



OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
52829M

Component
Diesel Engine

Fluid
VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)

DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

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. Light fuel dilution occurring.

Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0805736	---	---
Sample Date	Client Info		15 Jan 2024	---	---
Machine Age	hrs	Client Info	542956	---	---
Oil Age	hrs	Client Info	31597	---	---
Oil Changed	Client Info		Changed	---	---
Sample Status			ABNORMAL	---	---

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >100	31	---	---
Chromium	ppm	ASTM D5185(m) >20	2	---	---
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	11	---	---
Lead	ppm	ASTM D5185(m) >40	4	---	---
Copper	ppm	ASTM D5185(m) >330	1	---	---
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) 2.5	2	---	---
Barium	ppm	ASTM D5185(m) 0.0	0	---	---
Molybdenum	ppm	ASTM D5185(m) 0.7	56	---	---
Manganese	ppm	ASTM D5185(m) 0.0	0	---	---
Magnesium	ppm	ASTM D5185(m) 256	914	---	---
Calcium	ppm	ASTM D5185(m) 2057	1050	---	---
Phosphorus	ppm	ASTM D5185(m) 935	955	---	---
Zinc	ppm	ASTM D5185(m) 1223	1144	---	---
Sulfur	ppm	ASTM D5185(m) 4079	2573	---	---
Lithium	ppm	ASTM D5185(m)	<1	---	---

CONTAMINANTS

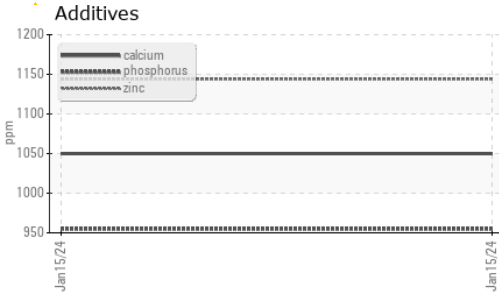
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	4	---	---
Sodium	ppm	ASTM D5185(m)	2	---	---
Potassium	ppm	ASTM D5185(m) >20	14	---	---
Fuel	%	ASTM D7593* >5	▲ 2.5	---	---

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	0.8	---	---
Nitration	Abs/cm	ASTM D7624* >20	11.2	---	---
Sulfation	Abs/.1mm	ASTM D7415* >30	23.9	---	---



OIL ANALYSIS REPORT

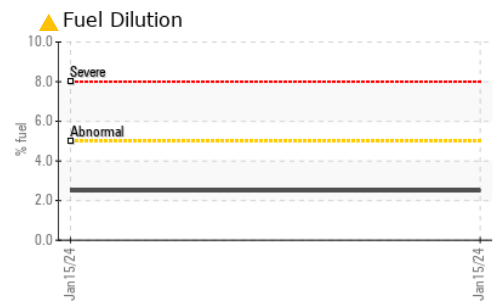
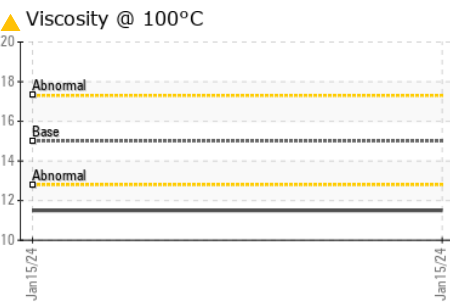
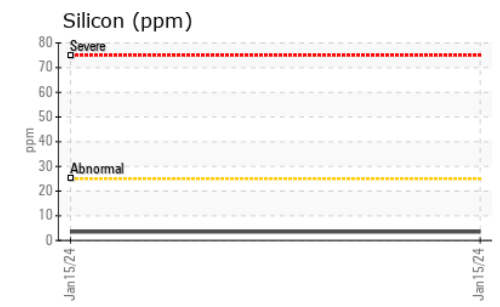
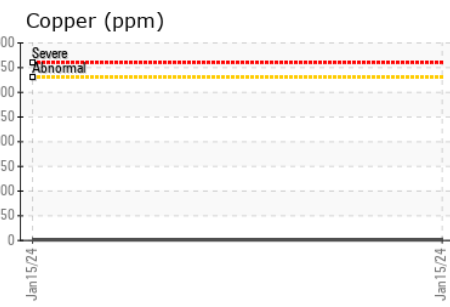
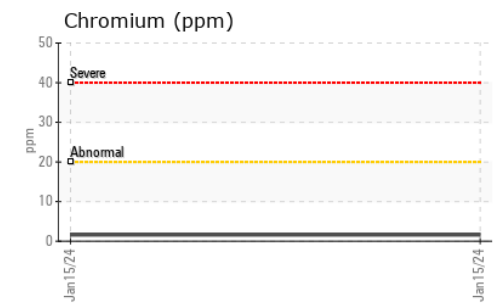
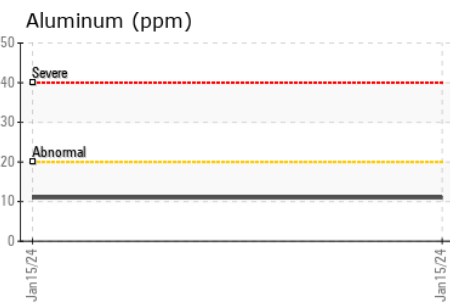
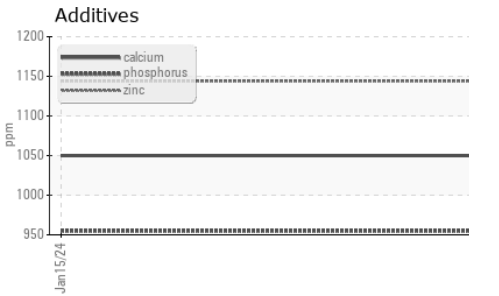
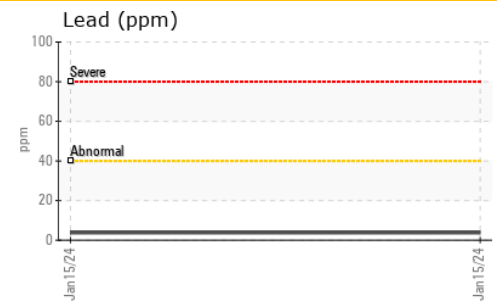
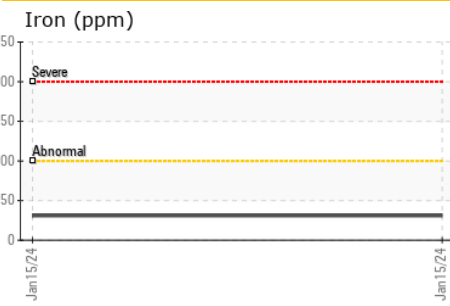
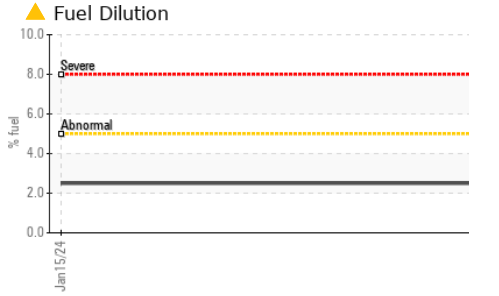


FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	19.3	---

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)	15.0	▲ 11.5	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **MANITOU LIN TRANSPORT (GARAGE)**
Sample No. : WC0805736 **Received** : 23 Jan 2024 1335 SHAWSON DRIVE
Lab Number : 02610517 **Diagnosed** : 24 Jan 2024 MISSISSAUGA, ON
Unique Number : 5711603 **Diagnostician** : Wes Davis CA L4W 1C4
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel) Contact: Patrick Morin
 pmorin@manitoulintransport.com

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. T: (905)564-6361