



ASCENDUM

OIL ANALYSIS REPORT

WEAR

NORMAL

CONTAMINATION

ABNORMAL

FLUID CONDITION

NORMAL



Area

Ascendum Machinery

Machine Id

VOLVO A40G ED-05 (S/N A40GV352680)

Component

Hydraulic System

Fluid

VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)

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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ASC0009730	ASC0005305	VCP0005478
Sample Date		Client Info		24 Jun 2024	19 Oct 2023	23 Mar 2023
Machine Age	hrs	Client Info		5008	4012	3047
Oil Age	hrs	Client Info		996	4012	3047
Filter Age	hrs	Client Info		0	0	3047
Oil Changed		Client Info		Not Changed	Changed	Not Changed
Filter Changed		Client Info		Not Changed	Changed	Not Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	7	8	8
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	9	2	2
Lead	ppm	ASTM D5185m	>20	0	3	1
Copper	ppm	ASTM D5185m	>150	2	3	2
Tin	ppm	ASTM D5185m	>20	0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

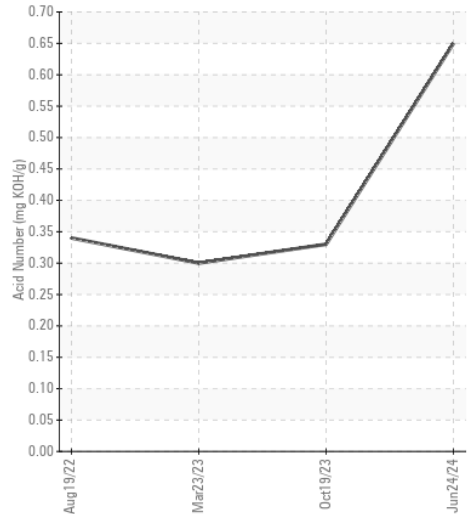
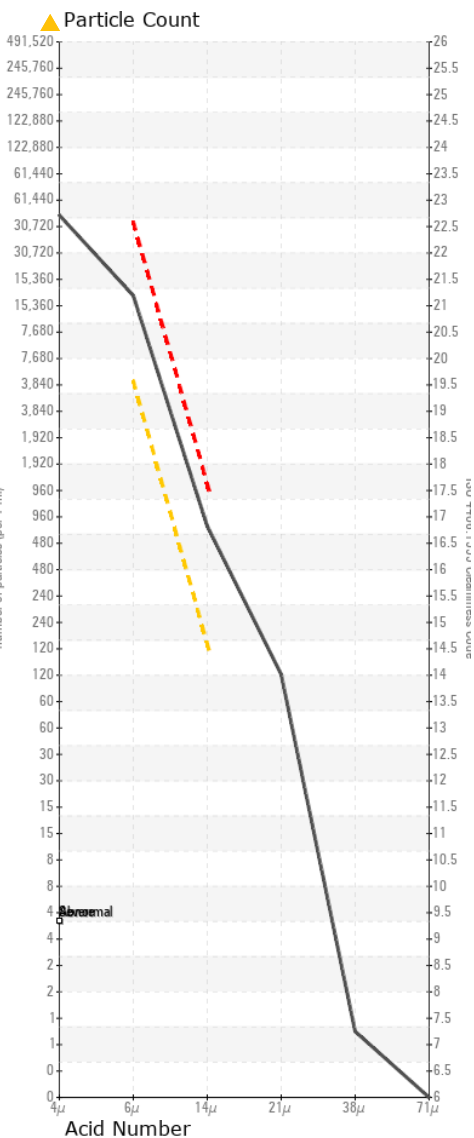
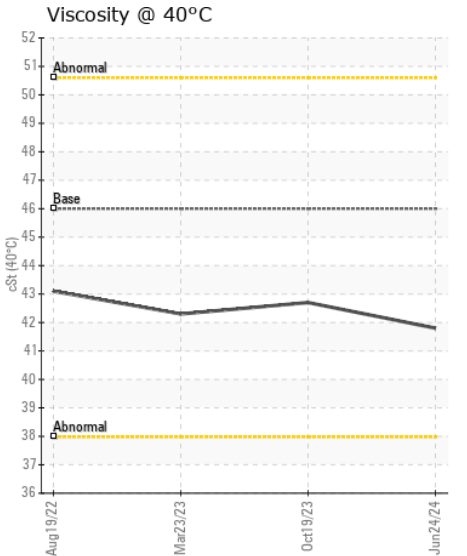
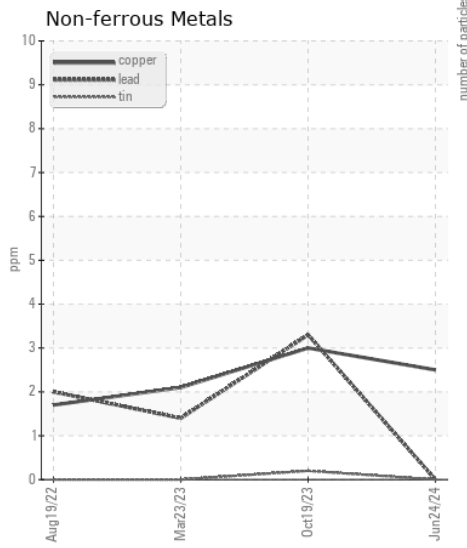
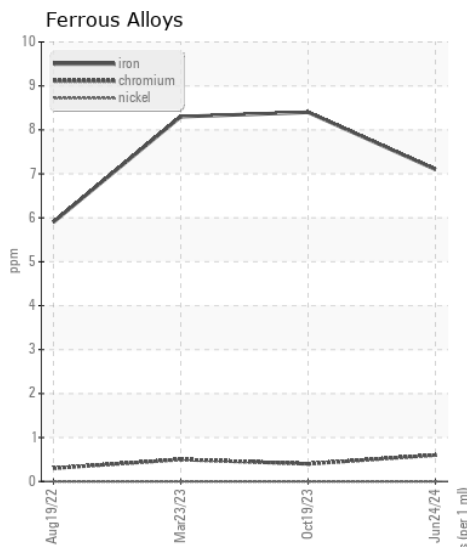
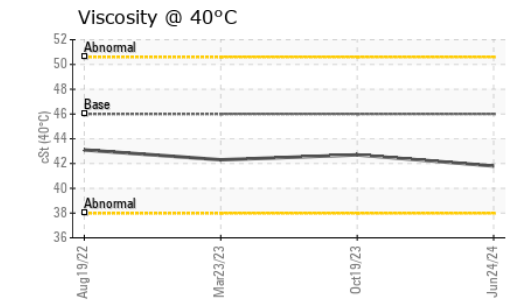
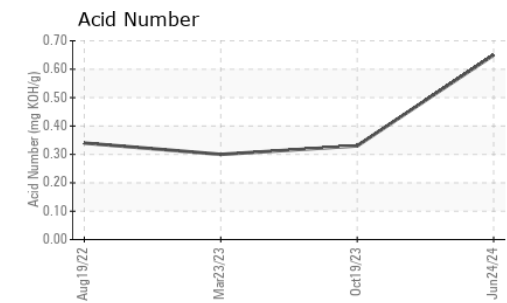
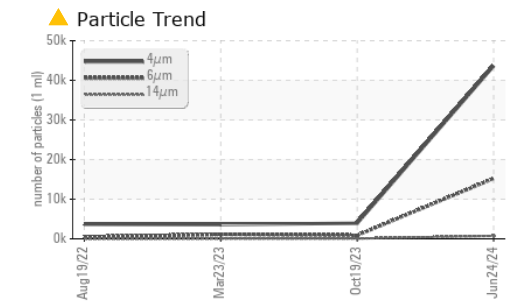
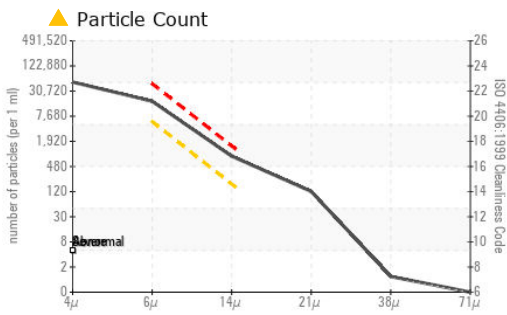
There is a moderate amount of particulates (2 to 100 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	15	8	6
Potassium	ppm	ASTM D5185m	>20	1	1	0
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647		43632	3927	3607
Particles >6µm		ASTM D7647	>5000	▲ 15233	876	1121
Particles >14µm		ASTM D7647	>160	▲ 746	65	56
Particles >21µm		ASTM D7647	>40	▲ 107	17	8
Particles >38µm		ASTM D7647	>10	1	1	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>-/19/14	▲ 23/21/17	19/17/13	19/17/13
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	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		1	0	1
Boron	ppm	ASTM D5185m	14	3	0	0
Barium	ppm	ASTM D5185m	0.0	0	9	0
Molybdenum	ppm	ASTM D5185m	0.0	<1	<1	<1
Manganese	ppm	ASTM D5185m	0.0	<1	0	0
Magnesium	ppm	ASTM D5185m	2.6	13	2	1
Calcium	ppm	ASTM D5185m	49	253	70	66
Phosphorus	ppm	ASTM D5185m	354	481	334	322
Zinc	ppm	ASTM D5185m	419	562	441	426
Sulfur	ppm	ASTM D5185m	3719	1729	1112	1233
Acid Number (AN)	mg KOH/g	ASTM D8045		0.65	0.33	0.30
Visc @ 40°C	cSt	ASTM D445	46	41.8	42.7	42.3



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0009730
Lab Number : 06221119
Unique Number : 11099316
Test Package : CONST

Received : 26 Jun 2024
Tested : 27 Jun 2024
Diagnosed : 27 Jun 2024 - Wes Davis

CAROLINA EXCAVATING
 1036 BRANCHVIEW DR, SUITE 106
 CONCORD, NC
 US 28025
 Contact: KEVIN LADGERWOOD
 kevin@carlinaexcavation.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.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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F: