



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	NORMAL

Area
COCA-COLA-TRAC-LIMA
Machine Id
FREIGHTLINER CC18077
Component
Diesel Engine
Fluid
PETRO CANADA (--- GAL)

RECOMMENDATION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		NL0001948	NL0001113	---
Sample Date		Client Info		05 Apr 2024	12 Oct 2022	---
Machine Age	mls	Client Info		57211	31510	---
Oil Age	mls	Client Info		57211	31510	---
Filter Age	mls	Client Info		0	0	---
Oil Changed		Client Info		N/A	N/A	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				MARGINAL	SEVERE	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>80	34	25	---
Chromium	ppm	ASTM D5185m	>5	<1	<1	---
Nickel	ppm	ASTM D5185m	>2	0	0	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m	>3	0	0	---
Aluminum	ppm	ASTM D5185m	>30	4	4	---
Lead	ppm	ASTM D5185m	>30	0	<1	---
Copper	ppm	ASTM D5185m	>150	0	7	---
Tin	ppm	ASTM D5185m	>5	<1	<1	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

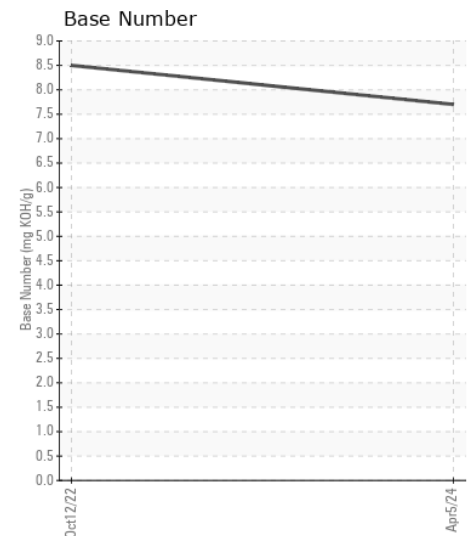
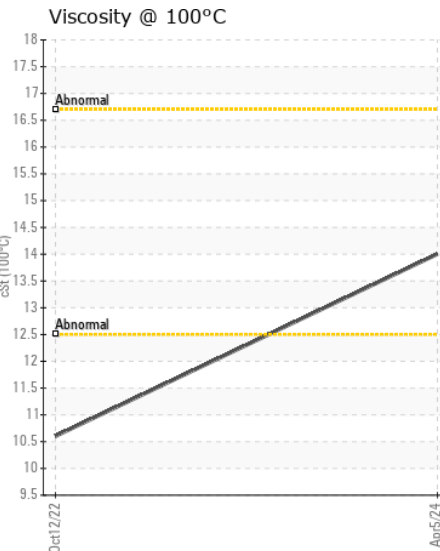
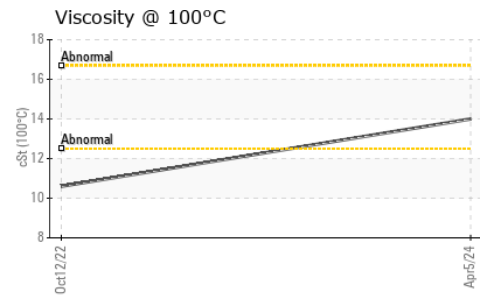
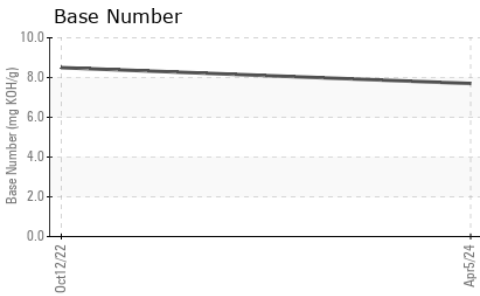
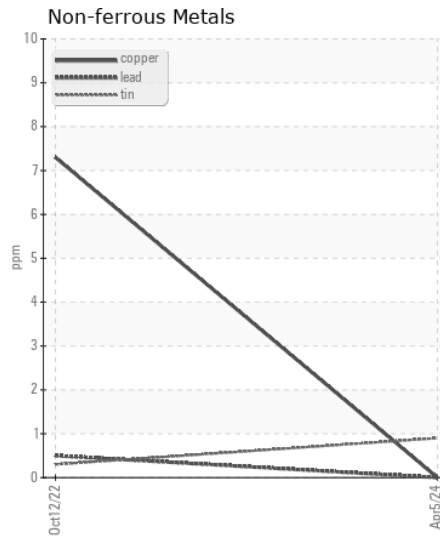
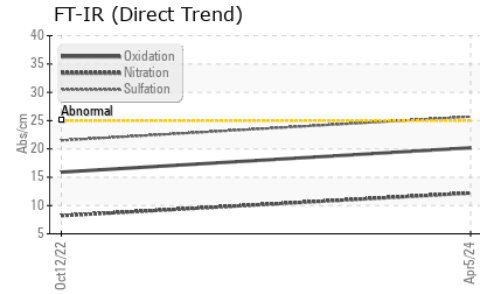
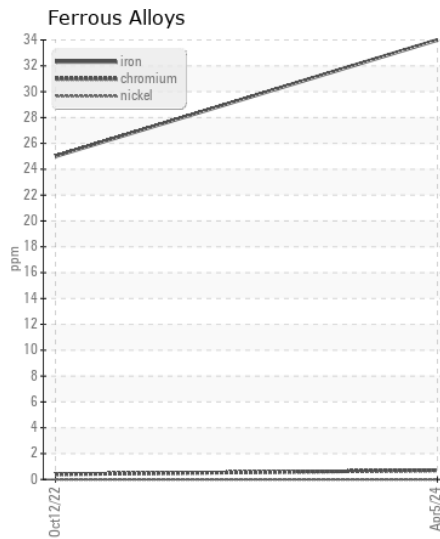
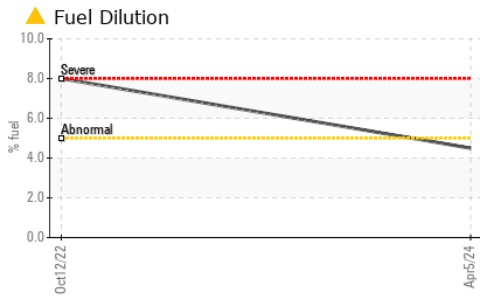
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185m	>20	5	11	---
Potassium	ppm	ASTM D5185m	>20	12	10	---
Fuel	%	ASTM D3524	>5	▲ 4.5	▲ 8.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	1.8	0.4	---
Nitration	Abs/cm	*ASTM D7624	>20	12.2	8.2	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.7	21.5	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	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		15	11	---
Boron	ppm	ASTM D5185m		32	25	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		61	59	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m		521	704	---
Calcium	ppm	ASTM D5185m		1891	1030	---
Phosphorus	ppm	ASTM D5185m		1130	841	---
Zinc	ppm	ASTM D5185m		1327	930	---
Sulfur	ppm	ASTM D5185m		3547	3389	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.2	15.9	---
Base Number (BN)	mg KOH/g	ASTM D2896		7.7	8.5	---
Visc @ 100°C	cSt	ASTM D445		14.0	▲ 10.6	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : NL0001948 **Received** : 23 Apr 2024
Lab Number : **06157282** **Tested** : 25 Apr 2024
Unique Number : 10992705 **Diagnosed** : 25 Apr 2024 - Wes Davis
Test Package : FLEET (Additional Tests: PercentFuel)

KIRK NATIONALEASE - SHOP 54
 3452 St. Johns Rd.
 LIMA, OH
 US 45804
 Contact: Mason Reinhold
 shop54@knl.cc
 T: (419)229-3848
 F: (419)229-1395

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)