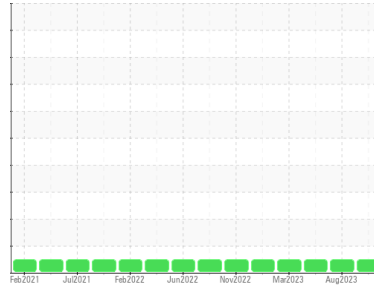




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**529014-1211**

Component  
**Diesel Engine**

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

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

Metal levels are typical for a new component breaking in.

### 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>GFL0084486</b>	GFL0084517	GFL0073488
Sample Date	Client Info		<b>19 Oct 2023</b>	14 Aug 2023	20 Jun 2023
Machine Age	hrs	Client Info	<b>16606</b>	16040	15480
Oil Age	hrs	Client Info	<b>566</b>	560	612
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
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>34</b>	22	24
Chromium	ppm	ASTM D5185m >20	<b>1</b>	1	1
Nickel	ppm	ASTM D5185m >4	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m	<b>13</b>	14	15
Silver	ppm	ASTM D5185m >3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>6</b>	3	3
Lead	ppm	ASTM D5185m >40	<b>15</b>	3	3
Copper	ppm	ASTM D5185m >330	<b>2</b>	<1	<1
Tin	ppm	ASTM D5185m >15	<b>1</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	<1
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>26</b>	38	42
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>48</b>	48	40
Manganese	ppm	ASTM D5185m	<b>1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	<b>723</b>	760	743
Calcium	ppm	ASTM D5185m	<b>1504</b>	1653	1702
Phosphorus	ppm	ASTM D5185m 760	<b>678</b>	712	707
Zinc	ppm	ASTM D5185m 830	<b>863</b>	855	841
Sulfur	ppm	ASTM D5185m 2770	<b>2735</b>	3467	3551

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>9</b>	6	5
Sodium	ppm	ASTM D5185m	<b>7</b>	6	6
Potassium	ppm	ASTM D5185m >20	<b>11</b>	11	6

## INFRA-RED

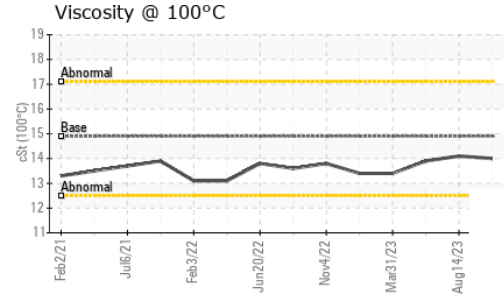
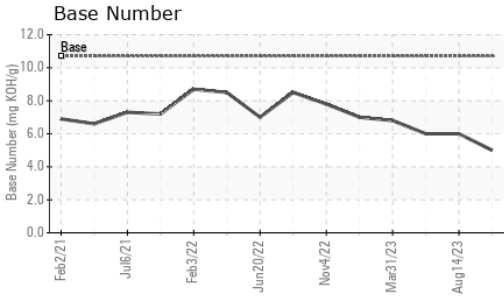
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.7</b>	0.8	0.8
Nitration	Abs/cm	*ASTM D7624 >20	<b>12.7</b>	11.0	11.4
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>26.2</b>	23.7	25.4

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>20.5</b>	18.7	21.5
Base Number (BN)	mg KOH/g	ASTM D2896 10.7	<b>5.0</b>	6.0	6.0



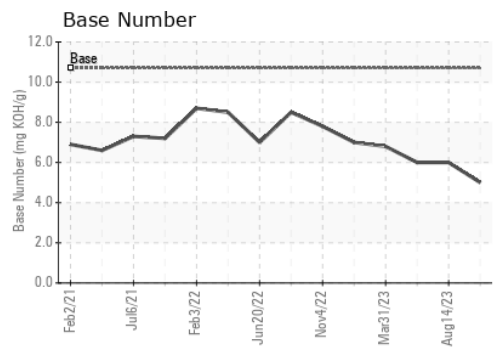
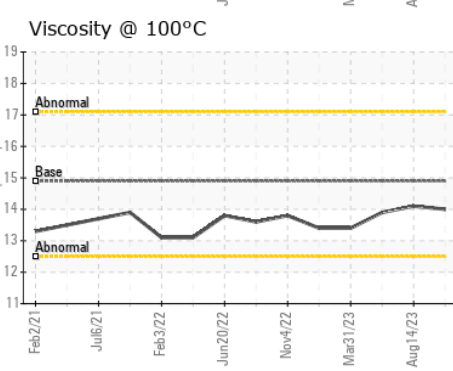
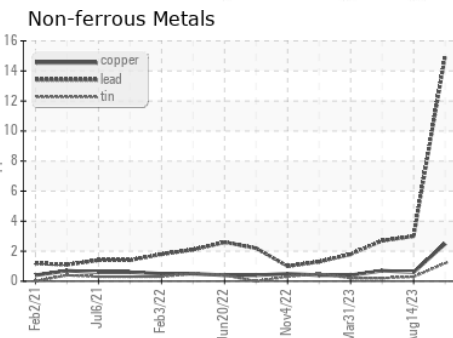
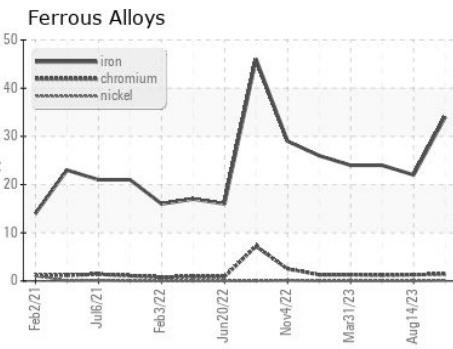
# OIL ANALYSIS REPORT



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	<b>14.0</b>	14.1	13.9

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0084486 **Received** : 23 Oct 2023  
**Lab Number** : **05986008** **Diagnosed** : 23 Oct 2023  
**Unique Number** : 10708670 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

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

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)

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