



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Machine Id
710036
Component
Diesel Engine
Fluid
PETRO CANADA DURON SAE 15W40 (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. No other corrective action is recommended at this time. The fluid was specified as PETRO CANADA DURON SAE 15W40, however, a fluid match indicates that this fluid is SAE 30 Diesel Engine Oil. Please confirm the oil type and grade on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0088356	---	---
Sample Date		Client Info		03 May 2024	---	---
Machine Age	hrs	Client Info		3775	---	---
Oil Age	hrs	Client Info		600	---	---
Filter Age	hrs	Client Info		600	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	37	---	---
Chromium	ppm	ASTM D5185(m)	>20	2	---	---
Nickel	ppm	ASTM D5185(m)	>4	<1	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)	>3	0	---	---
Aluminum	ppm	ASTM D5185(m)	>20	5	---	---
Lead	ppm	ASTM D5185(m)	>40	0	---	---
Copper	ppm	ASTM D5185(m)	>330	3	---	---
Tin	ppm	ASTM D5185(m)	>15	0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---

CONTAMINATION

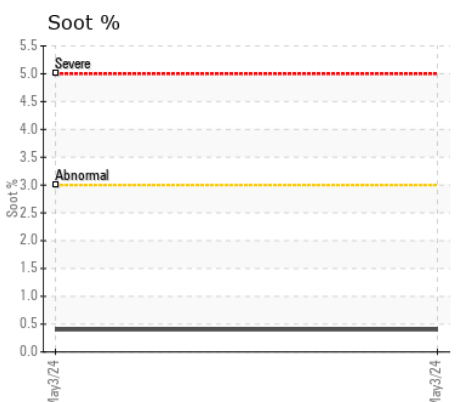
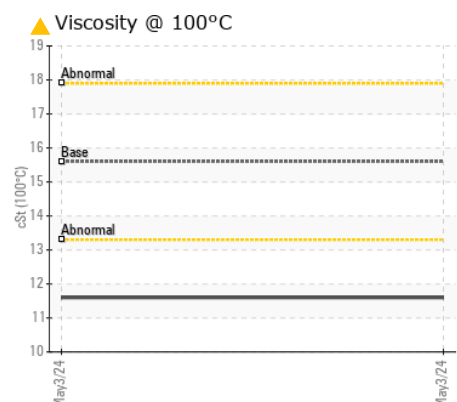
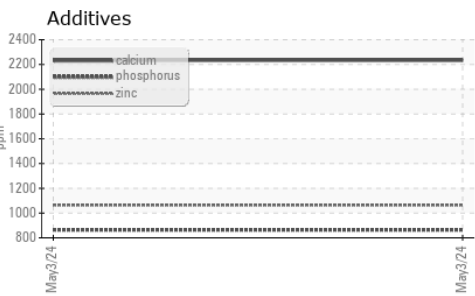
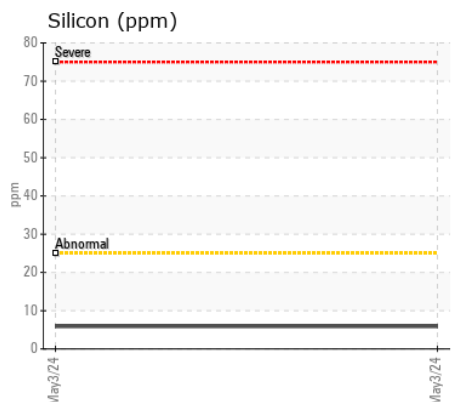
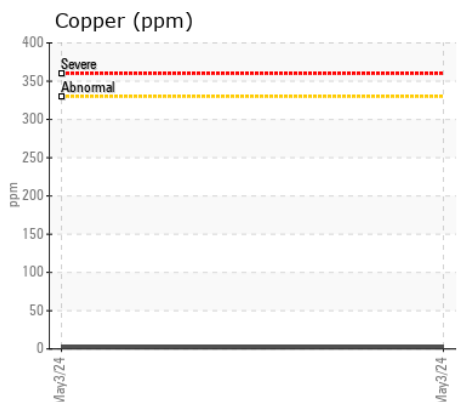
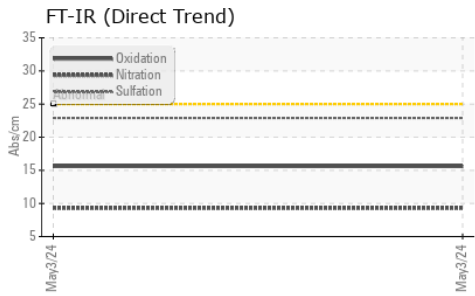
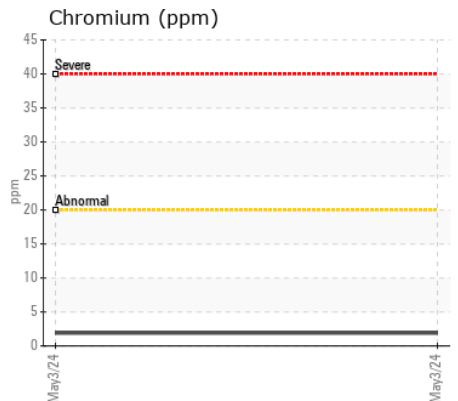
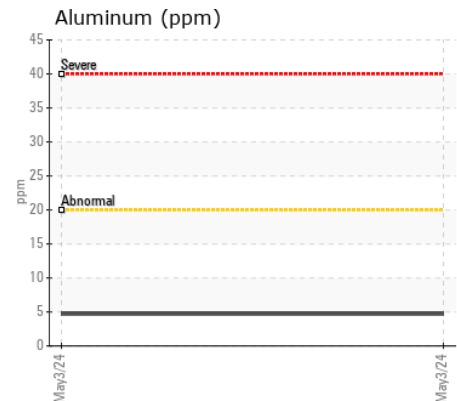
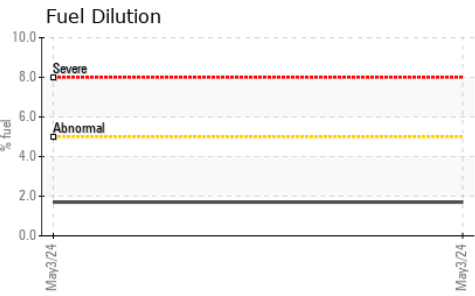
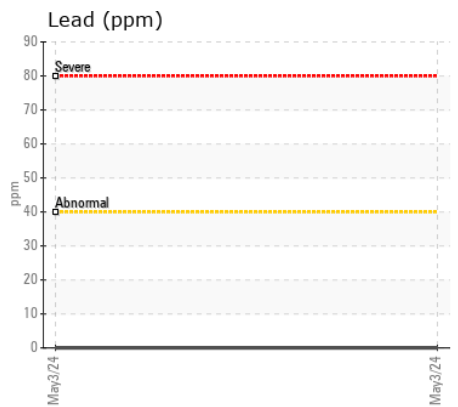
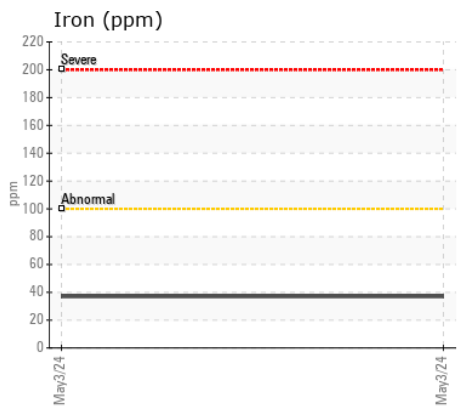
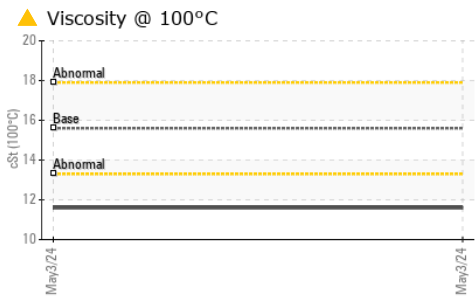
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185(m)	>25	6	---	---
Potassium	ppm	ASTM D5185(m)	>20	6	---	---
Fuel	%	ASTM D7593*	>5	1.7	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	ASTM D7844*	>3	0.4	---	---
Nitration	Abs/cm	ASTM D7624*	>20	9.3	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.9	---	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---

FLUID CONDITION

Viscosity of sample indicates oil is within SAE 30 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		2	---	---
Boron	ppm	ASTM D5185(m)	1	1	---	---
Barium	ppm	ASTM D5185(m)	1	0	---	---
Molybdenum	ppm	ASTM D5185(m)	60	9	---	---
Manganese	ppm	ASTM D5185(m)	1	<1	---	---
Magnesium	ppm	ASTM D5185(m)	1010	156	---	---
Calcium	ppm	ASTM D5185(m)	1070	2234	---	---
Phosphorus	ppm	ASTM D5185(m)	1150	864	---	---
Zinc	ppm	ASTM D5185(m)	1270	1064	---	---
Sulfur	ppm	ASTM D5185(m)	2060	2776	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.6	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	▲ 11.6	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0088356 **Received** : 08 May 2024
Lab Number : 02633995 **Tested** : 09 May 2024
Unique Number : 5775148 **Diagnosed** : 09 May 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)

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 North Bay, ON
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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.