



# ASCENDUM

## OIL ANALYSIS REPORT

WEAR  
CONTAMINATION  
FLUID CONDITION

**ATTENTION**  
**ABNORMAL**  
**NORMAL**

Area

[VORTEX]

Machine Id

**VOLVO EC200EL 314626**

Component

**Left Final Drive**

Fluid

**GEAR OIL SAE 80W90 (--- GAL)**

### RECOMMENDATION

We advise that you check all areas where dirt can enter the system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>ASC0009171</b>	ASC0002608	VCP0005003
Sample Date		Client Info		<b>11 Jul 2024</b>	29 Jan 2024	17 Jan 2023
Machine Age	hrs	Client Info		<b>2449</b>	1974	1042
Oil Age	hrs	Client Info		<b>500</b>	500	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	N/A
Filter Changed		Client Info		<b>Changed</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	ABNORMAL	NORMAL

### WEAR

All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>500	<b>338</b>	371	295
Chromium	ppm	ASTM D5185m	>10	<b>3</b>	4	2
Nickel	ppm	ASTM D5185m	>10	<b>2</b>	2	0
Titanium	ppm	ASTM D5185m		<b>4</b>	8	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>47</b>	90	8
Lead	ppm	ASTM D5185m	>25	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>50	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

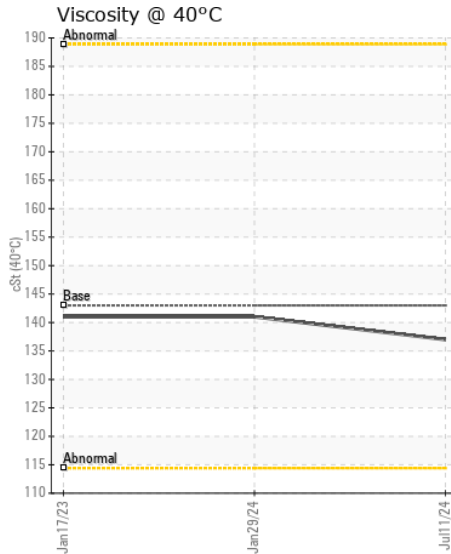
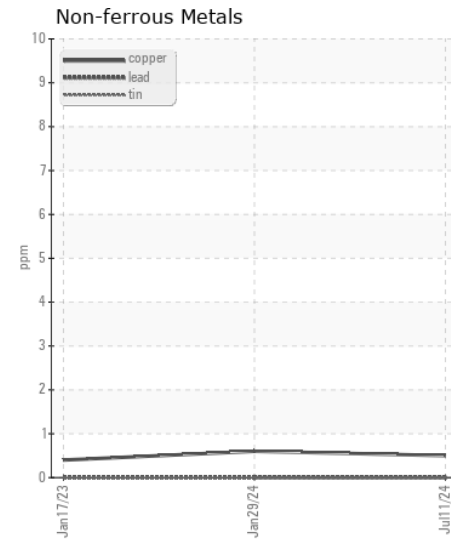
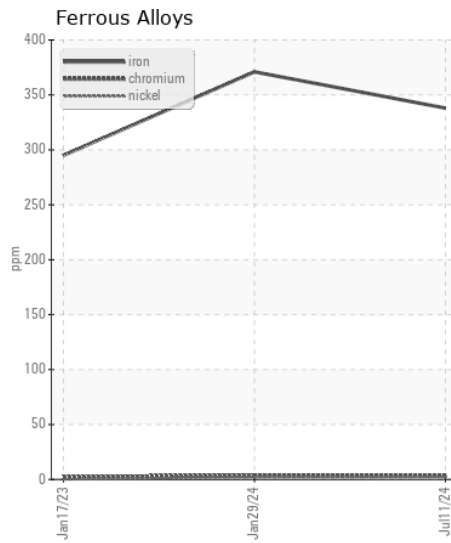
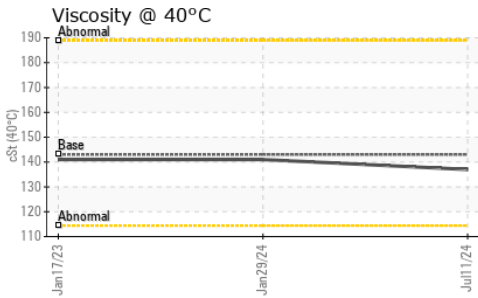
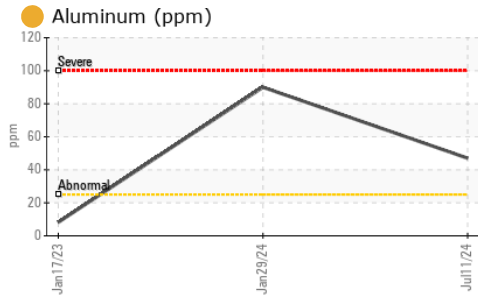
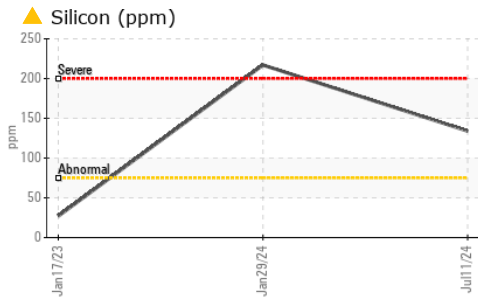
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>75	<b>▲ 134</b>	▲ 217	27
Potassium	ppm	ASTM D5185m	>20	<b>6</b>	4	4
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>LIGHT</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	▲ MODER	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>170	<b>&lt;1</b>	0	0
Boron	ppm	ASTM D5185m	400	<b>151</b>	169	4
Barium	ppm	ASTM D5185m	200	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185m	12	<b>&lt;1</b>	<1	2
Manganese	ppm	ASTM D5185m		<b>3</b>	4	3
Magnesium	ppm	ASTM D5185m	12	<b>3</b>	3	11
Calcium	ppm	ASTM D5185m	150	<b>0</b>	18	21
Phosphorus	ppm	ASTM D5185m	1650	<b>954</b>	1002	593
Zinc	ppm	ASTM D5185m	125	<b>7</b>	6	22
Sulfur	ppm	ASTM D5185m	22500	<b>25791</b>	31701	15628
Visc @ 40°C	cSt	ASTM D445	143	<b>137</b>	141	141



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ASC0009171  
**Lab Number** : 06238579  
**Unique Number** : 11127413  
**Test Package** : CONST

**Received** : 16 Jul 2024  
**Tested** : 17 Jul 2024  
**Diagnosed** : 18 Jul 2024 - Sean Felton

**113 - ASCENDUM MACHINERY INC - GARNER**  
 3561 JONES SAUSAGE ROAD  
 GARNER, NC  
 US 27529

Contact: TRENT BROADWELL  
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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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