**WEAR CONTAMINATION FLUID CONDITION** 

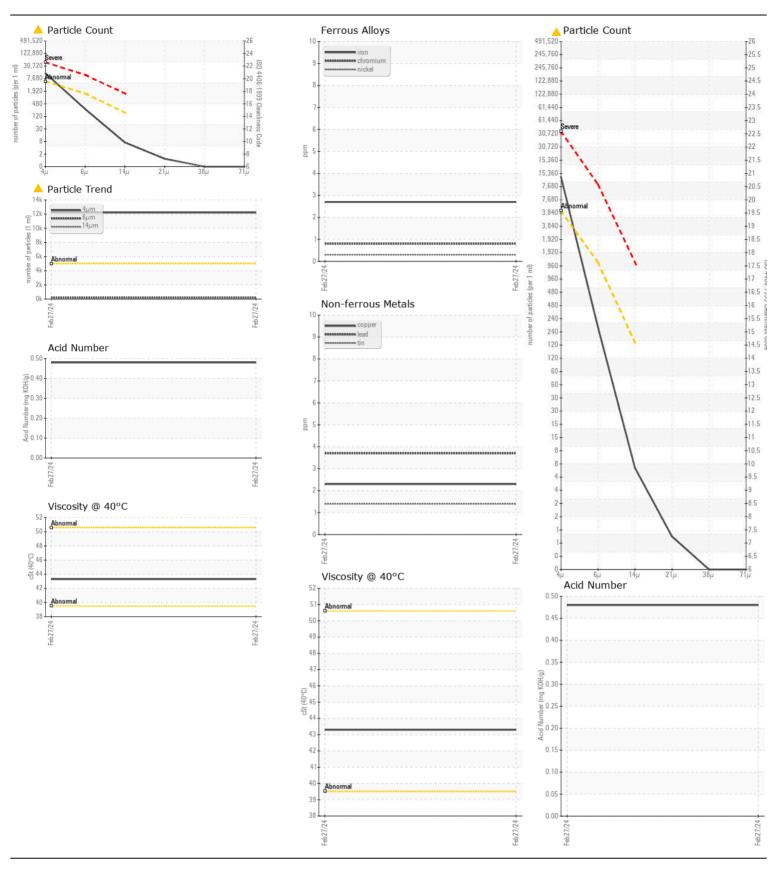
**NORMAL ABNORMAL NORMAL** 

## VOLVO L60H (S/N 621971)

Component

1 Hydraulic System

Test	{not provided} ( GAL)							
The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.   Machine Age   Dila Age   hrs   Client Info   2219	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	Historv2
The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specilly the brand, type, and viscosity of the oil on your next sample.    Collage	The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify	Sample Number					,	
Machine Age								
Contamination   Contaminatio			hrs					
Filter Age								
Collaboration								
Filter Changed Sample Status		•						
Name								
All component wear rates are normal.    Chromium   ppm   ASTM D5185m   >10   <1		_						
All component wear rates are normal.    Chromium   ppm   ASTM D585m   >10   <1	WEAR	Iron	nnm	ASTM D5185m	>20	ર		
All component wear rates are normal.    Nicke    ppm   ASTM D5185m   0         Titanium   ppm   ASTM D5185m   0         Titanium   ppm   ASTM D5185m   0         All uminum   ppm   ASTM D5185m   0         All uminum   ppm   ASTM D5185m   10   4         All uminum   ppm   ASTM D5185m   10   4         ASTM D5185m   10   1         ASTM D5185m   20   3         ASTM D5185m   20   3         ASTM D5185m   20   3         ASTM D5185m   20   3         ASTM D5185m   20   4   215       Particles 3-4jum   ASTM D5185m   20   4   215       Particles 3-4jum   ASTM D5185m   20   4   215       Particles 3-2jum   ASTM D5185m   20   4   215       Particles 3-2jum   ASTM D5185m   20   4   2   2       Particles 3-2jum   ASTM D5185m   20   4   2       Particles 3-2jum   ASTM D5185m   3   4   2   2   2       Particles 3-2jum   ASTM D5185m   3   4   2   2   2   2   2     Particles 3-2jum   ASTM D5185m   3   4   2   2   2   2   2     Particles 3-2jum   ASTM D5185m   3   4   2   2   2   2     Particles 3-2jum   ASTM D5185m								
Titanium   ppm   ASTM D5185m   0								
Silver   ppm   ASTM D5185m   >10   <1			• • • • • • • • • • • • • • • • • • • •		>10			
Aluminum   ppm   ASTM D5185m   >10   <1           Lead   ppm   ASTM D5185m   >10   4           Copper   ppm   ASTM D5185m   >75   2         Tin   ppm   ASTM D5185m   >10   1           Vanadium   ppm   ASTM D5185m   >10   1           Vanadium   ppm   ASTM D5185m   >10   1           Vanadium   ppm   ASTM D5185m   >10   1           Visual   NONE   NONE             Visual   NONE   NONE             Visual   NONE   NONE             Visual   NONE   NONE               Visual   NONE   NONE               Visual   NONE   NONE                 Visual   NONE   NONE								
Lead					<b>&gt;10</b>			
Copper								
Tin								
Vanadium   ppm   ASTM D5185m   <1								
White Metal Yellow Metal Yolsual NONE NONE NONE NONE NONE NONE NONE NON					>10			
Vellow Metal   Scalar   Visual   NONE   NONE           Potassium   ppm   ASTM D5185m   20   3           Potassium   ppm   ASTM D7647   5000   228           Particles >4µm   ASTM D7647   5000   228           Particles >50µm   ASTM D7647   5100   6           Particles >50µm   ASTM D7647   5100   6           Particles >30µm   ASTM D7647   5100   0           Particles >30µm   ASTM D7647					NONE			
Silicon   ppm   ASTM D5185m   >20   3								
Potassium   ppm   ASTM D5185m   ≥0   <1   ···   Potassium   ppm   ASTM D5185m   ≥0   <1   ···   Particles > 4µm   ASTM D7647   >5000   ≥0.1   NEG   ···   Particles > 4µm   ASTM D7647   >5000   ≥0.1   NEG   ···   Particles > 6µm   ASTM D7647   >1300   ≥38   ···   ···   Particles > 6µm   ASTM D7647   >1600   6   ···   ···   Particles > 38µm   ASTM D7647   >10   0   ···   ··   Particles > 38µm   ASTM D7647   >10   0   ···   ··   Particles > 38µm   ASTM D7647   >3   0   ···   Particle			Scalai	Visuai	INOINL	HONE		
Potassium   ppm   ASTM D5185m   ≥0   <1   ···   Potassium   ppm   ASTM D5185m   ≥0   <1   ···   Particles > 4µm   ASTM D7647   >5000   ≥0.1   NEG   ···   Particles > 4µm   ASTM D7647   >5000   ≥0.1   NEG   ···   Particles > 6µm   ASTM D7647   >1300   ≥38   ···   ···   Particles > 6µm   ASTM D7647   >1600   6   ···   ···   Particles > 38µm   ASTM D7647   >10   0   ···   ··   Particles > 38µm   ASTM D7647   >10   0   ···   ··   Particles > 38µm   ASTM D7647   >3   0   ···   Particle	CONTAMINATION	Silicon	mag	ASTM D5185m	>20	3		
Water   WC Method   Sol.   NEG   Sol.   Sol.   NEG   Sol.   NEG   Sol.   Sol.   NEG   Sol.   Sol.   NEG   Sol.   NEG   Sol.   Sol.   NEG   Sol.   Sol.   NEG   Sol.   NEG   Sol.   Sol.   NEG   Sol.   Sol.   Sol.   NEG   Sol.	There is a moderate amount of silt (particulates < 14 microns in size)			ASTM D5185m	>20			
Particles >4µm   ASTM D7647   >5000			1-1-					
Particles >6 jum								
Particles >14µm								
Particles >21 µm								
Particles >38µm   ASTM D7647   >10   0         Particles >71µm   ASTM D7647   >3   0         Particles >71µm   ASTM D7647   >3   0         Oil Cleanliness   Silt   Socalar   *Visual   NONE   NONE   NONE         Debris   Scalar   *Visual   NONE   NONE   NONE   NONE         Sand/Dirt   Scalar   *Visual   NONE   NONE   NONE   NONE   NONE         Appearance   Scalar   *Visual   NORML   NOR		•						
Particles >71 μm								
Oil Cleanliness   ISO 4406 (c)   1917/14   21/15/10		·						
Silt   scalar   *Visual   NONE   NONE   NONE   Sand/Dirts   scalar   *Visual   NONE   NONE   NONE   Sand/Dirts   scalar   *Visual   NONE   NONE   Sand/Dirts   scalar   *Visual   NONE   NONE   Sand/Dirts   scalar   *Visual   NORML   NORM						-		
Debris   Scalar   *Visual   NONE   NONE   Sand/Dirt   Scalar   *Visual   NONE   NONE   NONE   Sand/Dirt   Scalar   *Visual   NONE   NONE   NONE   Sand/Dirt   Scalar   *Visual   NORML   NORML   NORML   Scalar   *Visual   NORML   NORML   NORML   Scalar   *Visual   NORML   Scala			scalar	\ /				
Sand/Dirt   Scalar   *Visual   NONE   NONE         Appearance   Scalar   *Visual   NORML   NORML   NORML   NORML     Codor   Scalar   *Visual   NORML   NORML   NORML   NORML     Emulsified Water   Scalar   *Visual   NORML   NORML   NORML     Emulsified Water   Scalar   *Visual   NORML   NORML   NORML     The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.    Sodium   ppm   ASTM D5185m   0         Barium   ppm   ASTM D5185m   0         Molybdenum   ppm   ASTM D5185m   0         Magnesse   ppm   ASTM D5185m   <1         Magnesium   ppm   ASTM D5185m   <1         Calcium   ppm   ASTM D5185m   53         Calcium   ppm   ASTM D5185m   345         Calcium   ppm   ASTM D5185m   491         Sulfur   ppm   ASTM D5185m   4748         Acid Number (AN)   mg KOHg   ASTM D8045   0.48								
Appearance		Sand/Dirt		*Visual		NONE		
Codor   Emulsified Water   Scalar   Visual   NORML		Appearance		*Visual	NORML	NORML		
Sodium   ppm   ASTM D5185m   1           Boron   ppm   ASTM D5185m   0           Barium   ppm   ASTM D5185m   0           Molybdenum   ppm   ASTM D5185m   0           Molybdenum   ppm   ASTM D5185m   0           Magnesium   ppm   ASTM D5185m   0           Magnesium   ppm   ASTM D5185m   <1           Calcium   ppm   ASTM D5185m   53           Phosphorus   ppm   ASTM D5185m   345           Zinc   ppm   ASTM D5185m   491           Sulfur   ppm   ASTM D5185m   4748           Acid Number (AN)   mg KOH/g   ASTM D8045   0.48						NORML		
Sodium   ppm   ASTM D5185m   1           Boron   ppm   ASTM D5185m   0           Barium   ppm   ASTM D5185m   0           Molybdenum   ppm   ASTM D5185m   0           Molybdenum   ppm   ASTM D5185m   0           Magnesium   ppm   ASTM D5185m   0           Magnesium   ppm   ASTM D5185m   <1           Calcium   ppm   ASTM D5185m   53           Phosphorus   ppm   ASTM D5185m   345           Zinc   ppm   ASTM D5185m   491           Sulfur   ppm   ASTM D5185m   4748           Acid Number (AN)   mg KOH/g   ASTM D8045   0.48		<b>Emulsified Water</b>	scalar	*Visual	>0.1	NEG		
Boron   ppm   ASTM D5185m   0								
Barium   ppm   ASTM D5185m   0         Molybdenum   ppm   ASTM D5185m   0         Magnesium   ppm   ASTM D5185m   0         Magnesium   ppm   ASTM D5185m   0         Magnesium   ppm   ASTM D5185m   <1         Calcium   ppm   ASTM D5185m   <1         Calcium   ppm   ASTM D5185m   53         Phosphorus   ppm   ASTM D5185m   345         Zinc   ppm   ASTM D5185m   491         Sulfur   ppm   ASTM D5185m   4748         Acid Number (AN)   mg KOH/g   ASTM D8045   0.48	FLUID CONDITION	Sodium	ppm			1		
Molybdenum   ppm   ASTM D5185m   0         Magnesium   ppm   ASTM D5185m   c1         Calcium   ppm   ASTM D5185m   53         Phosphorus   ppm   ASTM D5185m   345         Zinc   ppm   ASTM D5185m   491         Sulfur   ppm   ASTM D5185m   4748         Acid Number (AN)   mg KOH/g   ASTM D8045   0.48	The AN level is accordable for this fivid. The ail is still as missable		ppm	ASTM D5185m		0		
Molybderium         ppm         ASTM D5185m         C1             Magnesium         ppm         ASTM D5185m         C1             Calcium         ppm         ASTM D5185m         53             Phosphorus         ppm         ASTM D5185m         345             Zinc         ppm         ASTM D5185m         491             Sulfur         ppm         ASTM D5185m         4748             Acid Number (AN)         mg KOH/g         ASTM D8045         0.48	•	Barium	ppm			0		
Magnesium         ppm         ASTM D5185m         <1		Molybdenum	ppm	ASTM D5185m		0		
Calcium         ppm         ASTM D5185m         53             Phosphorus         ppm         ASTM D5185m         345             Zinc         ppm         ASTM D5185m         491             Sulfur         ppm         ASTM D5185m         4748             Acid Number (AN)         mg KOH/g         ASTM D8045         0.48			ppm					
Phosphorus         ppm         ASTM D5185m         345             Zinc         ppm         ASTM D5185m         491             Sulfur         ppm         ASTM D5185m         4748             Acid Number (AN)         mg KOH/g         ASTM D8045         0.48		9	ppm					
Zinc         ppm         ASTM D5185m         491             Sulfur         ppm         ASTM D5185m         4748             Acid Number (AN)         mg KOH/g         ASTM D8045         0.48			ppm					
Sulfur         ppm         ASTM D5185m         4748             Acid Number (AN)         mg KOH/g         ASTM D8045         0.48			ppm					
Acid Number (AN) mg KOH/g ASTM D8045 0.48			ppm			491		
( ), 0								
Visc @ 40°C		. ,						
		Visc @ 40°C	cSt	ASTM D445		43.3		





Certificate L2367

Report Id: VOLVO1672 [WUSCAR] 06103661 (Generated: 02/29/2024 14:33:42) Rev: 1

Laboratory Sample No.

Lab Number : 06103661 Unique Number: 10901891

: ASC0003366 Test Package : CONST

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 28 Feb 2024 **Tested** : 29 Feb 2024 Diagnosed

: 29 Feb 2024 - Wes Davis

160 - ASCENDUM MACHINERY INC - MILLS RIVER 215 FANNING FIELDS RD

MILLS RIVER, NC US 28759

Contact: CORY PENLAND cory.penland@ascendummachinery.com

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.

T: (828)687-0620 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (828)687-0622

Submitted By: JEREMY FORD