



ASCENDUM

OIL ANALYSIS REPORT

WEAR

NORMAL

CONTAMINATION

NORMAL

FLUID CONDITION

ABNORMAL



Area

Ascendum Machinery/500 Hour CSA

Machine Id

VOLVO A40G 2309 (S/N A40GV353303)

Component

Diesel Engine

Fluid

DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMENDATION

Oil and 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		ASC0011100	ASC0002643	VCP425606
Sample Date		Client Info		23 May 2024	29 Nov 2023	30 Mar 2023
Machine Age	hrs	Client Info		2977	1978	439
Oil Age	hrs	Client Info		500	500	0
Filter Age	hrs	Client Info		500	500	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	4	5	17
Chromium	ppm	ASTM D5185m	>20	0	0	<1
Nickel	ppm	ASTM D5185m	>2	0	1	2
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	<1	2	2
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	<1	2	56
Tin	ppm	ASTM D5185m	>15	0	<1	3
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

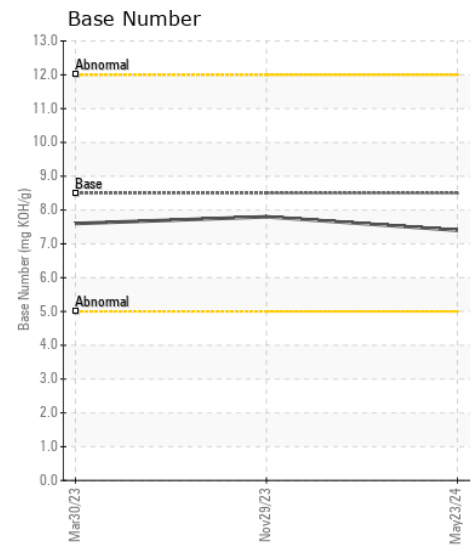
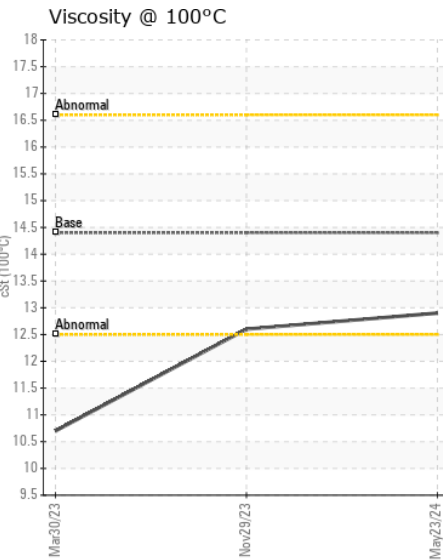
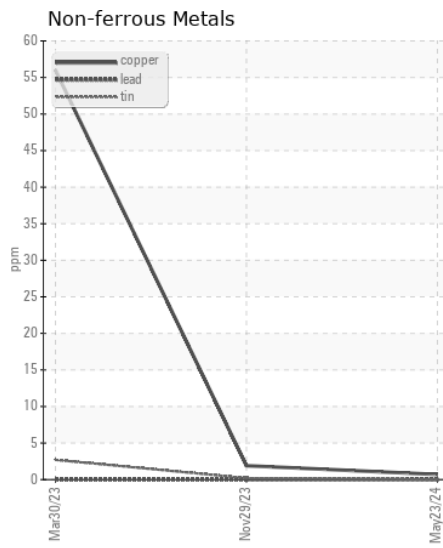
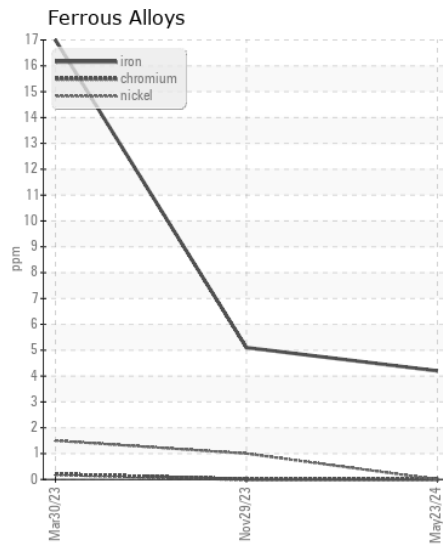
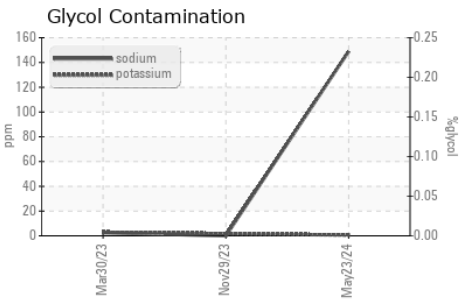
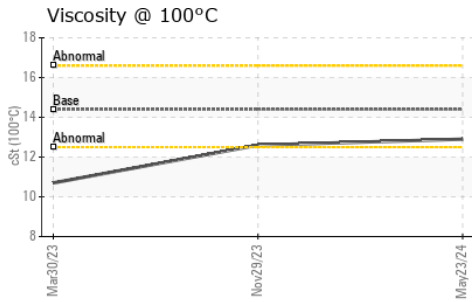
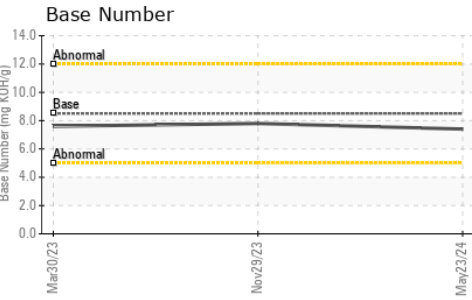
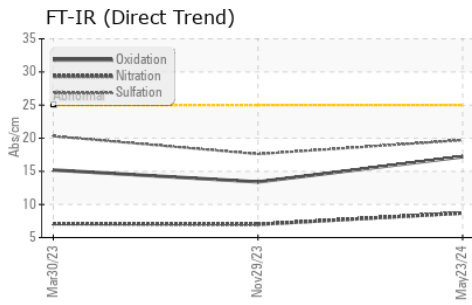
Sodium and/or potassium levels are high. Test for glycol is negative.

Silicon	ppm	ASTM D5185m	>25	3	4	23
Potassium	ppm	ASTM D5185m	>20	<1	2	3
Fuel		WC Method	>6.0	<1.0	<1.0	0.5
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	8.7	7.0	7.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.7	17.6	20.3
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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>216	▲ 149	0	2
Boron	ppm	ASTM D5185m	250	3	8	95
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	61	64	63
Manganese	ppm	ASTM D5185m		0	0	4
Magnesium	ppm	ASTM D5185m	450	898	869	391
Calcium	ppm	ASTM D5185m	3000	1023	1068	1853
Phosphorus	ppm	ASTM D5185m	1150	1004	1004	1091
Zinc	ppm	ASTM D5185m	1350	1187	1164	1334
Sulfur	ppm	ASTM D5185m	4250	3427	2785	4755
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.2	13.4	15.2
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.4	7.8	7.6
Visc @ 100°C	cSt	ASTM D445	14.4	12.9	12.6	10.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0011100 **Received** : 30 May 2024
Lab Number : 06195186 **Tested** : 03 Jun 2024
Unique Number : 11057309 **Diagnosed** : 03 Jun 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: Glycol, TBN)

G S MATERIALS INC
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Contact: KAREN NEWPORT
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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)

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