug 2023
Diagnosed : 22 Aug 2023 - Wes Davis

Z FORCE TRANSPORTATION INC
 700 E JOE ORR RD
 CHICAGO HEIGHTS, IL
 US 60411
 Contact: MIKE PROCANIN
 mprocanin@zforcetransportation.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:
F: