

WEAR CONTAMINATION FLUID CONDITION

ABNORMAL NORMAL ATTENTION



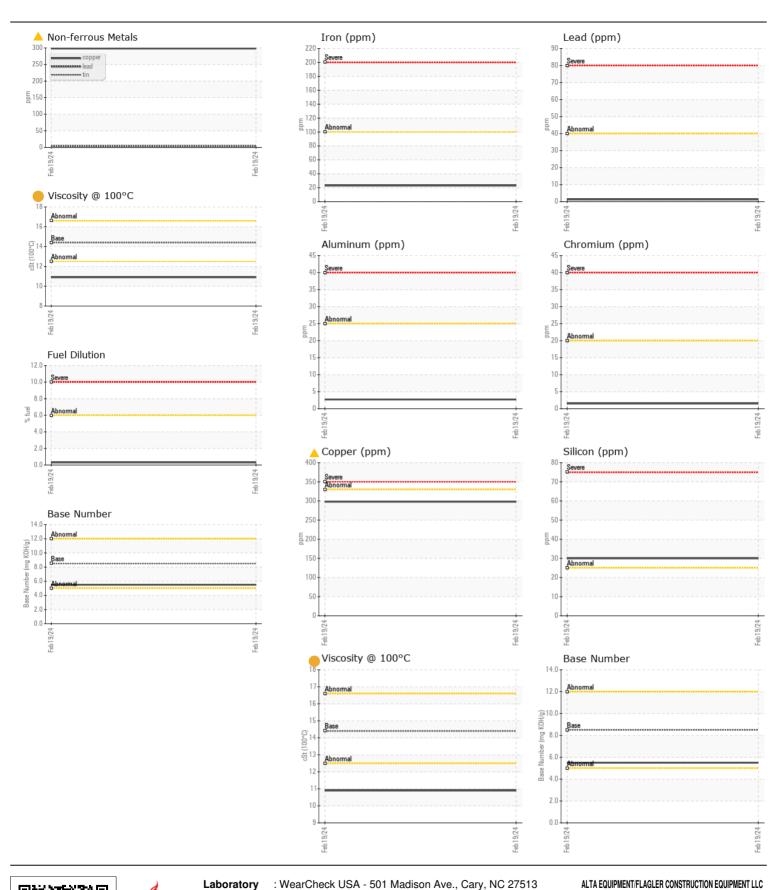
## [RYAN GOLF] Machine Id VOLVO A40G 752117

Component Diesel Engine

Test	DIESEL ENGINE OIL SAE 15W	40 ( GAL)				.,		
No corrective action is recommended at this time. Resample at the next service interval to monitor.	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Next service interval to monitor.	No corrective action is recommended at this time. Resample at the	Sample Number		Client Info		VCP435617		
Machine Age   hrs   Client Info   0		Sample Date		Client Info		19 Feb 2024		
Filter Age		Machine Age	hrs	Client Info		572		
Cilchanged   Cil		Oil Age	hrs	Client Info		0		
Filter Changed   Sample Status		Filter Age	hrs	Client Info		0		
Name		-						
Iron				Client Info				
Chromium   ppm   ASTM D6165m   2.20   2		Sample Status				ABNORMAL		
The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other metal levels are typical for a new component breaking in.    Nickel	metals, suspect copper due to sources other than wear (i.e. cooling core). All other metal levels are typical for a new component breaking	Iron	ppm	ASTM D5185m	>100	23		
Mickel   Spirit   Ash Motorom   Ash Motoro		Chromium	ppm	ASTM D5185m	>20	2		
Titanium		Nickel	ppm	ASTM D5185m	>2	6		
Silver   ppm   ASTM D5185m   2-25   3		Titanium	ppm	ASTM D5185m		<1		
Aluminum   ppm   ASTM D5185m   25   3		Silver	ppm	ASTM D5185m	>2	0		
Copper   ppm   ASTM D5185m   >330   298		Aluminum	ppm	ASTM D5185m	>25	3		
Tin		Lead	ppm	ASTM D5185m	>40	1		
Vanadium   Valoual   NONE   NONE   Vanadium   None   Vanadium		Copper	ppm	ASTM D5185m	>330	<u> </u>		
White Metal Yellow Metal Scalar   *Visual NONE NONE NONE         NONE Yellow Metal Scalar   *Visual NONE   NONE     NONE     NONE     NONE   NONE     NONE   NONE   NONE     NONE   NONE     NONE		Tin	ppm	ASTM D5185m	>15	5		
Vellow Metal   Scalar   Visual   NONE   NO		Vanadium	ppm	ASTM D5185m		<1		
Silicon   ppm   ASTM D5185m   >25   30		White Metal	scalar	*Visual	NONE	NONE		
Potassium   ppm   ASTM D5185m   >20   4		Yellow Metal	scalar	*Visual	NONE	NONE		
Potassium   ppm   ASTM D5185m   >20   4	CONTAMINATION	Cilinan		ACTM DE10E	05	20		
Fuel content negligible. There is no indication of any contamination in the oil.    Fuel	CONTAMINATION		• •					
the oil.    Water   W C Method   0.0.2   NEG           Glycol   WC Method   NEG           Soot % % '** ASTM D7644   >3   0.3           Sulfation   Abs/.tmm '** ASTM D7644   >30   0.3   0.3           Sulfation   Abs/.tmm '** ASTM D7644   >50   15.0           Sulfation   Abs/.tmm '** ASTM D7644   >50   15.0           Sulfation   Abs/.tmm '** ASTM D7644   >50   15.0           Sulfation   Abs/.tmm								
Glycol   WC Method   NEG         Soot %			70					
Soot %					>0.2			
Nitration   Abs/cm   *ASTM D7624   >20   10.1         Sulfation   Abs/.tmm   *ASTM D7415   >30   19.9         Silt   scalar   *Visual   NONE   NONE   NONE         Sand/Dirt   scalar   *Visual   NONE   NONE   NONE   NONE       Sand/Dirt   scalar   *Visual   NONE   NONE   NONE   NONE         Appearance   scalar   *Visual   NORML		-	0/_		~3			
Sulfation   Abs/.imm   *ASTM D7415   >30   19.9         Silt   scalar   *Visual   NONE   NONE   NONE         Debris   scalar   *Visual   NONE   NONE   NONE         Sand/Dirt   scalar   *Visual   NONE   NONE   NONE         Appearance   scalar   *Visual   NORML								
Silt   scalar *Visual   NONE   NONE         Debris   scalar *Visual   NONE   NONE   NONE   NONE     Sand/Dirt   scalar *Visual   NONE   NONE   NONE   NONE     Sand/Dirt   scalar *Visual   NONE   NONE   NONE   NONE     Appearance   scalar *Visual   NORML   NORML   NORML   NORML     NORML   NORML   NORML   NORML   NORML   NORML     NORML   NORML   NORML   NORML   NORML     NORML   NORML   NORML   NORML   NORML   NORML     NORML   NORML   NORML   NORML   NORML   NORML     NORML   NORML   NORML   NORML   NORML   NORML   NORML     NORML   NORML   NORML   NORML   NORML   NORML   NORML   NORML     NORML								
Debris   Scalar   *Visual   NONE   NONE   NONE   Sand/Dirt   Scalar   *Visual   NONE   NORML   NO								
Sand/Dirt   Scalar *Visual   NONE   NONE   NONE   Appearance   Scalar *Visual   NORML   NORM								
Appearance   Scalar   *Visual   NORML   NORM								
Codor   Scalar   *Visual   NORML   NORML   NORML   Emulsified Water   Scalar   *Visual   Solar   Solar   *Visual   Solar   Solar   *Visual   Solar   Solar   *Visual   Solar   Solar   Solar   *Visual   Solar   Solar								
Sodium   ppm   ASTM D5185m   >158   3						NORML		
Boron   ppm   ASTM D5185m   250   30		<b>Emulsified Water</b>	scalar	*Visual	>0.2	NEG		
Boron   ppm   ASTM D5185m   250   30	ELUID CONDITION	Codium	nnm	ACTM DE10Em	. 150	2		
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.    Barium   ppm   ASTM D5185m   100   83         Molybdenum   ppm   ASTM D5185m   100   83         Manganese   ppm   ASTM D5185m   450   20         Calcium   ppm   ASTM D5185m   3000   1990         Phosphorus   ppm   ASTM D5185m   1150   942         Zinc   ppm   ASTM D5185m   1350   1114         Sulfur   ppm   ASTM D5185m   4250   3969         Oxidation   Abs/.1mm *ASTM D7414   >25   15.0	FLUID CONDITION							
Molybdenum   ppm   ASTM D5185m   100   83         Manganese   ppm   ASTM D5185m   450   20         Magnesium   ppm   ASTM D5185m   3000   1990         Phosphorus   ppm   ASTM D5185m   1150   942         Zinc   ppm   ASTM D5185m   1350   1114         Sulfur   ppm   ASTM D5185m   4250   3969         Oxidation   Abs/.1mm   *ASTM D7414   >25   15.0	•							
Manganese         ppm         ASTM D5185m         2             Magnesium         ppm         ASTM D5185m         450         20             Calcium         ppm         ASTM D5185m         3000         1990             Phosphorus         ppm         ASTM D5185m         1150         942             Zinc         ppm         ASTM D5185m         1350         1114             Sulfur         ppm         ASTM D5185m         4250         3969             Oxidation         Abs/.1mm         *ASTM D7414         >25         15.0			• •					
Magnesium         ppm         ASTM D5185m         450         20             Calcium         ppm         ASTM D5185m         3000         1990             Phosphorus         ppm         ASTM D5185m         1150         942             Zinc         ppm         ASTM D5185m         1350         1114             Sulfur         ppm         ASTM D5185m         4250         3969             Oxidation         Abs/.1mm         *ASTM D7414         >25         15.0		•			100			
Calcium         ppm         ASTM D5185m         3000         1990             Phosphorus         ppm         ASTM D5185m         1150         942             Zinc         ppm         ASTM D5185m         1350         1114             Sulfur         ppm         ASTM D5185m         4250         3969             Oxidation         Abs/.1mm         *ASTM D7414         >25         15.0		-			450			
Phosphorus         ppm         ASTM D5185m         1150         942             Zinc         ppm         ASTM D5185m         1350         1114             Sulfur         ppm         ASTM D5185m         4250         3969             Oxidation         Abs/.1mm         *ASTM D7414         >25         15.0								
Zinc         ppm         ASTM D5185m         1350         1114             Sulfur         ppm         ASTM D5185m         4250         3969             Oxidation         Abs/.1mm         *ASTM D7414         >25         15.0								
Sulfur         ppm         ASTM D5185m         4250         3969             Oxidation         Abs/.1mm         *ASTM D7414         >25         15.0								
Oxidation								
		Base Number (BN)	mg KOH/g	ASTM D2896	8.5			

10.9

Visc @ 100°C cSt ASTM D445 14.4





Laboratory Unique Number: 10900464

Sample No.

: VCP435617 Lab Number : 06102234

: WearCheck USA - 501 Madison Ave., Cary, NC 27513

Received **Tested** Diagnosed

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

: 27 Feb 2024 : 04 Mar 2024

: 04 Mar 2024 - Jonathan Hester Test Package: MOB 1 (Additional Tests: FuelDilution, PercentFuel, TBN)

8418 PALM RIVER ROAD TAMPA, FL US 33619 Contact: KENNY HANEY

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. khaney@flaglerce.com T: (813)630-0077 F: (813)630-2233