WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL

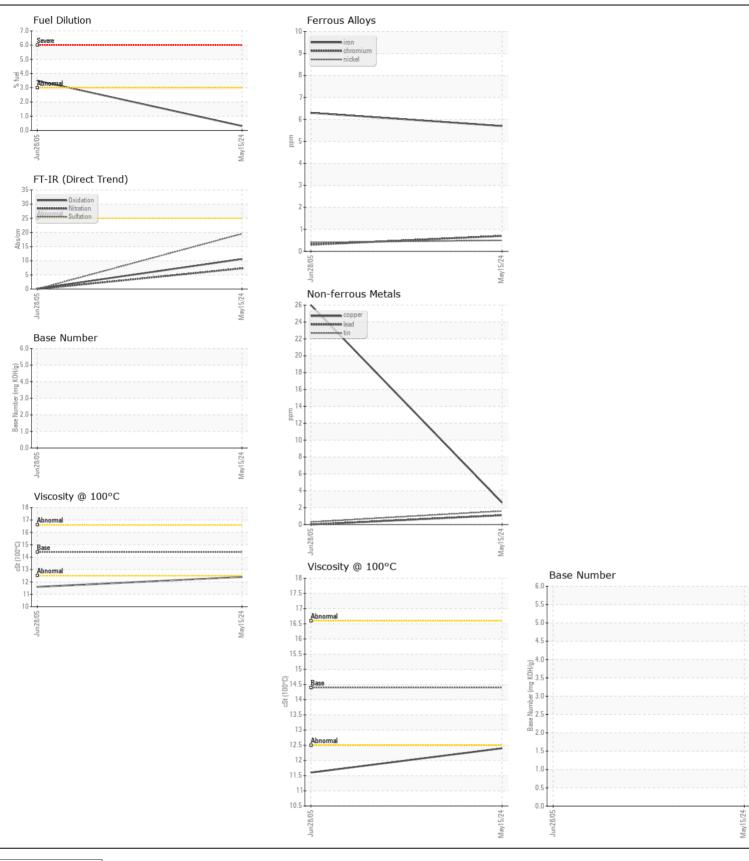
Area

[W/O 10819] VOLVO A25 13415

Diesel Engine

**EXXON 15W40 (13 GAL)** 

Test								
Sample Date	RECOMMENDATION		UOM	Method	Limit/Abn	Current	,	History2
Sample Date   Part   Client Info   Changed   Client Info   Changed   Client Info   Changed   Changed   Client Info   Changed   Changed		Sample Number		Client Info		ML0001263		
Machine Age   hrs   Client Info   213   1213       Client Info   Chica   hrs   Client Info   Changed   Not C						-		
Filter Age	at the nox corride merval to memor.	•	hrs	Client Info			1213	
Oil Changed   Cilent Info   Changed   Change			hrs	Client Info				
Filter Changed Sample Status   Changed Normal   Changed Normal   Changed Normal   Changed   Changed Normal   Changed   Changed Normal   Changed   Changed Normal   Changed Normal   Changed   Changed Normal   C		9	hrs	Client Info		250	0	
VEAR		Oil Changed		Client Info			Ŭ	
Iron				Client Info				
All component wear rates are normal.    Chromium   ppm   ASTM 05185m   >20   <1   <1       Nickel   ppm   ASTM 05185m   >10   <1   <1       Titanium   ppm   ASTM 05185m   >20   <1   <1       ASTM 05185m   >20   <1   0       ASTM 05185m   >20   <1   0       ASTM 05185m   >20   3   26       Tin   ppm   ASTM 05185m   >20   3   26       Vanadium   ppm   ASTM 05185m   >20   3   26       Vanadium   ppm   ASTM 05185m   >20   2   <1       Vanadium   ppm   ASTM 05185m   >20   3   26       Vanadium   ppm   ASTM 05185m   >20   6   0       Value		Sample Status				NORMAL	ABNORMAL	
All component wear rates are normal.    Chromium   ppm   ASTM D5186m   >20   <1   <1       Nickel   ppm   ASTM D5186m   >20   <1   <1       Titanium   ppm   ASTM D5186m   >20   <1   <1       O       ASTM D5186m   >20   <1   0       ASTM D5186m   >20   <1   0       ASTM D5186m   >20   3   26       Tin   ppm   ASTM D5186m   >20   2   <1       Vanadium   ppm   ASTM D5186m   >20   2   <1       Vanadium   ppm   ASTM D5186m   >20   2   <1       Vanadium   ppm   ASTM D5186m   >20   3   26       Vanadium   ppm   ASTM D5186m   >20   3   26       Vanadium   ppm   ASTM D5186m   >20   5   0       Value   Scalar   *Visual   NONE   NON	WEAD	Iron	nnm	ACTM DE10Em	. 200	6	6	
Nicke   ppm	WEAR							
Titanium   ppm   ASTM D6185m   < 1   0	All component wear rates are normal.							
Silver   ppm   ASTM D5185m   >2   < 1   0   0					>10			
Aluminum   ppm   ASTM D5185m   >30   4   0					. 2			
Lead			• • • • • • • • • • • • • • • • • • • •					
Copper								
Tin			• • • • • • • • • • • • • • • • • • • •					
Vanadium   Vanadium								
White Metal Yellow Metal   Scalar   Visual   NONE   NON					<i>&gt;</i> 20			
Vellow Metal   Scalar   Visual   NONE   NO					NONE			
Silicon   ppm   ASTM D5185m   >20   6   0								
Potassium   ppm   ASTM D5185m   >20   3   0								
Fuel content negligible. There is no indication of any contamination in the oil.    Fuel	CONTAMINATION	Silicon	ppm	ASTM D5185m	>20	6	0	
The oil.   Water   WC Method   >0.2   NEG   NEG		Potassium	ppm	ASTM D5185m	>20	3	0	
Water   WC Method   So.2   NEG   N	,	Fuel	%	ASTM D3524	>3.0	0.3	<b>△</b> 3.5	
Soot %		Water		WC Method	>0.2	NEG	NEG	
Nitration   Abs/cm		Glycol		WC Method		NEG	NEG	
Sulfation		Soot %	%	*ASTM D7844	>3	0.1	0.1	
Silt   Scalar *Visual   NONE   NORML   NORM		Nitration	Abs/cm	*ASTM D7624	>20	7.3	0.00	
Debris   Scalar   *Visual   NONE   NONE   Sand/Dirt   Scalar   *Visual   NONE   NORML   N		Sulfation	Abs/.1mm	*ASTM D7415	>30	19.5	0.00	
Sand/Dirt   scalar   *Visual   NONE   NONE   NONE   NORML			scalar	*Visual				
Appearance   Scalar   *Visual   NORML   NORM			scalar				NONE	
Odor   Scalar *Visual   NORML   NORM			scalar					
FLUID CONDITION   Sodium   ppm   ASTM D5185m   18   2								
Sodium   ppm   ASTM D5185m   6   3								
Boron   ppm   ASTM D5185m   18   2		Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
Boron   ppm   ASTM D5185m   18   2	ELUID CONDITION	Sodium	nnm	ASTM D5185m		6	3	
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.    Barium   ppm   ASTM D5185m   31   2	TEGID CONDITION					40		
Molybdenum   ppm   ASTM D5185m   31   2       Manganese   ppm   ASTM D5185m   <1   <1       Magnesium   ppm   ASTM D5185m   143   26       Calcium   ppm   ASTM D5185m   2786   2472       Phosphorus   ppm   ASTM D5185m   995   913       Zinc   ppm   ASTM D5185m   1369   1057								
Manganese         ppm         ASTM D5185m         <1								
Magnesium         ppm         ASTM D5185m         143         26            Calcium         ppm         ASTM D5185m         2786         2472            Phosphorus         ppm         ASTM D5185m         995         913            Zinc         ppm         ASTM D5185m         1369         1057		-						
Calcium         ppm         ASTM D5185m         2786         2472            Phosphorus         ppm         ASTM D5185m         995         913            Zinc         ppm         ASTM D5185m         1369         1057		_						
Phosphorus         ppm         ASTM D5185m         995         913            Zinc         ppm         ASTM D5185m         1369         1057		•						
Zinc ppm ASTM D5185m 1369 1057			• • • • • • • • • • • • • • • • • • • •					
		•						
			• •					
Oxidation					>25			
Base Number (BN)   mg KOH/g   ASTM D2896   5.8								
Visc @ 100°C cSt ASTM D445 14.4		Visc @ 100°C	cSt	ASTM D445	14.4	12.4	<u>▲</u> 11.6	







Certificate L2367

Laboratory Sample No.

Lab Number : 06190334

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : ML0001263

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

Received **Tested** Unique Number : 11047086

Diagnosed Test Package : CONST ( Additional Tests: PercentFuel, TBN )

: 24 May 2024 : 30 May 2024

: 30 May 2024 - Jonathan Hester

MCCLUNG-LOGAN EQUIPMENT CO - MANASSAS

8450 QUARRY ROAD MANASSAS, VA US 20110

Contact: MIKE MAYHUGH

MMAYHUGH@MCCLUNG-LOGAN.COM T: (703)393-7344

\* - 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)

F: (703)393-7844