



OIL ANALYSIS REPORT

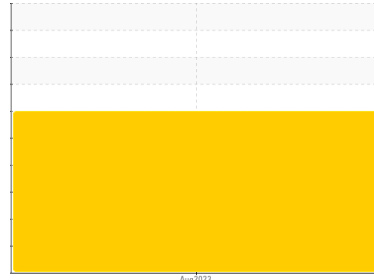
Sample Rating Trend

WEAR



Area
[61224]
Machine Id
VOLVO VNL 4469

Component
Diesel Engine
Fluid
PETRO CANADA DURON SAE 10W30 (--- GAL)



DIAGNOSIS

Recommendation

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

Wear

Nickel ppm levels are severe. Exhaust valve wear is indicated.

Contamination

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		WC0831172	---	---
Sample Date	Client Info		17 Aug 2023	---	---
Machine Age	kms	Client Info	753954	---	---
Oil Age	kms	Client Info	0	---	---
Oil Changed	Client Info		Changed	---	---
Sample Status			SEVERE	---	---

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>6.0	<1.0	---	---
Glycol	WC Method		NEG	---	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >100	83	---	---
Chromium	ppm	ASTM D5185(m) >20	1	---	---
Nickel	ppm	ASTM D5185(m) >2	6	---	---
Titanium	ppm	ASTM D5185(m)	0	---	---
Silver	ppm	ASTM D5185(m) >2	<1	---	---
Aluminum	ppm	ASTM D5185(m) >25	5	---	---
Lead	ppm	ASTM D5185(m) >40	1	---	---
Copper	ppm	ASTM D5185(m) >330	9	---	---
Tin	ppm	ASTM D5185(m) >15	<1	---	---
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) 1	3	---	---
Barium	ppm	ASTM D5185(m) 1	<1	---	---
Molybdenum	ppm	ASTM D5185(m) 1	57	---	---
Manganese	ppm	ASTM D5185(m) 1	1	---	---
Magnesium	ppm	ASTM D5185(m) 10	876	---	---
Calcium	ppm	ASTM D5185(m) 2942	1321	---	---
Phosphorus	ppm	ASTM D5185(m) 1102	1055	---	---
Zinc	ppm	ASTM D5185(m) 1351	1204	---	---
Sulfur	ppm	ASTM D5185(m) 3903	2256	---	---
Lithium	ppm	ASTM D5185(m)	<1	---	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	7	---	---
Sodium	ppm	ASTM D5185(m)	5	---	---
Potassium	ppm	ASTM D5185(m) >20	2	---	---

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	1	---	---
Nitration	Abs/cm	ASTM D7624* >20	11.8	---	---
Sulfation	Abs/.1mm	ASTM D7415* >30	27.4	---	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414* >25	22.0	---	---



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Ferrous Alloys

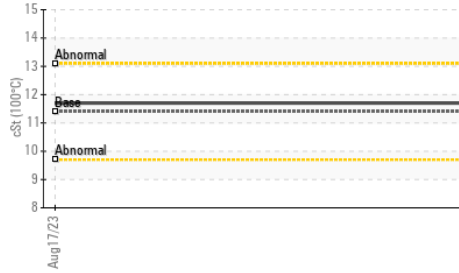


VISUAL	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	---
Free Water	scalar	Visual*		NEG	---

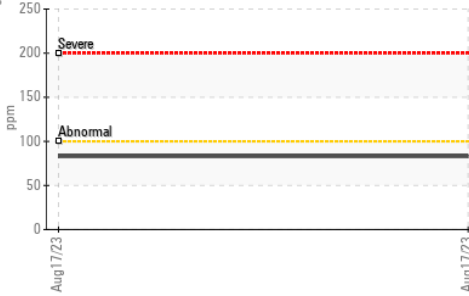
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	11.4	11.7	---

GRAPHS

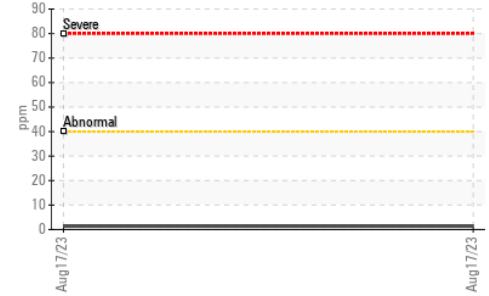
Viscosity @ 100°C



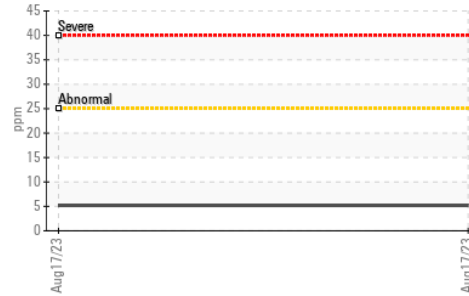
Iron (ppm)



Lead (ppm)



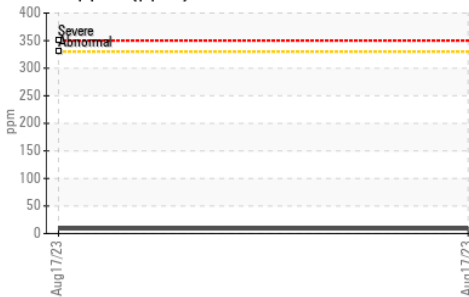
Aluminum (ppm)



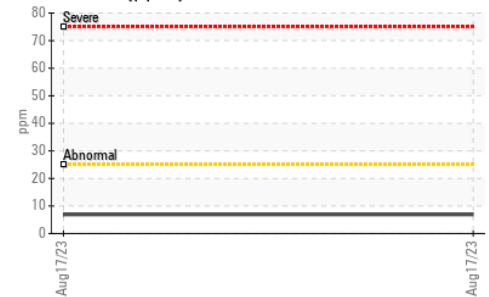
Chromium (ppm)



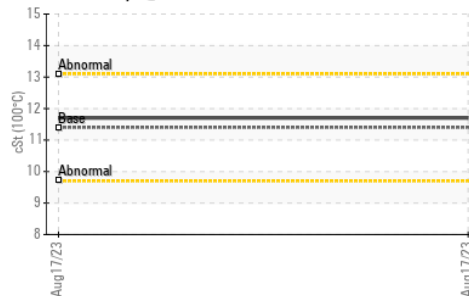
Copper (ppm)



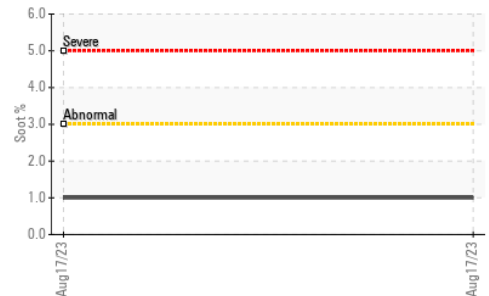
Silicon (ppm)



Viscosity @ 100°C



Soot %



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 PERFORMANCE EQUIPMENT - VISION TRUCK
Sample No. : WC0831172 **Received** : 21 Aug 2023 415 EVANS AVENUE
Lab Number : 02577046 **Diagnosed** : 21 Aug 2023 ETOBICOKE, ON
Unique Number : 5630106 **Diagnostician** : Kevin Marson CA M8W 0B3
Test Package : MOB 1 Contact: Service

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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