



WEAR	SEVERE
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL



Machine Id
CATERPILLAR 303.5 3019 (S/N FLZ00989)
Component
Right Final Drive
Fluid
GEAR OIL SAE 80W90 (--- 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 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		CL0005199	CL0003192	---
Sample Date		Client Info		20 Feb 2024	12 May 2022	---
Machine Age	hrs	Client Info		7565	6365	---
Oil Age	hrs	Client Info		1200	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				SEVERE	SEVERE	---

WEAR

Gear wear is indicated.

Iron	ppm	ASTM D5185m	>800	▲ 2656	▲ 5845	---
Chromium	ppm	ASTM D5185m	>10	▲ 26	▲ 58	---
Nickel	ppm	ASTM D5185m	>5	6	4	---
Titanium	ppm	ASTM D5185m	>15	16	18	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>75	● 225	● 279	---
Lead	ppm	ASTM D5185m	>10	2	6	---
Copper	ppm	ASTM D5185m	>75	6	12	---
Tin	ppm	ASTM D5185m	>8	0	0	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
White Metal	scalar	*Visual	NONE	LIGHT	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

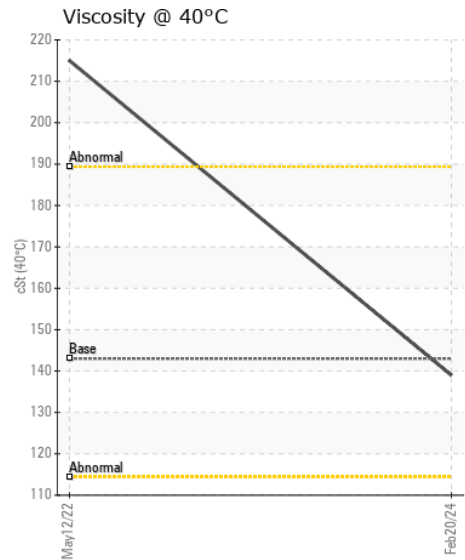
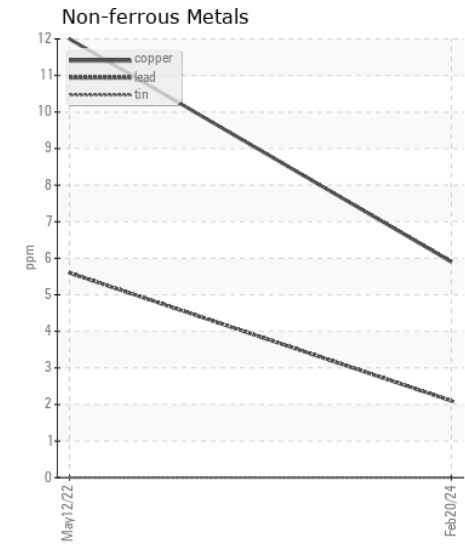
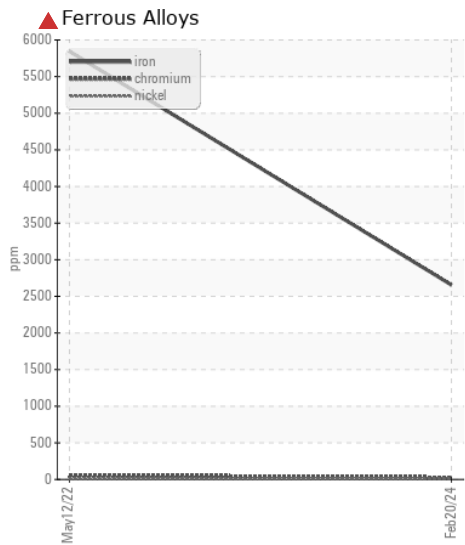
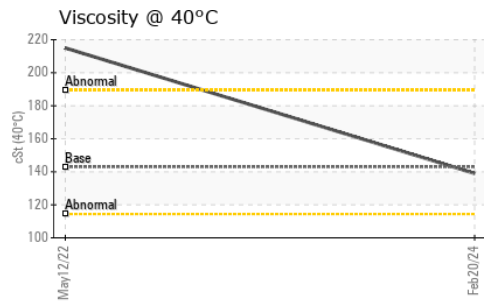
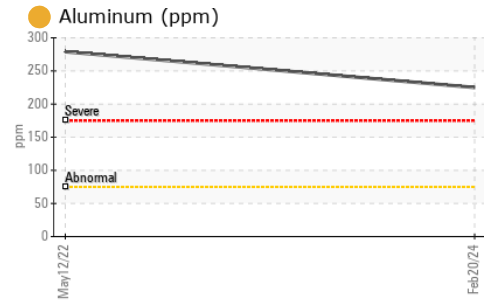
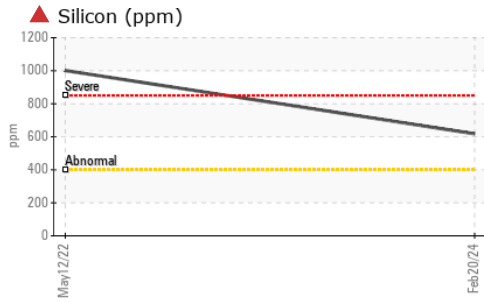
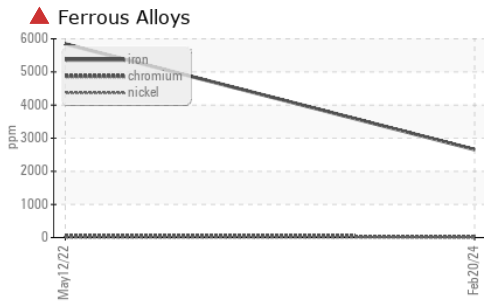
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>400	▲ 618	▲ 1001	---
Potassium	ppm	ASTM D5185m	>20	25	37	---
Water		WC Method	>0.2	NEG	NEG	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---

FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m	>170	19	30	---
Boron	ppm	ASTM D5185m	400	111	34	---
Barium	ppm	ASTM D5185m	200	2	0	---
Molybdenum	ppm	ASTM D5185m	12	4	8	---
Manganese	ppm	ASTM D5185m		20	41	---
Magnesium	ppm	ASTM D5185m	12	27	57	---
Calcium	ppm	ASTM D5185m	150	81	206	---
Phosphorus	ppm	ASTM D5185m	1650	682	410	---
Zinc	ppm	ASTM D5185m	125	44	128	---
Sulfur	ppm	ASTM D5185m	22500	18716	17637	---
Visc @ 40°C	cSt	ASTM D445	143	139	215	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : CL0005199
Lab Number : 06103912
Unique Number : 10902142
Test Package : CONST

Received : 28 Feb 2024
Tested : 29 Feb 2024
Diagnosed : 01 Mar 2024 - Don Baldrige

PURCELL CONSTRUCTION
 3100 HIGH RIDGE RD
 CHARLOTTE, NC
 US 28270
 Contact: BEN MILKE
 ben@purcellconst.com

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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F: