



ASCENDUM

OIL ANALYSIS REPORT



Area

Ascendum Machinery/500 Hour CSA

Machine Id

VOLVO EC300E 2131 (S/N 314707)

Component

Rear Left Final Drive

Fluid

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

WEAR
CONTAMINATION
FLUID CONDITION

SEVERE

SEVERE

NORMAL

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 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		ASC0007165	VCP0002005	VCP0000840
Sample Date		Client Info		23 Apr 2024	12 Aug 2022	14 Mar 2022
Machine Age	hrs	Client Info		3516	2627	2041
Oil Age	hrs	Client Info		889	2627	2041
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	NORMAL	ABNORMAL

WEAR

Gear wear is indicated.

Iron	ppm	ASTM D5185m	>500	▲ 2342	472	▲ 659
Chromium	ppm	ASTM D5185m	>10	▲ 31	8	▲ 13
Nickel	ppm	ASTM D5185m	>10	<1	<1	<1
Titanium	ppm	ASTM D5185m		13	1	2
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>25	● 205	31	● 65
Lead	ppm	ASTM D5185m	>25	0	0	<1
Copper	ppm	ASTM D5185m	>50	2	<1	1
Tin	ppm	ASTM D5185m	>10	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	MODER	MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

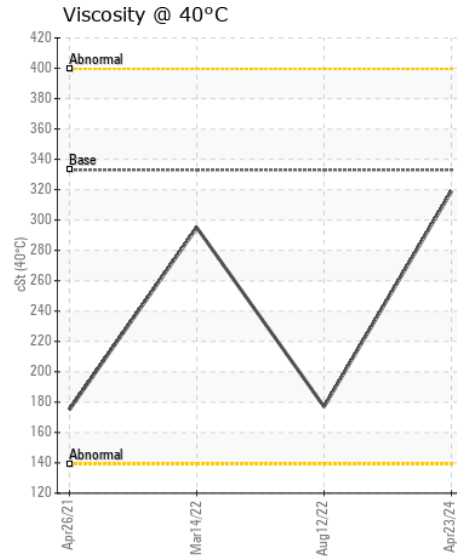
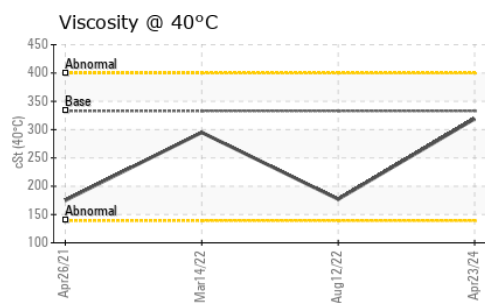
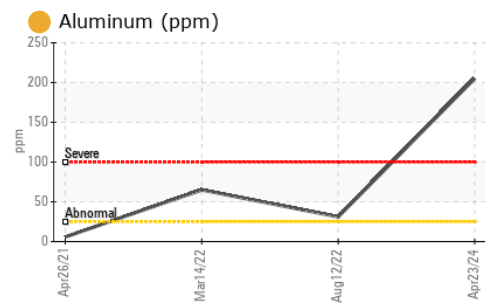
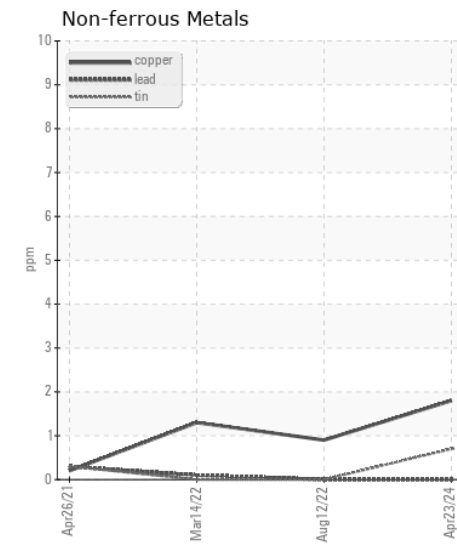
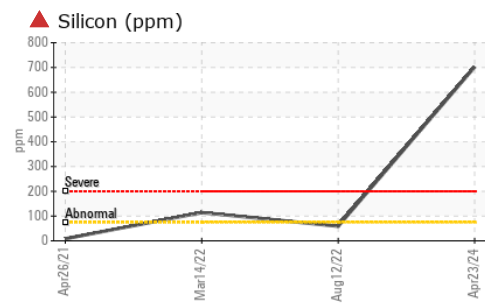
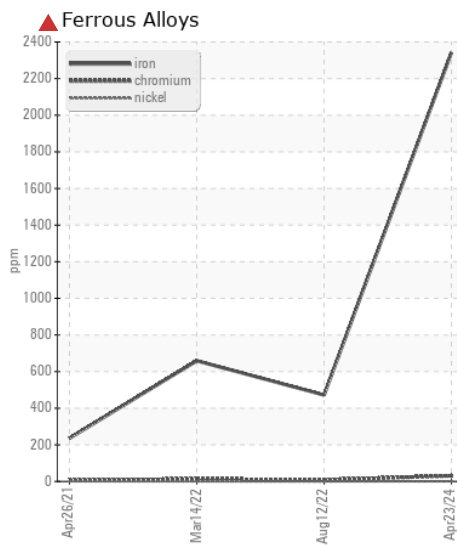
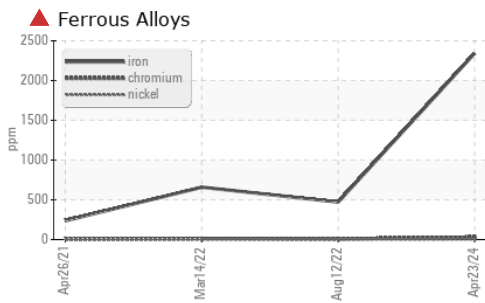
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. High amount of ingressed dirt has caused abrasive wear to the component.

Silicon	ppm	ASTM D5185m	>75	▲ 702	59	▲ 114
Potassium	ppm	ASTM D5185m	>20	34	8	15
Water		WC Method	>0.2	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	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		13	2	4
Boron	ppm	ASTM D5185m	111	188	121	95
Barium	ppm	ASTM D5185m	0.0	<1	1	0
Molybdenum	ppm	ASTM D5185m	0.9	2	1	2
Manganese	ppm	ASTM D5185m	0.0	19	5	8
Magnesium	ppm	ASTM D5185m	39	11	2	3
Calcium	ppm	ASTM D5185m	93	32	19	25
Phosphorus	ppm	ASTM D5185m	920	1109	951	883
Zinc	ppm	ASTM D5185m	104	9	20	27
Sulfur	ppm	ASTM D5185m	20179	32099	24674	23223
Visc @ 40°C	cSt	ASTM D445	333	319	177	295



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0007165 **Received** : 25 Apr 2024
Lab Number : 06160765 **Tested** : 26 Apr 2024
Unique Number : 10996188 **Diagnosed** : 29 Apr 2024 - Don Baldrige
Test Package : CONST

TRIANGLE GRADING AND PAVING INC
 1521 Huffman Mill Rd
 BURLINGTON, NC
 US 27216
 Contact: ADAM CORBETT
 wacorbett@trianglegradingpaving.com
 T:
 F: (336)584-0145

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)