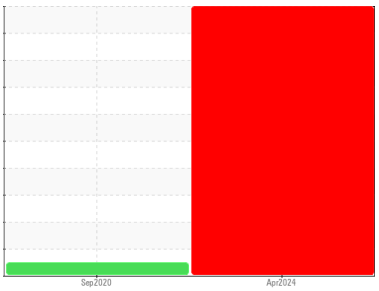
McCLUNG LOGAN EQUIPMENT COMPANY

PROBLEM SUMMARY

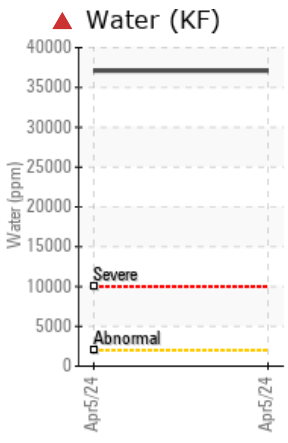
Sample Rating Trend

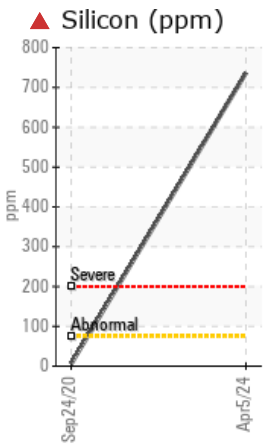


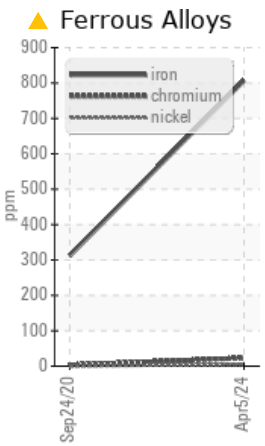
DIRT

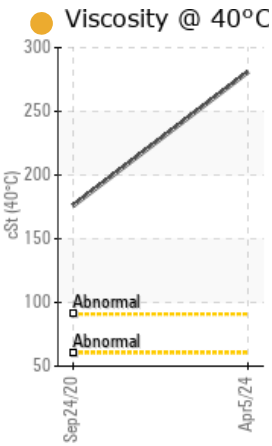
Machine Id
VOLVO EC160EL 310125
Component
Rear Left Final Drive
Fluid
VOLVO SUPER GEAR OIL 75W-80-GO102 (--- GAL)

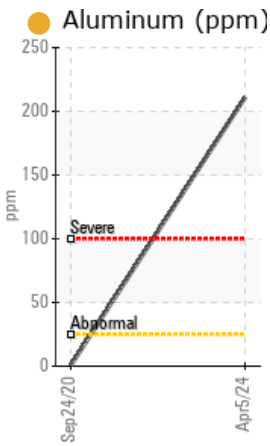
COMPONENT CONDITION SUMMARY











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.)

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	NORMAL	---
Iron	ppm	ASTM D5185m	>500	▲ **807**	312	---
Chromium	ppm	ASTM D5185m	>10	▲ **23**	3	---
Silicon	ppm	ASTM D5185m	>75	▲ **737**	6	---
Water	%	ASTM D6304	>0.2	▲ **3.71**	---	---
ppm Water	ppm	ASTM D6304	>2000	▲ **37100**	---	---
Emulsified Water	scalar	*Visual	>0.2	▲ **0.2%**	NEG	---

Customer Id: VOLVO8882
Sample No.: ML0001450
Lab Number: 06150695
Test Package: CONST

To manage this report scan the QR code

To discuss the diagnosis or test data:
Sean Felton +1 919-379-4092
sfelton@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Dirt Access	---	---	?	We advise that you check all areas where dirt can enter the system.
Check Water Access	---	---	?	We advise that you check for the source of water entry.

HISTORICAL DIAGNOSIS

NORMAL

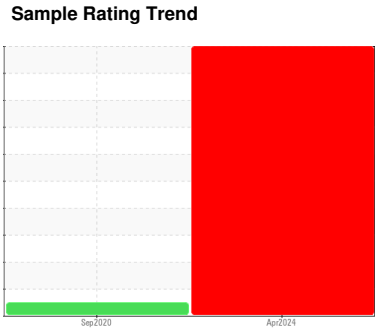
24 Sep 2020 Diag: Don Baldridge
Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

view report

OIL ANALYSIS REPORT

McCLUNG LOGAN EQUIPMENT COMPANY

Sample Rating Trend



DIRT

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

DIAGNOSIS

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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**ML0001450**	VCP293407	---
Sample Date		Client Info		**05 Apr 2024**	24 Sep 2020	---
Machine Age	hrs	Client Info		**2260**	1019	---
Oil Age	hrs	Client Info		**1000**	0	---
Oil Changed		Client Info		**Changed**	N/A	---
Sample Status				**SEVERE**	NORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>500	▲ **807**	312	---
Chromium	ppm	ASTM D5185m	>10	▲ **23**	3	---
Nickel	ppm	ASTM D5185m	>10	**5**	0	---
Titanium	ppm	ASTM D5185m		**14**	0	---
Silver	ppm	ASTM D5185m		**1**	0	---
Aluminum	ppm	ASTM D5185m	>25	● **211**	<1	---
Lead	ppm	ASTM D5185m	>25	**4**	0	---
Copper	ppm	ASTM D5185m	>50	**3**	<1	---
Tin	ppm	ASTM D5185m	>10	**3**	0	---
Antimony	ppm	ASTM D5185m	>5	**---**	0	---
Vanadium	ppm	ASTM D5185m		**<1**	0	---
Cadmium	ppm	ASTM D5185m		**1**	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**111**	12	---
Barium	ppm	ASTM D5185m		**4**	0	---
Molybdenum	ppm	ASTM D5185m		**2**	<1	---
Manganese	ppm	ASTM D5185m		**12**	3	---
Magnesium	ppm	ASTM D5185m		**36**	2	---
Calcium	ppm	ASTM D5185m		**179**	7	---
Phosphorus	ppm	ASTM D5185m		**1215**	397	---
Zinc	ppm	ASTM D5185m		**65**	15	---
Sulfur	ppm	ASTM D5185m		**32785**	15360	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>75	▲ **737**	6	---
Sodium	ppm	ASTM D5185m		**25**	2	---
Potassium	ppm	ASTM D5185m	>20	**41**	2	---
Water	%	ASTM D6304	>0.2	▲ **3.71**	---	---
ppm Water	ppm	ASTM D6304	>2000	▲ **37100**	---	---

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	LIGHT	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	---
Silt	scalar	*Visual	NONE	**MODER**	NONE	---
Debris	scalar	*Visual	NONE	**NONE**	LIGHT	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	---
Appearance	scalar	*Visual	NORML	● **MILKY**	NORML	---
Odor	scalar	*Visual	NORML	**NORML**	NORML	---
Emulsified Water	scalar	*Visual	>0.2	▲ **0.2%**	NEG	---
Free Water	scalar	*Visual		**NEG**	NEG	---

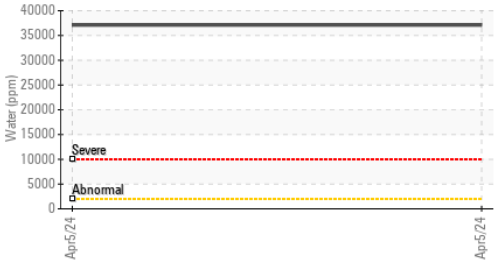
OIL ANALYSIS REPORT

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**281**	176	---

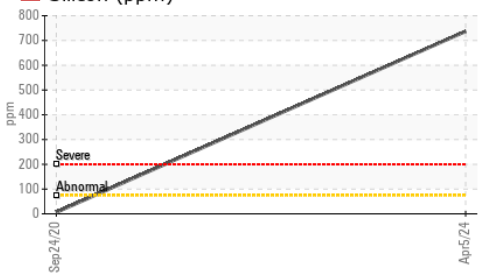
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				*no image*	*no image*
Bottom				*no image*	*no image*

GRAPHS

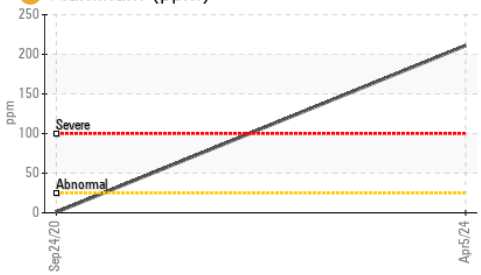
Water (KF)



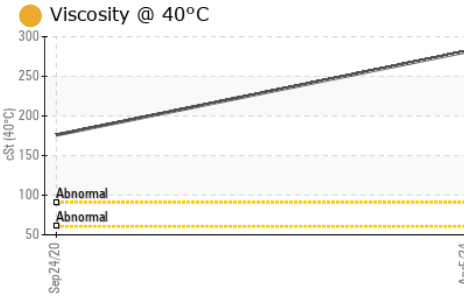
Silicon (ppm)



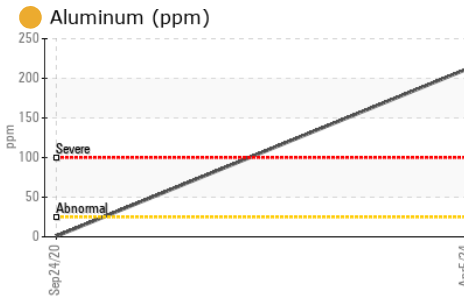
Aluminum (ppm)



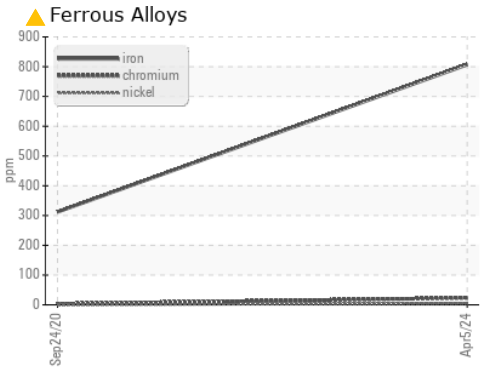
Viscosity @ 40°C



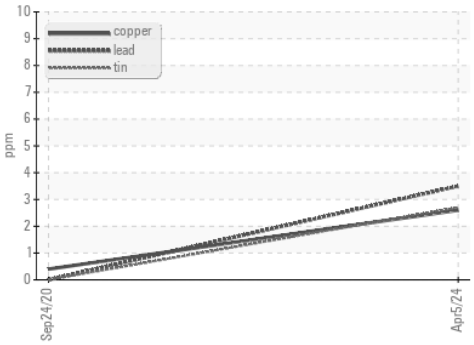
Aluminum (ppm)



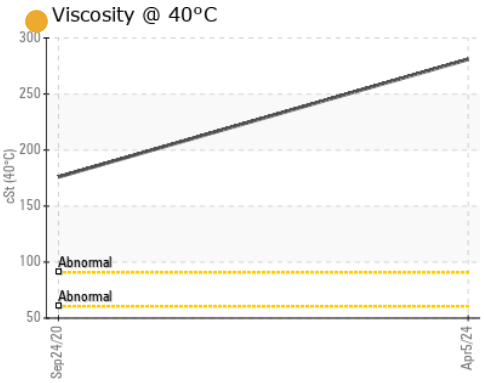
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



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

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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