



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	ABNORMAL

Area
[FLE.21.03632]
 Machine Id
NO UNIT WC0665973
 Component
Diesel Engine
 Fluid
{not provided} (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0665973	---	---
Sample Date		Client Info		11 Jan 2024	---	---
Machine Age	kms	Client Info		163504	---	---
Oil Age	kms	Client Info		0	---	---
Filter Age	kms	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

WEAR

Aluminum ppm levels are abnormal. Piston wear is indicated.

Iron	ppm	ASTM D5185(m)	>100	21	---	---
Chromium	ppm	ASTM D5185(m)	>20	<1	---	---
Nickel	ppm	ASTM D5185(m)	>4	<1	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)	>3	0	---	---
Aluminum	ppm	ASTM D5185(m)	>20	▲ 34	---	---
Lead	ppm	ASTM D5185(m)	>40	<1	---	---
Copper	ppm	ASTM D5185(m)	>330	5	---	---
Tin	ppm	ASTM D5185(m)	>15	<1	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---

CONTAMINATION

Light fuel dilution occurring.

Silicon	ppm	ASTM D5185(m)	>25	5	---	---
Potassium	ppm	ASTM D5185(m)	>20	12	---	---
Fuel	%	ASTM D7593*	>5	▲ 2.2	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol	%	ASTM D7922*		0.0	---	---
Soot %	%	ASTM D7844*	>3	0.9	---	---
Nitration	Abs/cm	ASTM D7624*	>20	11.7	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.2	---	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---

FLUID CONDITION

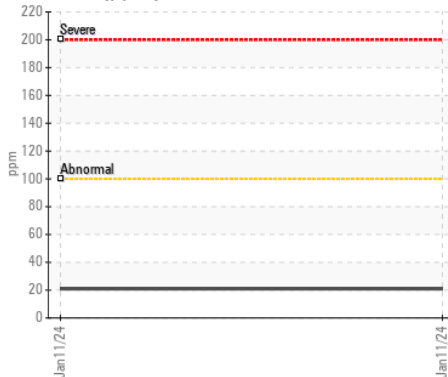
Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185(m)		28	---	---
Boron	ppm	ASTM D5185(m)		23	---	---
Barium	ppm	ASTM D5185(m)		0	---	---
Molybdenum	ppm	ASTM D5185(m)		61	---	---
Manganese	ppm	ASTM D5185(m)		0	---	---
Magnesium	ppm	ASTM D5185(m)		1083	---	---
Calcium	ppm	ASTM D5185(m)		877	---	---
Phosphorus	ppm	ASTM D5185(m)		1040	---	---
Zinc	ppm	ASTM D5185(m)		1207	---	---
Sulfur	ppm	ASTM D5185(m)		2899	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	19.4	---	---
Visc @ 100°C	cSt	ASTM D7279(m)		▲ 11.9	---	---

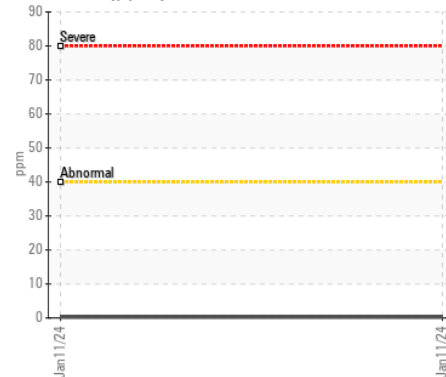
▲ Viscosity @ 100°C



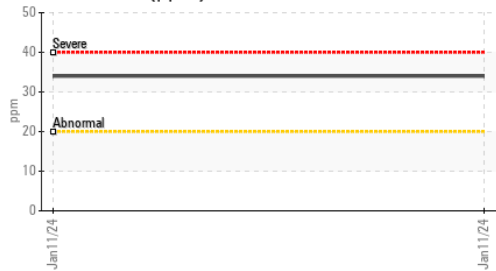
Iron (ppm)



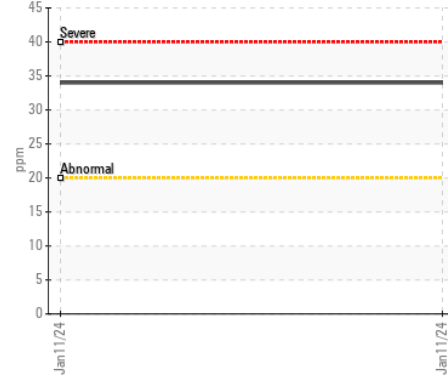
Lead (ppm)



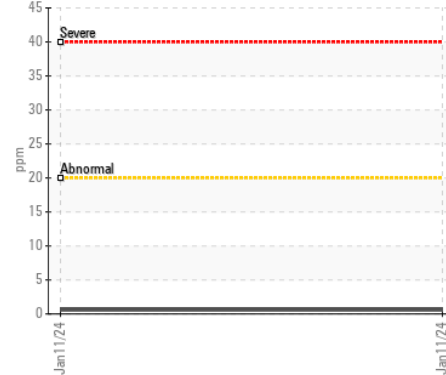
▲ Aluminum (ppm)



▲ Aluminum (ppm)



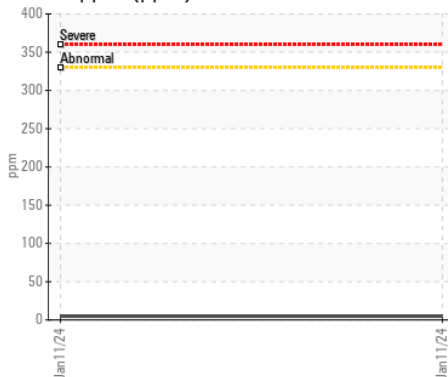
Chromium (ppm)



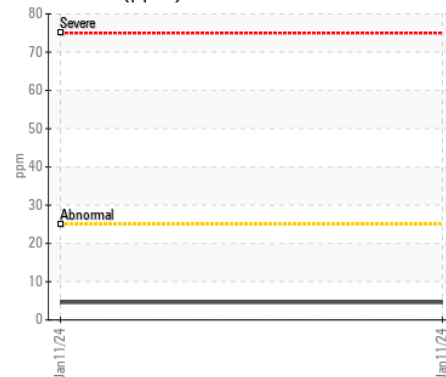
▲ Fuel Dilution



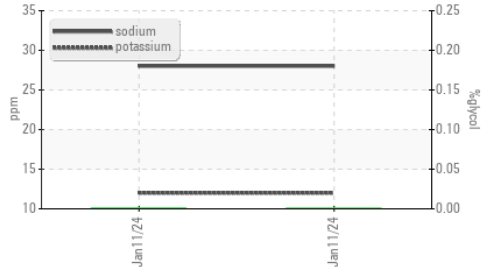
Copper (ppm)



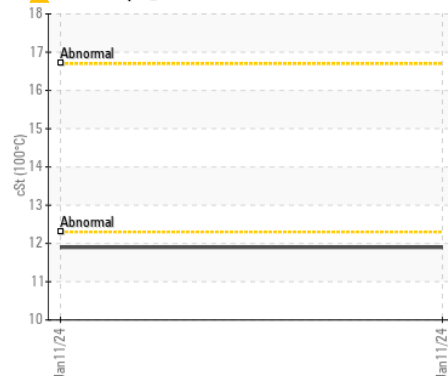
Silicon (ppm)



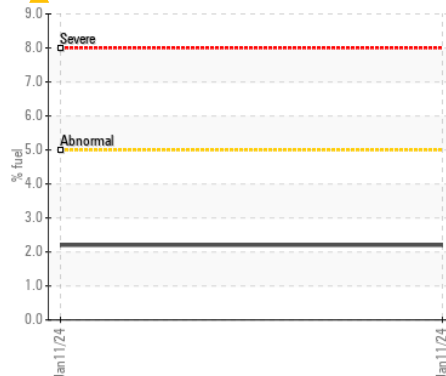
Glycol Contamination



▲ Viscosity @ 100°C



▲ Fuel Dilution



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0665973
Lab Number : 02608430
Unique Number : 5709516
Test Package : MOB 1 (Additional Tests: FuelDilution, Glycol, PercentFuel)

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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.*