



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**229012-868**  
 Component  
**Diesel Engine**  
 Fluid  
**CHEVRON DELO 400 XLE 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0122750</b>	GFL0037087	GFL0027901
Sample Date		Client Info		<b>11 Jul 2024</b>	05 Aug 2022	14 Jun 2021
Machine Age	hrs	Client Info		<b>1208</b>	568	0
Oil Age	hrs	Client Info		<b>640</b>	568	400
Filter Age	hrs	Client Info		<b>640</b>	568	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	<b>26</b>	18	45
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	3
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>4</b>	7	12
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	3	<1
Lead	ppm	ASTM D5185m	>40	<b>2</b>	3	12
Copper	ppm	ASTM D5185m	>330	<b>4</b>	4	7
Tin	ppm	ASTM D5185m	>15	<b>0</b>	1	2
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

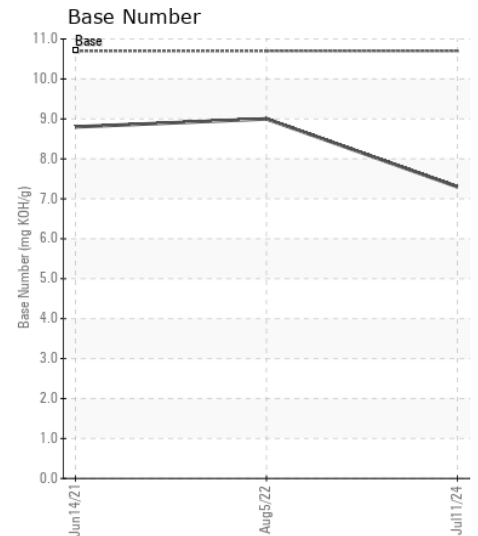
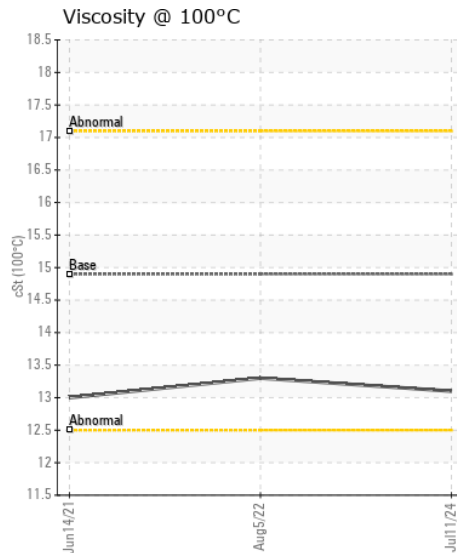
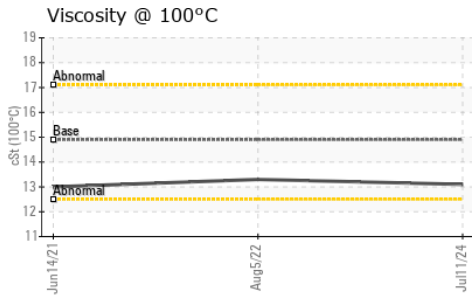
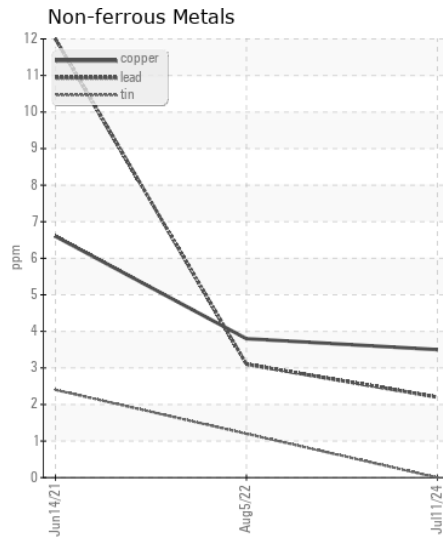
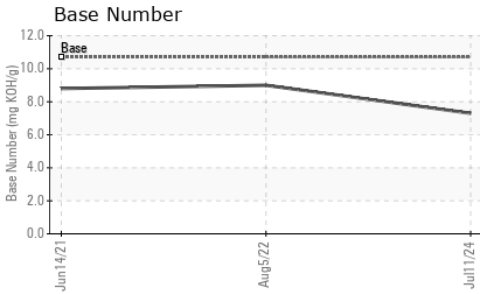
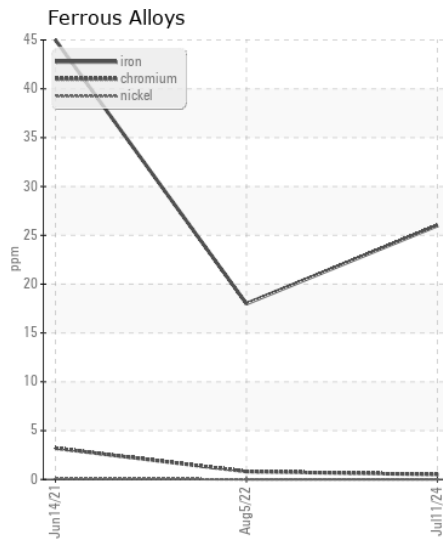
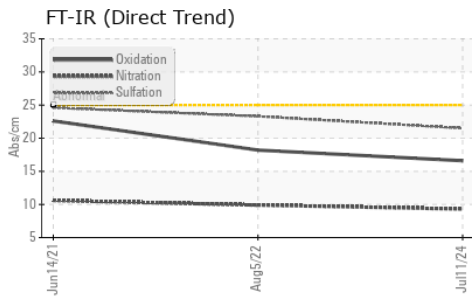
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	7	27
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	3	9
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
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	0.5	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.3</b>	9.9	10.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.5</b>	23.3	24.6
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

**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.

Sodium	ppm	ASTM D5185m		<b>4</b>	5	20
Boron	ppm	ASTM D5185m		<b>145</b>	203	91
Barium	ppm	ASTM D5185m		<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m		<b>84</b>	81	66
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>546</b>	615	548
Calcium	ppm	ASTM D5185m		<b>1678</b>	1521	1598
Phosphorus	ppm	ASTM D5185m	760	<b>766</b>	676	789
Zinc	ppm	ASTM D5185m	830	<b>866</b>	803	936
Sulfur	ppm	ASTM D5185m	2770	<b>3095</b>	2585	2290
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.6</b>	18.2	22.6
Base Number (BN)	mg KOH/g	ASTM D2896	10.7	<b>7.3</b>	9	8.8
Visc @ 100°C	cSt	ASTM D445	14.9	<b>13.1</b>	13.3	13.0



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0122750  
**Lab Number** : 06235497  
**Unique Number** : 11124331  
**Test Package** : FLEET

**Received** : 15 Jul 2024  
**Tested** : 15 Jul 2024  
**Diagnosed** : 15 Jul 2024 - Wes Davis

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

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)

T: (231)624-0848

F: