



# PROBLEM SUMMARY

Sample Rating Trend

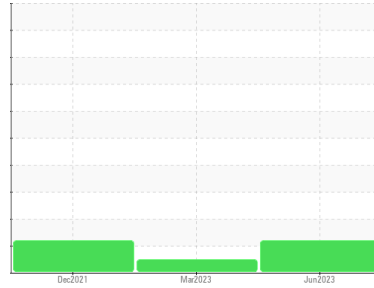
FUEL



Machine Id  
**255001-838**

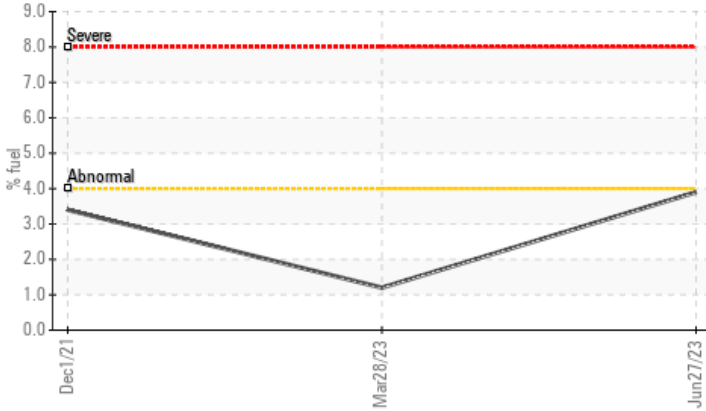
Component  
**Gasoline Engine**

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

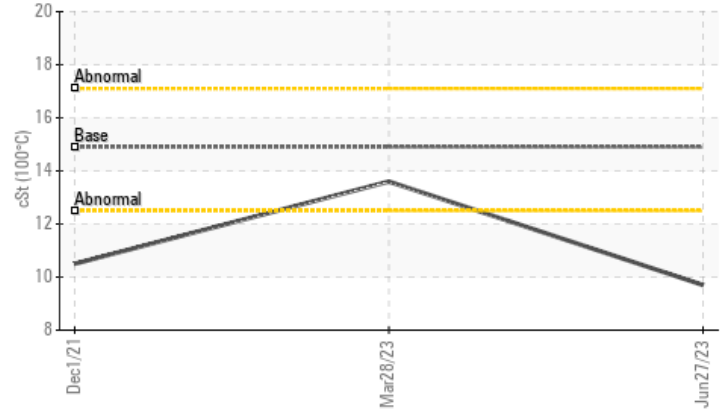


## COMPONENT CONDITION SUMMARY

### Fuel Dilution



### Viscosity @ 100°C



## RECOMMENDATION

We advise that you check the fuel injection system. Resample at the next service interval to monitor. ( Customer Sample Comment: Actual mileage today is 171656 should be 2067 miles since last sample )

## PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	NORMAL	ABNORMAL
Fuel	%	ASTM D3524	>4.0	▲ 3.9	1.2	▲ 3.4
Visc @ 100°C	cSt	ASTM D445	14.9	▲ 9.7	13.6	▲ 10.5

Customer Id: GFL625  
 Sample No.: GFL0077496  
 Lab Number: 05887285  
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Jonathan Hester +1 919-379-4092 x4092  
[jhester@wearcheckusa.com](mailto:jhester@wearcheckusa.com)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Check Fuel/injector System	---	---	?	We advise that you check the fuel injection system.

## HISTORICAL DIAGNOSIS

**28 Mar 2023 Diag: Don Baldrige**

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. Fuel content negligible. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



**01 Dec 2021 Diag: Don Baldrige**

FUEL



We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. Light fuel dilution occurring. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

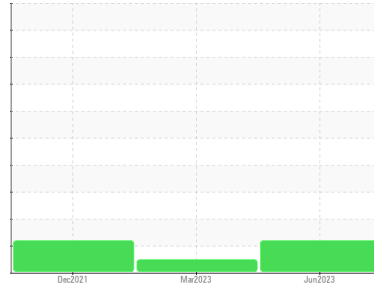
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id  
**255001-838**

Component  
**Gasoline Engine**

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

## DIAGNOSIS

### Recommendation

We advise that you check the fuel injection system. Resample at the next service interval to monitor. ( Customer Sample Comment: Actual mileage today is 171656 should be 2067 miles since last sample )

### Wear

All component wear rates are normal.

### Contamination

There is a moderate amount of fuel present in the oil.

### Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

## SAMPLE INFORMATION

method	limit/base	current	history 1	history 2
Sample Number	Client Info	<b>GFL0077496</b>	GFL0064446	GFL0031806
Sample Date	Client Info	<b>27 Jun 2023</b>	28 Mar 2023	01 Dec 2021
Machine Age	mls	<b>171656</b>	168363	191234
Oil Age	mls	<b>2067</b>	0	0
Oil Changed	Client Info	<b>Not Chngd</b>	Changed	Changed
Sample Status		<b>ABNORMAL</b>	NORMAL	ABNORMAL

## CONTAMINATION

method	limit/base	current	history 1	history 2
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history 1	history 2
Iron	ppm ASTM D5185m >150	<b>9</b>	34	17
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	1	<1
Nickel	ppm ASTM D5185m >5	<b>&lt;1</b>	0	<1
Titanium	ppm ASTM D5185m	<b>0</b>	0	<1
Silver	ppm ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >40	<b>&lt;1</b>	4	2
Lead	ppm ASTM D5185m >50	<b>0</b>	0	0
Copper	ppm ASTM D5185m >155	<b>&lt;1</b>	0	<1
Tin	ppm ASTM D5185m >10	<b>0</b>	0	0
Antimony	ppm ASTM D5185m	<b>---</b>	---	0
Vanadium	ppm ASTM D5185m	<b>&lt;1</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>68</b>	3	18
Barium	ppm ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m	<b>67</b>	74	90
Manganese	ppm ASTM D5185m	<b>&lt;1</b>	1	1
Magnesium	ppm ASTM D5185m	<b>499</b>	933	584
Calcium	ppm ASTM D5185m	<b>865</b>	1136	1180
Phosphorus	ppm ASTM D5185m 760	<b>598</b>	924	798
Zinc	ppm ASTM D5185m 830	<b>696</b>	1235	862
Sulfur	ppm ASTM D5185m 2770	<b>2497</b>	3401	2530

## CONTAMINANTS

method	limit/base	current	history 1	history 2
Silicon	ppm ASTM D5185m >30	<b>8</b>	10	9
Sodium	ppm ASTM D5185m >400	<b>3</b>	5	6
Potassium	ppm ASTM D5185m >20	<b>2</b>	3	<1
Fuel	% ASTM D3524 >4.0	<b>▲ 3.9</b>	1.2	<b>▲ 3.4</b>

## INFRA-RED

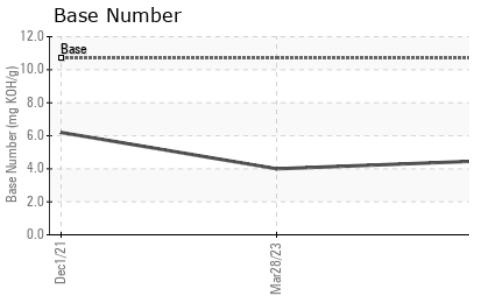
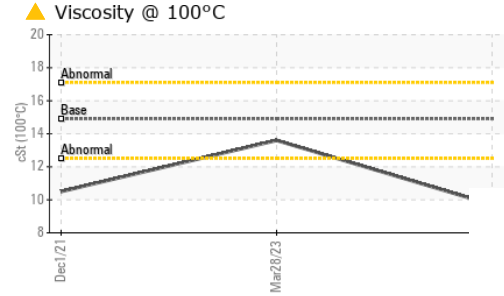
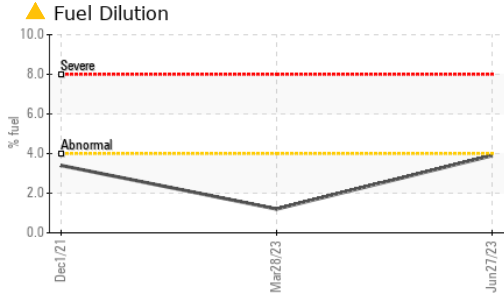
method	limit/base	current	history 1	history 2
Soot %	% *ASTM D7844	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm *ASTM D7624 >20	<b>9.7</b>	15.4	13.4
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>20.3</b>	29.1	27.1

## FLUID DEGRADATION

method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>14.4</b>	27.8	22.5
Base Number (BN)	mg KOH/g ASTM D2896 10.7	<b>4.5</b>	4.0	6.2



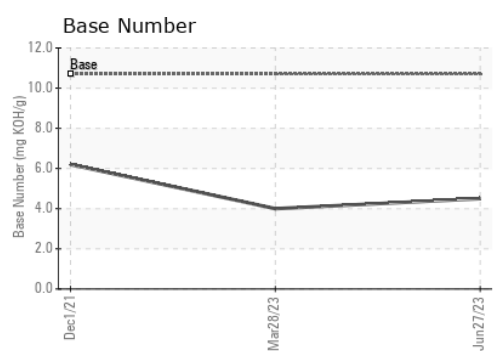
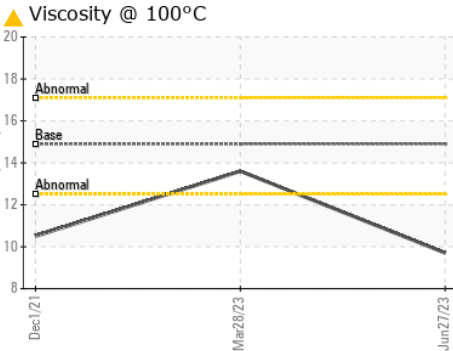
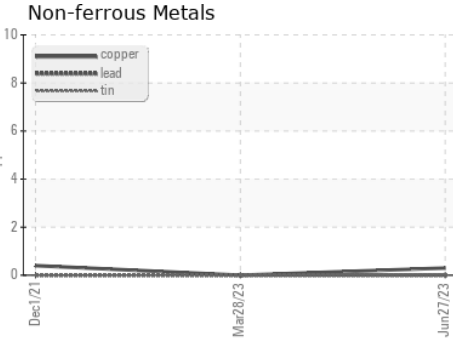
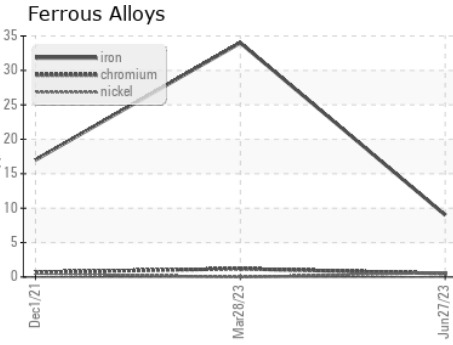
# OIL ANALYSIS REPORT



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 ▲ 9.7	13.6	▲ 10.5

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0077496 **Received** : 29 Jun 2023  
**Lab Number** : 05887285 **Diagnosed** : 03 Jul 2023  
**Unique Number** : 10537768 **Diagnostician** : Jonathan Hester  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

**GFL Environmental - 625 - Harrison Hauling**  
 4102 Industrial Pkwy  
 Harrison, MI  
 US 48625  
 Contact: Glenda Standen  
 gstanden@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)

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F: