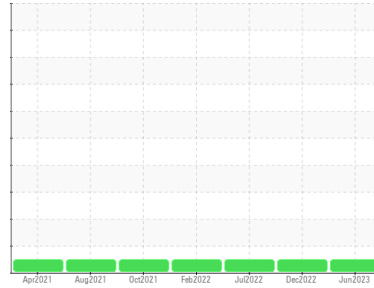




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**429023-1256**

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	history 1	history 2
Sample Number	Client Info		<b>GFL0064374</b>	GFL0064344	GFL0049481
Sample Date	Client Info		<b>26 Jun 2023</b>	26 Dec 2022	19 Jul 2022
Machine Age	hrs	Client Info	<b>9814</b>	8739	8070
Oil Age	hrs	Client Info	<b>624</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	Not Changd	Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history 1	history 2
Fuel	WC Method	>2.0	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >100	<b>21</b>	24	26
Chromium	ppm	ASTM D5185m >20	<b>1</b>	1	2
Nickel	ppm	ASTM D5185m >4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	<b>4</b>	<1	<1
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>1</b>	3	4
Lead	ppm	ASTM D5185m >40	<b>3</b>	2	10
Copper	ppm	ASTM D5185m >330	<b>&lt;1</b>	1	1
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	2
Antimony	ppm	ASTM D5185m	<b>---</b>	---	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m	<b>154</b>	89	118
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>102</b>	109	115
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	<b>611</b>	378	619
Calcium	ppm	ASTM D5185m	<b>1555</b>	1781	1561
Phosphorus	ppm	ASTM D5185m 760	<b>679</b>	770	678
Zinc	ppm	ASTM D5185m 830	<b>859</b>	954	849
Sulfur	ppm	ASTM D5185m 2770	<b>2771</b>	3308	2902

## CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >25	<b>6</b>	6	6
Sodium	ppm	ASTM D5185m	<b>5</b>	4	3
Potassium	ppm	ASTM D5185m >20	<b>3</b>	4	1

## INFRA-RED

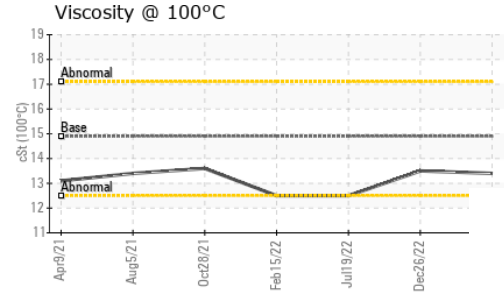
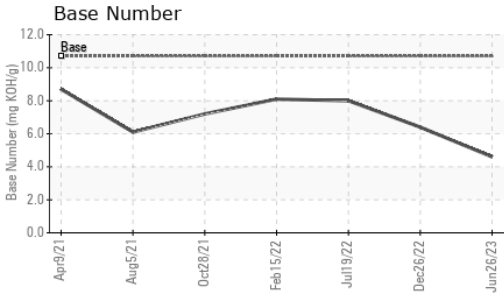
	method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844 >3	<b>0.6</b>	0.6	1
Nitration	Abs/cm	*ASTM D7624 >20	<b>11.6</b>	12.1	13.5
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>28.6</b>	24.0	28.5

## FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>25.1</b>	19.2	25.8
Base Number (BN)	mg KOH/g	ASTM D2896 10.7	<b>4.6</b>	6.4	8.0



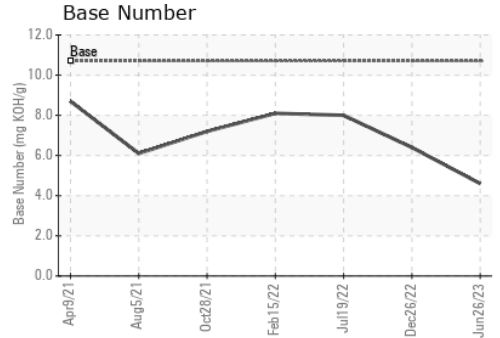
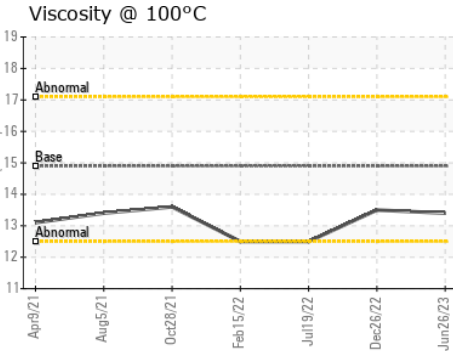
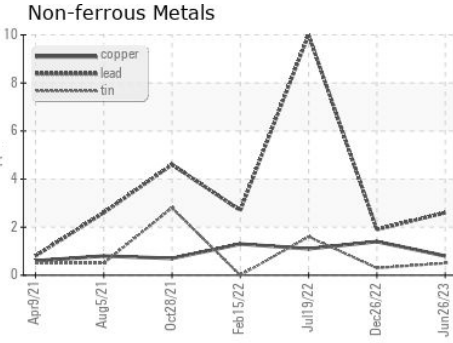
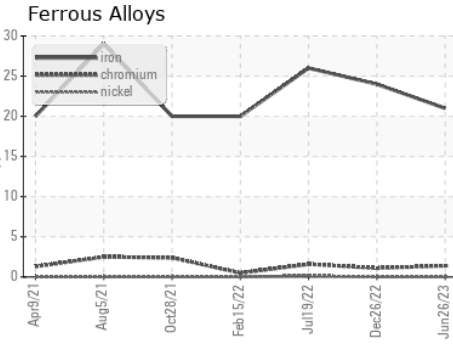
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history 1	history 2
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	history 1	history 2	
Visc @ 100°C	cSt	ASTM D445	14.9	13.4	13.5	12.5

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0064374 **Received** : 30 Jun 2023  
**Lab Number** : 05888213 **Diagnosed** : 04 Jul 2023  
**Unique Number** : 10538696 **Diagnostician** : Don Baldrige  
**Test Package** : FLEET

**GFL Environmental - 624 - Elmira Hauling**  
 10164 M-32  
 Elmira, MI  
 US 49730  
 Contact: ANDY GROBASKI  
 andyg@americanwaste.org  
 T: (989)370-2941  
 F:

Certificate L2367  
 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)