



ASCENDUM

OIL ANALYSIS REPORT

WEAR
CONTAMINATION
FLUID CONDITION

ABNORMAL

SEVERE

NORMAL



Area

Ascendum Machinery

Machine Id

VOLVO EC220E EX-6 (S/N 314304)

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		ASC0007783	ASC0001061	VCP0006371
Sample Date		Client Info		19 Mar 2024	15 Aug 2023	28 Mar 2023
Machine Age	hrs	Client Info		4992	4492	4024
Oil Age	hrs	Client Info		500	468	472
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	ABNORMAL	SEVERE

WEAR

Gear wear is indicated.

Iron	ppm	ASTM D5185m	>1200	▲ 2388	826	535
Chromium	ppm	ASTM D5185m	>20	12	5	3
Nickel	ppm	ASTM D5185m	>5	▲ 9	2	2
Titanium	ppm	ASTM D5185m		21	6	7
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>100	● 309	● 97	● 90
Lead	ppm	ASTM D5185m	>50	0	0	0
Copper	ppm	ASTM D5185m	>50	3	1	<1
Tin	ppm	ASTM D5185m	>5	0	<1	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

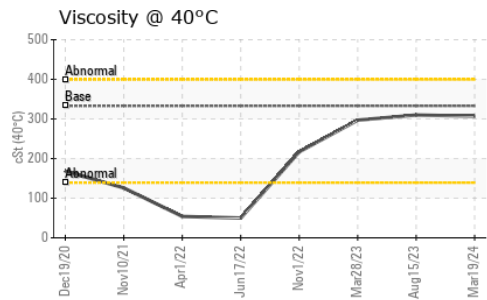
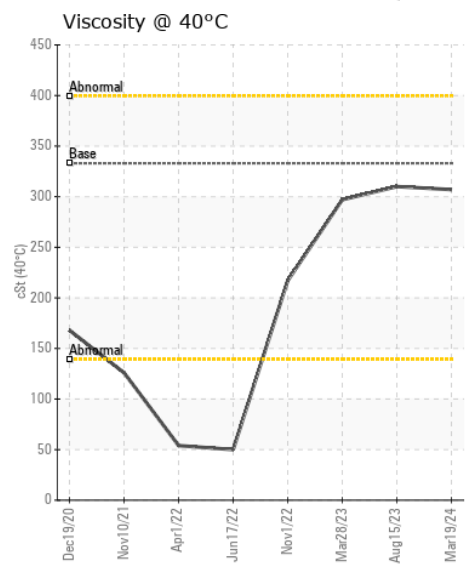
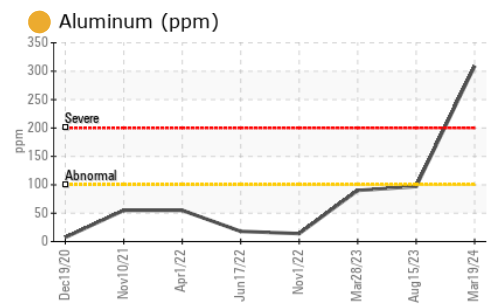
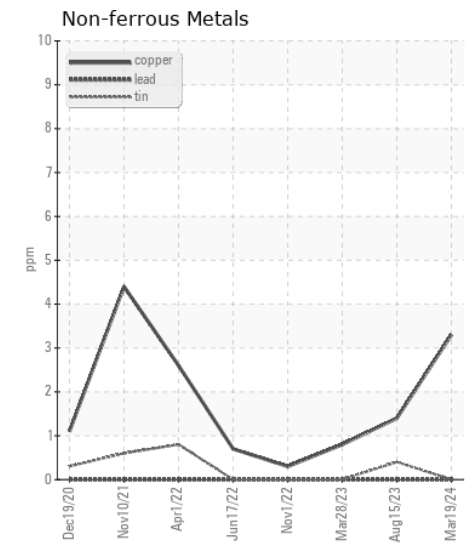
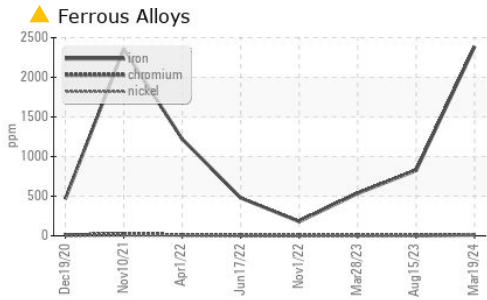
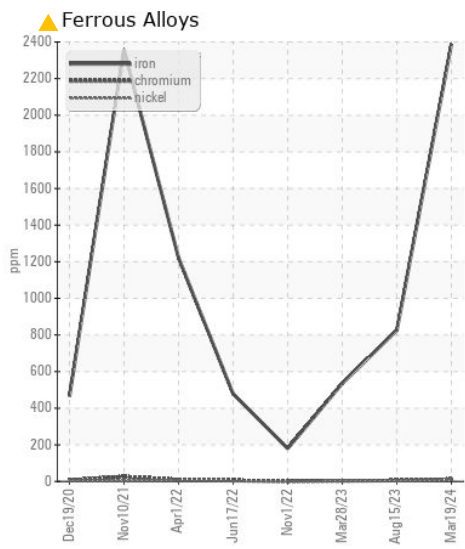
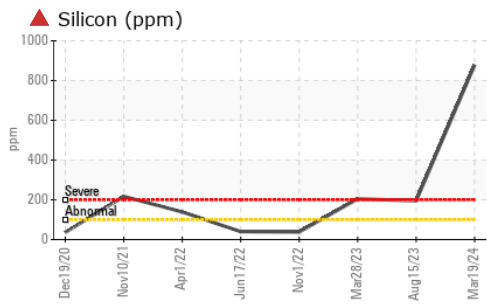
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>100	▲ 878	▲ 195	▲ 205
Potassium	ppm	ASTM D5185m	>20	32	9	7
Water		WC Method	>0.25	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	MODER	MODER	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		26	2	1
Boron	ppm	ASTM D5185m	111	211	227	200
Barium	ppm	ASTM D5185m	0.0	<1	0	0
Molybdenum	ppm	ASTM D5185m	0.9	1	0	<1
Manganese	ppm	ASTM D5185m	0.0	17	6	5
Magnesium	ppm	ASTM D5185m	39	23	5	3
Calcium	ppm	ASTM D5185m	93	43	12	9
Phosphorus	ppm	ASTM D5185m	920	1008	1071	951
Zinc	ppm	ASTM D5185m	104	6	0	0
Sulfur	ppm	ASTM D5185m	20179	28623	32923	25056
Visc @ 40°C	cSt	ASTM D445	333	307	310	297



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0007783
Lab Number : 06125210
Unique Number : 10939361
Test Package : CONST
Received : 21 Mar 2024
Tested : 25 Mar 2024
Diagnosed : 25 Mar 2024 - Sean Felton

CAROLINA EXCAVATING
 1036 BRANCHVIEW DR, SUITE 106
 CONCORD, NC
 US 28025
 Contact: KEVIN LADGERWOOD
 kevin@carlinaexcavation.com

Certificate L2367
 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)