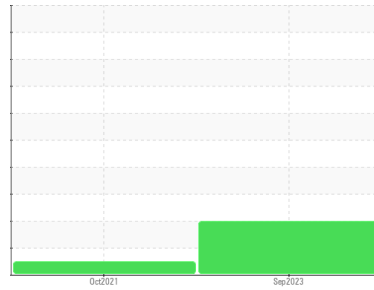




# PROBLEM SUMMARY

Sample Rating Trend



DIRT



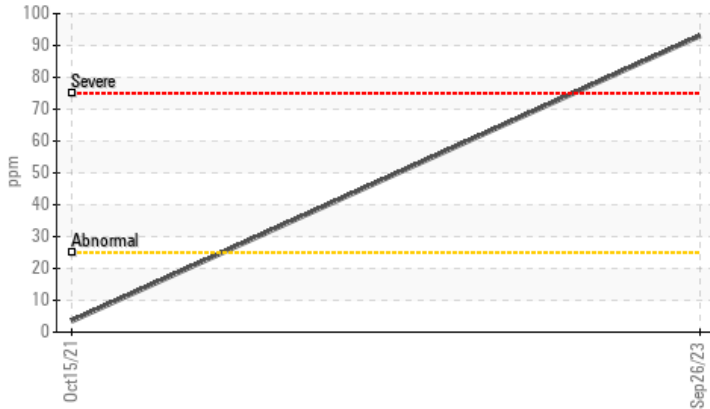
Machine Id  
**AUTOCAR 820013-101280**

Component  
**Diesel Engine**

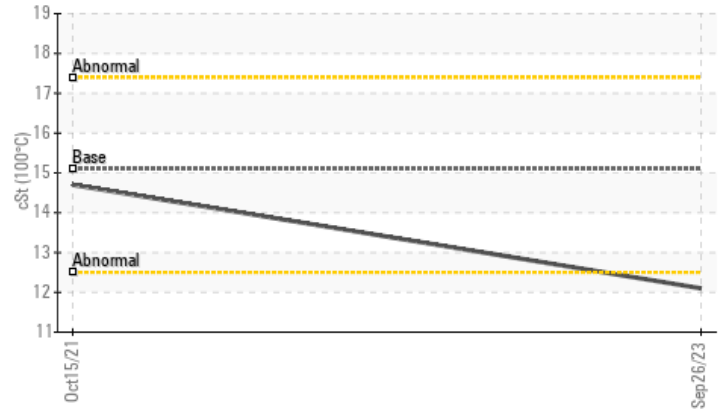
Fluid  
**CHEVRON DELO 400 MULTIGRADE 15W40 (--- GAL)**

## COMPONENT CONDITION SUMMARY

▲ Silicon (ppm)



▲ Viscosity @ 100°C



## RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

Sample Status		ABNORMAL	NORMAL	---	
Silicon	ppm	ASTM D5185m >25	▲ 93	3	---
Visc @ 100°C	cSt	ASTM D445 15.1	▲ 12.1	14.7	---

Customer Id: GFL842  
Sample No.: GFL0083725  
Lab Number: 05972136  
Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:  
Sean Felton +1 919-379-4092  
[sfelton@wearcheckusa.com](mailto:sfelton@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 Dirt Access	---	---	?	We advise that you check the air filter, air induction system, and any areas where dirt may enter the component.

## HISTORICAL DIAGNOSIS

15 Oct 2021 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. 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.

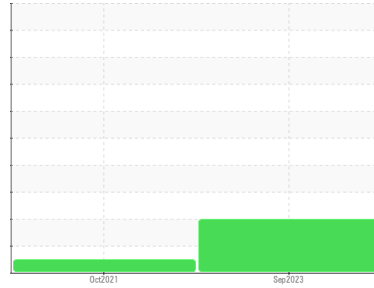
view report





# OIL ANALYSIS REPORT

## Sample Rating Trend



DIRT



Machine Id  
**AUTOCAR 820013-101280**

Component  
**Diesel Engine**

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

### DIAGNOSIS

#### Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

Elemental level of silicon (Si) above normal indicating ingress of seal material.

#### Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

### SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>GFL0083725</b>	GFL0036736	---
Sample Date	Client Info	<b>26 Sep 2023</b>	15 Oct 2021	---
Machine Age	hrs	<b>0</b>	6312	---
Oil Age	hrs	<b>0</b>	450	---
Oil Changed	Client Info	<b>Changed</b>	Changed	---
Sample Status		<b>ABNORMAL</b>	NORMAL	---

### CONTAMINATION

method	limit/base	current	history1	history2
Glycol	WC Method	<b>NEG</b>	NEG	---

### WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >100	<b>20</b>	11	---
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185m >4	<b>&lt;1</b>	0	---
Titanium	ppm	ASTM D5185m	<b>0</b>	0	---
Silver	ppm	ASTM D5185m >3	<b>0</b>	<1	---
Aluminum	ppm	ASTM D5185m >20	<b>&lt;1</b>	1	---
Lead	ppm	ASTM D5185m >40	<b>3</b>	<1	---
Copper	ppm	ASTM D5185m >330	<b>2</b>	<1	---
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	---
Antimony	ppm	ASTM D5185m	<b>---</b>	0	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	---

### ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	<b>11</b>	20	---
Barium	ppm	ASTM D5185m	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	<b>63</b>	63	---
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m	<b>756</b>	888	---
Calcium	ppm	ASTM D5185m	<b>1212</b>	1290	---
Phosphorus	ppm	ASTM D5185m 1360	<b>942</b>	1123	---
Zinc	ppm	ASTM D5185m 1480	<b>1152</b>	1199	---
Sulfur	ppm	ASTM D5185m	<b>3226</b>	2844	---

### CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	<b>▲ 93</b>	3	---
Sodium	ppm	ASTM D5185m	<b>1</b>	<1	---
Potassium	ppm	ASTM D5185m >20	<b>8</b>	1	---
Fuel	%	ASTM D3524 >5	<b>1.1</b>	<1.0	---

### INFRA-RED

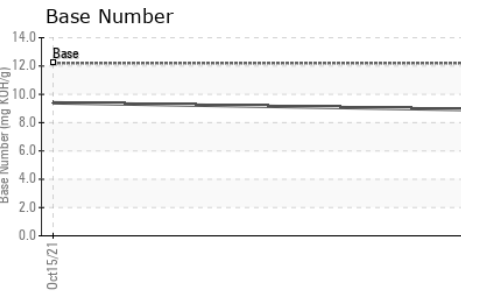
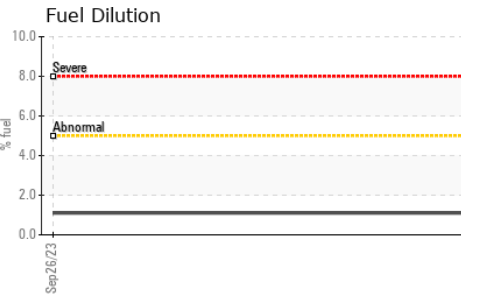
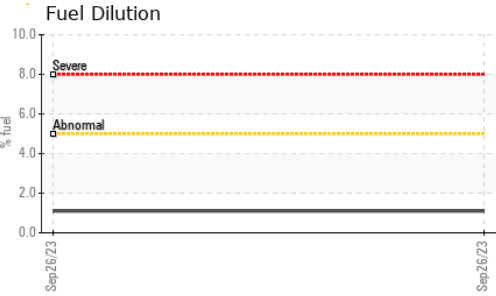
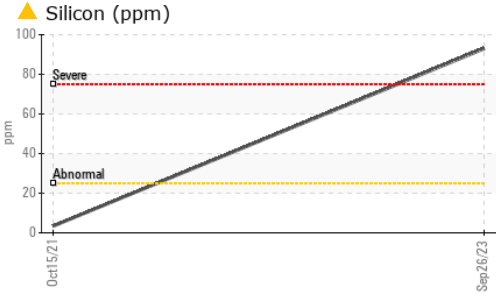
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844 >3	<b>0.7</b>	0.2	---
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.0</b>	11.4	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.4</b>	26.3	---

### FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.7</b>	25.4	---
Base Number (BN)	mg KOH/g	ASTM D2896 12.2	<b>8.9</b>	9.4	---



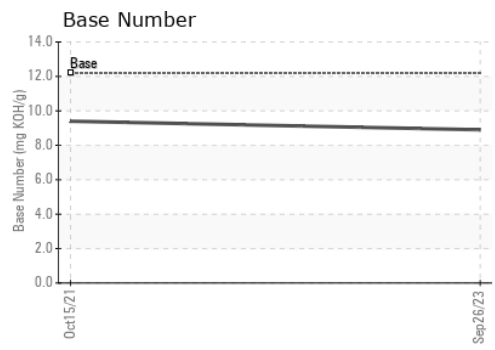
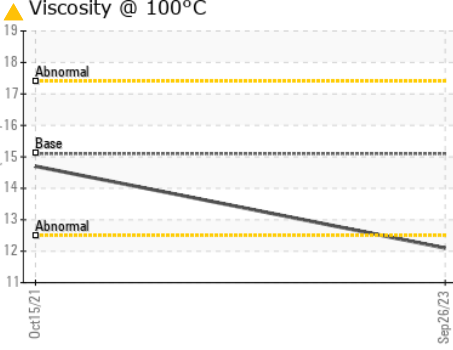
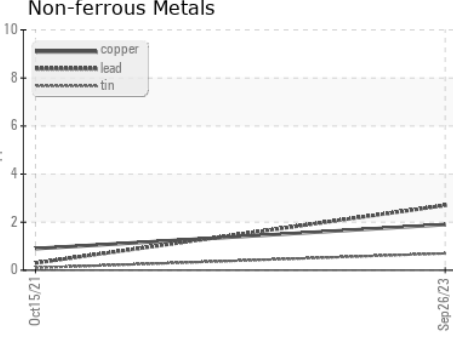
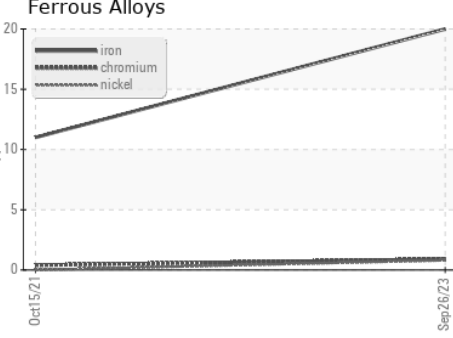
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1 ▲ 12.1	14.7	---

### GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0083725 **Received** : 06 Oct 2023  
**Lab Number** : 05972136 **Diagnosed** : 11 Oct 2023  
**Unique Number** : 10684086 **Diagnostician** : Sean Felton  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

**GFL Environmental - 842 - Lewisport Hauling**  
 4995 US Highway 60 West  
 Lewisport, KY  
 US 42351  
 Contact: AUSTIN FRALIEUX  
 afralieux@gflenv.com  
 T: (270)625-6807  
 F:

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)