



ASCENDUM

OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL

Area

Ascendum Machinery

Machine Id

VOLVO EC220E 513 (S/N 314288)

Component

Swing Drive

Fluid

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

RECOMMENDATION

We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ASC0008388	VCP329200	VCP304749
Sample Date		Client Info		06 Jul 2024	10 Oct 2021	16 Apr 2021
Machine Age	hrs	Client Info		3542	1047	516
Oil Age	hrs	Client Info		2495	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Chngd	Changed	Changed
Filter Changed		Client Info		None	Not Chngd	Not Chngd
Sample Status				SEVERE	ABNORMAL	NORMAL

WEAR

The iron and chrome levels are severe. Gear wear is indicated.

Iron	ppm	ASTM D5185m	>1200	▲ 7208	▲ 1075	55
Chromium	ppm	ASTM D5185m	>10	▲ 45	▲ 14	1
Nickel	ppm	ASTM D5185m	>10	▲ 18	1	0
Titanium	ppm	ASTM D5185m		60	<1	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	● 835	<1	0
Lead	ppm	ASTM D5185m	>50	<1	0	0
Copper	ppm	ASTM D5185m	>50	15	10	8
Tin	ppm	ASTM D5185m	>10	<1	0	0
Vanadium	ppm	ASTM D5185m		2	<1	0
White Metal	scalar	*Visual	NONE	NONE	VLITE	MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

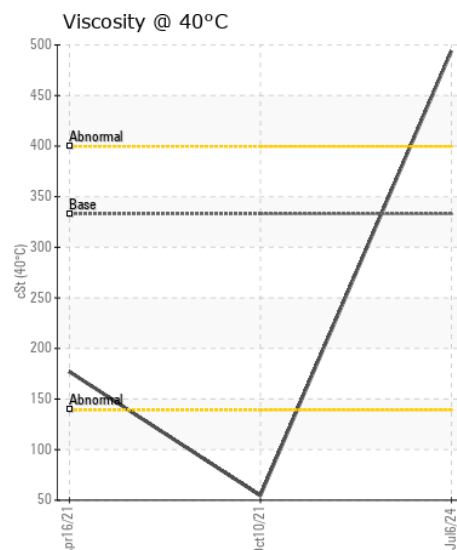
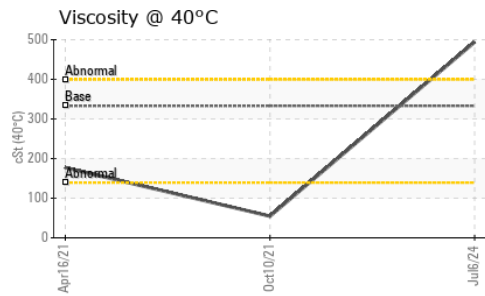
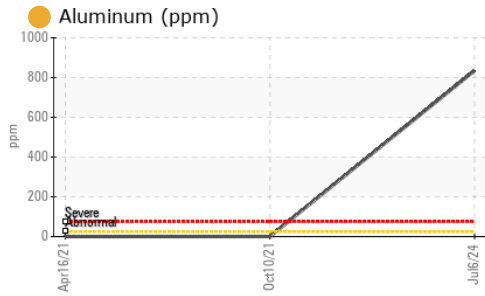
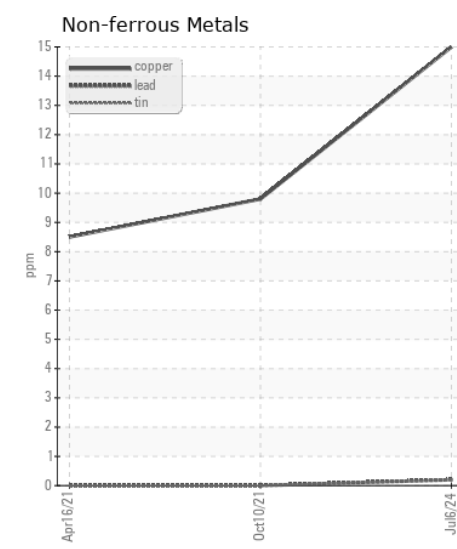
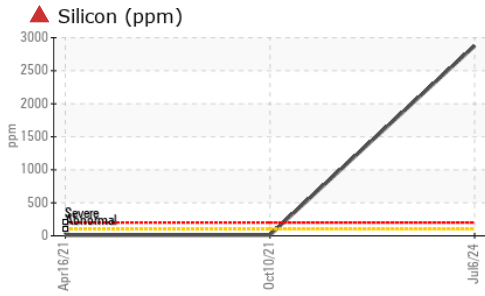
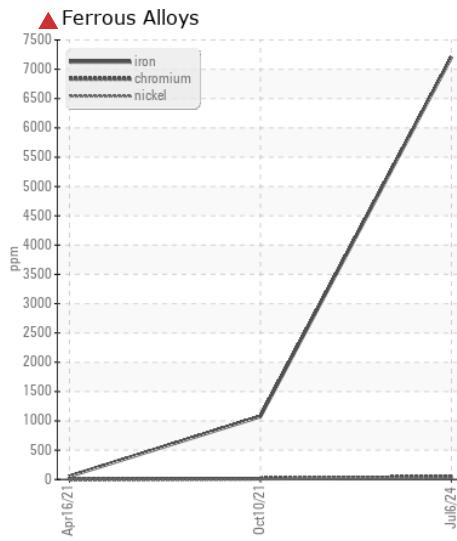
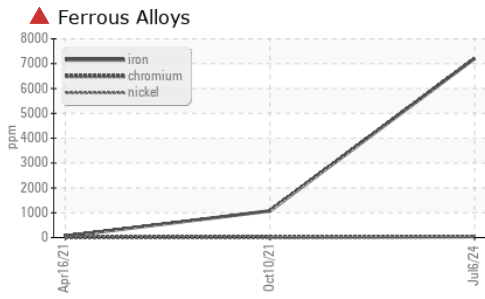
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>100	▲ 2875	10	9
Potassium	ppm	ASTM D5185m	>20	122	10	0
Water		WC Method	>0.25	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	>0.25	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		133	3	0
Boron	ppm	ASTM D5185m	111	191	201	<1
Barium	ppm	ASTM D5185m	0.0	1	<1	2
Molybdenum	ppm	ASTM D5185m	0.9	10	0	<1
Manganese	ppm	ASTM D5185m	0.0	58	11	2
Magnesium	ppm	ASTM D5185m	39	74	<1	0
Calcium	ppm	ASTM D5185m	93	120	12	2
Phosphorus	ppm	ASTM D5185m	920	1101	2166	247
Zinc	ppm	ASTM D5185m	104	9	16	0
Sulfur	ppm	ASTM D5185m	20179	43125	44401	10178
Visc @ 40°C	cSt	ASTM D445	333	494	54.6	177



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0008388
Lab Number : 06233591
Unique Number : 11117084
Test Package : CONST
Received : 11 Jul 2024
Tested : 12 Jul 2024
Diagnosed : 13 Jul 2024 - Don Baldrige

WM WARR & SON
 3800 SMITH FARM RD
 MATTHEWS, NC
 US 28104
 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)

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