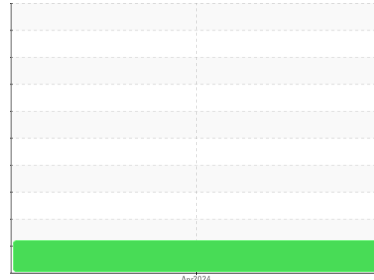


OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Area
[W/O 10639]
 Machine Id
VOLVO A45G 352606
 Component
Diesel Engine
 Fluid
VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (14 GAL)



DIAGNOSIS

▲ Recommendation

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

Sodium and/or potassium levels are high.

▲ Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		ML0001156	---	---
Sample Date	Client Info		15 Apr 2024	---	---
Machine Age	hrs	Client Info	3711	---	---
Oil Age	hrs	Client Info	500	---	---
Oil Changed	Client Info		Changed	---	---
Sample Status			ABNORMAL	---	---

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>6.0	<1.0	---	---
Water	WC Method	>0.2	NEG	---	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	27	---	---
Chromium	ppm	ASTM D5185m >20	<1	---	---
Nickel	ppm	ASTM D5185m >2	<1	---	---
Titanium	ppm	ASTM D5185m	<1	---	---
Silver	ppm	ASTM D5185m >2	0	---	---
Aluminum	ppm	ASTM D5185m >25	6	---	---
Lead	ppm	ASTM D5185m >40	<1	---	---
Copper	ppm	ASTM D5185m >330	1	---	---
Tin	ppm	ASTM D5185m >15	<1	---	---
Vanadium	ppm	ASTM D5185m	0	---	---
Cadmium	ppm	ASTM D5185m	<1	---	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 2.5	30	---	---
Barium	ppm	ASTM D5185m 0.0	0	---	---
Molybdenum	ppm	ASTM D5185m 0.7	50	---	---
Manganese	ppm	ASTM D5185m 0.0	<1	---	---
Magnesium	ppm	ASTM D5185m 256	542	---	---
Calcium	ppm	ASTM D5185m 2057	1516	---	---
Phosphorus	ppm	ASTM D5185m 935	1084	---	---
Zinc	ppm	ASTM D5185m 1223	1222	---	---
Sulfur	ppm	ASTM D5185m 4079	3405	---	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	10	---	---
Sodium	ppm	ASTM D5185m	▲ 413	---	---
Potassium	ppm	ASTM D5185m >20	12	---	---
Glycol	%	*ASTM D2982	NEG	---	---

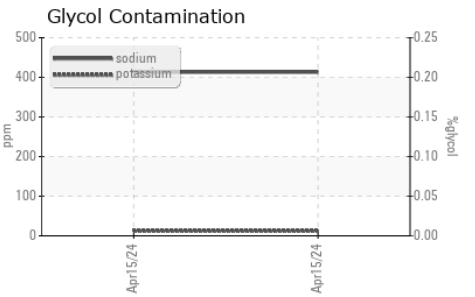
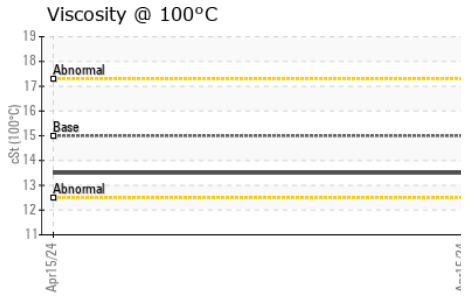
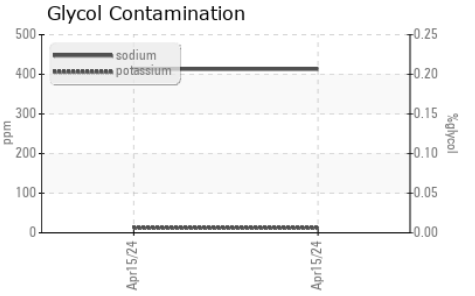
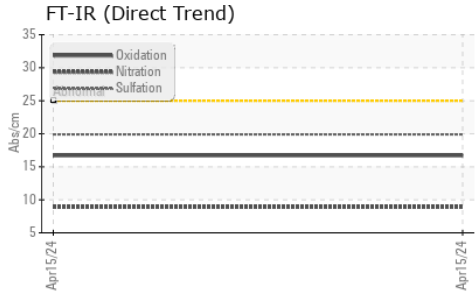
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.2	---	---
Nitration	Abs/cm	*ASTM D7624 >20	8.9	---	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	19.9	---	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	16.7	---	---
Base Number (BN)	mg KOH/g	ASTM D2896 10	9.0	---	---

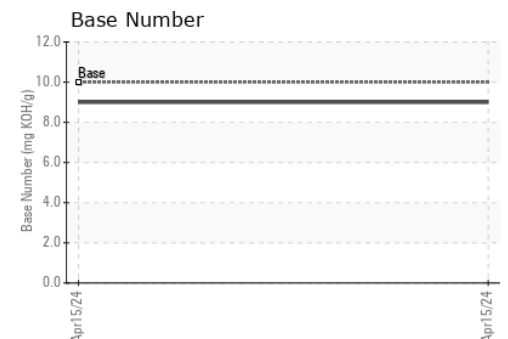
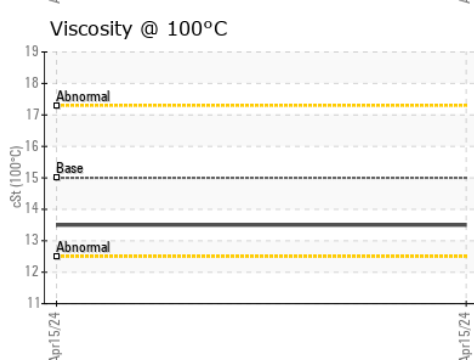
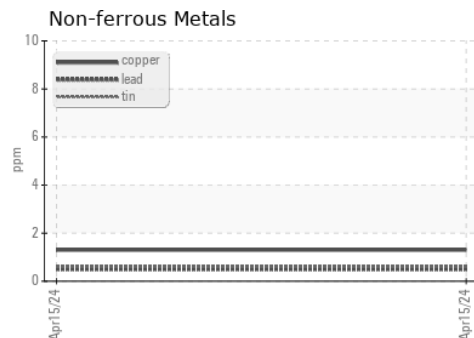
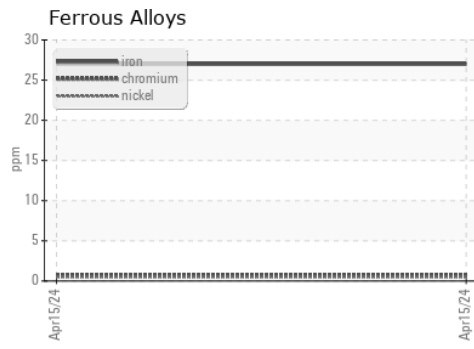
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
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 D445	15.0	13.5	---

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ML0001156 **Received** : 19 Apr 2024
Lab Number : **06155076** **Tested** : 24 Apr 2024
Unique Number : 10990499 **Diagnosed** : 24 Apr 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: Glycol, TBN)

MCCLUNG-LOGAN EQUIPMENT CO - BALTIMORE
 4601 WASHINGTON BOULEVARD
 BALTIMORE, MD
 US 21227
 Contact: DELANO GREGORY
 dgregory@mcclung-logan.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (410)242-7835