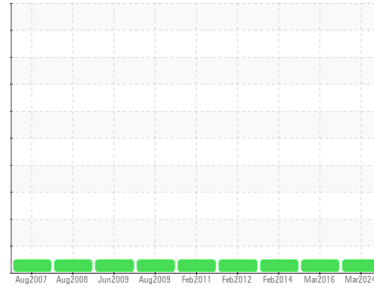




Machine Id
FREIGHTLINER 30031 WT211

Component
Front Diesel Engine

Fluid
CASTROL HYPURON 15W40 (42 LTR)



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION method limit/base current history1 history2

Sample Number	Client Info	PC0088418	AP102186	AP89163	
Sample Date	Client Info	21 Mar 2024	02 Mar 2016	26 Feb 2014	
Machine Age	hrs	Client Info	1039	0	11263
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info	Changed	N/A	Changed	
Sample Status		NORMAL	NORMAL	NORMAL	

CONTAMINATION method limit/base current history1 history2

Fuel	WC Method	>5	<1.0	<1.0	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS method limit/base current history1 history2

Iron	ppm	ASTM D5185(m)	>85	7	20	14
Chromium	ppm	ASTM D5185(m)	>5	0	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	0	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	<1
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>40	3	2	2
Lead	ppm	ASTM D5185(m)	>10	0	<1	0
Copper	ppm	ASTM D5185(m)	>100	<1	1	2
Tin	ppm	ASTM D5185(m)	>4	0	0	0
Antimony	ppm	ASTM D5185(m)		0	1	1
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	<1

ADDITIVES method limit/base current history1 history2

Boron	ppm	ASTM D5185(m)		4	71	8
Barium	ppm	ASTM D5185(m)		0	<1	<1
Molybdenum	ppm	ASTM D5185(m)		57	<1	<1
Manganese	ppm	ASTM D5185(m)		0	<1	<1
Magnesium	ppm	ASTM D5185(m)		951	10	8
Calcium	ppm	ASTM D5185(m)		1008	2395	2093
Phosphorus	ppm	ASTM D5185(m)		984	1020	950
Zinc	ppm	ASTM D5185(m)		1160	1191	1090
Sulfur	ppm	ASTM D5185(m)		2544	3572	3532
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

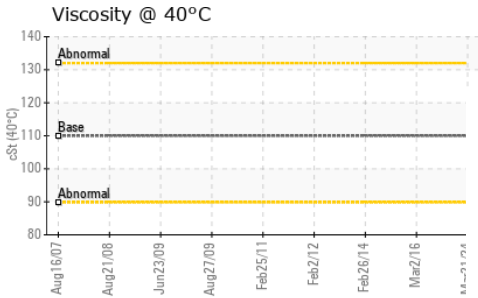
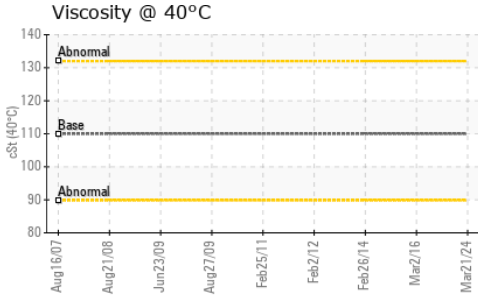
CONTAMINANTS method limit/base current history1 history2

Silicon	ppm	ASTM D5185(m)	>15	1	3	2
Sodium	ppm	ASTM D5185(m)		2	3	1
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	2

INFRA-RED method limit/base current history1 history2

Soot %	%	ASTM D7844*	>3	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	4.4	5.1	4.0
Sulfation	Abs.1mm	ASTM D7415*	>30	17.6	19.7	19.0

OIL ANALYSIS REPORT

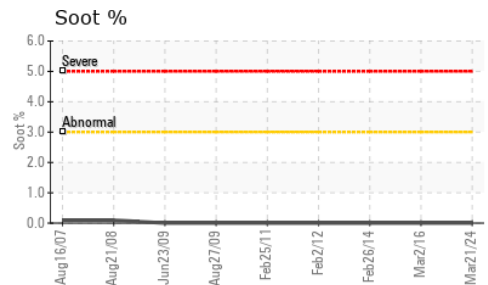
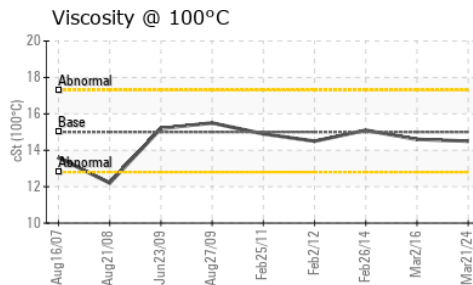
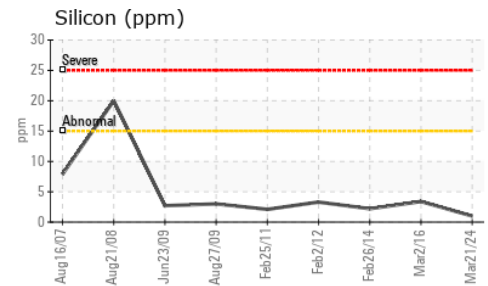
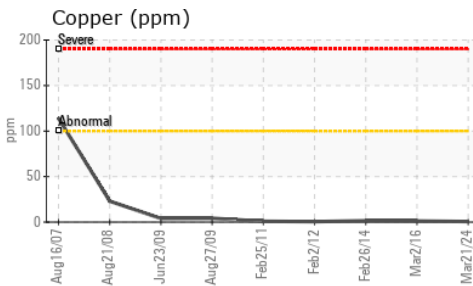
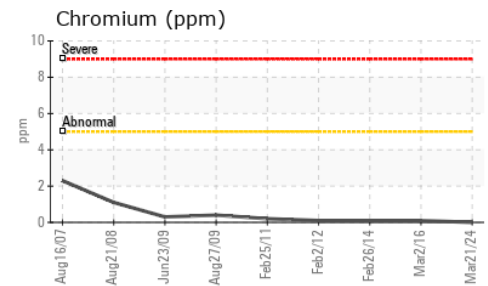
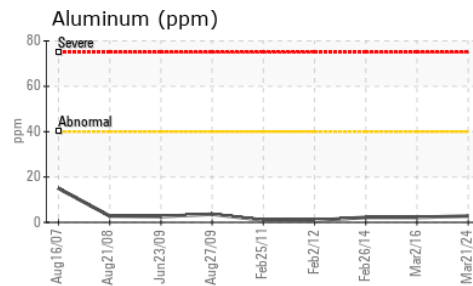
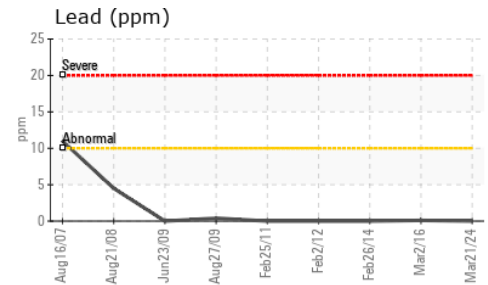
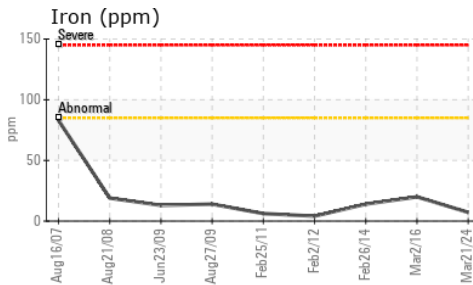


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	12.8	15.0	13.6

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	110	106	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.0	14.5	14.6	15.1
Viscosity Index (VI)	Scale	ASTM D2270*	140	140	---	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0088418 **Received** : 26 Mar 2024
Lab Number : **02624575** **Tested** : 26 Mar 2024
Unique Number : 5749694 **Diagnosed** : 26 Mar 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: KV40, VI)

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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.