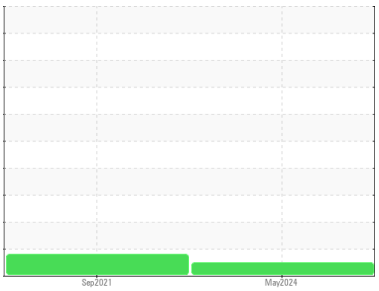
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Area
[7503]
Machine Id
9713
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. 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		**WC0924173**	WC0625084	---
Sample Date		Client Info		**26 May 2024**	25 Sep 2021	---
Machine Age	kms	Client Info		**136575**	23021	---
Oil Age	kms	Client Info		**0**	0	---
Oil Changed		Client Info		**Changed**	Changed	---
Sample Status				**NORMAL**	MARGINAL	---

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	**<1.0**	▲ 1.1	---
Water		WC Method	>0.2	**NEG**	NEG	---
Glycol		WC Method		**NEG**	NEG	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>130	**40**	45	---
Chromium	ppm	ASTM D5185(m)	>10	**<1**	<1	---
Nickel	ppm	ASTM D5185(m)	>4	**<1**	<1	---
Titanium	ppm	ASTM D5185(m)	>2	**<1**	<1	---
Silver	ppm	ASTM D5185(m)	>2	**0**	<1	---
Aluminum	ppm	ASTM D5185(m)	>20	**19**	20	---
Lead	ppm	ASTM D5185(m)	>20	**0**	<1	---
Copper	ppm	ASTM D5185(m)	>125	**2**	16	---
Tin	ppm	ASTM D5185(m)	>4	**0**	1	---
Antimony	ppm	ASTM D5185(m)		**0**	<1	---
Vanadium	ppm	ASTM D5185(m)		**0**	0	---
Beryllium	ppm	ASTM D5185(m)		**0**	0	---
Cadmium	ppm	ASTM D5185(m)		**0**	0	---

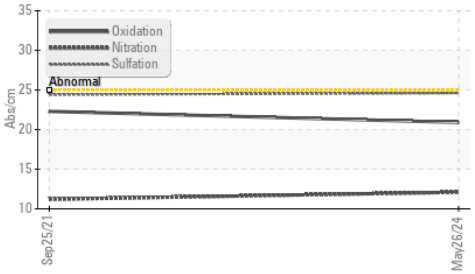
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	250	**39**	27	---
Barium	ppm	ASTM D5185(m)	10	**0**	6	---
Molybdenum	ppm	ASTM D5185(m)	100	**1**	48	---
Manganese	ppm	ASTM D5185(m)		**<1**	5	---
Magnesium	ppm	ASTM D5185(m)	450	**642**	664	---
Calcium	ppm	ASTM D5185(m)	3000	**1450**	1427	---
Phosphorus	ppm	ASTM D5185(m)	1150	**704**	912	---
Zinc	ppm	ASTM D5185(m)	1350	**824**	1081	---
Sulfur	ppm	ASTM D5185(m)	4250	**2461**	2395	---
Lithium	ppm	ASTM D5185(m)		**<1**	<1	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**3**	22	---
Sodium	ppm	ASTM D5185(m)	>158	**3**	6	---
Potassium	ppm	ASTM D5185(m)	>20	**39**	64	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	**0.7**	0.3	---
Nitration	Abs/cm	ASTM D7624*	>20	**12.1**	11.2	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	**24.6**	24.4	---

OIL ANALYSIS REPORT

FT-IR (Direct Trend)



Viscosity @ 100°C

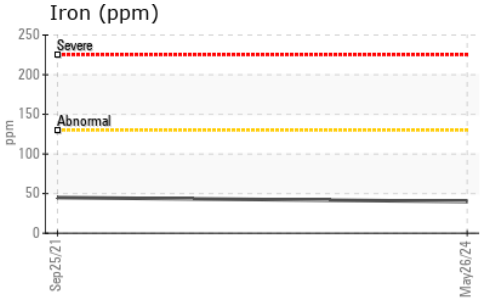
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**20.9**	22.3	---

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

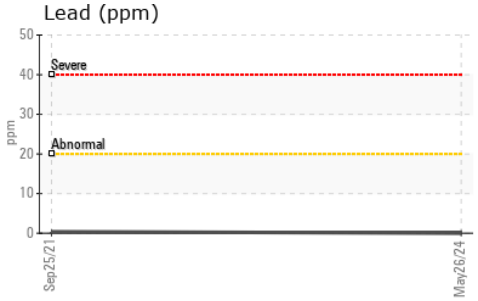
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	**11.6**	11.7	---

GRAPHS

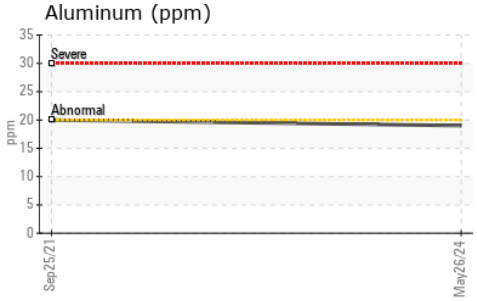
Iron (ppm)



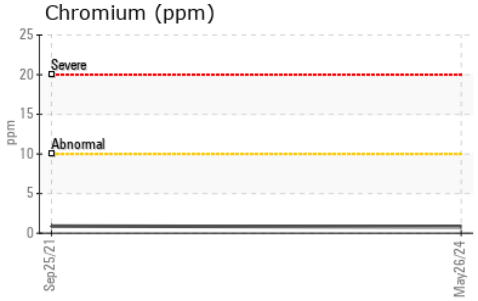
Lead (ppm)



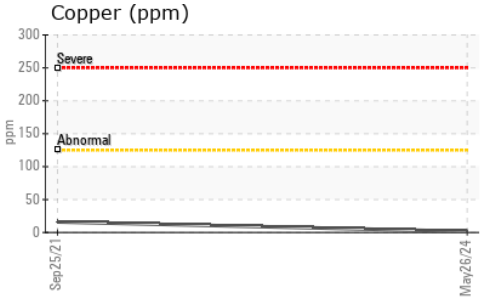
Aluminum (ppm)



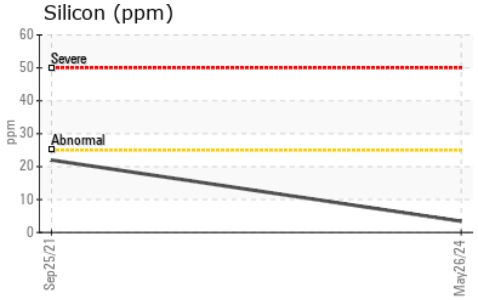
Chromium (ppm)



Copper (ppm)

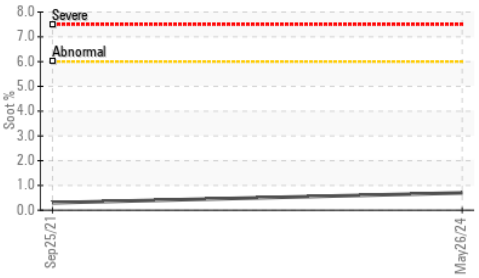


Silicon (ppm)



Viscosity @ 100°C

Soot %



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0924173
Lab Number : 02643927
Unique Number : 5801466
Test Package : MOB 1

Received : 25 Jun 2024
Tested : 25 Jun 2024
Diagnosed : 25 Jun 2024 - Wes Davis

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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