



# VOLVO

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**VOLVO EC380EL 310195**  
Component  
**Hydraulic System**  
Fluid  
**BP AW 46 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VCP433663</b>	VCP382956	VCP358383
Sample Date		Client Info		<b>14 Jun 2024</b>	04 Jan 2024	09 Jan 2023
Machine Age	hrs	Client Info		<b>6300</b>	5715	4735
Oil Age	hrs	Client Info		<b>0</b>	0	1000
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changed</b>	N/A	Not Changed
Filter Changed		Client Info		<b>Changed</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	ABNORMAL	ATTENTION

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>25	<b>10</b>	15	10
Chromium	ppm	ASTM D5185m	>10	<b>4</b>	6	4
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	2	<1
Lead	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>150	<b>8</b>	15	15
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

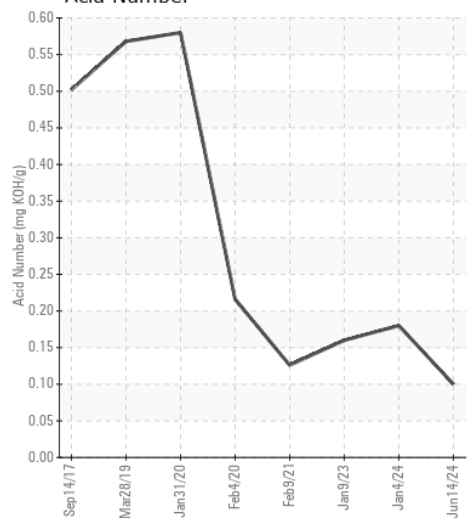
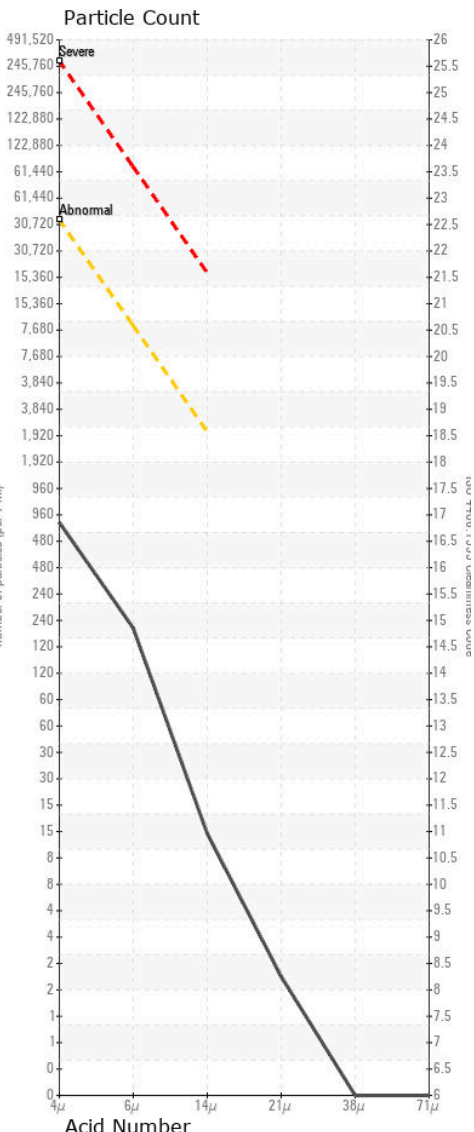
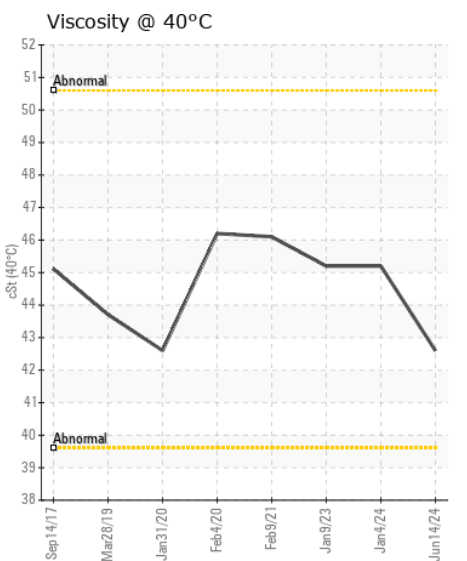
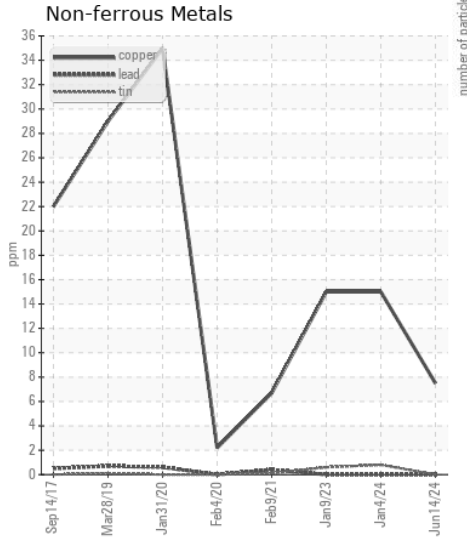
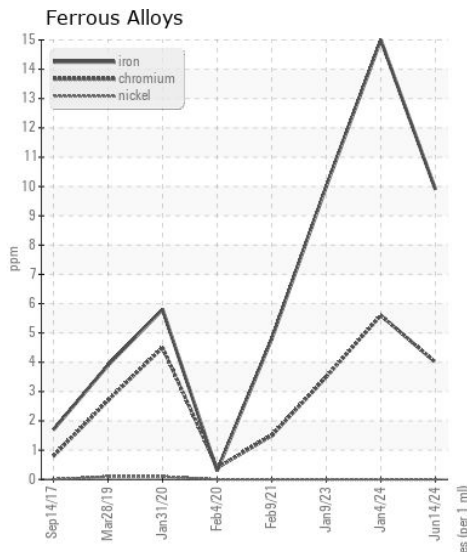
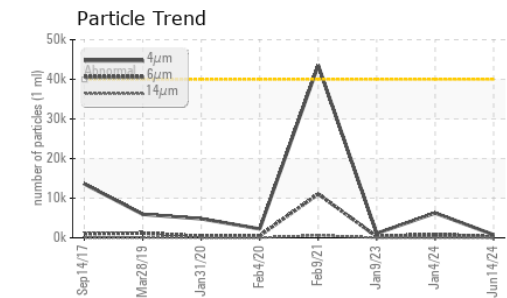
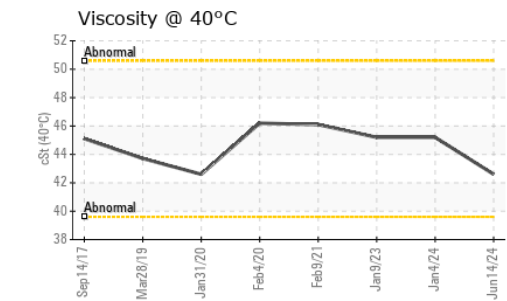
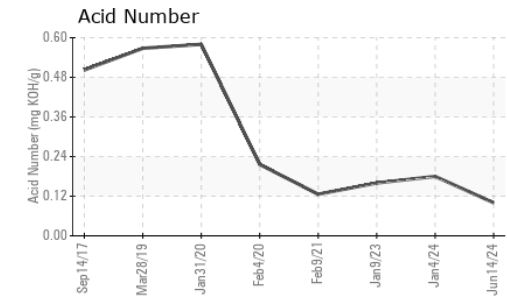
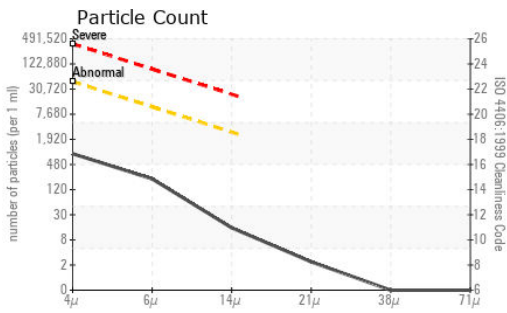
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>50	<b>2</b>	5	3
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>40000	<b>763</b>	6255	1112
Particles >6µm		ASTM D7647	>10000	<b>191</b>	854	327
Particles >14µm		ASTM D7647	>2500	<b>13</b>	32	25
Particles >21µm		ASTM D7647	>640	<b>2</b>	9	5
Particles >38µm		ASTM D7647	>160	<b>0</b>	1	0
Particles >71µm		ASTM D7647	>40	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>22/20/18	<b>17/15/11</b>	20/17/12	17/16/12
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	▲ MODER	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>	3	1
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	<1	<1
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>2</b>	1	3
Calcium	ppm	ASTM D5185m		<b>16</b>	53	56
Phosphorus	ppm	ASTM D5185m		<b>95</b>	110	121
Zinc	ppm	ASTM D5185m		<b>83</b>	88	101
Sulfur	ppm	ASTM D5185m		<b>384</b>	477	554
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.10</b>	0.18	0.16
Visc @ 40°C	cSt	ASTM D445		<b>42.6</b>	● 45.2	● 45.2



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP433663  
**Lab Number** : 06214575  
**Unique Number** : 11087439  
**Test Package** : MOB 2

**Received** : 19 Jun 2024  
**Tested** : 20 Jun 2024  
**Diagnosed** : 20 Jun 2024 - Wes Davis

**LEONARDS CONTRACTING**  
 30850 STEPHENSON HWY  
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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)