



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Area  
**[W/O 10764]**  
Machine Id  
**VOLVO A40G 341170**  
Component  
**Diesel Engine**  
Fluid  
**MOBIL 15W40 (15 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>ML0001337</b>	ML0000446	VCP419407
Sample Date		Client Info		<b>07 May 2024</b>	16 Apr 2024	26 Oct 2023
Machine Age	hrs	Client Info		<b>11348</b>	11296	10875
Oil Age	hrs	Client Info		<b>52</b>	250	250
Filter Age	hrs	Client Info		<b>52</b>	250	0
Oil Changed		Client Info		<b>Not Chngd</b>	Changed	Changed
Filter Changed		Client Info		<b>Not Chngd</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>2</b>	8	5
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	<1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	2	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	6	3
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	1	0
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	2	<1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

There is no indication of any contamination in the oil.

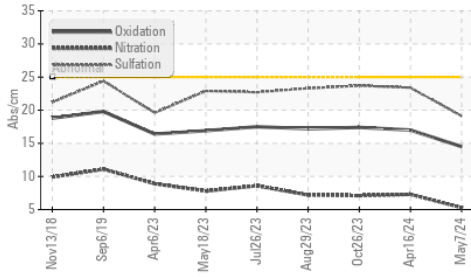
Silicon	ppm	ASTM D5185m	>25	<b>5</b>	10	6
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	1
Fuel		WC Method	>6.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.3</b>	7.3	7.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.1</b>	23.4	23.7
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

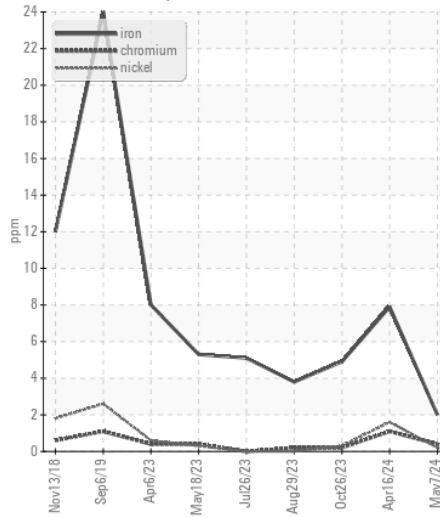
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>118	<b>0</b>	1	0
Boron	ppm	ASTM D5185m		<b>92</b>	495	437
Barium	ppm	ASTM D5185m		<b>2</b>	<1	4
Molybdenum	ppm	ASTM D5185m		<b>75</b>	167	135
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	1	0
Magnesium	ppm	ASTM D5185m		<b>679</b>	832	654
Calcium	ppm	ASTM D5185m		<b>1271</b>	2028	1497
Phosphorus	ppm	ASTM D5185m		<b>882</b>	1054	741
Zinc	ppm	ASTM D5185m		<b>1013</b>	1131	841
Sulfur	ppm	ASTM D5185m		<b>2864</b>	3857	2490
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.5</b>	17.0	17.4
Base Number (BN)	mg KOH/g	ASTM D2896		<b>9.6</b>	9.1	9.1
Visc @ 100°C	cSt	ASTM D445		<b>12.5</b>	12.7	13.3

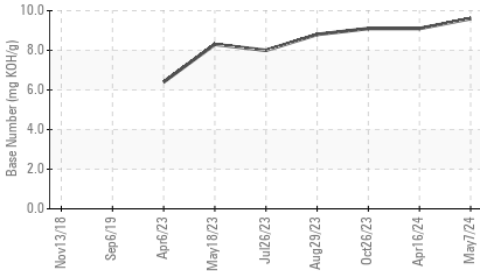
**FT-IR (Direct Trend)**



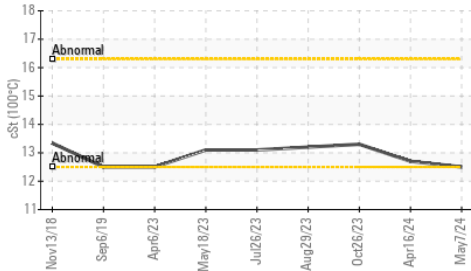
**Ferrous Alloys**



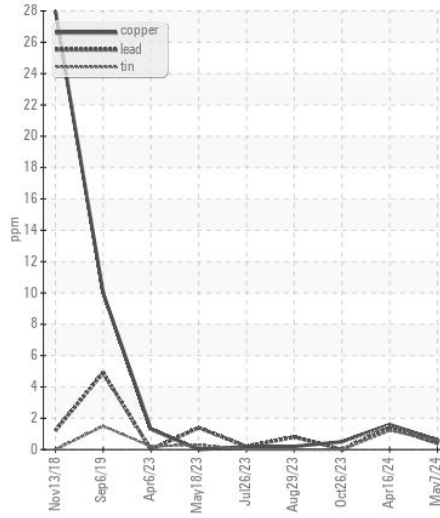
**Base Number**



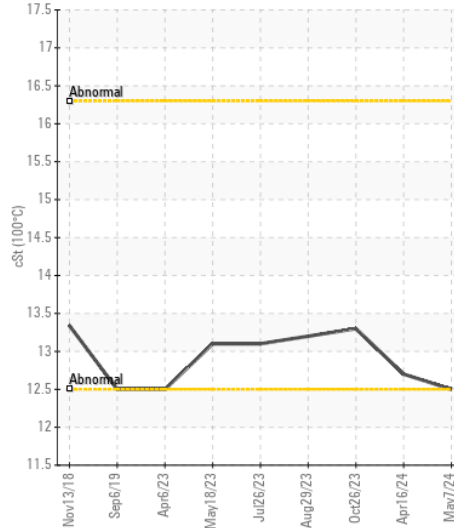
**Viscosity @ 100°C**



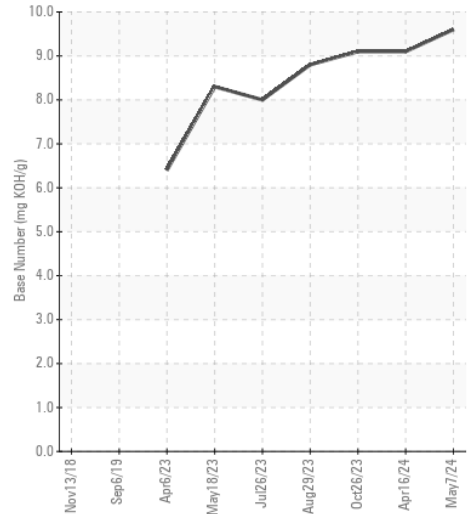
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ML0001337 **Received** : 10 May 2024  
**Lab Number** : 06176443 **Tested** : 13 May 2024  
**Unique Number** : 11022496 **Diagnosed** : 14 May 2024 - Sean Felton  
**Test Package** : CONST ( Additional Tests: TBN )

**MCCLEUNG-LOGAN EQUIPMENT CO - MANASSAS**  
 8450 QUARRY ROAD  
 MANASSAS, VA  
 US 20110  
 Contact: MIKE MAYHUGH  
 MMAYHUGH@MCCLEUNG-LOGAN.COM  
 T: (703)393-7344  
 F: (703)393-7844

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)