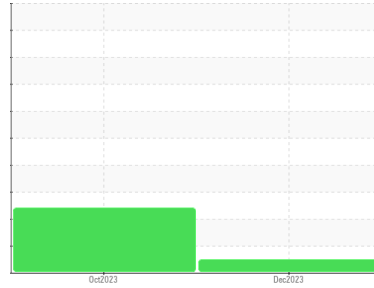




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id

3176

Component

Diesel Engine

Fluid

CHEVRON DELO 400 SAE 10W30 (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0540402	WC0540386	---
Sample Date	Client Info		08 Dec 2023	03 Oct 2023	---
Machine Age	mls	Client Info	96348	120819	---
Oil Age	mls	Client Info	49600	0	---
Oil Changed	Client Info		N/A	Changed	---
Sample Status			NORMAL	ABNORMAL	---

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	---
Water	WC Method	>0.2	NEG	NEG	---
Glycol	WC Method		NEG	NEG	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	45	33
Chromium	ppm	ASTM D5185m	>20	0	<1
Nickel	ppm	ASTM D5185m	>4	0	<1
Titanium	ppm	ASTM D5185m		0	<1
Silver	ppm	ASTM D5185m	>3	0	0
Aluminum	ppm	ASTM D5185m	>20	20	▲ 8
Lead	ppm	ASTM D5185m	>40	<1	<1
Copper	ppm	ASTM D5185m	>330	16	6
Tin	ppm	ASTM D5185m	>15	<1	1
Vanadium	ppm	ASTM D5185m		0	<1
Cadmium	ppm	ASTM D5185m		0	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		9	0
Barium	ppm	ASTM D5185m		0	0
Molybdenum	ppm	ASTM D5185m		2	2
Manganese	ppm	ASTM D5185m		<1	<1
Magnesium	ppm	ASTM D5185m		779	93
Calcium	ppm	ASTM D5185m		1411	2368
Phosphorus	ppm	ASTM D5185m	1260	678	913
Zinc	ppm	ASTM D5185m	1400	910	1144
Sulfur	ppm	ASTM D5185m		2880	3532

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	7	▲ 28
Sodium	ppm	ASTM D5185m		3	2
Potassium	ppm	ASTM D5185m	>20	35	8

INFRA-RED

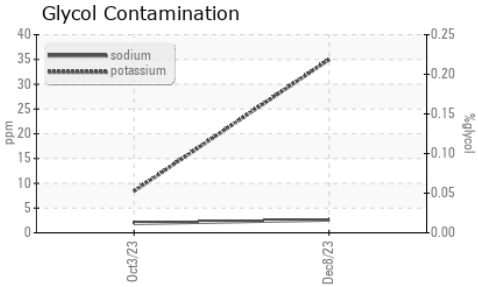
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.9	0.8
Nitration	Abs/cm	*ASTM D7624	>20	13.0	9.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	28.4	27.0

FLUID DEGRADATION

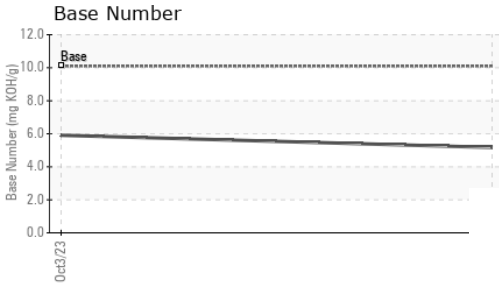
	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	23.6	17.6
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	5.17	5.91



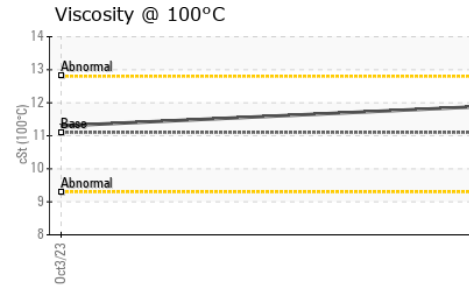
OIL ANALYSIS REPORT



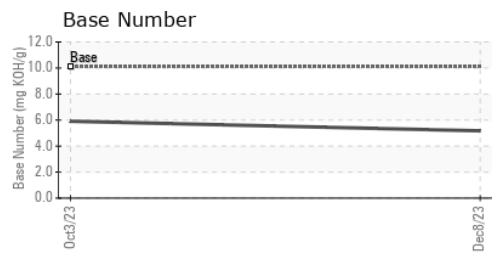
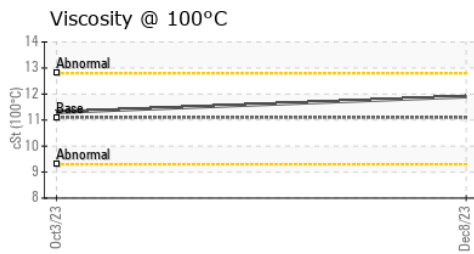
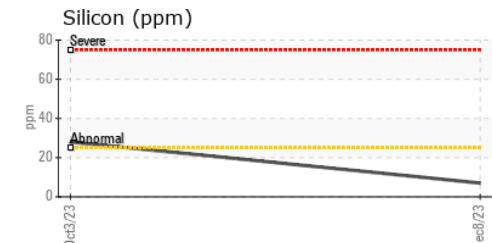
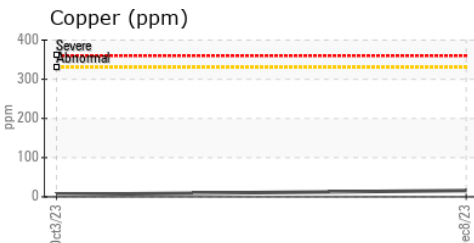
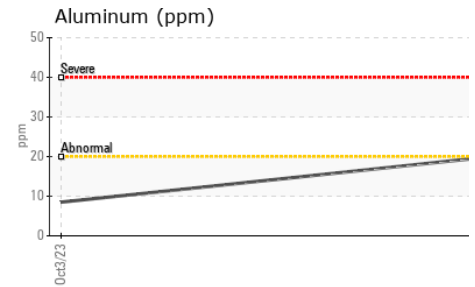
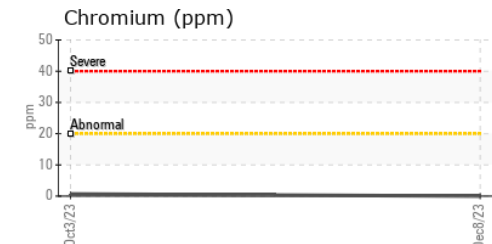
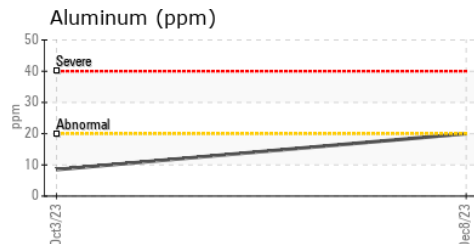
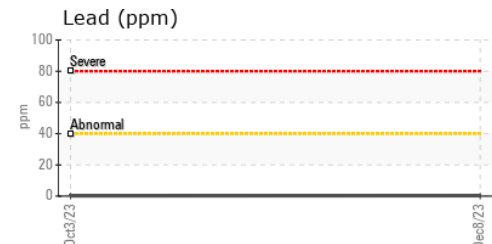
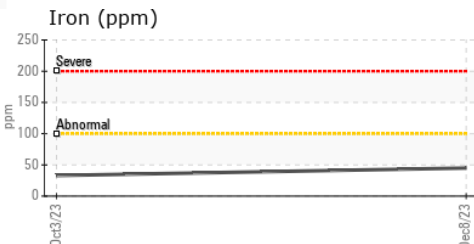
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar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



FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	11.1	11.9	11.3



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0540402 **Received** : 11 Jan 2024
Lab Number : 06058326 **Diagnosed** : 12 Jan 2024
Unique Number : 10829708 **Diagnostician** : Sean Felton
Test Package : MOB 2

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 US 98660
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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)