



VOLVO

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
[SWO-072820]
 Machine Id
VOLVO EC480E 314146
 Component
Hydraulic System
 Fluid
AW HYDRAULIC OIL ISO 46 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP442207	VCP432037	VCP419110
Sample Date		Client Info		12 Jun 2024	31 Jan 2024	28 Aug 2023
Machine Age	hrs	Client Info		7399	6892	6421
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

The chromium level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>25	8	6	5
Chromium	ppm	ASTM D5185m	>10	▲ 17	9	9
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	>20	2	0	<1
Lead	ppm	ASTM D5185m	>20	<1	0	0
Copper	ppm	ASTM D5185m	>150	14	9	7
Tin	ppm	ASTM D5185m	>10	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

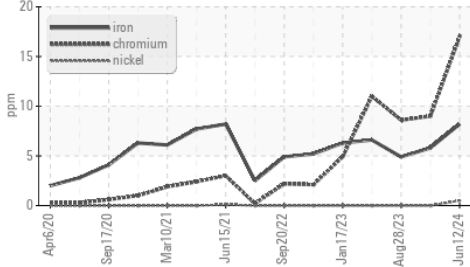
Silicon	ppm	ASTM D5185m	>50	4	2	2
Potassium	ppm	ASTM D5185m	>20	1	0	<1
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>40000	1771	▲ 88053	32058
Particles >6µm		ASTM D7647	>10000	190	▲ 23419	4162
Particles >14µm		ASTM D7647	>2500	8	641	38
Particles >21µm		ASTM D7647	>640	0	70	7
Particles >38µm		ASTM D7647	>160	0	1	0
Particles >71µm		ASTM D7647	>40	0	0	0
Oil Cleanliness		ISO 4406 (c)	>22/20/18	18/15/10	▲ 24/22/17	22/19/12
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	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG

FLUID CONDITION

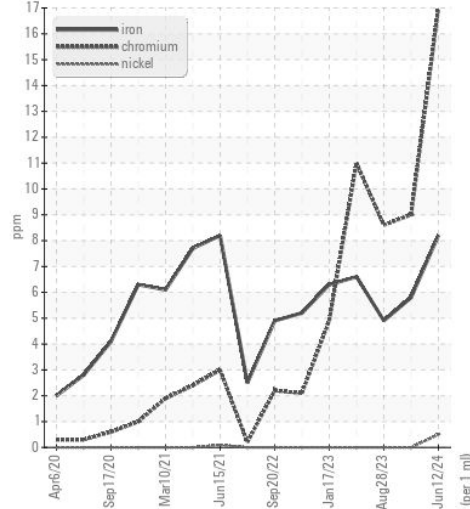
The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<1	2	1
Boron	ppm	ASTM D5185m	5	<1	<1	0
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	5	2	1	1
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m	25	130	126	63
Calcium	ppm	ASTM D5185m	200	113	112	129
Phosphorus	ppm	ASTM D5185m	300	524	497	468
Zinc	ppm	ASTM D5185m	370	676	633	580
Sulfur	ppm	ASTM D5185m	2500	2298	2151	2348
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.61	0.50	0.46
Visc @ 40°C	cSt	ASTM D445	46	43.1	43.5	45.5

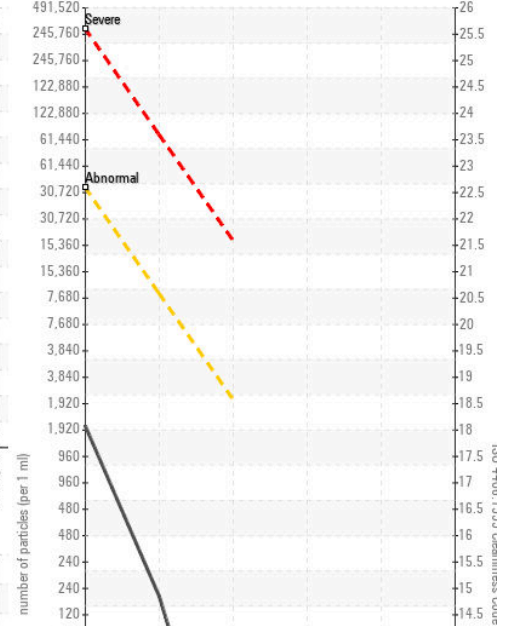
▲ Ferrous Alloys



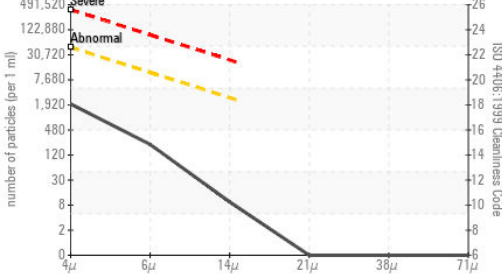
▲ Ferrous Alloys



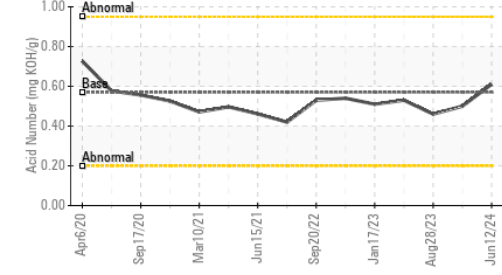
Particle Count



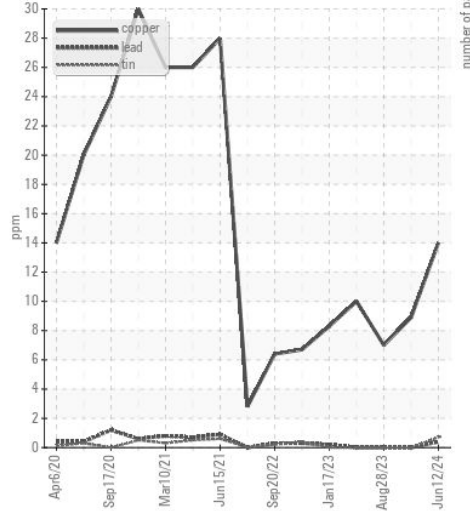
Particle Count



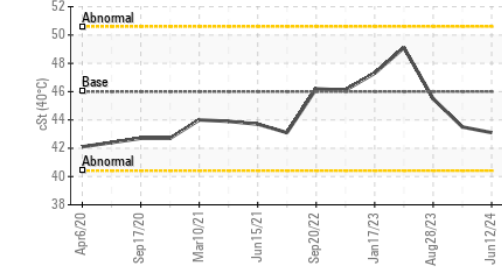
Acid Number



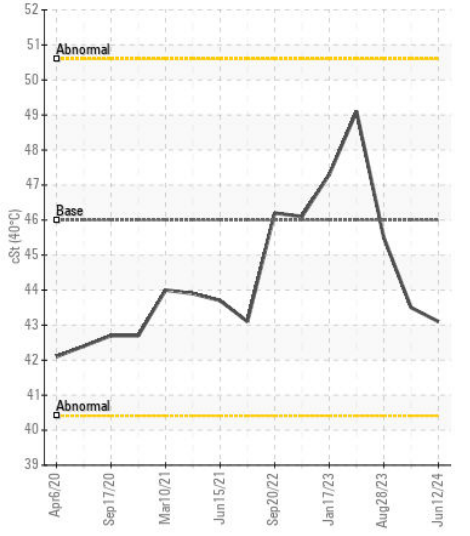
Non-ferrous Metals



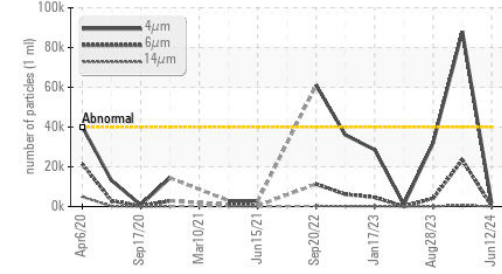
Viscosity @ 40°C



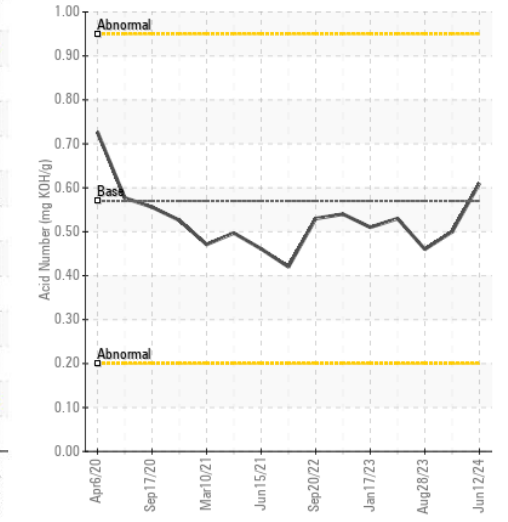
Viscosity @ 40°C



Particle Trend



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP442207
Lab Number : 06211524
Unique Number : 11084388
Test Package : MOB 2
Received : 17 Jun 2024
Tested : 18 Jun 2024
Diagnosed : 18 Jun 2024 - Don Baldrige

SAIIA CONSTRUCTION LLC
 4400 LEWISBURG RD
 BIRMINGHAM, AL
 US 35207
 Contact: STEPHANI BRITTON
 sbritton@saiia.com; doug.bogart@wearcheck.com
 T: (205)943-2268
 F: (205)943-2269

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)