



Machine Id
CASE 450 2190605
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0088642	PC0088644	---
Sample Date		Client Info		04 Apr 2024	02 Apr 2024	---
Machine Age	hrs	Client Info		3323	3323	---
Oil Age	hrs	Client Info		500	500	---
Filter Age	hrs	Client Info		500	500	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				ABNORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	10	4	---
Chromium	ppm	ASTM D5185(m)	>20	0	0	---
Nickel	ppm	ASTM D5185(m)	>4	0	0	---
Titanium	ppm	ASTM D5185(m)		0	0	---
Silver	ppm	ASTM D5185(m)	>3	0	0	---
Aluminum	ppm	ASTM D5185(m)	>20	<1	<1	---
Lead	ppm	ASTM D5185(m)	>40	0	0	---
Copper	ppm	ASTM D5185(m)	>330	7	<1	---
Tin	ppm	ASTM D5185(m)	>15	0	0	---
Vanadium	ppm	ASTM D5185(m)		0	0	---

CONTAMINATION

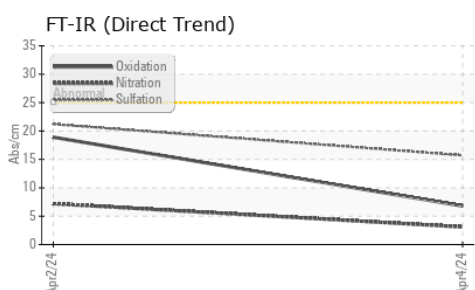
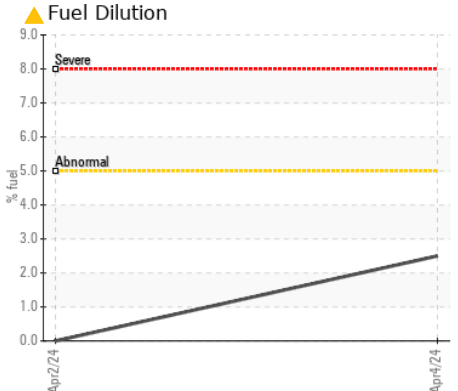
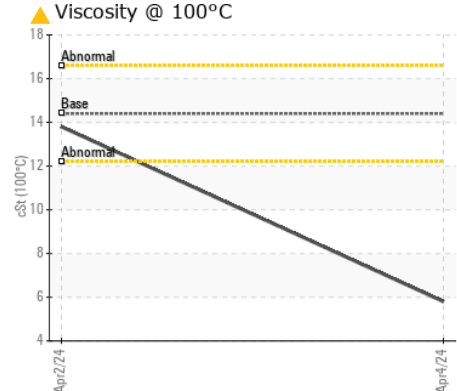
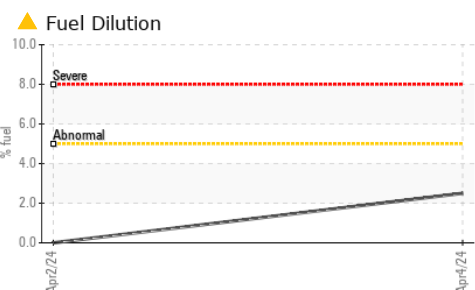
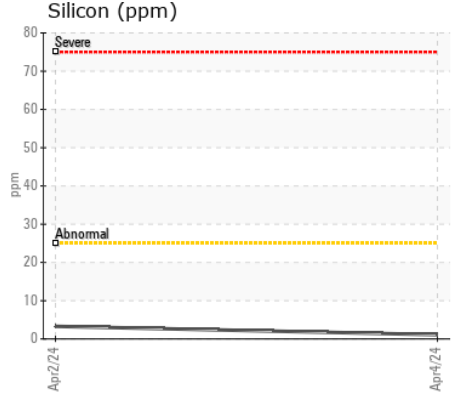
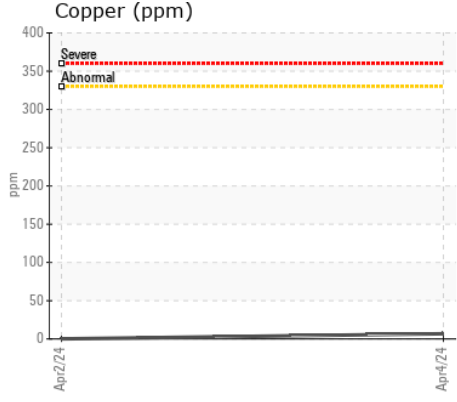
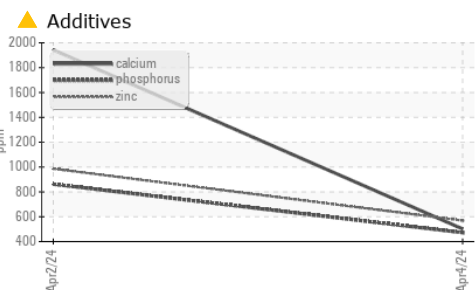
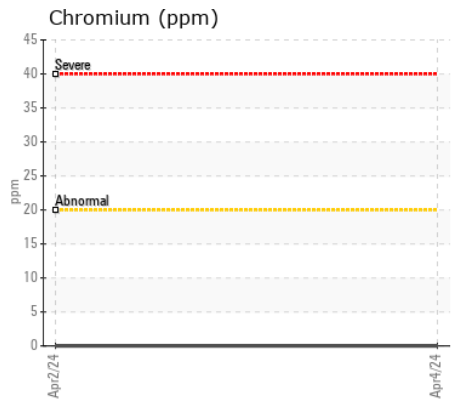
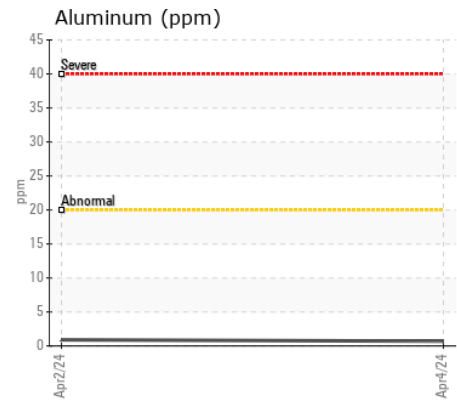
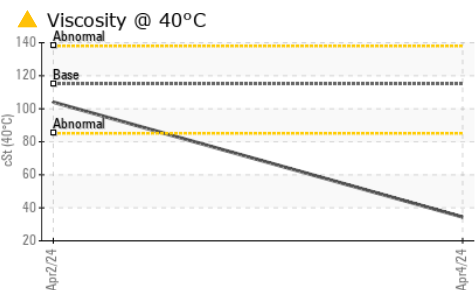
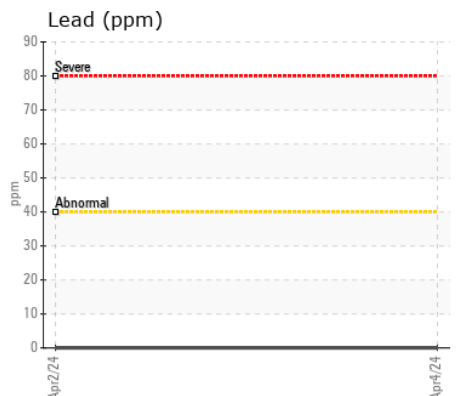
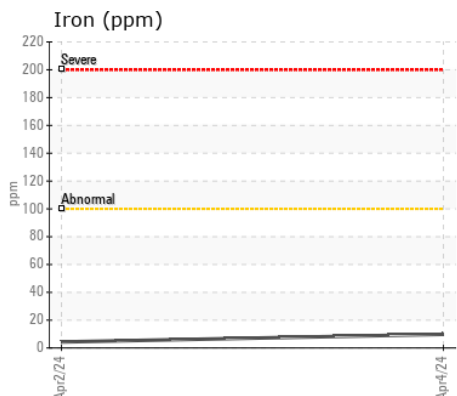
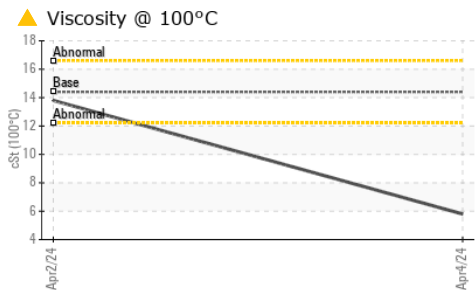
Light fuel dilution occurring.

Silicon	ppm	ASTM D5185(m)	>25	1	3	---
Potassium	ppm	ASTM D5185(m)	>20	<1	4	---
Fuel	%	ASTM D7593*	>5	▲ 2.5	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	ASTM D7844*	>3	0	0	---
Nitration	Abs/cm	ASTM D7624*	>20	3.1	7.2	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	15.7	21.2	---
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	---

FLUID CONDITION

Calcium ppm levels are abnormally low. Phosphorus ppm levels are abnormally low. Zinc ppm levels are abnormally low. Visc @ 100°C is abnormally low. Visc @ 40°C is abnormally low. Fuel is present in the oil and is lowering the viscosity.

Sodium	ppm	ASTM D5185(m)	>158	<1	2	---
Boron	ppm	ASTM D5185(m)	250	16	125	---
Barium	ppm	ASTM D5185(m)	10	<1	0	---
Molybdenum	ppm	ASTM D5185(m)	100	2	17	---
Manganese	ppm	ASTM D5185(m)		0	0	---
Magnesium	ppm	ASTM D5185(m)	450	27	216	---
Calcium	ppm	ASTM D5185(m)	3000	▲ 502	1943	---
Phosphorus	ppm	ASTM D5185(m)	1150	▲ 472	862	---
Zinc	ppm	ASTM D5185(m)	1350	▲ 569	986	---
Sulfur	ppm	ASTM D5185(m)	4250	3739	2566	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	6.8	18.9	---
Visc @ 40°C	cSt	ASTM D7279(m)	115	▲ 34.4	104	---
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	▲ 5.8	13.8	---
Viscosity Index (VI)	Scale	ASTM D2270*	126	109	133	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0088642 **Received** : 17 May 2024
Lab Number : 02636271 **Tested** : 21 May 2024
Unique Number : 5785433 **Diagnosed** : 21 May 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: FuelDilution, KV40, PercentFuel, VI)

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.

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