CONST

ASCENDUM

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
VOLVO EC380 2357 (S/N 315851)
Component
Diesel Engine
Fluid
{not provided} (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

WEAR

The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other metal levels are typical for a new component breaking in.

CONTAMINATION

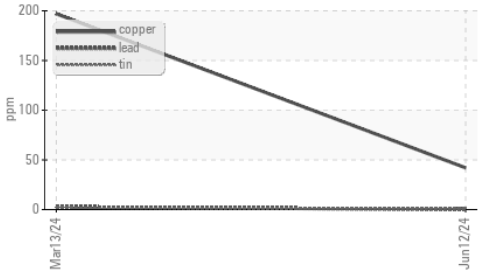
Fuel content negligible. There is no indication of any contamination in the oil.

FLUID CONDITION

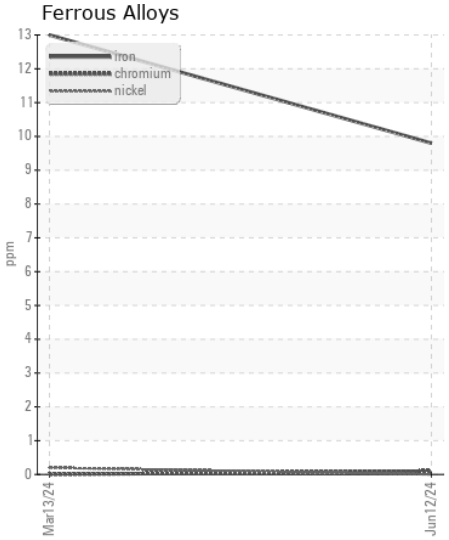
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ASC0011235	ASC0008766	---
Sample Date		Client Info		12 Jun 2024	13 Mar 2024	---
Machine Age	hrs	Client Info		1549	973	---
Oil Age	hrs	Client Info		549	973	---
Filter Age	hrs	Client Info		549	973	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				ABNORMAL	ABNORMAL	---
Iron	ppm	ASTM D5185m	>100	10	13	---
Chromium	ppm	ASTM D5185m	>10	<1	0	---
Nickel	ppm	ASTM D5185m	>10	0	<1	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>10	1	1	---
Lead	ppm	ASTM D5185m	>20	<1	3	---
Copper	ppm	ASTM D5185m	>15	▲ 42	▲ 197	---
Tin	ppm	ASTM D5185m	>10	1	2	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>20	7	19	---
Potassium	ppm	ASTM D5185m	>20	<1	3	---
Fuel	%	ASTM D3524	>6.0	<1.0	0.7	---
Water		WC Method	>0.1	NEG	NEG	---
Glycol	%	*ASTM D2982		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.1	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	7.8	11.1	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.2	24.4	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	---
Sodium	ppm	ASTM D5185m		3	5	---
Boron	ppm	ASTM D5185m		3	7	---
Barium	ppm	ASTM D5185m		0	<1	---
Molybdenum	ppm	ASTM D5185m		63	73	---
Manganese	ppm	ASTM D5185m		1	3	---
Magnesium	ppm	ASTM D5185m		821	172	---
Calcium	ppm	ASTM D5185m		1196	2033	---
Phosphorus	ppm	ASTM D5185m		1012	833	---
Zinc	ppm	ASTM D5185m		1192	1015	---
Sulfur	ppm	ASTM D5185m		3274	3335	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.1	19.7	---
Base Number (BN)	mg KOH/g	ASTM D2896		6.6	3.7	---
Visc @ 100°C	cSt	ASTM D445		11.8	10.8	---

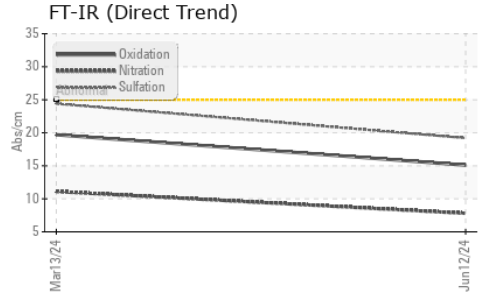
Non-ferrous Metals



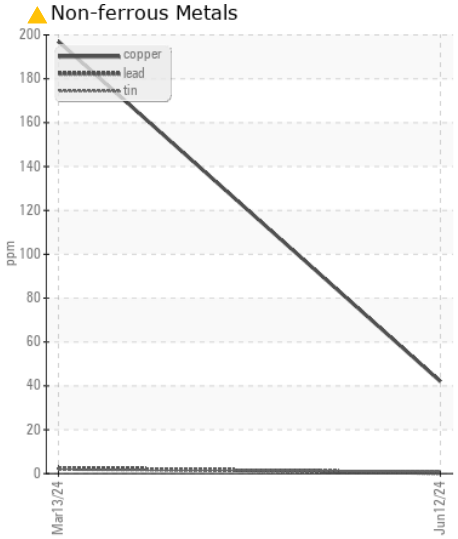
Ferrous Alloys



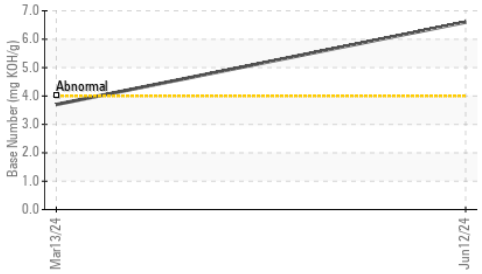
FT-IR (Direct Trend)



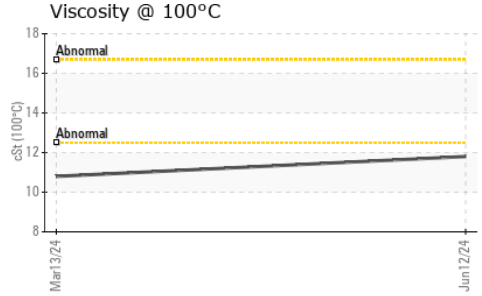
Non-ferrous Metals



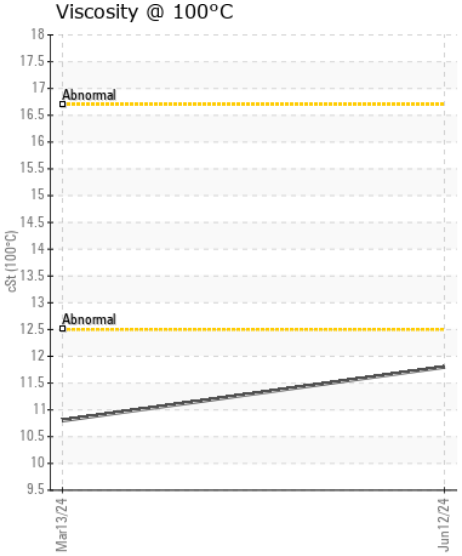
Base Number



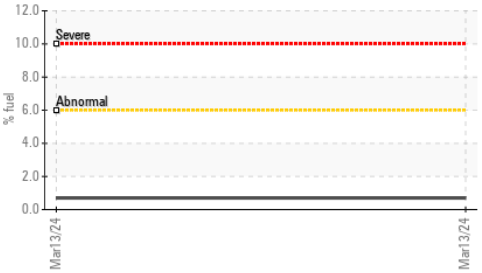
Viscosity @ 100°C



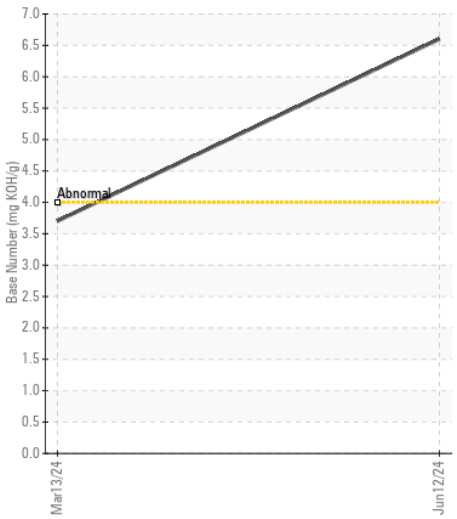
Viscosity @ 100°C



Fuel Dilution



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0011235 **Received** : 14 Jun 2024
Lab Number : 06209826 **Tested** : 17 Jun 2024
Unique Number : 11082690 **Diagnosed** : 17 Jun 2024 - Angela Borella
Test Package : CONST (Additional Tests: FuelDilution, Glycol, KV40, TBN)

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)

G S MATERIALS INC
PO BOX 1335
BURLINGTON, NC
US 27216
Contact: KAREN NEWPORT
Gsmaterials@windstream.net
T: (919)499-9322
F: (919)499-2097