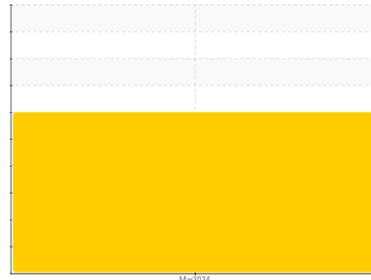




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
FREIGHTLINER HYZ171409
 Component
Diesel Engine
 Fluid
SAE 15W40 (--- GAL)

DIAGNOSIS

▲ Recommendation

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

▲ Wear

Iron ppm levels are severe. Cylinder, crank, or cam shaft wear is indicated.

Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

Fluid Condition

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0889828	---	---
Sample Date	Client Info			11 Mar 2024	---	---
Machine Age	kms	Client Info		1046907	---	---
Oil Age	kms	Client Info		0	---	---
Oil Changed	Client Info			Changed	---	---
Sample Status				SEVERE	---	---

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.2	NEG	---	---

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*	>65	0	---	---
Iron	ppm	ASTM D5185(m)	>80	▲ 188	---	---
Chromium	ppm	ASTM D5185(m)	>5	2	---	---
Nickel	ppm	ASTM D5185(m)	>2	<1	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)	>3	0	---	---
Aluminum	ppm	ASTM D5185(m)	>30	22	---	---
Lead	ppm	ASTM D5185(m)	>30	0	---	---
Copper	ppm	ASTM D5185(m)	>150	5	---	---
Tin	ppm	ASTM D5185(m)	>5	0	---	---
Antimony	ppm	ASTM D5185(m)		0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
Beryllium	ppm	ASTM D5185(m)		0	---	---
Cadmium	ppm	ASTM D5185(m)		0	---	---

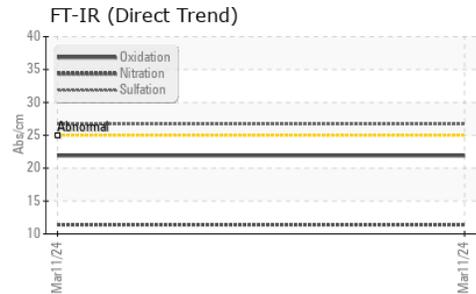
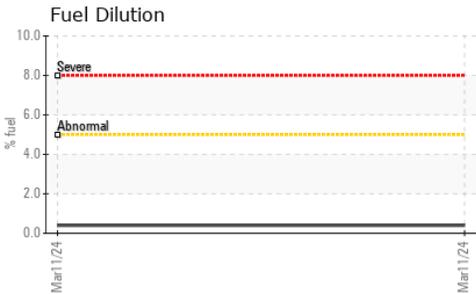
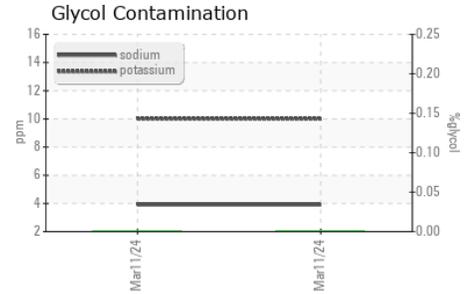
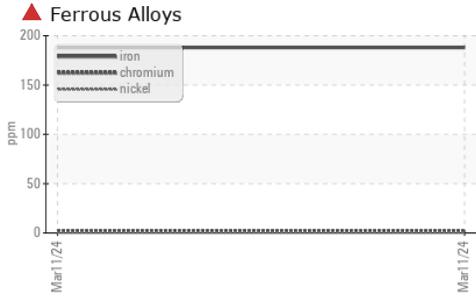
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		21	---	---
Barium	ppm	ASTM D5185(m)		0	---	---
Molybdenum	ppm	ASTM D5185(m)		60	---	---
Manganese	ppm	ASTM D5185(m)		1	---	---
Magnesium	ppm	ASTM D5185(m)		378	---	---
Calcium	ppm	ASTM D5185(m)		1972	---	---
Phosphorus	ppm	ASTM D5185(m)		1032	---	---
Zinc	ppm	ASTM D5185(m)		1274	---	---
Sulfur	ppm	ASTM D5185(m)		2588	---	---
Lithium	ppm	ASTM D5185(m)		<1	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	6	---	---
Sodium	ppm	ASTM D5185(m)	>57	4	---	---
Potassium	ppm	ASTM D5185(m)	>20	10	---	---
Fuel	%	ASTM D7593*	>5	0.4	---	---
Glycol	%	ASTM D7922*		0.0	---	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0.6	---	---
Nitration	Abs/cm	ASTM D7624*	>20	11.4	---	---
Sulfation	Abs./1mm	ASTM D7415*	>30	26.7	---	---



OIL ANALYSIS REPORT

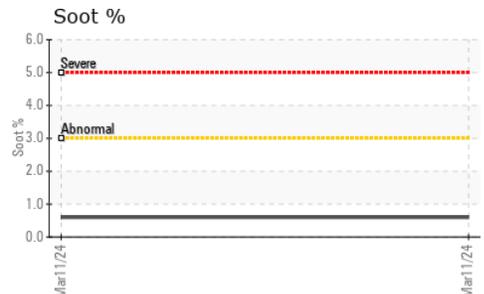
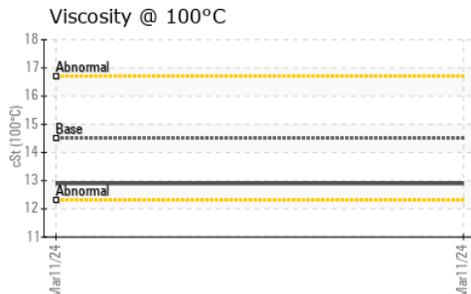
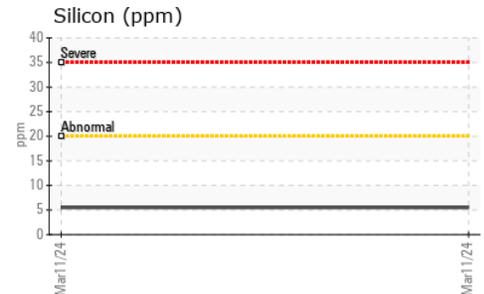
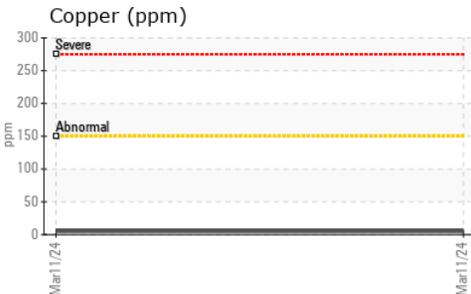
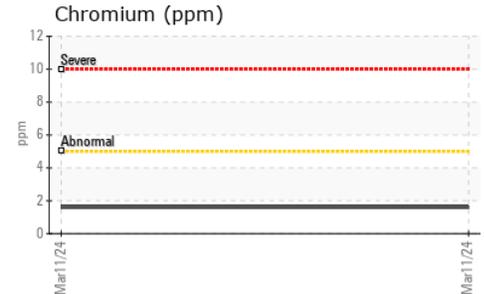
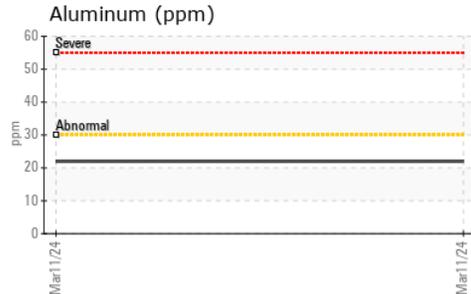
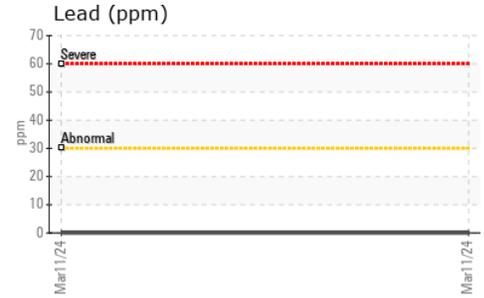
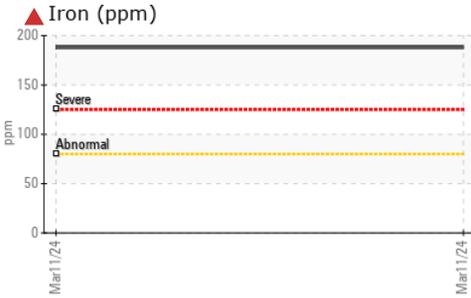


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	21.9	---	---

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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	14.5	12.9	---	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0889828
Lab Number : 02628421
Unique Number : 5761553
Test Package : MOB 1 (Additional Tests: FUELDILUTION, Glycol, PercentFuel, PQ)

BRITANNIA FLEET SERVICES
 1831 SHAWSON DRIVE (SHOP)
 MISSISSAUGA, ON
 CA L4W 1T9

*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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