



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
VOLVO VNL 3004 (S/N RN654170)

Component
Diesel Engine

Fluid
SAFETY-KLEEN PERFORMANCE PLUS 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor. Please note that this is a corrected copy.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DE0000656	DE0000654	---
Sample Date		Client Info		12 Jun 2024	08 Apr 2024	---
Machine Age	mls	Client Info		114600	80900	---
Oil Age	mls	Client Info		33700	29109	---
Filter Age	mls	Client Info		33700	29109	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	ATTENTION	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	40	36	---
Chromium	ppm	ASTM D5185m	>20	<1	1	---
Nickel	ppm	ASTM D5185m	>2	3	3	---
Titanium	ppm	ASTM D5185m		0	<1	---
Silver	ppm	ASTM D5185m	>2	1	<1	---
Aluminum	ppm	ASTM D5185m	>25	10	11	---
Lead	ppm	ASTM D5185m	>40	0	<1	---
Copper	ppm	ASTM D5185m	>330	40	97	---
Tin	ppm	ASTM D5185m	>15	<1	2	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

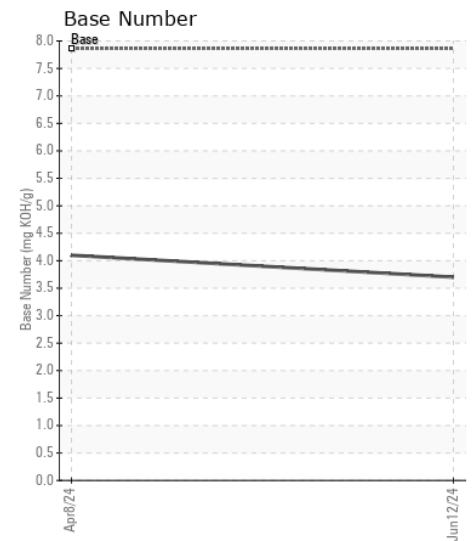
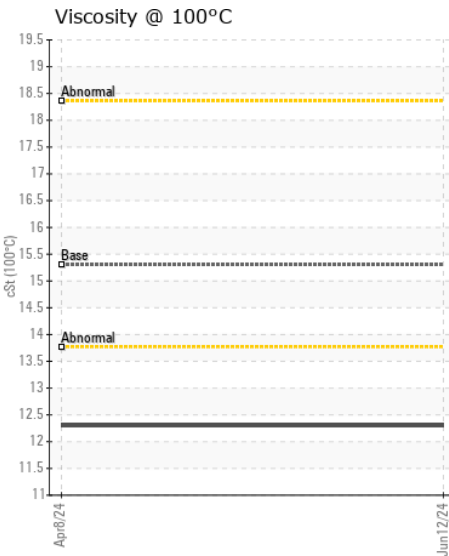
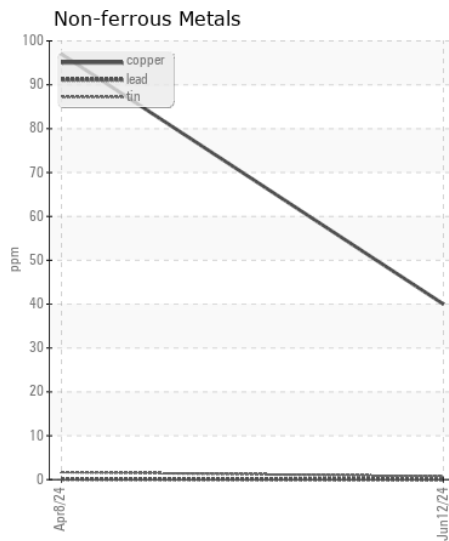
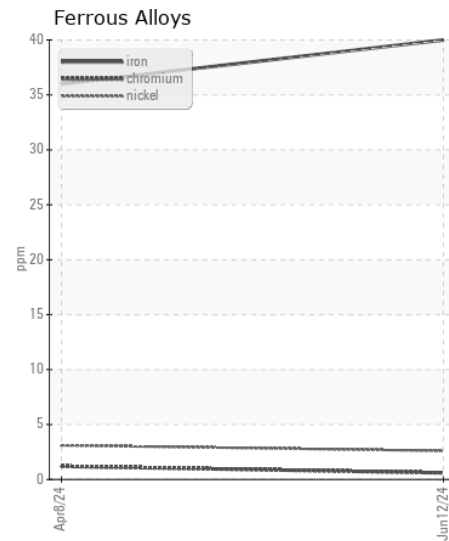
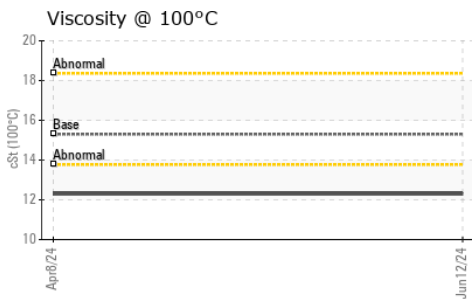
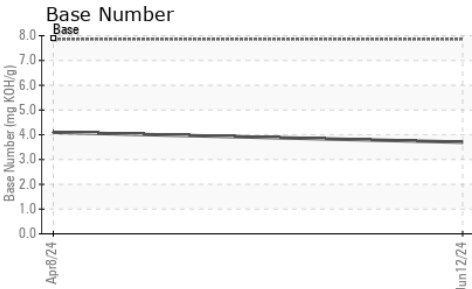
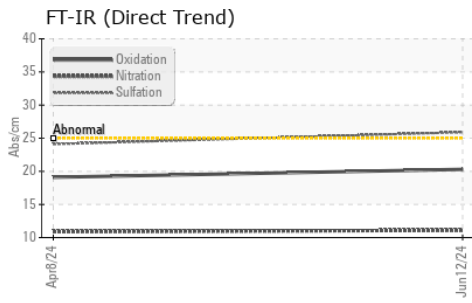
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	13	14	---
Potassium	ppm	ASTM D5185m	>20	23	24	---
Fuel		WC Method	>6.0	<1.0	0.8	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.5	0.4	---
Nitration	Abs/cm	*ASTM D7624	>20	11.1	10.9	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.9	24.1	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		3	2	---
Boron	ppm	ASTM D5185m	1.4	4	2	---
Barium	ppm	ASTM D5185m	0.1	0	0	---
Molybdenum	ppm	ASTM D5185m	0.1	2	6	---
Manganese	ppm	ASTM D5185m		1	<1	---
Magnesium	ppm	ASTM D5185m	2.7	30	52	---
Calcium	ppm	ASTM D5185m	2328	2412	2311	---
Phosphorus	ppm	ASTM D5185m	924	909	859	---
Zinc	ppm	ASTM D5185m	1004	1095	1104	---
Sulfur	ppm	ASTM D5185m	3828	3516	3167	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.3	19.1	---
Base Number (BN)	mg KOH/g	ASTM D2896	7.86	3.7	4.1	---
Visc @ 100°C	cSt	ASTM D445	15.3	12.3	12.3	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DE0000656
Lab Number : 06212782
Unique Number : 11085646
Test Package : FLEET
Received : 17 Jun 2024
Tested : 09 Jul 2024
Diagnosed : 09 Jul 2024 - Doug Bogart

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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)