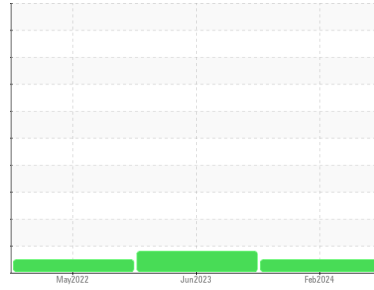




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**127010-639**

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>GFL0096080</b>	GFL0073490	GFL0053021
Sample Date	Client Info		<b>16 Feb 2024</b>	13 Jun 2023	19 May 2022
Machine Age	hrs	Client Info	<b>19803</b>	0	18482
Oil Age	hrs	Client Info	<b>1321</b>	604	722
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	ABNORMAL	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>31</b>	52	45
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	<b>12</b>	2	<1
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>2</b>	4	6
Lead	ppm	ASTM D5185m >40	<b>26</b>	▲ 122	9
Copper	ppm	ASTM D5185m >330	<b>1</b>	3	1
Tin	ppm	ASTM D5185m >15	<b>0</b>	2	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>84</b>	170	252
Barium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>60</b>	112	104
Manganese	ppm	ASTM D5185m	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	<b>653</b>	629	582
Calcium	ppm	ASTM D5185m	<b>1375</b>	1569	1473
Phosphorus	ppm	ASTM D5185m 760	<b>671</b>	736	677
Zinc	ppm	ASTM D5185m 830	<b>770</b>	881	796
Sulfur	ppm	ASTM D5185m 2770	<b>2866</b>	3035	2185

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>7</b>	7	6
Sodium	ppm	ASTM D5185m	<b>12</b>	36	28
Potassium	ppm	ASTM D5185m >20	<b>18</b>	22	23

## INFRA-RED

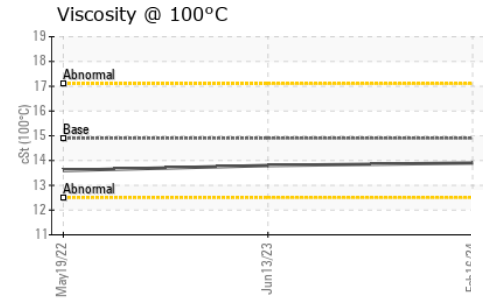
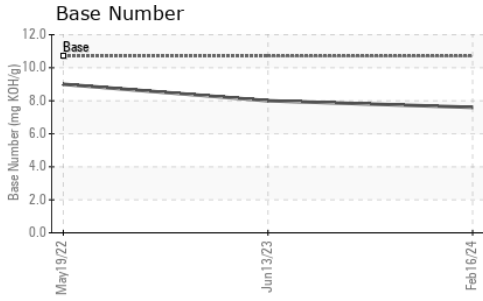
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>1.7</b>	1.7	1.3
Nitration	Abs/cm	*ASTM D7624 >20	<b>10.3</b>	10.1	9.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>22.1</b>	25.0	24.0

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.1</b>	17.5	17.3
Base Number (BN)	mg KOH/g	ASTM D2896 10.7	<b>7.6</b>	8.0	9.0



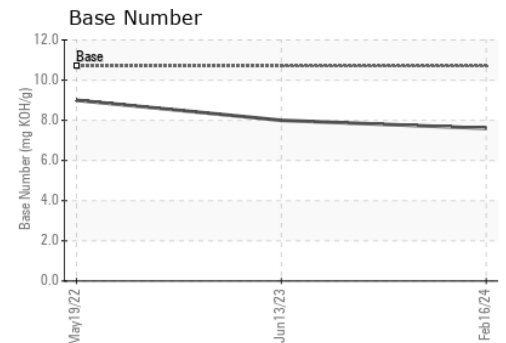
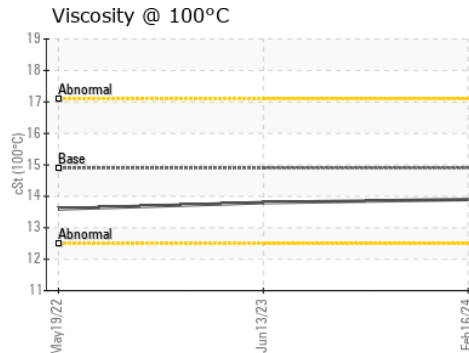
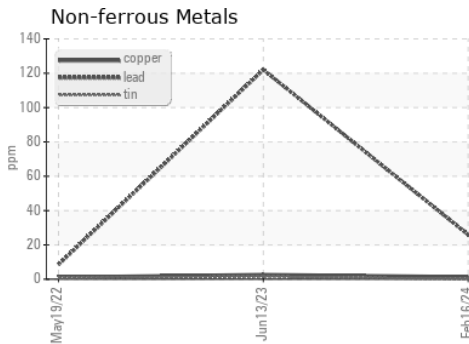
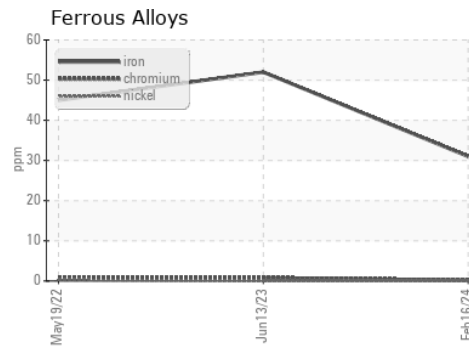
# OIL ANALYSIS REPORT



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	13.9	13.8

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0096080  
**Lab Number** : 06095274  
**Unique Number** : 10888127  
**Test Package** : FLEET

**Received** : 21 Feb 2024  
**Tested** : 22 Feb 2024  
**Diagnosed** : 22 Feb 2024 - Wes Davis

**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)

T: (231)624-0848

F: