



# ASCENDUM

## OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>ABNORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Area  
**Ascendum Machinery/500 Hour CSA**  
Machine Id  
**VOLVO L150H 2041 (S/N 6409)**  
Component  
**Hydraulic System**  
Fluid  
**VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)**

### RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>ASC0005140</b>	ASC0005346	VCP0007235
Sample Date		Client Info		<b>23 Feb 2024</b>	08 Nov 2023	13 Feb 2023
Machine Age	hrs	Client Info		<b>9577</b>	9069	8009
Oil Age	hrs	Client Info		<b>8517</b>	1060	4024
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Changed
Filter Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>&lt;1</b>	4	7
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	2	4
Lead	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	1
Copper	ppm	ASTM D5185m	>150	<b>&lt;1</b>	1	2
Tin	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

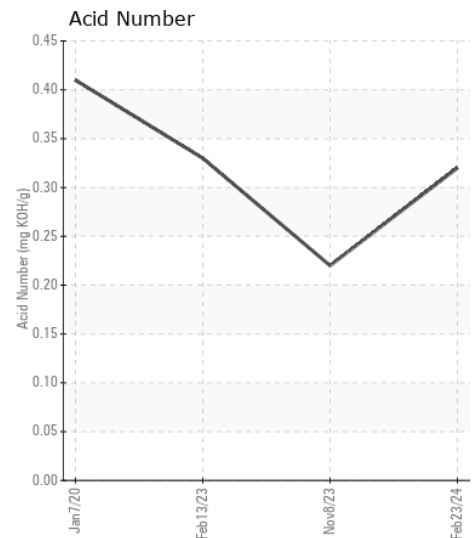
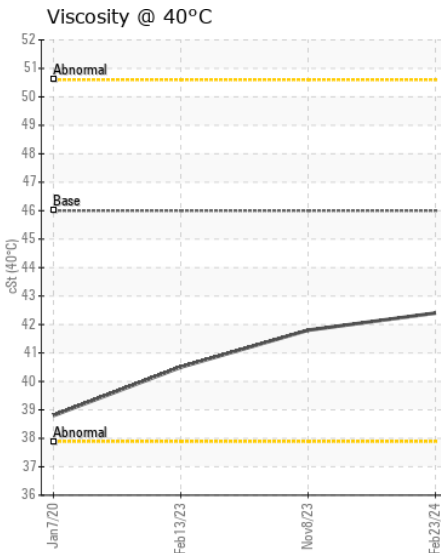
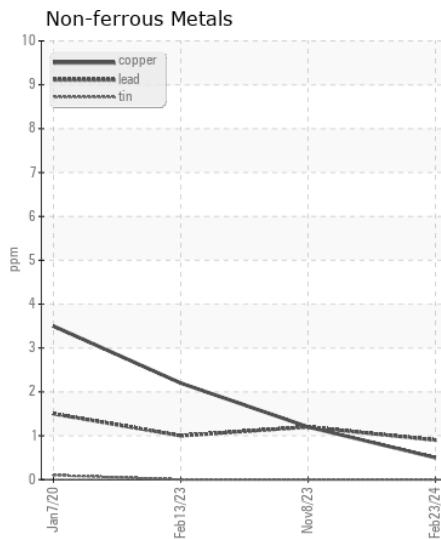
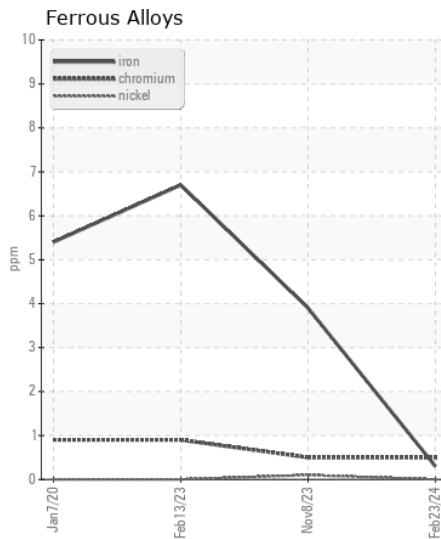
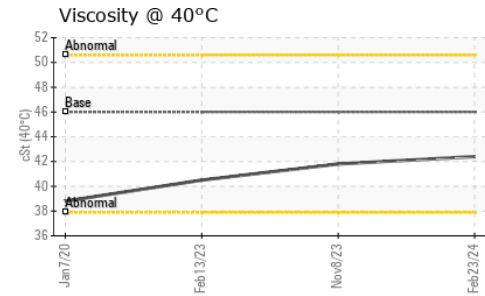
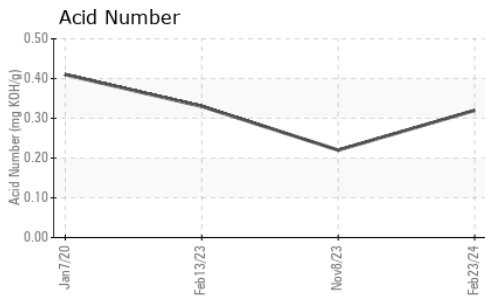
Moderate concentration of visible dirt/debris present in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>4</b>	4	8
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	1	0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647		<b>---</b>	30587	40294
Particles >6µm		ASTM D7647	>2500	<b>---</b>	▲ 9121	▲ 13015
Particles >14µm		ASTM D7647	>80	<b>---</b>	▲ 533	▲ 911
Particles >21µm		ASTM D7647	>20	<b>---</b>	▲ 138	▲ 145
Particles >38µm		ASTM D7647	>4	<b>---</b>	4	▲ 12
Particles >71µm		ASTM D7647	>3	<b>---</b>	0	1
Oil Cleanliness		ISO 4406 (c)	>-/18/13	<b>---</b>	▲ 22/20/16	▲ 23/21/17
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>▲ MODER</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>0</b>	2	4
Boron	ppm	ASTM D5185m	14	<b>0</b>	1	0
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0.0	<b>0</b>	2	2
Manganese	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185m	2.6	<b>47</b>	53	42
Calcium	ppm	ASTM D5185m	49	<b>96</b>	102	132
Phosphorus	ppm	ASTM D5185m	354	<b>282</b>	318	329
Zinc	ppm	ASTM D5185m	419	<b>372</b>	378	387
Sulfur	ppm	ASTM D5185m	3719	<b>1285</b>	1351	2059
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.32</b>	0.22	0.33
Visc @ 40°C	cSt	ASTM D445	46	<b>42.4</b>	41.8	40.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ASC0005140  
**Lab Number** : 06101542  
**Unique Number** : 10899772  
**Test Package** : CONST

**Received** : 27 Feb 2024  
**Tested** : 29 Feb 2024  
**Diagnosed** : 29 Feb 2024 - Jonathan Hester

**TRIANGLE GRADING AND PAVING INC**  
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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)