



Machine Id
23901
Component
Diesel Engine
Fluid
PETRO CANADA DURON UHP 5W40 (--- LTR)

RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

WEAR

All component wear rates are normal.

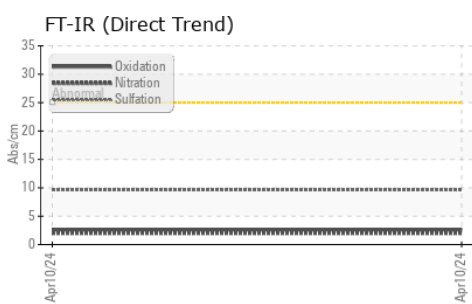
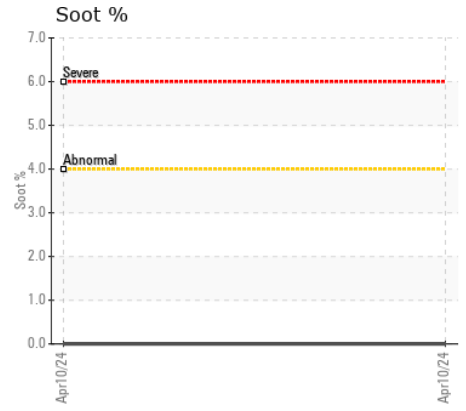
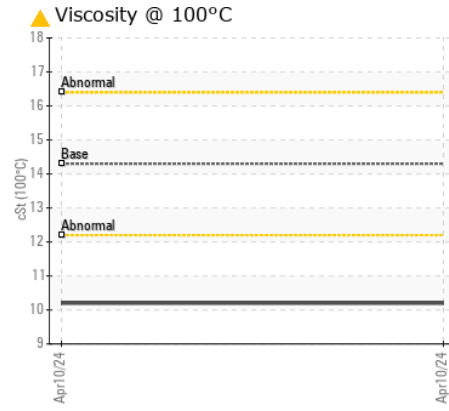
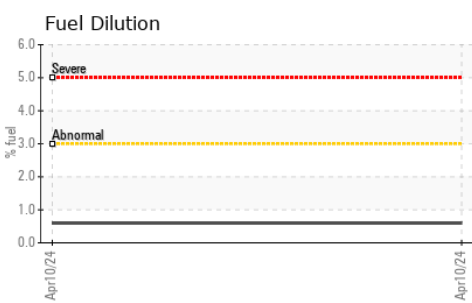
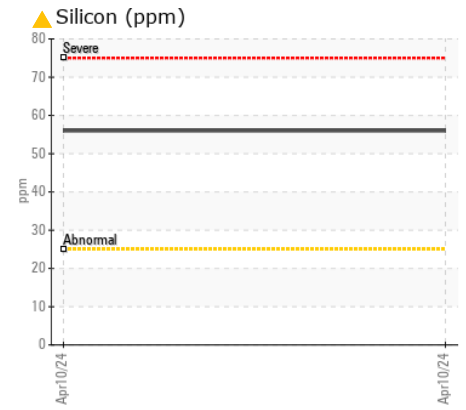
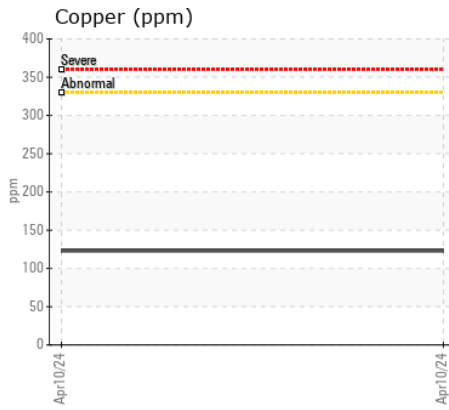
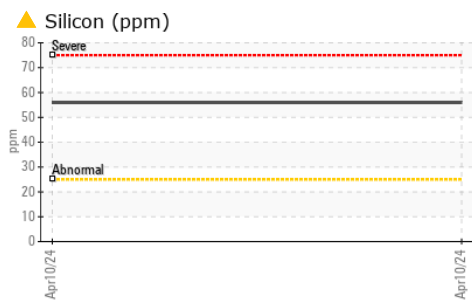
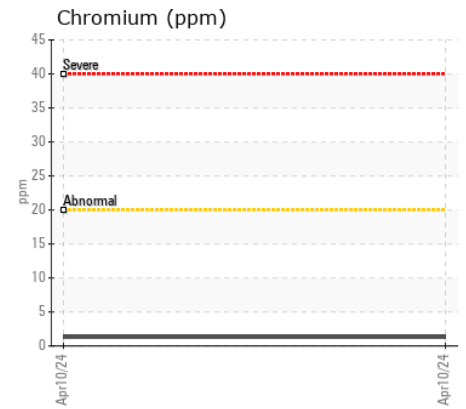
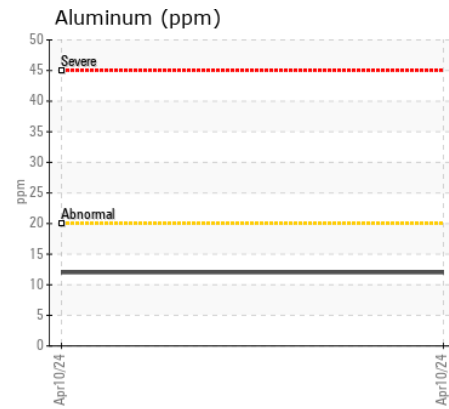
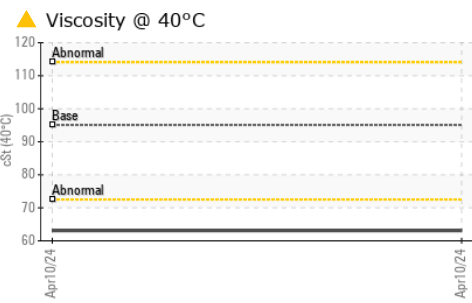
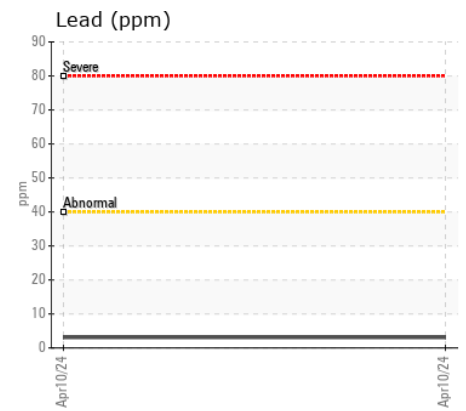
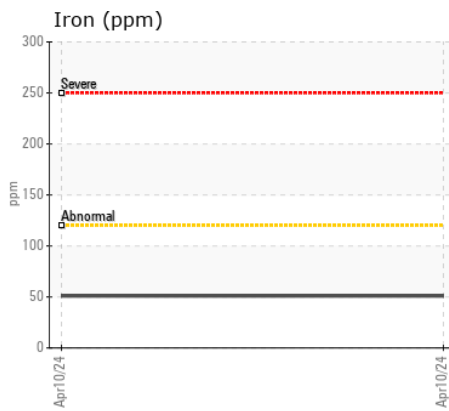
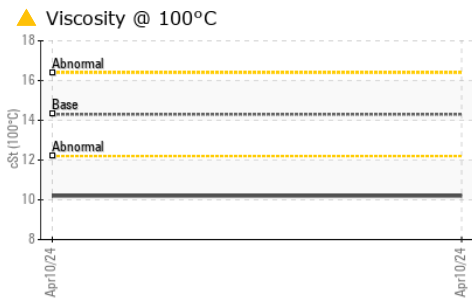
CONTAMINATION

Fuel content negligible. 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. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

FLUID CONDITION

Viscosity of sample indicates oil is within SAE 5W30 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0082026	---	---
Sample Date		Client Info		10 Apr 2024	---	---
Machine Age	hrs	Client Info		1354	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---
Iron	ppm	ASTM D5185(m)	>120	51	---	---
Chromium	ppm	ASTM D5185(m)	>20	1	---	---
Nickel	ppm	ASTM D5185(m)	>5	1	---	---
Titanium	ppm	ASTM D5185(m)	>2	<1	---	---
Silver	ppm	ASTM D5185(m)	>2	0	---	---
Aluminum	ppm	ASTM D5185(m)	>20	12	---	---
Lead	ppm	ASTM D5185(m)	>40	3	---	---
Copper	ppm	ASTM D5185(m)	>330	123	---	---
Tin	ppm	ASTM D5185(m)	>15	4	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
Silicon	ppm	ASTM D5185(m)	>25	▲ 56	---	---
Potassium	ppm	ASTM D5185(m)	>20	35	---	---
Fuel	%	ASTM D7593*	>3.0	0.6	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	ASTM D7844*	>4	0	---	---
Nitration	Abs/cm	ASTM D7624*	>20	2.0	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	9.6	---	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---
Sodium	ppm	ASTM D5185(m)		4	---	---
Boron	ppm	ASTM D5185(m)	65	79	---	---
Barium	ppm	ASTM D5185(m)	0	<1	---	---
Molybdenum	ppm	ASTM D5185(m)	65	110	---	---
Manganese	ppm	ASTM D5185(m)	0	5	---	---
Magnesium	ppm	ASTM D5185(m)	1160	729	---	---
Calcium	ppm	ASTM D5185(m)	820	1411	---	---
Phosphorus	ppm	ASTM D5185(m)	1160	674	---	---
Zinc	ppm	ASTM D5185(m)	1260	825	---	---
Sulfur	ppm	ASTM D5185(m)	3000	1775	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	2.6	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	95.1	▲ 63.1	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	14.3	▲ 10.2	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	169	148	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0082026 **Received** : 12 Apr 2024
Lab Number : 02628365 **Tested** : 15 Apr 2024
Unique Number : 5761497 **Diagnosed** : 15 Apr 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: FuelDilution, KV40, PercentFuel, VI)

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 CA L4A 2G8
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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.