

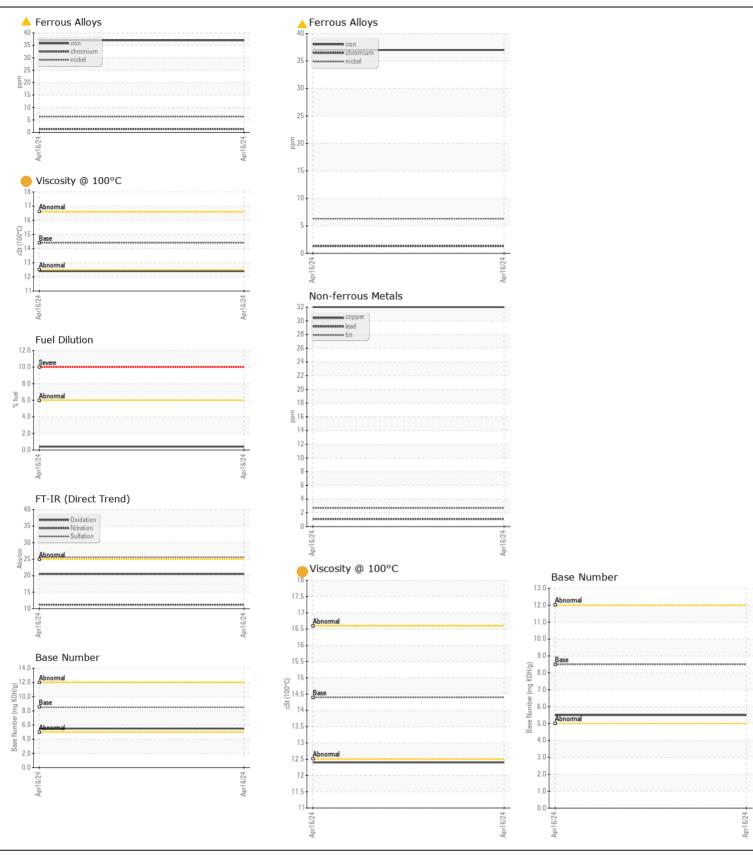
**WEAR** CONTAMINATION **FLUID CONDITION** 

**ABNORMAL** NORMAL **ATTENTION** 

Machine Id

## VOLVO A30G #320 (S/N A30G752088) Diesel Engine

Test	DIESEL ENGINE OIL SAE 15W40 ( GAL)							
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.	RECOMMENDATION	Test	HOM	Method	I imit/Ahn	Current	History1	History2
Sample Date   Client Info   15 Apr 2024	Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next		OOW		LITTIO/ NOT			,
Machine Age   Installation   2959								
Col Age		· ·	hrs					
Filter Age		•						
Cilchanged   Cilent Info   Changed   Cilent Info   Changed   Cha								
Filter Changed   Client Info   Managed   Man		•						
NEAR								
Valve wear is indicated. All other component wear rates are normal.		•				-		
Valve wear is indicated. All other component wear rates are normal.	WEAD	Iron	nnm	ACTM DE105m	< 100	27		
Nicke								
Titanium   ppm   ASTM D5185m   2   41           Auminium   ppm   ASTM D5185m   22   41           Auminium   ppm   ASTM D5185m   25   9           Lead   ppm   ASTM D5185m   25   9           Copper   ppm   ASTM D5185m   25   9           Copper   ppm   ASTM D5185m   330   32         Tin   ppm   ASTM D5185m   330   32         Tin   ppm   ASTM D5185m   330   32         Tin   ppm   ASTM D5185m   350   32         Vanadium   ppm   ASTM D5185m   300   32         Vanadium   ppm   ASTM D5185m   300   32         Vanadium   ppm   ASTM D5185m   300   32         Value								
Silver   ppm   ASTM D6185m   2-2   < 1					>2			
Aluminum   ppm   ASTM D5185m   >25   9					~2			
Lead   ppm   ASTM D5185m   >40   1								
Copper								
Tin								
Vanadium   Vanadium								
White Metal   Scalar   "Visual   NONE   NO					/10			
Vellow Metal   Scalar   Visual   NONE   NO					NONE			
Silicon   ppm   ASTM D5185m   >25   8								
Potassium   ppm   ASTM D5185m   >20   13				Visuai		·····		
Fuel content negligible. There is no indication of any contamination in the oil.  Fuel % ASTM D3524 >6.0 0.4 NEG NItration Abs/cm "ASTM D7644 >3 0.7 NEG NItration Abs/cm "ASTM D7644 >20 11.2 NEG NEG NItration Abs/cm "ASTM D7645 >30 0.5 6.6 NEG NONE NON	CONTAMINATION		• • • • • • • • • • • • • • • • • • • •					
the oil.    Water   Wc Method   So.2   NEG         Glycol   WC Method   So.2   NEG         Sout %   %   "ASTM D7644   >3   0.7         Nitration   Abs/cm "ASTM D7645   >30   25.6         Sulfation   Abs/cm "ASTM D7645   >30   25.6         Silt   Socalar "Visual   NONE   NONE         Sand/Dirt   Socalar "Visual   NONE   NONE         Appearance   Socalar "Visual   NORML   NORML   NORML   NORML       Odor   Socalar "Visual   NORML	Fuel content negligible. There is no indication of any contamination in							
Glycol	,		%					
Soot %					>0.2			
Nitration			0/		0			
Sulfation   Abs/.fmm   *ASTM D7415   >30   25.6         Silt   scalar   *Visual   NONE   NONE         Debris   scalar   *Visual   NONE   NONE   NONE         Debris   scalar   *Visual   NONE   NONE   NONE         Appearance   scalar   *Visual   NORML								
Silt   Scalar   *Visual   NONE   NONE   NONE   Scalar   *Visual   NORML   NORML								
Debris   Scalar   *Visual   NONE   NONE   Sand/Dirt   Scalar   *Visual   NORML   NORML   Scalar   *Visual   NORML   NORML   Scalar   *Visual   Scalar   *Visual   Scalar   *Visual   Scalar   *Visual   Scalar   *Visual   Scalar   *Visual								
Sand/Dirt   Scalar *Visual   NONE   NONE   NORML   Appearance   Scalar *Visual   NORML   NOR						_		
Appearance								
Oddr   Scalar *Visual   NORML   NORML   Emulsified Water   Scalar *Visual   >0.2   NEG								
Emulsified Water   scalar *Visual   >0.2   NEG								
Sodium   ppm   ASTM D5185m   >158   6								
Boron   ppm   ASTM D5185m   250   43           Barium   ppm   ASTM D5185m   10   0           Molybdenum   ppm   ASTM D5185m   100   128           Magnesium   ppm   ASTM D5185m   100   128           Magnesium   ppm   ASTM D5185m   450   607           Calcium   ppm   ASTM D5185m   3000   1467           Phosphorus   ppm   ASTM D5185m   1150   720           Zinc   ppm   ASTM D5185m   1350   889           Sulfur   ppm   ASTM D5185m   4250   2723           Oxidation   Abs/.tmm   *ASTM D7414   >25   20.5           Base Number (BN)   mg KOH/g   ASTM D2896   8.5   5.5		Linuisilieu Water		Visuai				
Boron   ppm   ASTM D5185m   250   43           Barium   ppm   ASTM D5185m   10   0           Molybdenum   ppm   ASTM D5185m   100   128           Magnesium   ppm   ASTM D5185m   100   128           Magnesium   ppm   ASTM D5185m   450   607           Calcium   ppm   ASTM D5185m   3000   1467           Phosphorus   ppm   ASTM D5185m   1150   720           Zinc   ppm   ASTM D5185m   1350   889           Sulfur   ppm   ASTM D5185m   4250   2723           Oxidation   Abs/.tmm   *ASTM D7414   >25   20.5           Base Number (BN)   mg KOH/g   ASTM D2896   8.5   5.5	FLUID CONDITION	Sodium	ppm	ASTM D5185m	>158	6		
there is suitable alkalinity remaining in the oil. Confirm oil type.    Molybdenum   ppm   ASTM D5185m   100   128         Manganese   ppm   ASTM D5185m   2         Magnesium   ppm   ASTM D5185m   450   607         Calcium   ppm   ASTM D5185m   3000   1467         Phosphorus   ppm   ASTM D5185m   1150   720         Zinc   ppm   ASTM D5185m   1350   889         Sulfur   ppm   ASTM D5185m   4250   2723         Oxidation   Abs/.tmm   *ASTM D7414   >25   20.5         Base Number (BN)   mg KOH/g   ASTM D2896   8.5   5.5	The oil viscosity is lower than normal. The BN result indicates that	Boron		ASTM D5185m	250	43		
Molybdenum         ppm         ASTM D5185m         100         128             Manganese         ppm         ASTM D5185m         2             Magnesium         ppm         ASTM D5185m         450         607             Calcium         ppm         ASTM D5185m         3000         1467             Phosphorus         ppm         ASTM D5185m         1150         720             Zinc         ppm         ASTM D5185m         1350         889             Sulfur         ppm         ASTM D5185m         4250         2723             Oxidation         Abs/.1mm         *ASTM D7414         >25         20.5             Base Number (BN)         mg KOH/g         ASTM D2896         8.5         5.5		Barium	ppm	ASTM D5185m	10	0		
Magnesium         ppm         ASTM D5185m         450         607             Calcium         ppm         ASTM D5185m         3000         1467             Phosphorus         ppm         ASTM D5185m         1150         720             Zinc         ppm         ASTM D5185m         1350         889             Sulfur         ppm         ASTM D5185m         4250         2723             Oxidation         Abs/.1mm         *ASTM D7414         >25         20.5             Base Number (BN)         mg KOH/g         ASTM D2896         8.5         5.5		Molybdenum	ppm	ASTM D5185m	100	128		
Calcium         ppm         ASTM D5185m         3000         1467             Phosphorus         ppm         ASTM D5185m         1150         720             Zinc         ppm         ASTM D5185m         1350         889             Sulfur         ppm         ASTM D5185m         4250         2723             Oxidation         Abs/.1mm         *ASTM D7414         >25         20.5             Base Number (BN)         mg KOH/g         ASTM D2896         8.5         5.5		Manganese	ppm	ASTM D5185m		2		
Phosphorus         ppm         ASTM D5185m         1150         720             Zinc         ppm         ASTM D5185m         1350         889             Sulfur         ppm         ASTM D5185m         4250         2723             Oxidation         Abs/.1mm         *ASTM D7414         >25         20.5             Base Number (BN)         mg KOH/g         ASTM D2896         8.5         5.5		Magnesium	ppm	ASTM D5185m	450	607		
Zinc         ppm         ASTM D5185m         1350         889             Sulfur         ppm         ASTM D5185m         4250         2723             Oxidation         Abs/.1mm         *ASTM D7414         >25         20.5             Base Number (BN)         mg KOH/g         ASTM D2896         8.5         5.5		Calcium	ppm	ASTM D5185m	3000	1467		
Sulfur         ppm         ASTM D5185m         4250         2723             Oxidation         Abs/.1mm         *ASTM D7414         >25         20.5             Base Number (BN)         mg KOH/g         ASTM D2896         8.5         5.5		Phosphorus	ppm	ASTM D5185m	1150	720		
Oxidation         Abs/.1mm         *ASTM D7414         >25         20.5             Base Number (BN)         mg KOH/g         ASTM D2896         8.5         5.5		Zinc	ppm	ASTM D5185m	1350	889		
Base Number (BN)         mg KOH/g         ASTM D2896         8.5         5.5		Sulfur	ppm	ASTM D5185m	4250	2723		
		Oxidation	Abs/.1mm	*ASTM D7414	>25	20.5		
Visc @ 100°C cSt ASTM D445 14.4 ( 12.4 )		Base Number (BN)	mg KOH/g	ASTM D2896	8.5	5.5		
•		Visc @ 100°C	cSt	ASTM D445	14.4	12.4		





Certificate L2367

Laboratory

Sample No.

Unique Number : 10989432

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : TLY0002232 Lab Number : 06154009

To discuss this sample report, contact Customer Service at 1-800-237-1369.

Received **Tested** Diagnosed

: 19 Apr 2024 : 23 Apr 2024

: 23 Apr 2024 - Don Baldridge Test Package: CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

REISTERSTOWN, MD US 21136 Contact: LANCE TANCRAITOR

**GAINES & COMPANY** 

112 WESTMINISTER RD

Itancraitor@gainesandco.com T: (410)833-9833

\* - 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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