



**McCLUNG-LOGAN**  
EQUIPMENT COMPANY, INC.

OIL ANALYSIS REPORT

WEAR  
CONTAMINATION  
FLUID CONDITION

**ABNORMAL**  
**SEVERE**  
**ATTENTION**



Machine Id  
**VOLVO EC160EL 310125**  
Component  
**Rear Left Final Drive**  
Fluid  
**VOLVO SUPER GEAR OIL 75W-80-GO102 (--- GAL)**

**RECOMMENDATION**

We advise that you check all areas where dirt can enter the system. We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. ( Customer Sample Comment: Oil appears to have heavy water contamination. 85w-140. Changed to GO102 75w-80. )

**WEAR**

Gear wear is indicated.

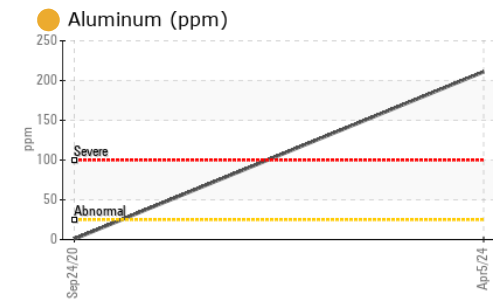
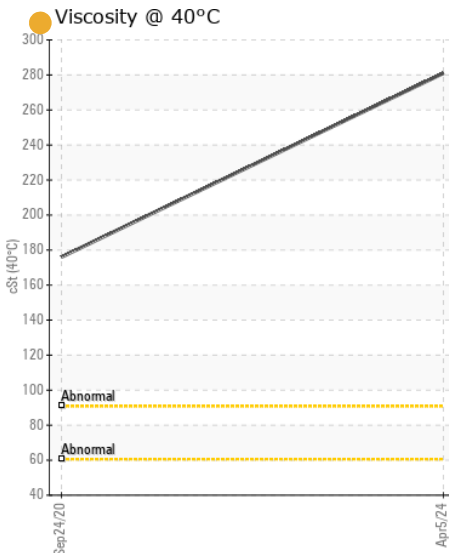
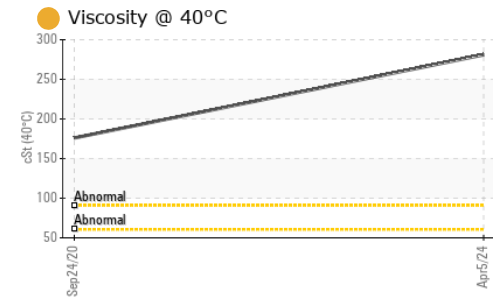
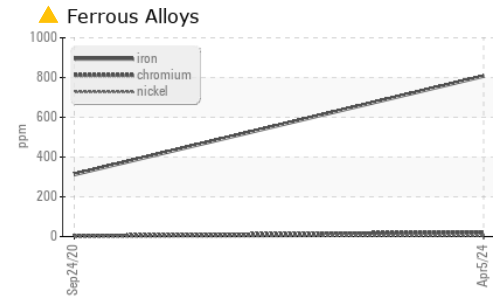
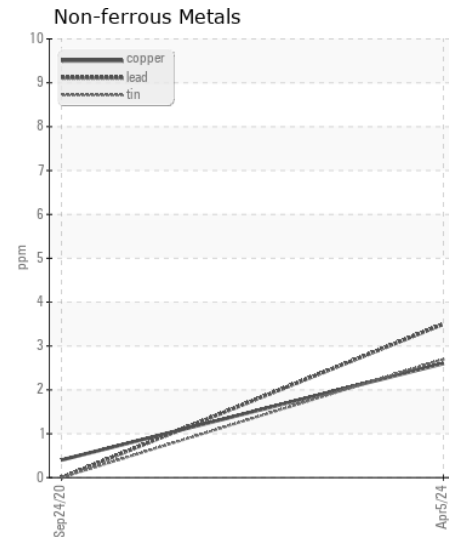
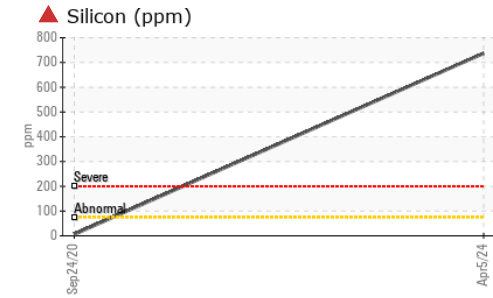
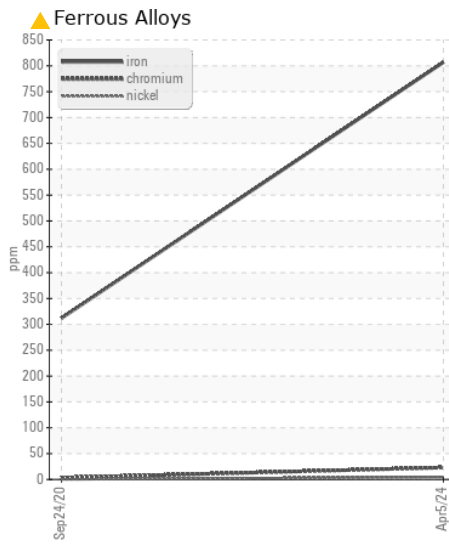
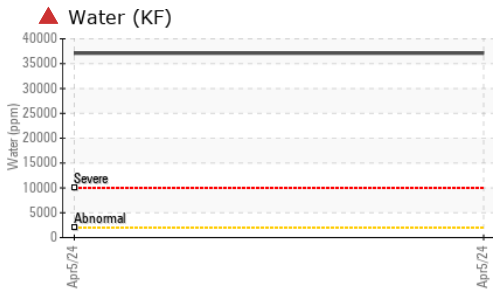
**CONTAMINATION**

Appearance is milky. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. There is a high concentration of water present in the oil.

**FLUID CONDITION**

The oil viscosity is higher than normal. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>ML0001450</b>	VCP293407	---
Sample Date		Client Info		<b>05 Apr 2024</b>	24 Sep 2020	---
Machine Age	hrs	Client Info		<b>2260</b>	1019	---
Oil Age	hrs	Client Info		<b>1000</b>	0	---
Filter Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>Changed</b>	N/A	---
Filter Changed		Client Info		<b>N/A</b>	N/A	---
Sample Status				<b>SEVERE</b>	NORMAL	---
Iron	ppm	ASTM D5185m	>500	<b>▲ 807</b>	312	---
Chromium	ppm	ASTM D5185m	>10	<b>▲ 23</b>	3	---
Nickel	ppm	ASTM D5185m	>10	<b>5</b>	0	---
Titanium	ppm	ASTM D5185m		<b>14</b>	0	---
Silver	ppm	ASTM D5185m		<b>1</b>	0	---
Aluminum	ppm	ASTM D5185m	>25	<b>● 211</b>	<1	---
Lead	ppm	ASTM D5185m	>25	<b>4</b>	0	---
Copper	ppm	ASTM D5185m	>50	<b>3</b>	<1	---
Tin	ppm	ASTM D5185m	>10	<b>3</b>	0	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	LIGHT	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Silicon	ppm	ASTM D5185m	>75	<b>▲ 737</b>	6	---
Potassium	ppm	ASTM D5185m	>20	<b>41</b>	2	---
Water	%	ASTM D6304	>0.2	<b>▲ 3.71</b>	---	---
ppm Water	ppm	ASTM D6304	>2000	<b>▲ 37100</b>	---	---
Silt	scalar	*Visual	NONE	<b>MODER</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	LIGHT	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>● MILKY</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.2	<b>▲ 0.2%</b>	NEG	---
Sodium	ppm	ASTM D5185m		<b>25</b>	2	---
Boron	ppm	ASTM D5185m		<b>111</b>	12	---
Barium	ppm	ASTM D5185m		<b>4</b>	0	---
Molybdenum	ppm	ASTM D5185m		<b>2</b>	<1	---
Manganese	ppm	ASTM D5185m		<b>12</b>	3	---
Magnesium	ppm	ASTM D5185m		<b>36</b>	2	---
Calcium	ppm	ASTM D5185m		<b>179</b>	7	---
Phosphorus	ppm	ASTM D5185m		<b>1215</b>	397	---
Zinc	ppm	ASTM D5185m		<b>65</b>	15	---
Sulfur	ppm	ASTM D5185m		<b>32785</b>	15360	---
Visc @ 40°C	cSt	ASTM D445		<b>● 281</b>	176	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : ML0001450

**Lab Number** : 06150695

**Unique Number** : 10980773

**Test Package** : CONST ( Additional Tests: KF )

**Received** : 16 Apr 2024

**Tested** : 18 Apr 2024

**Diagnosed** : 18 Apr 2024 - Sean Felton

**MCCLUNG-LOGAN EQUIPMENT CO - RICHMOND**

1345 MOUNTAIN ROAD

GLEN ALLEN, VA

US 23060

Contact: Alex Anderson

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T:

F: (804)266-1611

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)