



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
Freightliner T184 (S/N 3ALXA7BG7GDGT7720)

Component
Diesel Engine

Fluid
INVENTORY EXPRESS 15W40 (44 LTR)

RECOMMENDATION

The oil change at the time of sampling has been noted.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0906432	WC0806841	WC0790248
Sample Date		Client Info		22 Apr 2024	03 Nov 2023	27 Feb 2023
Machine Age	hrs	Client Info		1067069	1017567	963585
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	SEVERE	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>80	20	21	26
Chromium	ppm	ASTM D5185(m)	>5	<1	<1	1
Nickel	ppm	ASTM D5185(m)	>2	0	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>30	2	3	4
Lead	ppm	ASTM D5185(m)	>30	0	1	2
Copper	ppm	ASTM D5185(m)	>150	1	<1	<1
Tin	ppm	ASTM D5185(m)	>5	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

Fuel content negligible. Light concentration of carbon/soot present in the oil.

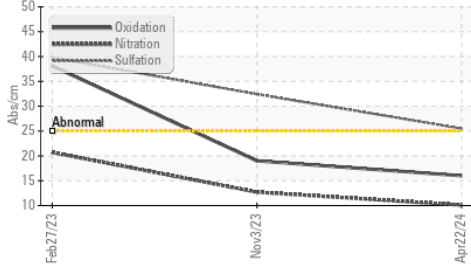
Silicon	ppm	ASTM D5185(m)	>20	2	3	4
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	2
Fuel	%	ASTM D7593*	>5	0.7	▲ 2	1.6
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	▲ 3.3	▲ 5.5	▲ 5.1
Nitration	Abs/cm	ASTM D7624*	>20	10.1	12.7	20.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	25.5	32.4	39.8
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

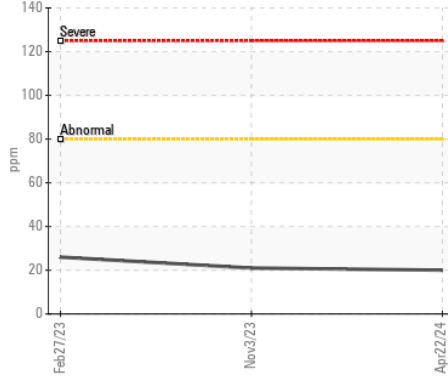
The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		2	2	2
Boron	ppm	ASTM D5185(m)		75	30	22
Barium	ppm	ASTM D5185(m)		0	<1	0
Molybdenum	ppm	ASTM D5185(m)		62	65	58
Manganese	ppm	ASTM D5185(m)		<1	0	<1
Magnesium	ppm	ASTM D5185(m)		362	261	69
Calcium	ppm	ASTM D5185(m)		1634	1847	2174
Phosphorus	ppm	ASTM D5185(m)		963	963	986
Zinc	ppm	ASTM D5185(m)		1143	1129	1088
Sulfur	ppm	ASTM D5185(m)		2587	2702	2968
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.0	19.0	38.1
Visc @ 100°C	cSt	ASTM D7279(m)		15.0	15.9	▲ 15.1

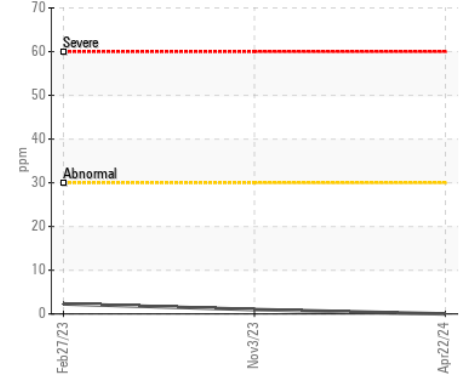
▲ FT-IR (Direct Trend)



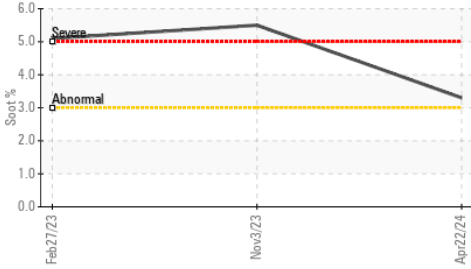
Iron (ppm)



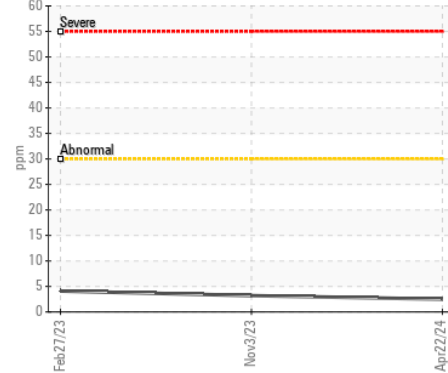
Lead (ppm)



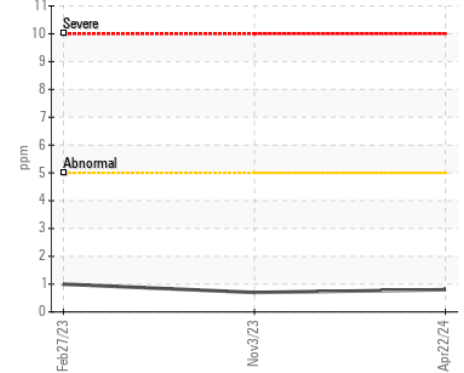
▲ Soot %



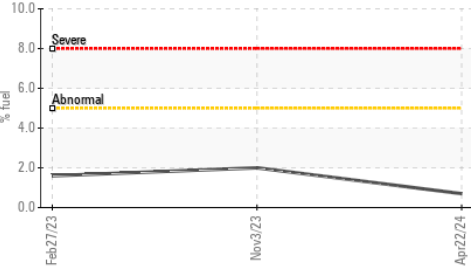
Aluminum (ppm)



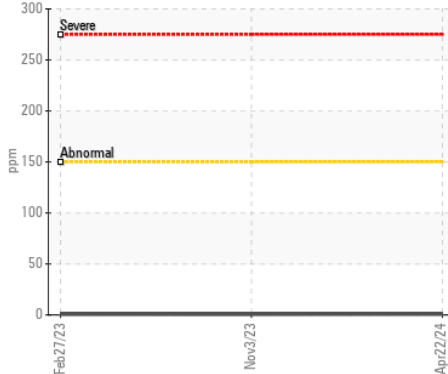
Chromium (ppm)



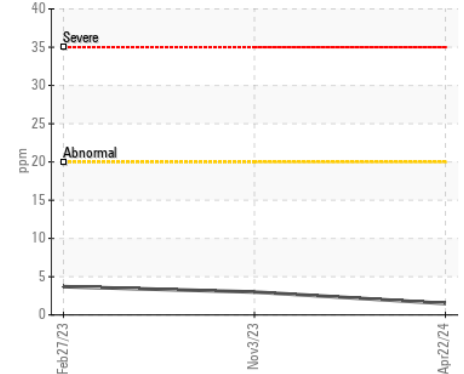
Fuel Dilution



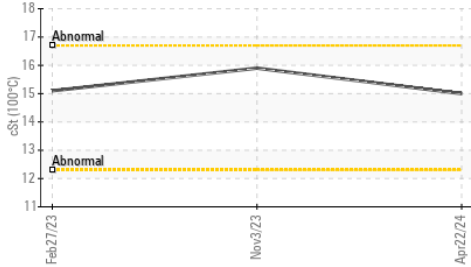
Copper (ppm)



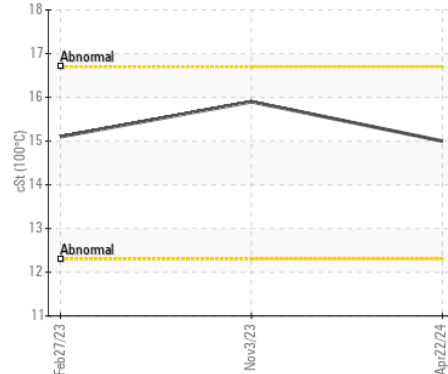
Silicon (ppm)



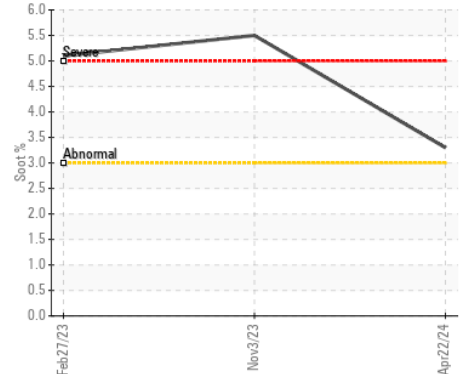
Viscosity @ 100°C



Viscosity @ 100°C



▲ Soot %



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0906432 **Received** : 26 Apr 2024
Lab Number : 02631617 **Tested** : 30 Apr 2024
Unique Number : 5772770 **Diagnosed** : 30 Apr 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)

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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