



# VOLVO

## OIL ANALYSIS REPORT

WEAR	<b>ABNORMAL</b>
CONTAMINATION	<b>SEVERE</b>
FLUID CONDITION	<b>NORMAL</b>



Area  
**[8260]**  
Machine Id  
**VOLVO ECR355E 310109 - ECR355E**  
Component  
**Rear Right Final Drive**  
Fluid  
**CHEVRON DELO GEAR ESI OIL 85W140 (--- 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		<b>VCP387997</b>	VCP361274	VCP312862
Sample Date		Client Info		<b>05 Dec 2022</b>	13 Apr 2022	08 Dec 2021
Machine Age	hrs	Client Info		<b>2888</b>	2598	2266
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Not Changed</b>	Not Changed	N/A
Sample Status				<b>SEVERE</b>	ABNORMAL	ABNORMAL

### WEAR

Gear wear is indicated.

Iron	ppm	ASTM D5185m	>500	<b>▲ 1352</b>	▲ 966	▲ 971
Chromium	ppm	ASTM D5185m	>10	<b>▲ 15</b>	▲ 11	▲ 16
Nickel	ppm	ASTM D5185m		<b>&lt;1</b>	1	<1
Titanium	ppm	ASTM D5185m		<b>13</b>	3	2
Silver	ppm	ASTM D5185m		<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>25	<b>▲ 138</b>	▲ 30	▲ 23
Lead	ppm	ASTM D5185m	>25	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>50	<b>2</b>	2	2
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>MODER</b>	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

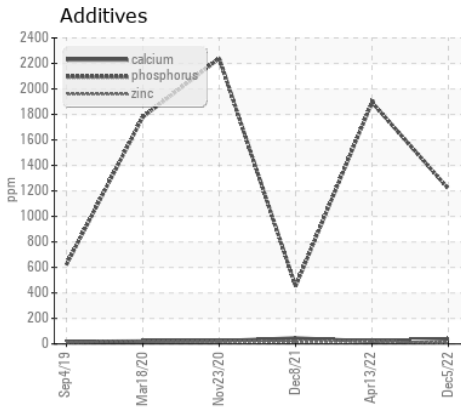
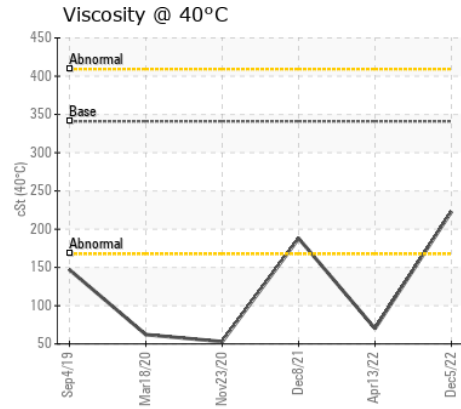
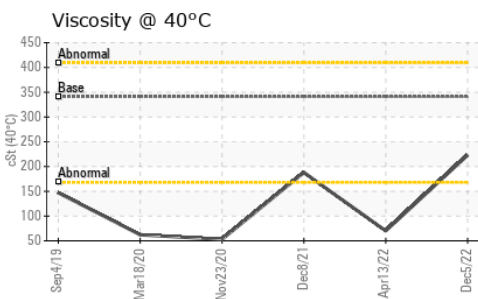
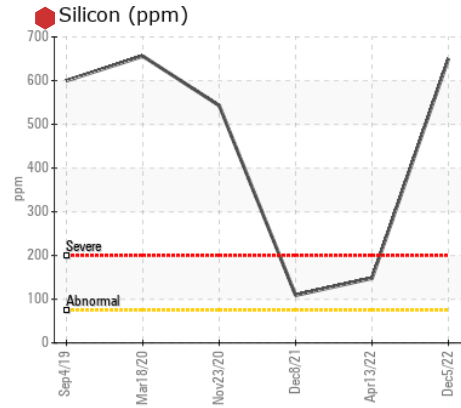
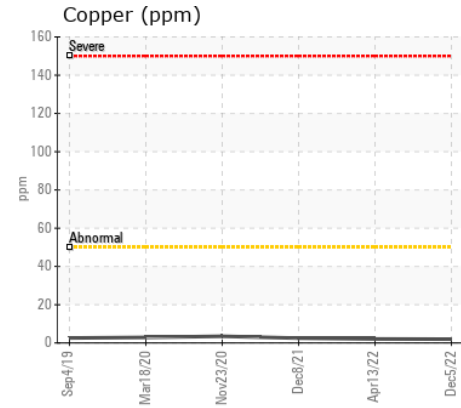
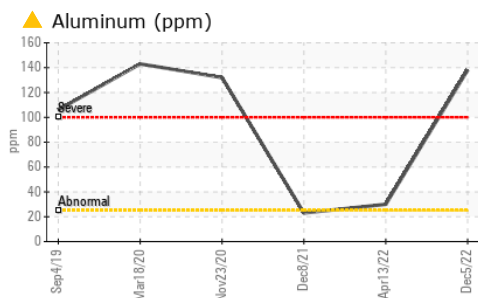
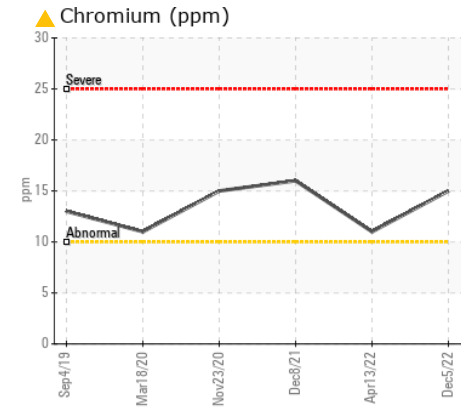
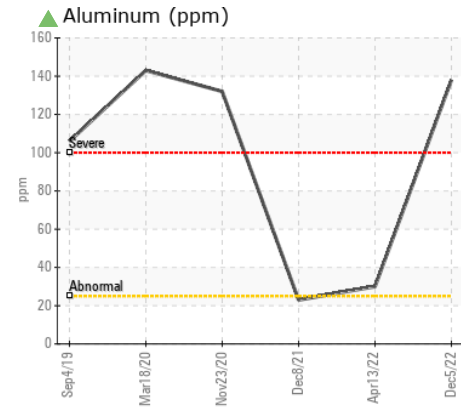
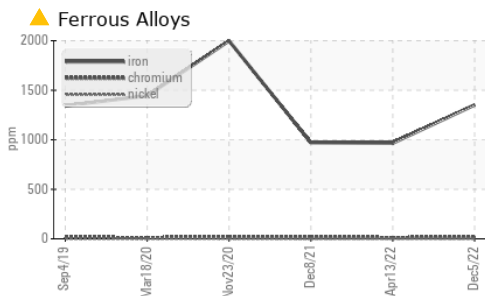
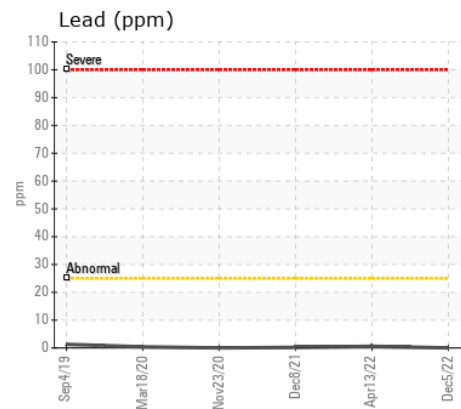
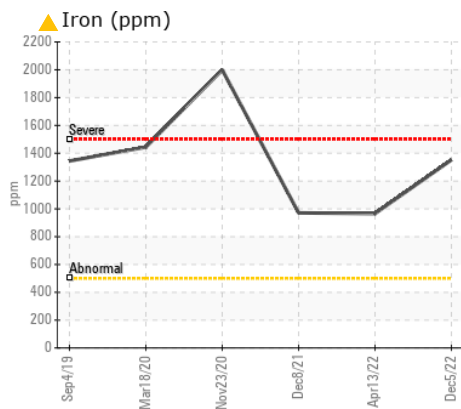
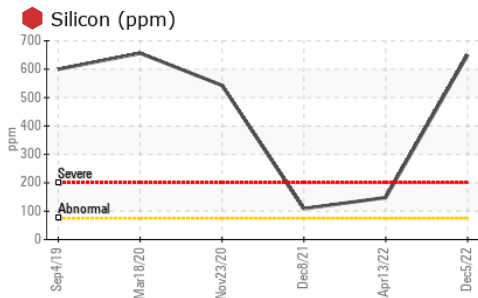
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>75	<b>◆ 650</b>	▲ 148	▲ 109
Potassium	ppm	ASTM D5185m	>20	<b>23</b>	5	4
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	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 oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		<b>6</b>	4	0
Boron	ppm	ASTM D5185m		<b>153</b>	170	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	2
Molybdenum	ppm	ASTM D5185m		<b>1</b>	1	1
Manganese	ppm	ASTM D5185m		<b>11</b>	8	10
Magnesium	ppm	ASTM D5185m		<b>10</b>	5	1
Calcium	ppm	ASTM D5185m		<b>40</b>	21	46
Phosphorus	ppm	ASTM D5185m		<b>1218</b>	1895	453
Zinc	ppm	ASTM D5185m		<b>9</b>	20	17
Sulfur	ppm	ASTM D5185m		<b>23299</b>	22049	14261
Visc @ 40°C	cSt	ASTM D445	341	<b>223</b>	▲ 70.1	▲ 188



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP387997  
**Lab Number** : 05711859  
**Unique Number** : 10246434  
**Test Package** : MOBCE

**Received** : 07 Dec 2022  
**Tested** : 09 Dec 2022  
**Diagnosed** : 11 Dec 2022 - Don Baldrige

**MCCLUNG-LOGAN EQUIPMENT CO - SALEM**  
 2025 COOK DRIVE  
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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)