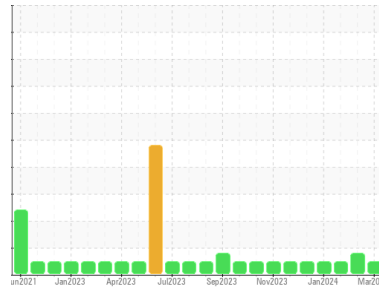




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**920056-102721**

Component  
**Diesel Engine**

Fluid  
**CHEVRON DELO 400 MULTIGRADE 15W40 (--- LTR)**

## 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>GFL0103462</b>	GFL0103455	GFL0103453
Sample Date	Client Info		<b>29 Mar 2024</b>	08 Mar 2024	29 Feb 2024
Machine Age	hrs	Client Info	<b>6373</b>	6269	6251
Oil Age	hrs	Client Info	<b>1040</b>	936	918
Oil Changed	Client Info		<b>Not Changed</b>	Not Changd	N/A
Sample Status			<b>NORMAL</b>	ATTENTION	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 >110	<b>8</b>	4	12
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>4</b>	2	5
Lead	ppm	ASTM D5185m >45	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m >85	<b>2</b>	47	4
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 151	<b>27</b>	25	38
Barium	ppm	ASTM D5185m 0.4	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 250	<b>75</b>	71	75
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185m 0	<b>864</b>	834	920
Calcium	ppm	ASTM D5185m 2046	<b>1109</b>	1071	1223
Phosphorus	ppm	ASTM D5185m 1043	<b>921</b>	944	1010
Zinc	ppm	ASTM D5185m 943	<b>1130</b>	1120	1158
Sulfur	ppm	ASTM D5185m 5012	<b>2959</b>	3096	3070

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >30	<b>5</b>	4	6
Sodium	ppm	ASTM D5185m	<b>2</b>	<1	6
Potassium	ppm	ASTM D5185m >20	<b>2</b>	4	1

## INFRA-RED

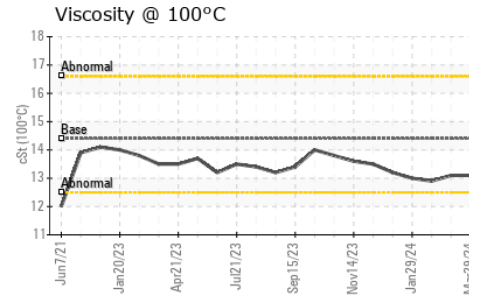
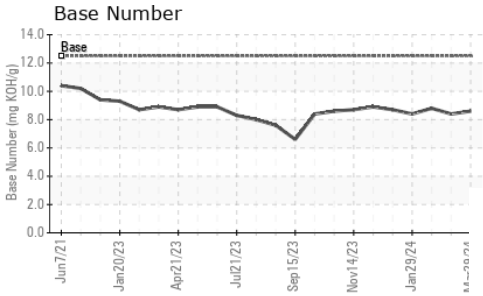
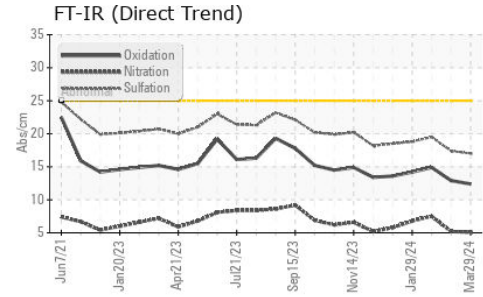
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.1</b>	0.1	0.2
Nitration	Abs/cm	*ASTM D7624 >20	<b>5.1</b>	5.2	7.5
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>17.0</b>	17.4	19.5

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>12.4</b>	12.9	14.9
Base Number (BN)	mg KOH/g	ASTM D2896 12.5	<b>8.6</b>	8.4	8.8



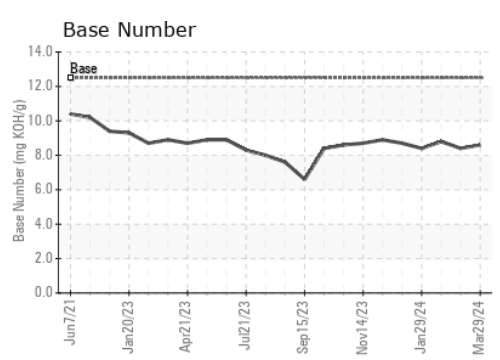
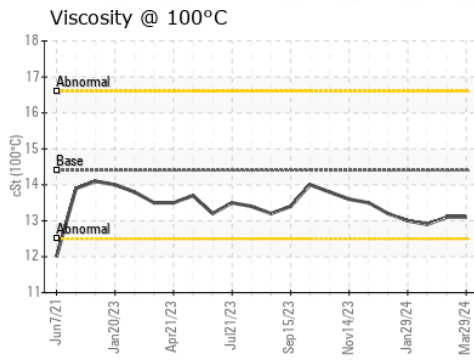
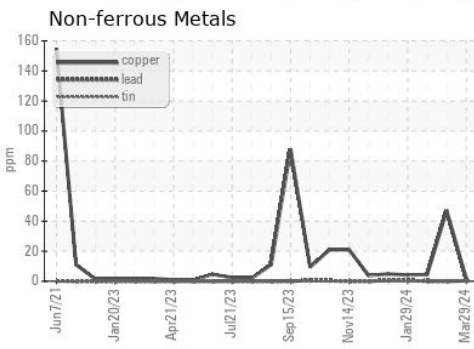
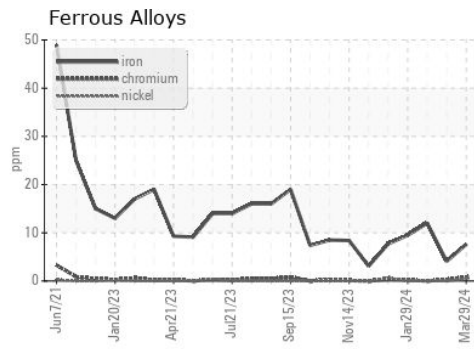
# OIL ANALYSIS REPORT



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	14.4	13.1	12.9

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0103462      **Received** : 08 Apr 2024  
**Lab Number** : 06140927      **Tested** : 08 Apr 2024  
**Unique Number** : 10965735      **Diagnosed** : 10 Apr 2024 - Jonathan Hester  
**Test Package** : FLEET

**GFL Environmental - 180 - Tuscaloosa Hauling**  
 4701 12TH ST NE  
 Tuscaloosa, AL 35404  
 Contact: FREDERICK ROGERS  
 fred.rogers@gflenv.com

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)