MOB I VOLVO

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
VOLVO L220H 3589
Component
Diesel Engine
Fluid
SHELL ROTELLA T3 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

WEAR

The copper level has decreased, but is still abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other component wear rates are normal.

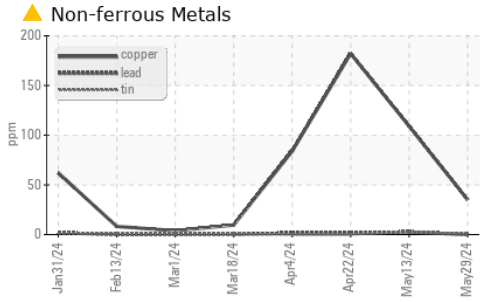
CONTAMINATION

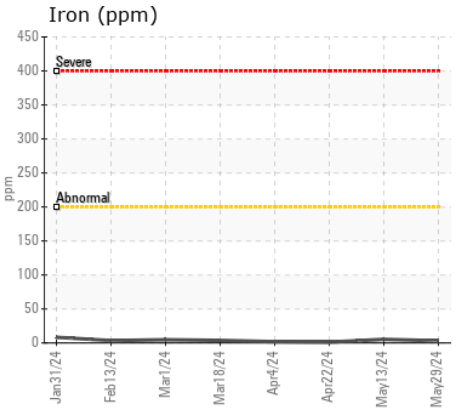
There is no indication of any contamination in the oil.

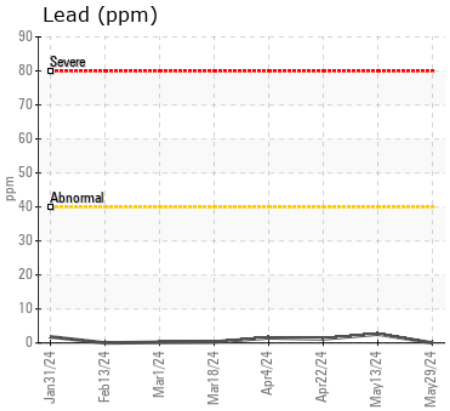
FLUID CONDITION

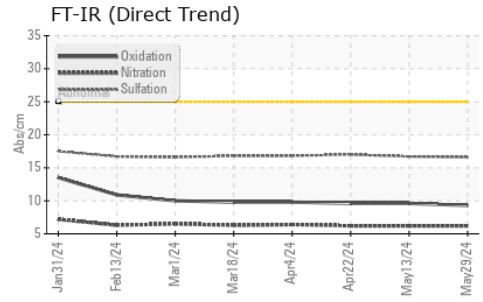
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

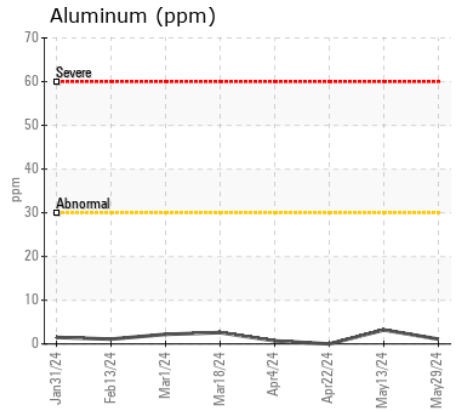
Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP441406	VCP441039	VCP440882
Sample Date		Client Info		29 May 2024	13 May 2024	22 Apr 2024
Machine Age	hrs	Client Info		2113	1816	1519
Oil Age	hrs	Client Info		297	297	325
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>200	3	5	1
Chromium	ppm	ASTM D5185m	>20	<1	2	0
Nickel	ppm	ASTM D5185m	>5	<1	2	0
Titanium	ppm	ASTM D5185m		<1	2	0
Silver	ppm	ASTM D5185m	>2	0	3	0
Aluminum	ppm	ASTM D5185m	>30	1	3	0
Lead	ppm	ASTM D5185m	>40	0	3	1
Copper	ppm	ASTM D5185m	>20	▲ 35	▲ 109	▲ 182
Tin	ppm	ASTM D5185m	>20	<1	3	0
Vanadium	ppm	ASTM D5185m		0	2	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>20	7	10	6
Potassium	ppm	ASTM D5185m	>20	2	4	<1
Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	6.2	6.2	6.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.6	16.7	17.0
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m		<1	3	<1
Boron	ppm	ASTM D5185m	10	4	10	3
Barium	ppm	ASTM D5185m	0	0	1	0
Molybdenum	ppm	ASTM D5185m	10	8	13	8
Manganese	ppm	ASTM D5185m		0	2	0
Magnesium	ppm	ASTM D5185m	10	36	42	39
Calcium	ppm	ASTM D5185m	2600	2242	2195	2467
Phosphorus	ppm	ASTM D5185m	1050	905	876	1004
Zinc	ppm	ASTM D5185m	1250	1057	1029	1192
Sulfur	ppm	ASTM D5185m	3900	3815	3824	4579
Oxidation	Abs/.1mm	*ASTM D7414	>25	9.3	9.6	9.6
Base Number (BN)	mg KOH/g	ASTM D2896	10.6	6.3	6.4	6.7
Visc @ 100°C	cSt	ASTM D445	15.5	13.1	13.1	13.2

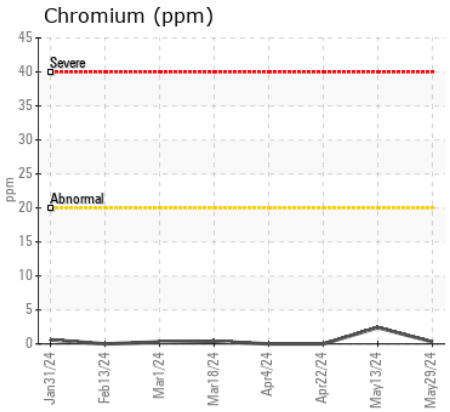


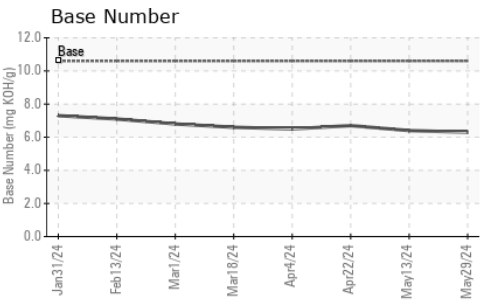


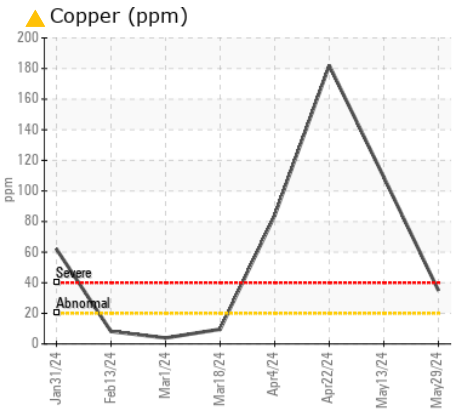


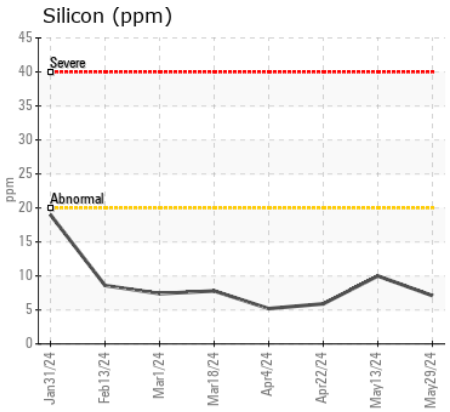


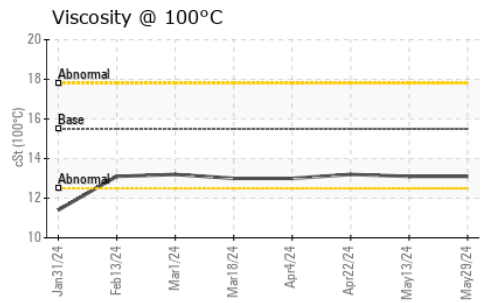


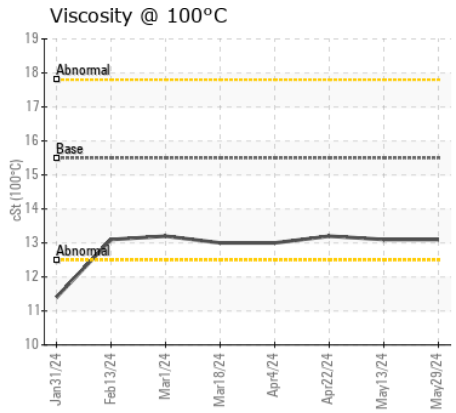


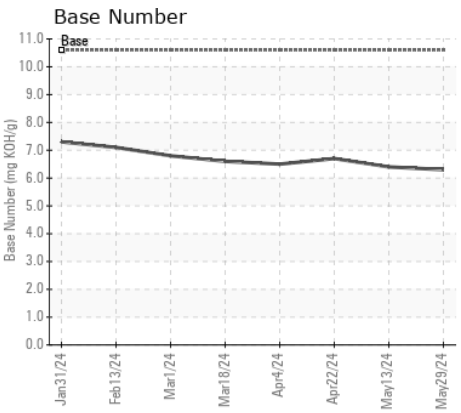












Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP441406
Lab Number : 06197411
Unique Number : 11059534
Test Package : MOB 1 (Additional Tests: TBN)

Received : 03 Jun 2024
Tested : 04 Jun 2024
Diagnosed : 04 Jun 2024 - Sean Felton

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)

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