



ASCENDUM

OIL ANALYSIS REPORT



Area

Ascendum Machinery/500 Hour CSA

Machine Id

VOLVO L150H 2328 (S/N L150HV7200)

Component

Hydraulic System

Fluid

AW HYDRAULIC OIL ISO 46 (--- GAL)

WEAR

NORMAL

CONTAMINATION

ABNORMAL

FLUID CONDITION

NORMAL

RECOMMENDATION

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ASC0009422	ASC0011388	ASC0008953
Sample Date		Client Info		01 Jul 2024	17 May 2024	31 Jan 2024
Machine Age	hrs	Client Info		4515	4104	3550
Oil Age	hrs	Client Info		515	4104	1550
Filter Age	hrs	Client Info		515	2104	1550
Oil Changed		Client Info		Not Changed	Changed	Not Changed
Filter Changed		Client Info		Not Changed	Changed	Not Changed
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	12	11	7
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	0	<1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	12	12	10
Lead	ppm	ASTM D5185m	>20	1	2	2
Copper	ppm	ASTM D5185m	>150	4	3	4
Tin	ppm	ASTM D5185m	>20	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

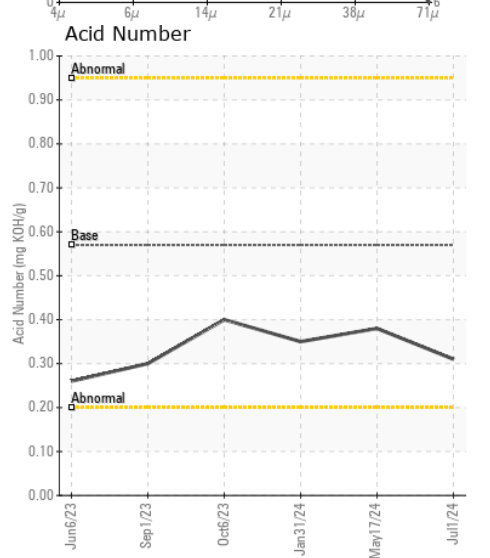
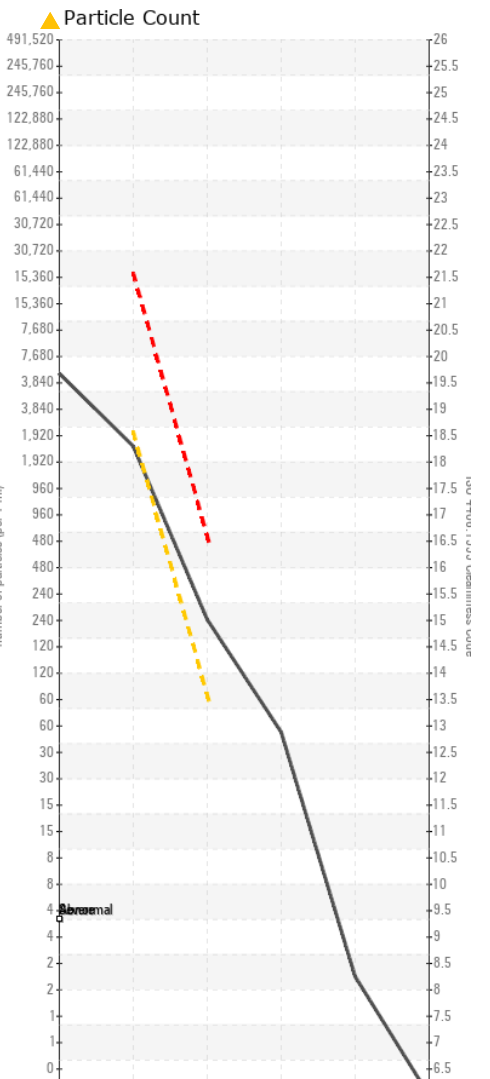
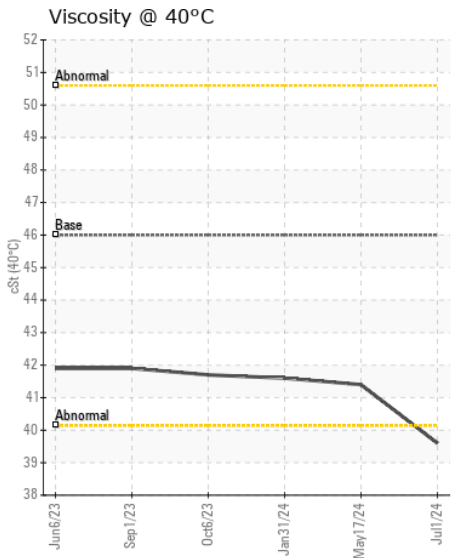
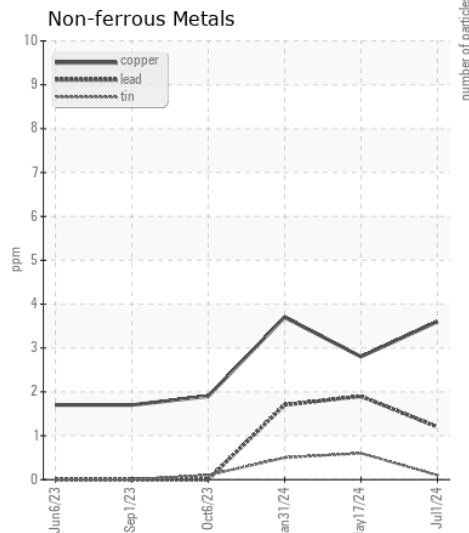
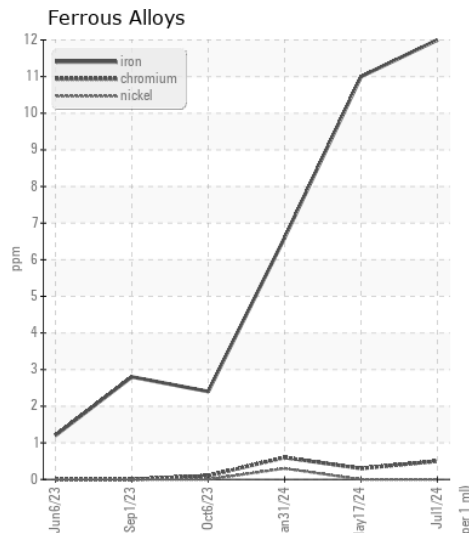
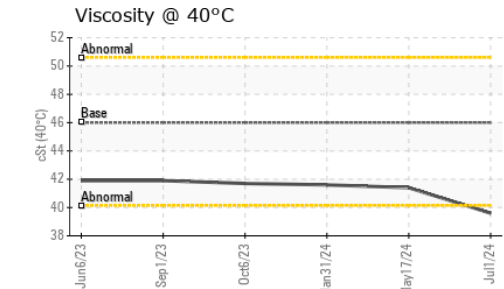
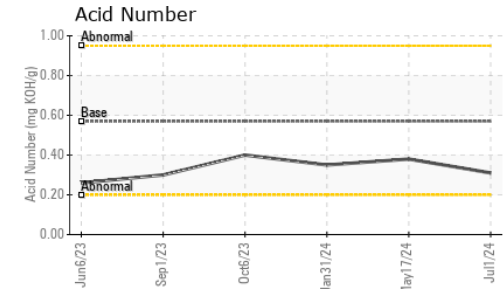
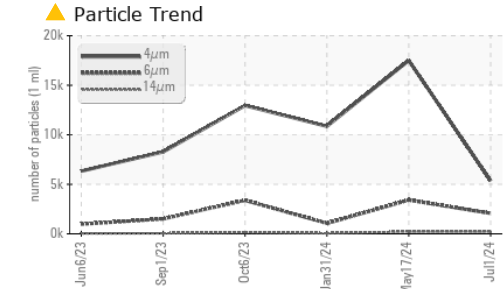
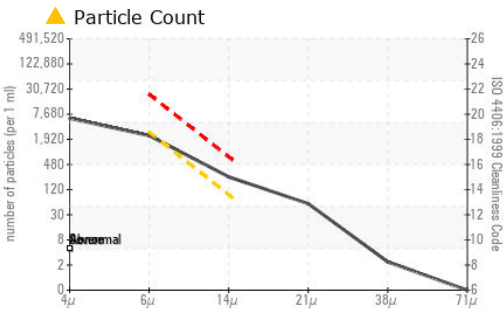
There is a moderate amount of particulates (2 to 100 microns in size) present in the oil. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code.

Silicon	ppm	ASTM D5185m	>20	15	16	14
Potassium	ppm	ASTM D5185m	>20	2	0	2
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647		5353	17497	10855
Particles >6µm		ASTM D7647	>2500	2065	3416	1060
Particles >14µm		ASTM D7647	>80	214	218	51
Particles >21µm		ASTM D7647	>20	49	46	10
Particles >38µm		ASTM D7647	>4	2	1	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>-/18/13	20/18/15	21/19/15	21/17/13
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG

FLUID CONDITION

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		3	2	1
Boron	ppm	ASTM D5185m	5	0	0	0
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	5	0	<1	0
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	25	3	0	1
Calcium	ppm	ASTM D5185m	200	126	76	54
Phosphorus	ppm	ASTM D5185m	300	382	339	340
Zinc	ppm	ASTM D5185m	370	464	417	433
Sulfur	ppm	ASTM D5185m	2500	1674	1489	1285
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.31	0.38	0.35
Visc @ 40°C	cSt	ASTM D445	46	39.6	41.4	41.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0009422
Lab Number : 06232237
Unique Number : 11115730
Test Package : CONST

Received : 10 Jul 2024
Tested : 11 Jul 2024
Diagnosed : 11 Jul 2024 - Wes Davis

G S MATERIALS INC
 PO BOX 1335
 BURLINGTON, NC
 US 27216

Contact: KAREN NEWPORT
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 F: (919)499-2097

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)