



ASCENDUM

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL

Area
Ascendum Machinery

Machine Id
VOLVO EC220E 310380

Component
Left Travel

Fluid
VOLVO PREMIUM GEAR OIL 85W-140 GL-5 (--- GAL)

RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The oil 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		ASC0009953	ASC0000444	VCP377965
Sample Date		Client Info		07 May 2024	14 Jun 2023	12 May 2022
Machine Age	hrs	Client Info		4432	4052	3458
Oil Age	hrs	Client Info		380	594	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		None	N/A	Not Changed
Sample Status				SEVERE	SEVERE	SEVERE

WEAR

The iron level has decreased, but is still abnormal. Gear wear is indicated.

Iron	ppm	ASTM D5185m	>1200	▲ 1939	▲ 3686	▲ 6017
Chromium	ppm	ASTM D5185m	>20	18	▲ 32	▲ 58
Nickel	ppm	ASTM D5185m	>5	<1	▲ 8	5
Titanium	ppm	ASTM D5185m		26	37	64
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>100	● 427	● 624	● 120
Lead	ppm	ASTM D5185m	>50	0	<1	1
Copper	ppm	ASTM D5185m	>50	2	8	13
Tin	ppm	ASTM D5185m	>5	<1	0	1
Vanadium	ppm	ASTM D5185m		<1	2	2
White Metal	scalar	*Visual	NONE	NONE	LIGHT	VLITE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

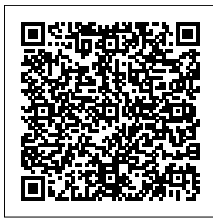
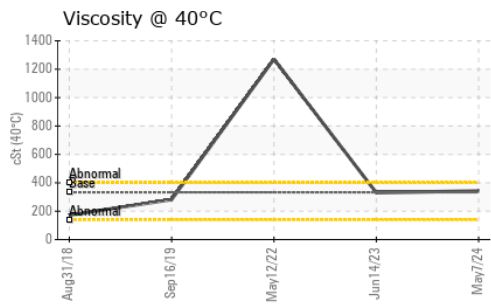
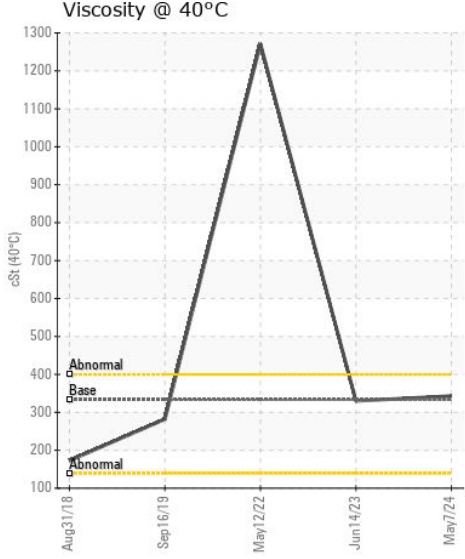
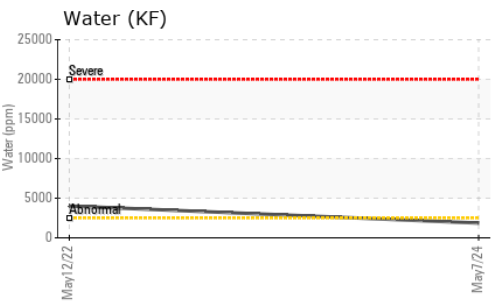
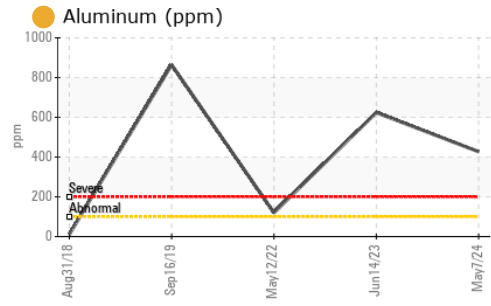
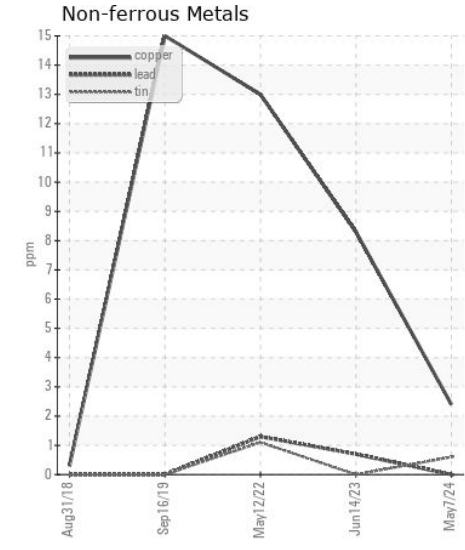
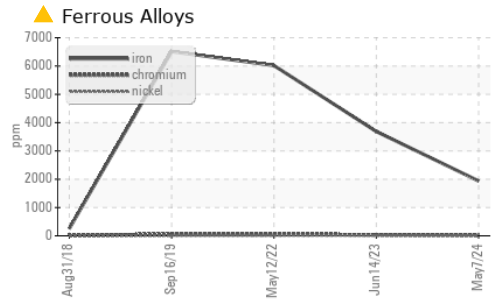
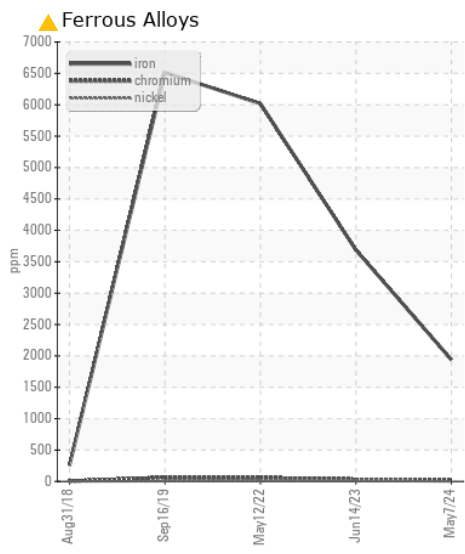
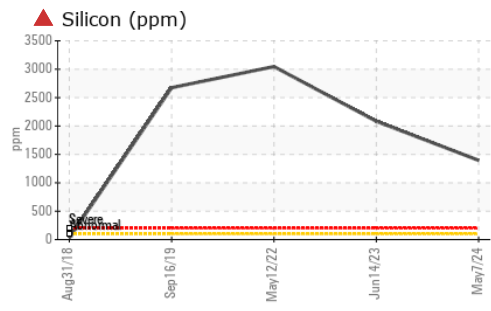
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>100	▲ 1395	▲ 2083	▲ 3046
Potassium	ppm	ASTM D5185m	>20	60	85	153
Water	%	ASTM D6304	>0.25	0.186	---	▲ 0.402
ppm Water	ppm	ASTM D6304	>2500	1860	---	▲ 4020
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	>0.25	0.2%	NEG	▲ 0.2%

FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		50	63	130
Boron	ppm	ASTM D5185m	111	169	150	101
Barium	ppm	ASTM D5185m	0.0	4	2	5
Molybdenum	ppm	ASTM D5185m	0.9	0	5	▲ 7
Manganese	ppm	ASTM D5185m	0.0	14	25	39
Magnesium	ppm	ASTM D5185m	39	41	65	132
Calcium	ppm	ASTM D5185m	93	87	206	249
Phosphorus	ppm	ASTM D5185m	920	1114	1029	786
Zinc	ppm	ASTM D5185m	104	6	49	25
Sulfur	ppm	ASTM D5185m	20179	35352	33681	33253
Visc @ 40°C	cSt	ASTM D445	333	343	330	● 1271



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0009953
Lab Number : 06177603
Unique Number : 11023656
Test Package : CONST (Additional Tests: KF)

Received : 13 May 2024
Tested : 15 May 2024
Diagnosed : 15 May 2024 - Don Baldrige

BRS INC
 208 STATE HWY 49
 RICHFIELD, NC
 US 28137
 Contact: Service Manager

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)

T:
 F: (704)463-1700