



OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Machine Id
CATERPILLAR CS563C RL4711 (S/N 04KN01237)

Component
Drive End Planetary

Fluid
{not provided} (--- GAL)

RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. 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		DC0032453	---	---
Sample Date		Client Info		14 Mar 2024	---	---
Machine Age	hrs	Client Info		0	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				SEVERE	---	---

WEAR

Gear wear is indicated. Bearing and/or bushing wear is indicated.

Iron	ppm	ASTM D5185m	>500	▲ 564	---	---
Chromium	ppm	ASTM D5185m	>10	8	---	---
Nickel	ppm	ASTM D5185m	>10	3	---	---
Titanium	ppm	ASTM D5185m		1	---	---
Silver	ppm	ASTM D5185m		<1	---	---
Aluminum	ppm	ASTM D5185m	>25	9	---	---
Lead	ppm	ASTM D5185m	>25	▲ 534	---	---
Copper	ppm	ASTM D5185m	>75	▲ 1206	---	---
Tin	ppm	ASTM D5185m	>10	▲ 42	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	MODER	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

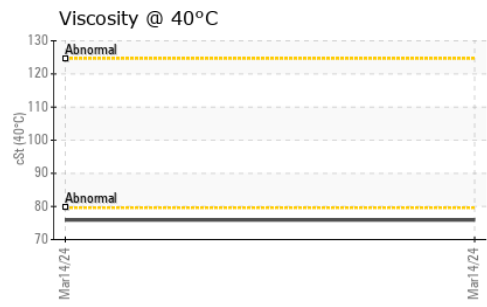
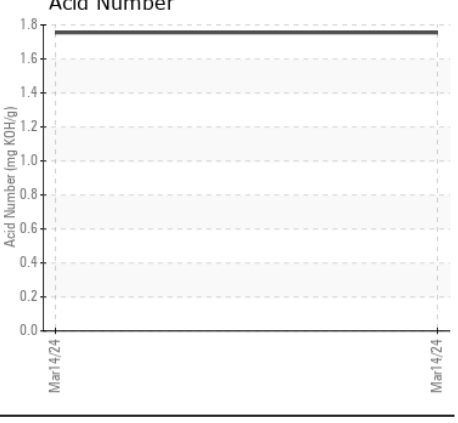
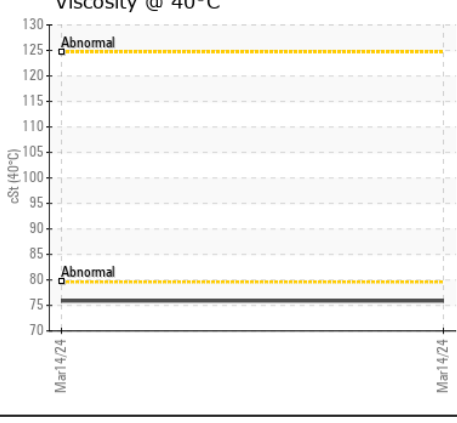
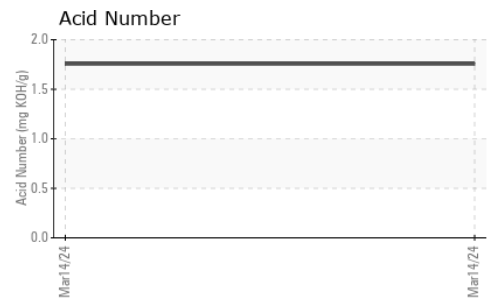
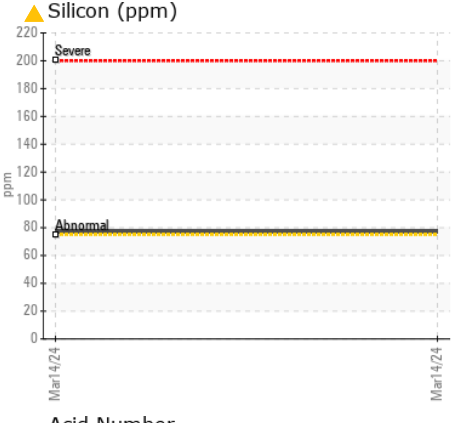
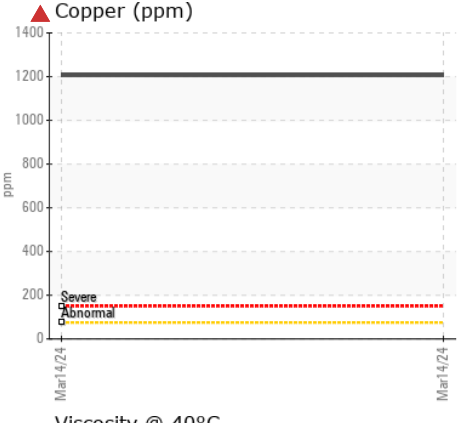
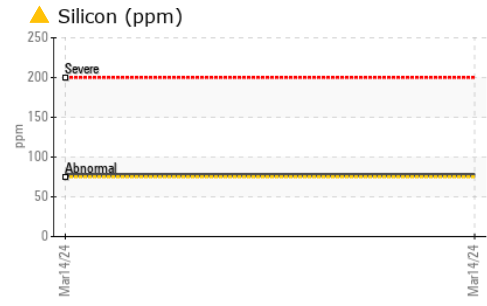
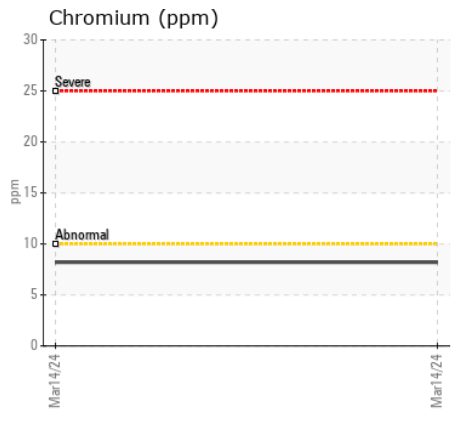
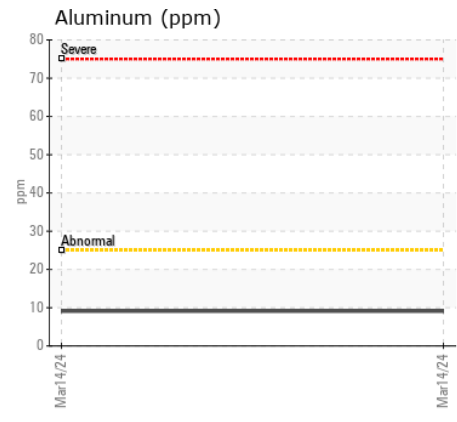
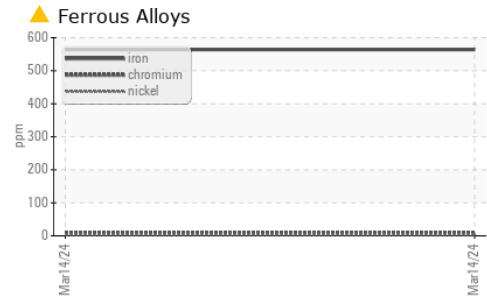
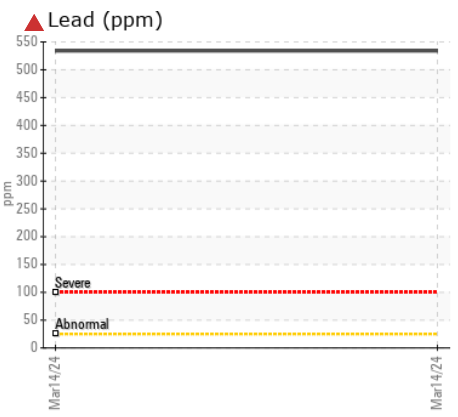
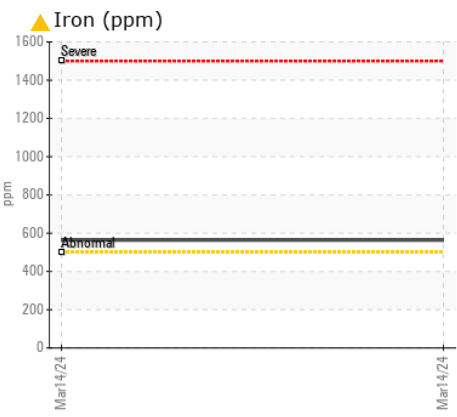
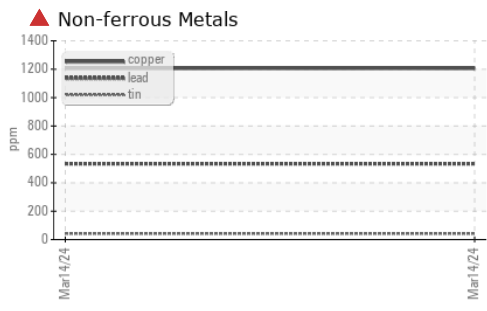
Elemental level of silicon (Si) above normal indicating ingress of dirt/seal material.

Silicon	ppm	ASTM D5185m	>75	▲ 77	---	---
Potassium	ppm	ASTM D5185m	>20	5	---	---
Water		WC Method	>0.2	NEG	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---

FLUID CONDITION

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185m		<1	---	---
Boron	ppm	ASTM D5185m		50	---	---
Barium	ppm	ASTM D5185m		3	---	---
Molybdenum	ppm	ASTM D5185m		4	---	---
Manganese	ppm	ASTM D5185m		7	---	---
Magnesium	ppm	ASTM D5185m		14	---	---
Calcium	ppm	ASTM D5185m		3565	---	---
Phosphorus	ppm	ASTM D5185m		821	---	---
Zinc	ppm	ASTM D5185m		1009	---	---
Sulfur	ppm	ASTM D5185m		6041	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		1.755	---	---
Visc @ 40°C	cSt	ASTM D445		75.9	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DC0032453 **Received** : 21 Mar 2024
Lab Number : 06125097 **Tested** : 25 Mar 2024
Unique Number : 10939248 **Diagnosed** : 25 Mar 2024 - Don Baldrige
Test Package : MOB 2

COMER CONSTRUCTION
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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)