



# ASCENDUM

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL



Machine Id  
**VOLVO L110H 10018**  
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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ASC0004492	ASC0004272	ASC0006451
Sample Date		Client Info		17 Jun 2024	14 May 2024	29 Apr 2024
Machine Age	hrs	Client Info		0	21387	21266
Oil Age	hrs	Client Info		0	12304	21266
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changed	N/A	Not Changed
Filter Changed		Client Info		Not Changed	N/A	Not Changed
Sample Status				ATTENTION	NORMAL	ABNORMAL

### WEAR

All component wear rates are normal.

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

### CONTAMINATION

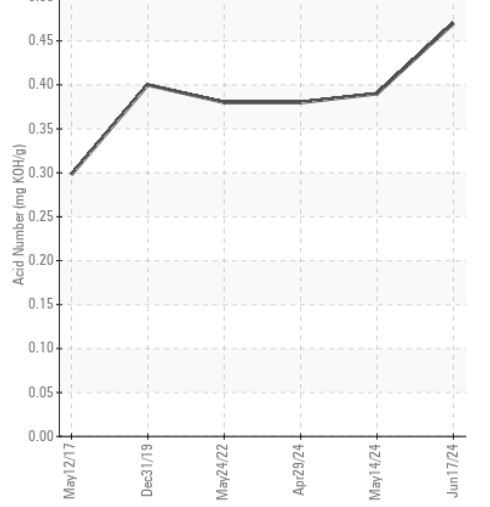
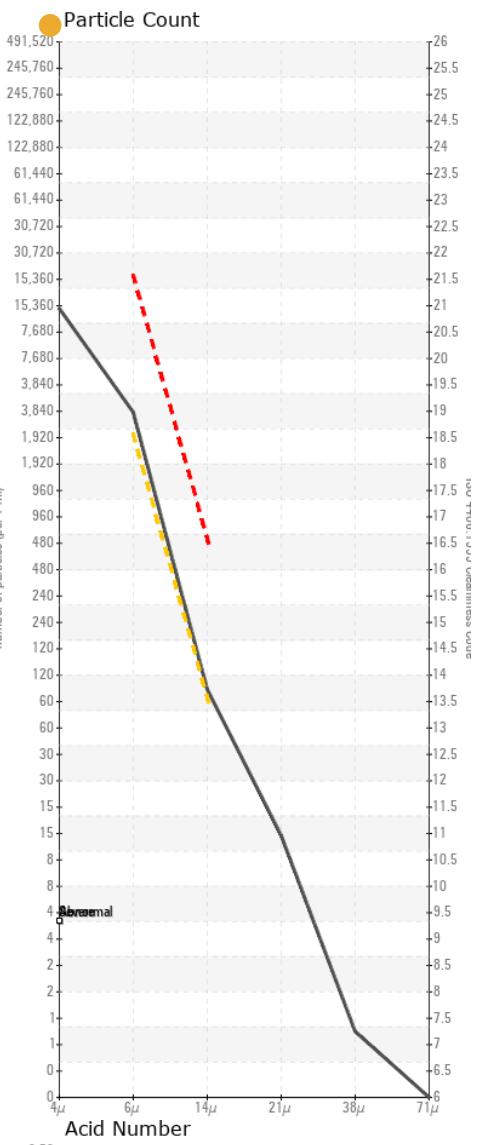
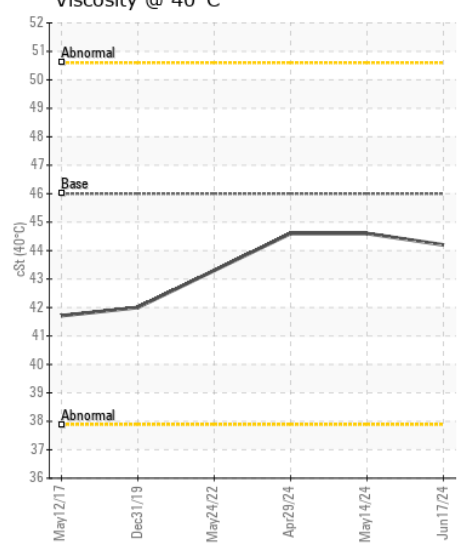
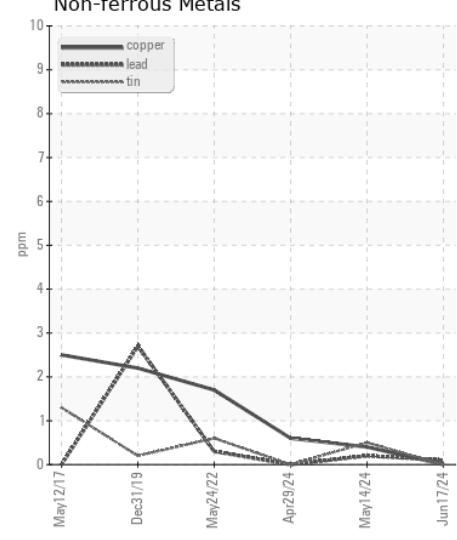
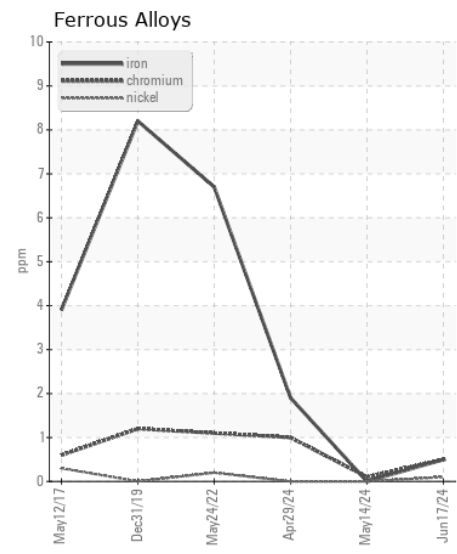
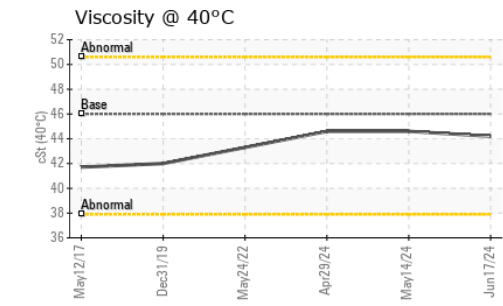
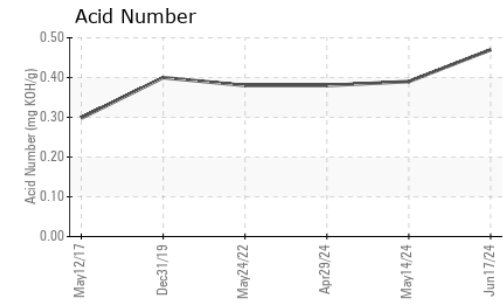
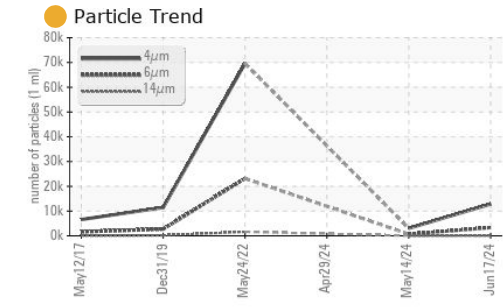
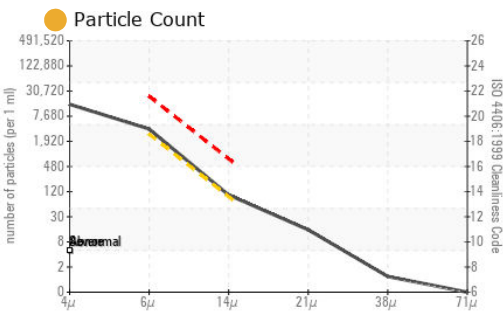
There is a light amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	4	<1	10
Potassium	ppm	ASTM D5185m	>20	4	0	0
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647		12853	3029	---
Particles >6µm		ASTM D7647	>2500	3305	659	---
Particles >14µm		ASTM D7647	>80	88	18	---
Particles >21µm		ASTM D7647	>20	13	4	---
Particles >38µm		ASTM D7647	>4	1	1	---
Particles >71µm		ASTM D7647	>3	0	0	---
Oil Cleanliness		ISO 4406 (c)	>-/18/13	21/19/14	19/17/11	---
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	MILKY
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	0.2%

### FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		2	<1	1
Boron	ppm	ASTM D5185m	14	1	0	0
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.0	0	0	<1
Manganese	ppm	ASTM D5185m	0.0	<1	<1	0
Magnesium	ppm	ASTM D5185m	2.6	3	0	5
Calcium	ppm	ASTM D5185m	49	83	48	123
Phosphorus	ppm	ASTM D5185m	354	370	337	369
Zinc	ppm	ASTM D5185m	419	468	400	446
Sulfur	ppm	ASTM D5185m	3719	2599	2641	2677
Acid Number (AN)	mg KOH/g	ASTM D8045		0.47	0.39	0.38
Visc @ 40°C	cSt	ASTM D445	46	44.2	44.6	44.6



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ASC0004492 **Received** : 20 Jun 2024  
**Lab Number** : 06215750 **Tested** : 21 Jun 2024  
**Unique Number** : 11088614 **Diagnosed** : 21 Jun 2024 - Wes Davis  
**Test Package** : CONST

**520 - ASCENDUM MACHINERY INC - KNOXVILLE**  
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Certificate L2367  
 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)