



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area

[SWO-070465]

Machine Id

EPIROC T45 AVO14A1117

Component

Rear Left Final Drive

Fluid

VOLVO PREMIUM GEAR OIL 85W-140 GL-5 (--- 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		VCP454219	VCP418150	VCP402488
Sample Date		Client Info		14 Mar 2024	24 Jul 2023	16 Mar 2023
Machine Age	hrs	Client Info		1217	11559	10872
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

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

Iron	ppm	ASTM D5185m	>500	461	96	175
Chromium	ppm	ASTM D5185m	>10	5	1	3
Nickel	ppm	ASTM D5185m	>10	1	0	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		0	<1	0
Aluminum	ppm	ASTM D5185m	>25	5	4	10
Lead	ppm	ASTM D5185m	>25	0	0	0
Copper	ppm	ASTM D5185m	>50	▲ 85	10	20
Tin	ppm	ASTM D5185m	>10	4	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	MODER	NONE	MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

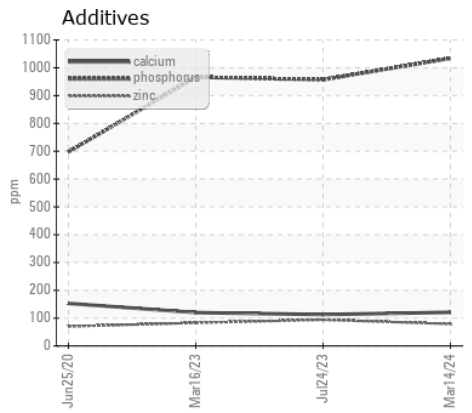
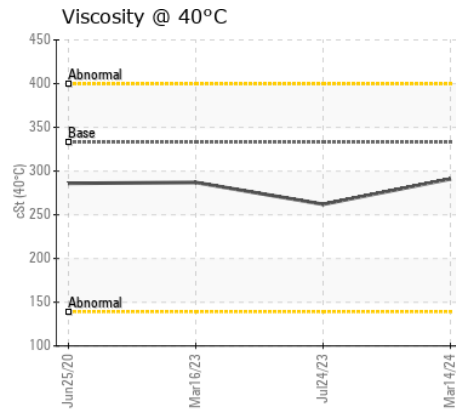
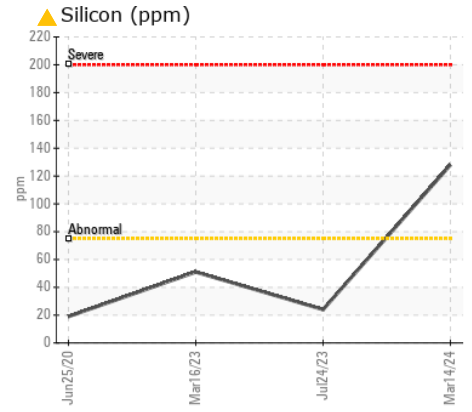
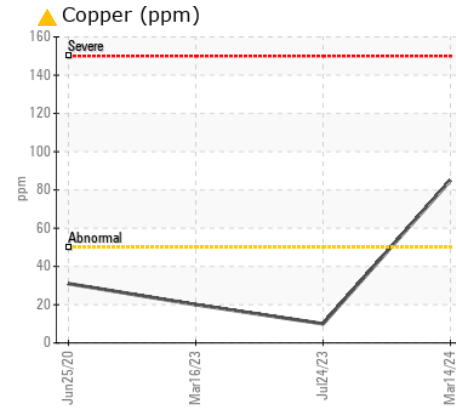
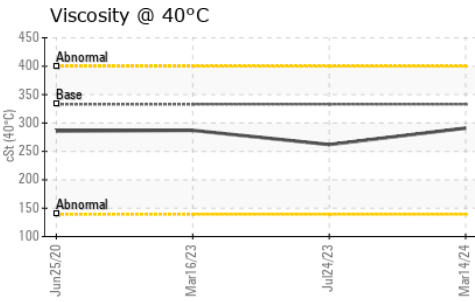
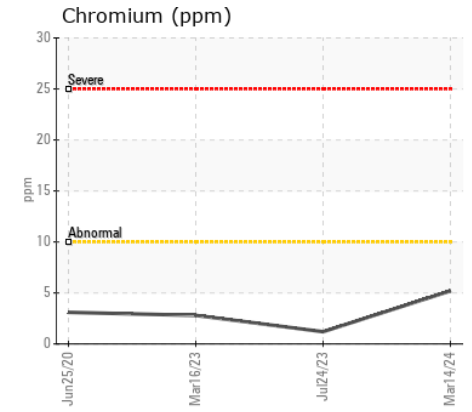
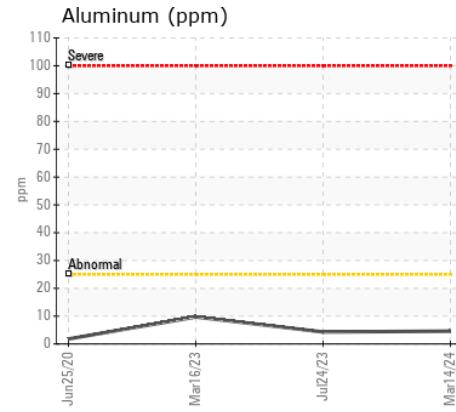
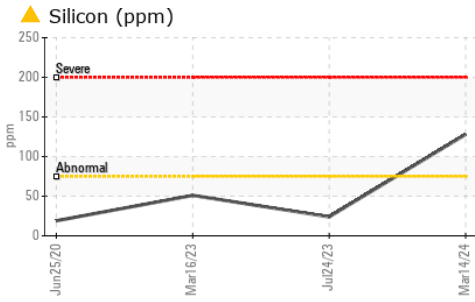
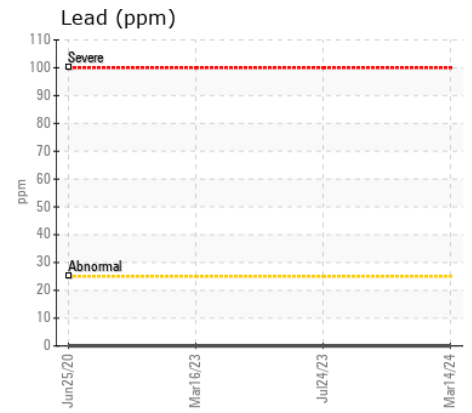
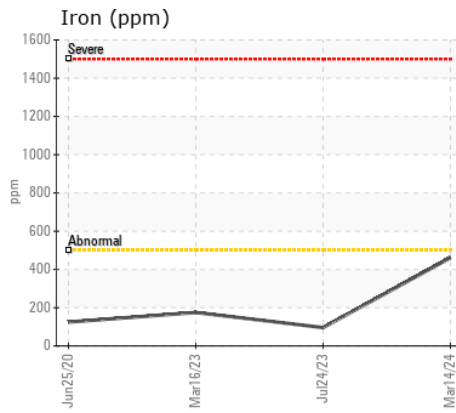
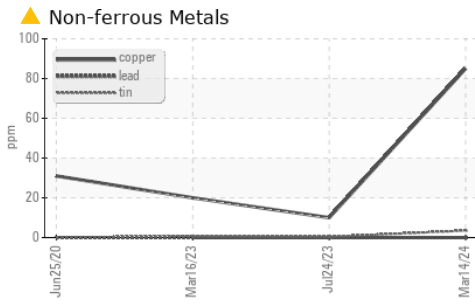
Elemental level of silicon (Si) above normal indicating ingress of seal material.

Silicon	ppm	ASTM D5185m	>75	▲ 128	24	51
Potassium	ppm	ASTM D5185m	>20	0	1	3
Water		WC Method	>0.2	NEG	NEG	NEG
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	>0.2	NEG	NEG	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		2	1	4
Boron	ppm	ASTM D5185m	111	126	155	130
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.9	4	5	<1
Manganese	ppm	ASTM D5185m	0.0	3	<1	2
Magnesium	ppm	ASTM D5185m	39	22	25	11
Calcium	ppm	ASTM D5185m	93	121	113	120
Phosphorus	ppm	ASTM D5185m	920	1034	957	966
Zinc	ppm	ASTM D5185m	104	79	94	83
Sulfur	ppm	ASTM D5185m	20179	26505	24578	24726
Visc @ 40°C	cSt	ASTM D445	333	291	262	287



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP454219
Lab Number : 06125245
Unique Number : 10939396
Test Package : MOB 1

Received : 21 Mar 2024
Tested : 25 Mar 2024
Diagnosed : 25 Mar 2024 - Don Baldrige

WHITAKER CONTRACTING
 692 CONVICT CAMP RD
 GUNTERSVILLE, AL
 US 35976

Contact: BROTHER WHITAKER
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 T: (256)298-3905

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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