



VOLVO

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area

[SPM702306]

Machine Id

SENNEBOGEN 835 835.0.3213

Component

Hydraulic System

Fluid

VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)

RECOMMENDATION

The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP446155	VCP440591	VCP415021
Sample Date		Client Info		09 May 2024	17 Oct 2023	12 Sep 2023
Machine Age	hrs	Client Info		2305	1047	543
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Changed
Sample Status				ABNORMAL	ATTENTION	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	12	5	3
Chromium	ppm	ASTM D5185m	>10	1	<1	0
Nickel	ppm	ASTM D5185m	>10	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	2	0	<1
Lead	ppm	ASTM D5185m	>10	<1	<1	<1
Copper	ppm	ASTM D5185m	>75	22	4	3
Tin	ppm	ASTM D5185m	>10	<1	<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

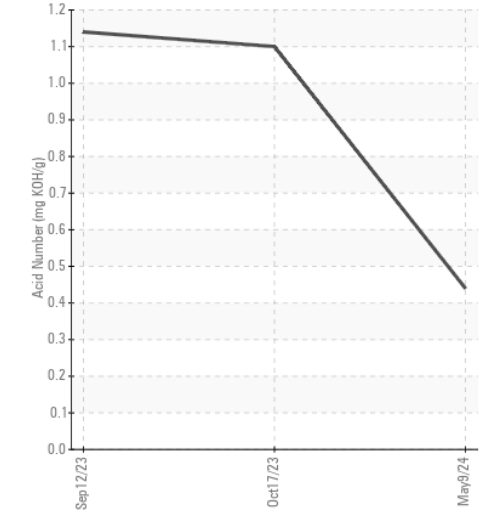
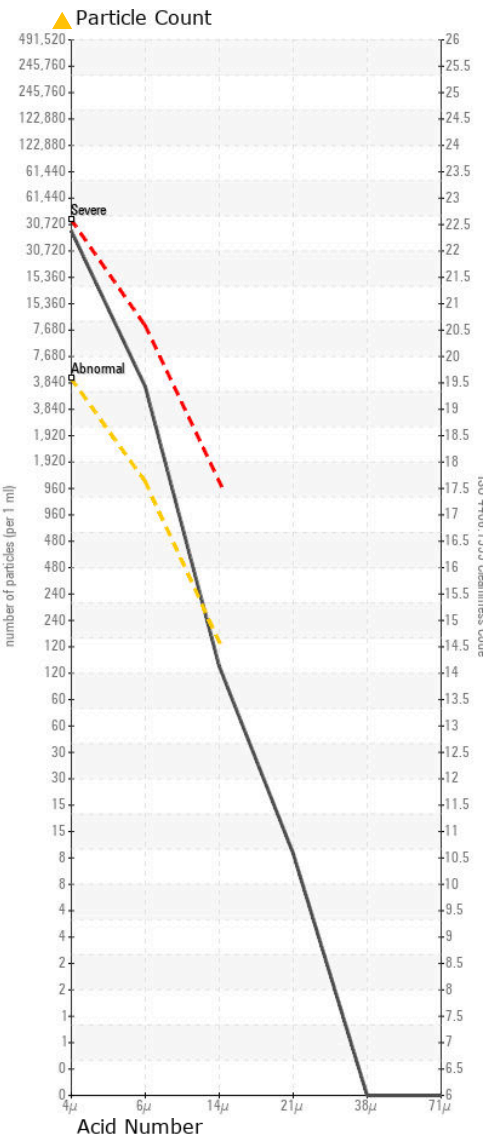
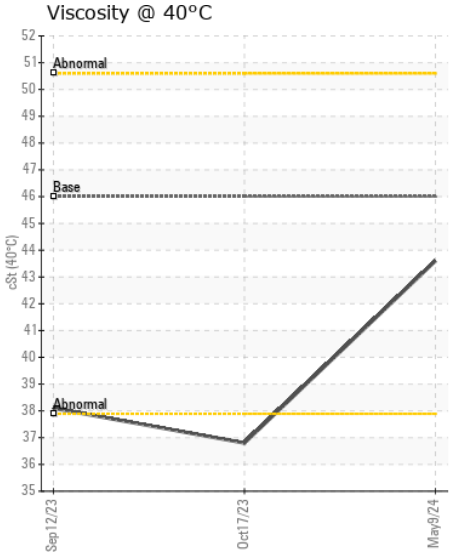
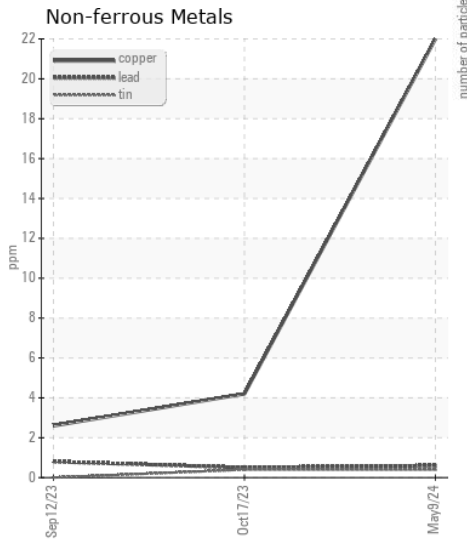
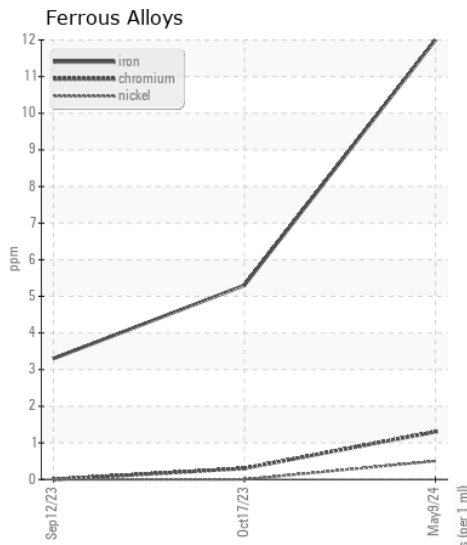
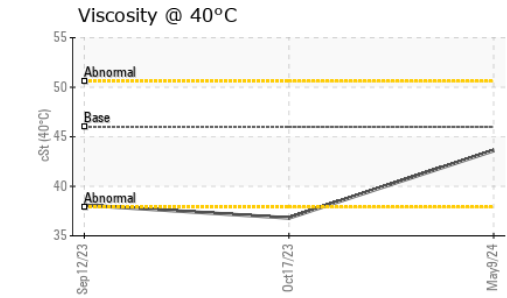
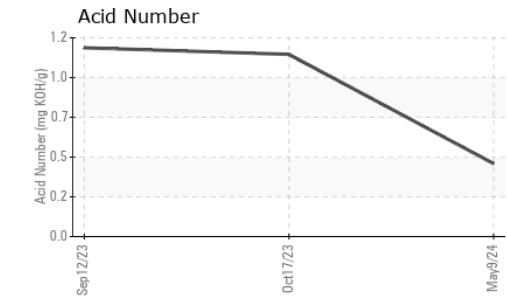
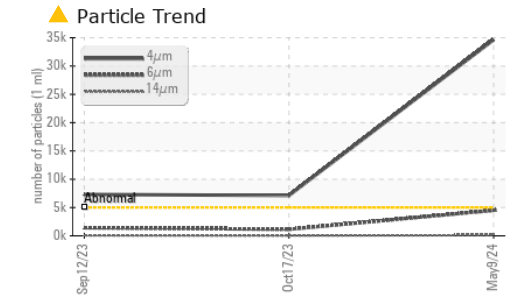
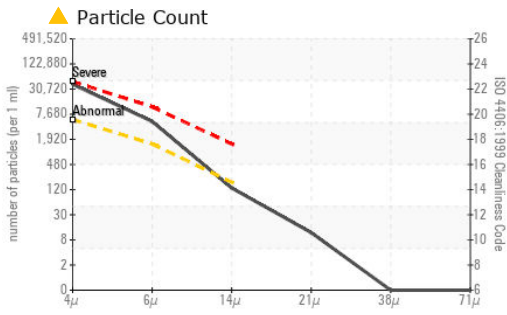
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	4	2	2
Potassium	ppm	ASTM D5185m	>20	1	0	1
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	▲ 34632	● 7125	● 7318
Particles >6µm		ASTM D7647	>1300	▲ 4502	1155	● 1425
Particles >14µm		ASTM D7647	>160	116	48	73
Particles >21µm		ASTM D7647	>40	10	13	25
Particles >38µm		ASTM D7647	>10	0	1	2
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 22/19/14	● 20/17/13	● 20/18/13
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	LIGHT
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	3	2
Boron	ppm	ASTM D5185m	14	2	0	0
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.0	1	0	0
Manganese	ppm	ASTM D5185m	0.0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	2.6	8	2	6
Calcium	ppm	ASTM D5185m	49	164	1131	1336
Phosphorus	ppm	ASTM D5185m	354	382	534	583
Zinc	ppm	ASTM D5185m	419	488	631	727
Sulfur	ppm	ASTM D5185m	3719	1599	3586	4623
Acid Number (AN)	mg KOH/g	ASTM D8045		0.44	1.10	1.14
Visc @ 40°C	cSt	ASTM D445	46	43.6	36.8	38.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP446155
Lab Number : 06211534
Unique Number : 11084398
Test Package : MOB 2

Received : 17 Jun 2024
Tested : 18 Jun 2024
Diagnosed : 18 Jun 2024 - Wes Davis

SIMS METAL MANAGEMENT
 2500 S. PAULINA
 CHICAGO, IL
 US 60608
 Contact: RYAN WISE
 ryan.wise@simsmm.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)