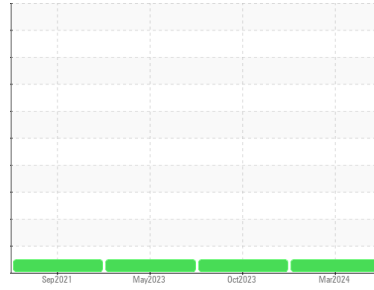




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**527028-733**

Component  
**Diesel Engine**

Fluid  
**CHEVRON DELO 400 XLE 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

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		<b>GFL0110966</b>	GFL0084487	GFL0073499
Sample Date	Client Info		<b>08 Mar 2024</b>	19 Oct 2023	16 May 2023
Machine Age	hrs	Client Info	<b>17558</b>	16891	16144
Oil Age	hrs	Client Info	<b>667</b>	747	600
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>33</b>	33	59
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	1	2
Nickel	ppm	ASTM D5185m >4	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m	<b>14</b>	13	4
Silver	ppm	ASTM D5185m >3	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m >20	<b>3</b>	6	7
Lead	ppm	ASTM D5185m >40	<b>8</b>	15	22
Copper	ppm	ASTM D5185m >330	<b>2</b>	2	2
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	1	1
Antimony	ppm	ASTM D5185m	<b>---</b>	---	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	<1	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>43</b>	26	33
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>57</b>	47	92
Manganese	ppm	ASTM D5185m	<b>0</b>	1	1
Magnesium	ppm	ASTM D5185m	<b>700</b>	710	679
Calcium	ppm	ASTM D5185m	<b>1531</b>	1487	1751
Phosphorus	ppm	ASTM D5185m 760	<b>785</b>	663	859
Zinc	ppm	ASTM D5185m 830	<b>930</b>	851	1070
Sulfur	ppm	ASTM D5185m 2770	<b>3199</b>	2703	3708

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>8</b>	9	10
Sodium	ppm	ASTM D5185m	<b>4</b>	7	10
Potassium	ppm	ASTM D5185m >20	<b>10</b>	11	6

## INFRA-RED

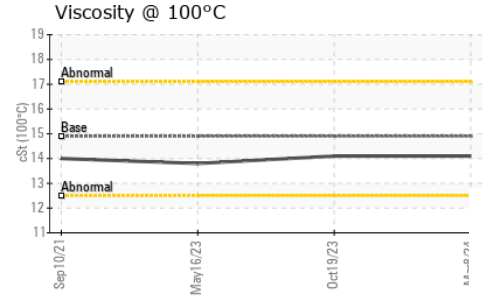
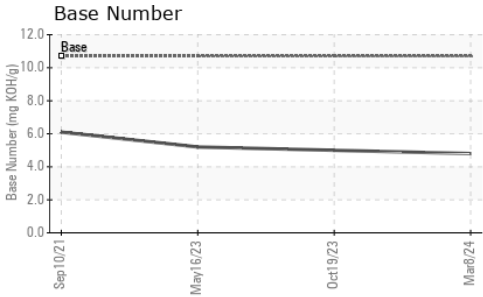
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.7</b>	0.6	1.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>11.9</b>	12.6	13.5
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>26.7</b>	25.9	29.1

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>21.1</b>	20.3	23.6
Base Number (BN)	mg KOH/g	ASTM D2896 10.7	<b>4.8</b>	5.0	5.2



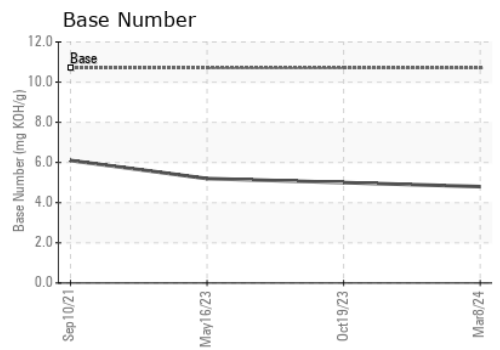
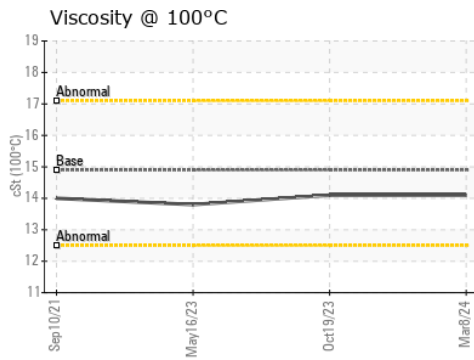
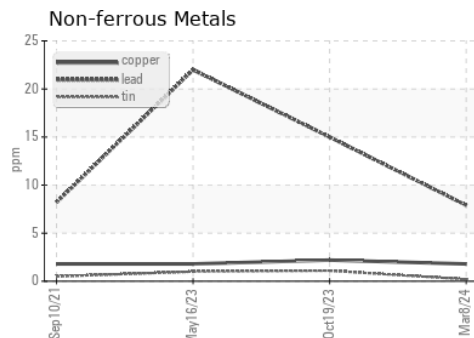
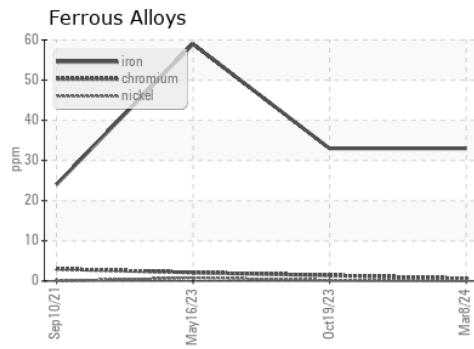
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
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
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.9	14.1	13.8

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0110966 **Received** : 13 Mar 2024  
**Lab Number** : 06116760 **Tested** : 14 Mar 2024  
**Unique Number** : 10925593 **Diagnosed** : 14 Mar 2024 - Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 629 - Northern A1**  
 3947 US 131 N  
 Kalkaska, MI  
 US 49646-8428  
**Contact: MITCH HERSHBERGER**

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: