



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
[RS0036684]
 Machine Id
GROVE RT770 237556
 Component
Front Right Final Drive
 Fluid
COWIN 80W90 (--- GAL)

RECOMMENDATION

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		VCP430901	---	---
Sample Date		Client Info		10 Jan 2024	---	---
Machine Age	hrs	Client Info		211	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				ABNORMAL	---	---

WEAR

High concentration of visible metal present. All component wear rates are normal.

Iron	ppm	ASTM D5185m	>500	25	---	---
Chromium	ppm	ASTM D5185m	>10	<1	---	---
Nickel	ppm	ASTM D5185m	>10	0	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>25	2	---	---
Lead	ppm	ASTM D5185m	>25	2	---	---
Copper	ppm	ASTM D5185m	>50	17	---	---
Tin	ppm	ASTM D5185m	>10	<1	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	▲ HEAVY	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

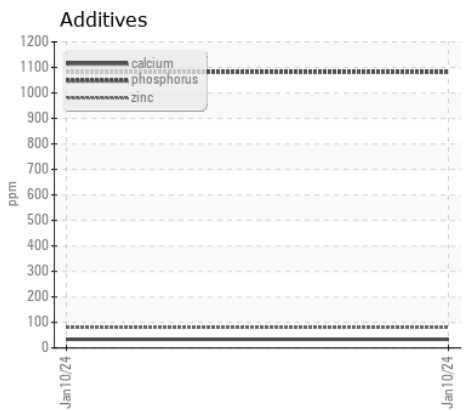
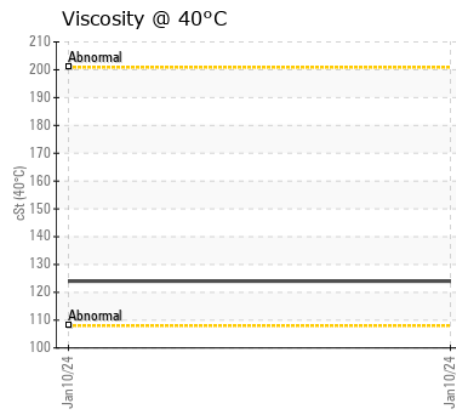
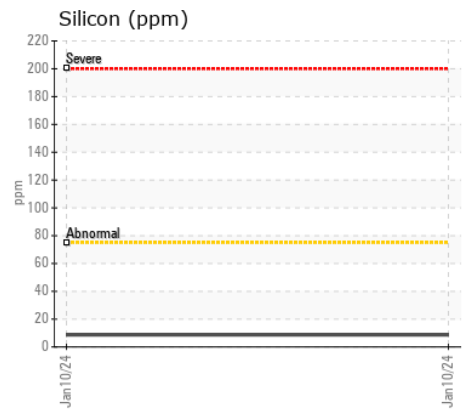
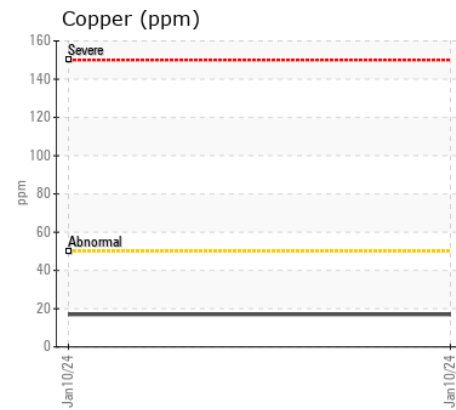
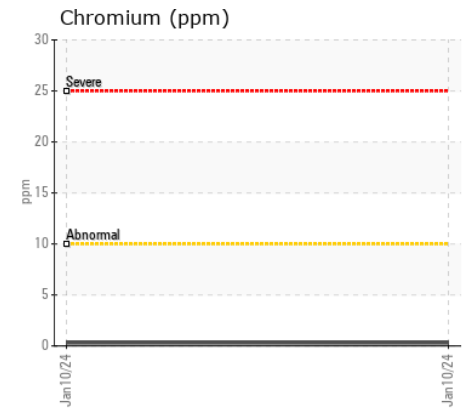
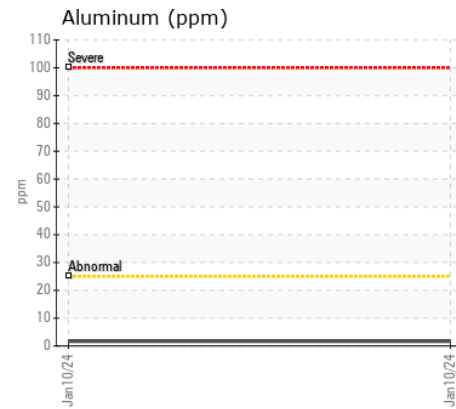
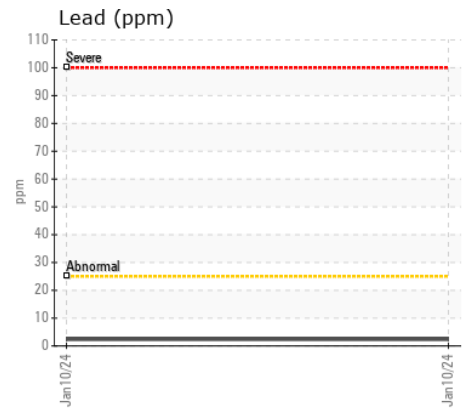
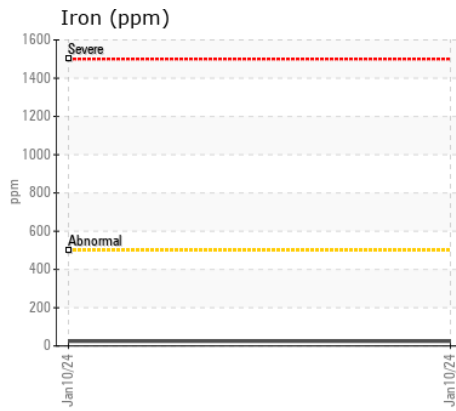
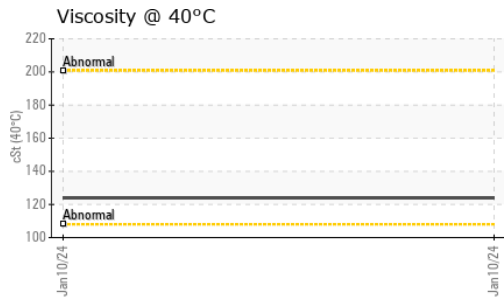
There is a high amount of visible silt present in the sample.

Silicon	ppm	ASTM D5185m	>75	9	---	---
Potassium	ppm	ASTM D5185m	>20	7	---	---
Water		WC Method	>0.2	NEG	---	---
Silt	scalar	*Visual	NONE	▲ HEAVY	---	---
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 condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		0	---	---
Boron	ppm	ASTM D5185m		151	---	---
Barium	ppm	ASTM D5185m		3	---	---
Molybdenum	ppm	ASTM D5185m		0	---	---
Manganese	ppm	ASTM D5185m		1	---	---
Magnesium	ppm	ASTM D5185m		1	---	---
Calcium	ppm	ASTM D5185m		34	---	---
Phosphorus	ppm	ASTM D5185m		1082	---	---
Zinc	ppm	ASTM D5185m		80	---	---
Sulfur	ppm	ASTM D5185m		25144	---	---
Visc @ 40°C	cSt	ASTM D445		124	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP430901 **Received** : 17 Jan 2024
Lab Number : 06063152 **Diagnosed** : 19 Jan 2024
Unique Number : 10834534 **Diagnostician** : Sean Felton
Test Package : MOB 1

COWIN EQUIPMENT COMPANY
 7950 PITTMAN AVE
 PENSACOLA, FL
 US 32534
 Contact: HUGH DOBBS
 HDOBBS@COWIN.COM
 T: (850)479-3004
 F: (850)474-1602

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)