



# ASCENDUM

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id  
**VOLVO A45GFS 352471**  
Component  
**Hydraulic System**  
Fluid  
**VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ASC0011082	ASC0008689	VCP441599
Sample Date		Client Info		16 Jun 2024	14 Feb 2024	20 Oct 2023
Machine Age	hrs	Client Info		5030	4476	3990
Oil Age	hrs	Client Info		1030	486	0
Filter Age	hrs	Client Info		1030	0	0
Oil Changed		Client Info		Not Changed	Not Changed	Changed
Filter Changed		Client Info		Not Changed	Not Changed	Changed
Sample Status				NORMAL	ATTENTION	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	5	5	7
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>10	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>20	2	2	2
Lead	ppm	ASTM D5185m	>20	2	1	2
Copper	ppm	ASTM D5185m	>150	4	4	6
Tin	ppm	ASTM D5185m	>20	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

### CONTAMINATION

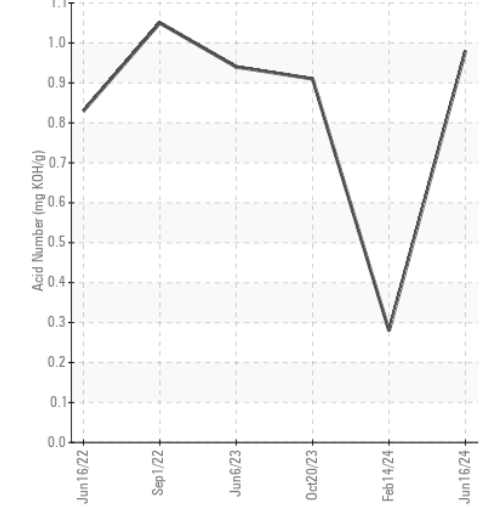
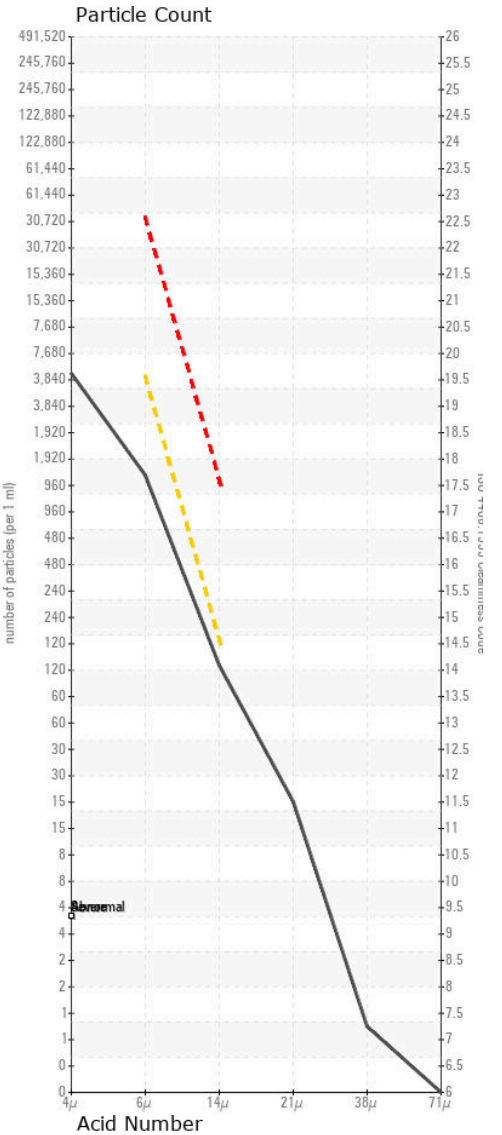
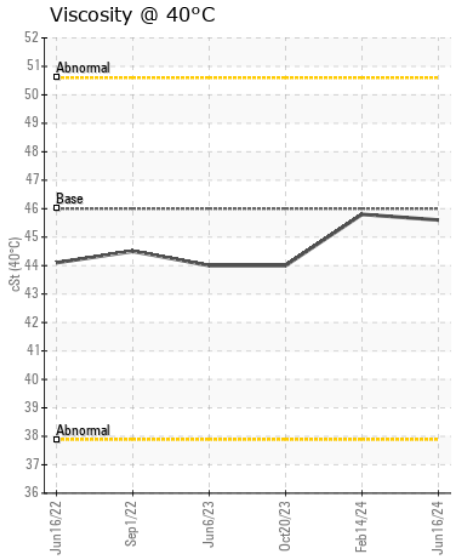
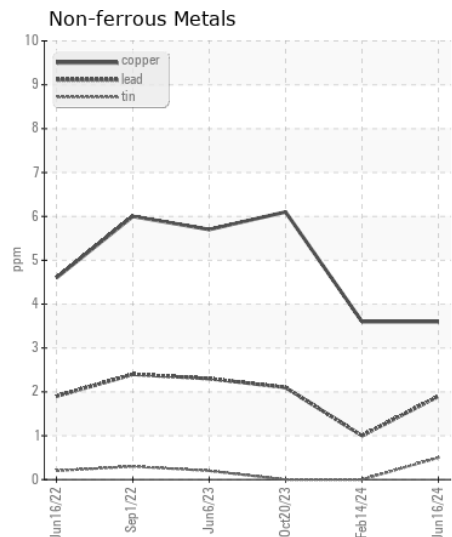
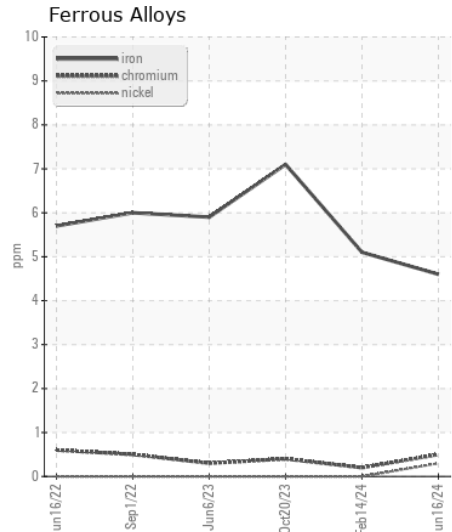
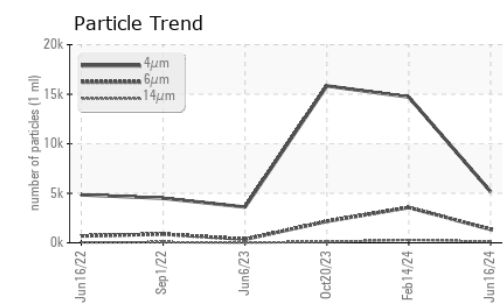
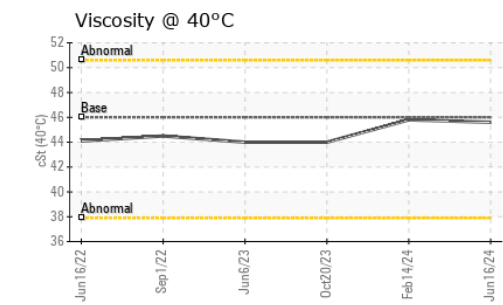
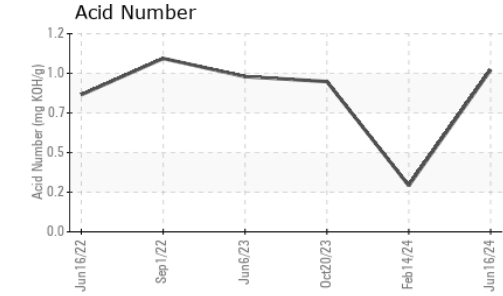
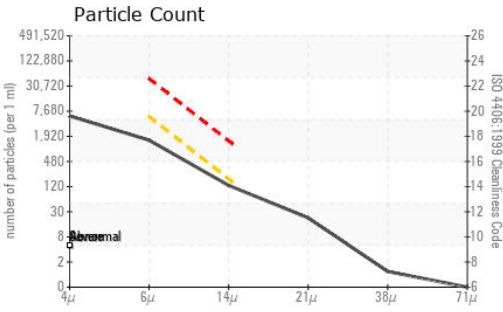
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>20	5	6	8
Potassium	ppm	ASTM D5185m	>20	2	3	3
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647		5160	14716	15842
Particles >6µm		ASTM D7647	>5000	1359	3566	2166
Particles >14µm		ASTM D7647	>160	113	290	90
Particles >21µm		ASTM D7647	>40	19	77	11
Particles >38µm		ASTM D7647	>10	1	5	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>-/19/14	20/18/14	21/19/15	21/18/14
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT	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 condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		0	0	0
Boron	ppm	ASTM D5185m	14	4	4	1
Barium	ppm	ASTM D5185m	0.0	<1	<1	0
Molybdenum	ppm	ASTM D5185m	0.0	5	6	1
Manganese	ppm	ASTM D5185m	0.0	<1	0	0
Magnesium	ppm	ASTM D5185m	2.6	19	27	13
Calcium	ppm	ASTM D5185m	49	1347	1663	1396
Phosphorus	ppm	ASTM D5185m	354	628	801	663
Zinc	ppm	ASTM D5185m	419	799	1077	812
Sulfur	ppm	ASTM D5185m	3719	2924	3756	4359
Acid Number (AN)	mg KOH/g	ASTM D8045		0.98	0.28	0.91
Visc @ 40°C	cSt	ASTM D445	46	45.6	45.8	44.0



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ASC0011082  
**Lab Number** : 06213407  
**Unique Number** : 11086271  
**Test Package** : CONST  
**Received** : 18 Jun 2024  
**Tested** : 19 Jun 2024  
**Diagnosed** : 19 Jun 2024 - Wes Davis

**BLYTHE CONSTRUCTION INC**  
 2911 N GRAHAM STREET  
 CHARLOTTE, NC  
 US 28231  
 Contact: Service Manager

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)