



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

Machine Id  
**820018-101303**

Component  
**Diesel Engine**

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

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0102970</b>	GFL0102977	GFL0086414
Sample Date		Client Info		<b>27 Feb 2024</b>	15 Jan 2024	19 Dec 2023
Machine Age	hrs	Client Info		<b>9642</b>	9474	9313
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	ABNORMAL	SEVERE

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>7</b>	11	5
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	2	<1
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	1	<1
Tin	ppm	ASTM D5185m	>15	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

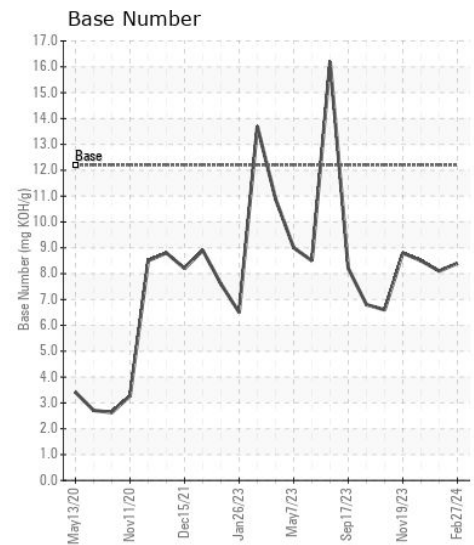
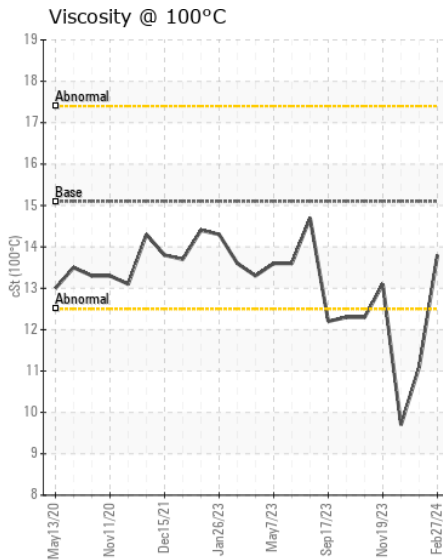
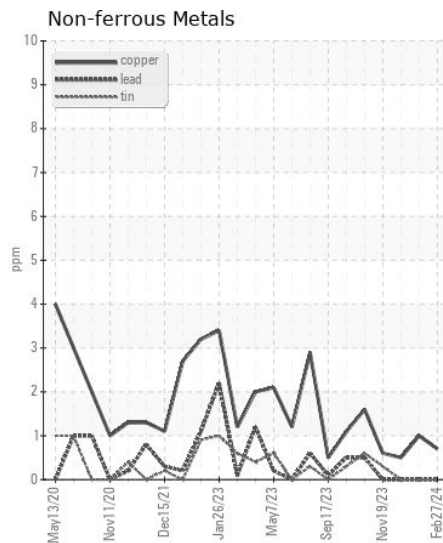
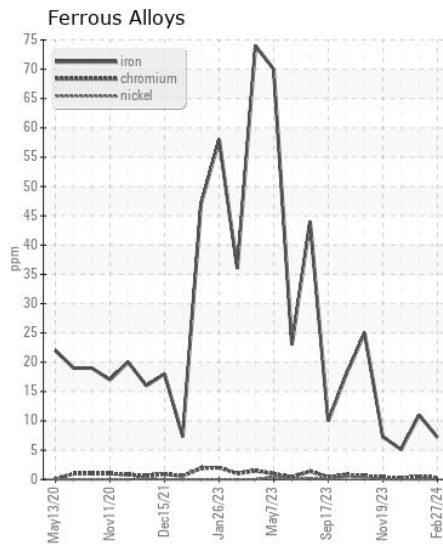
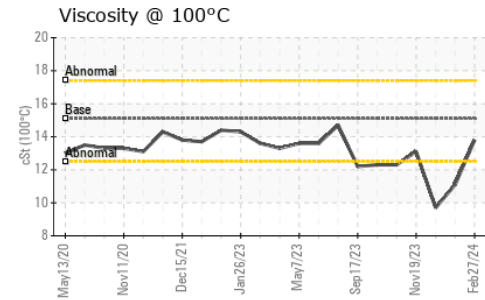
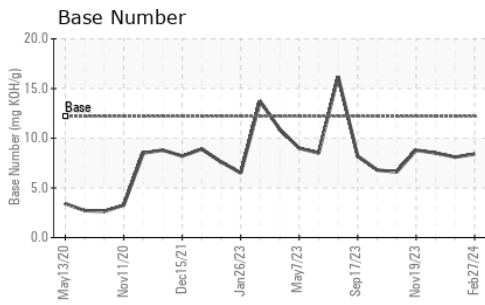
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	4	3
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	3	1
Fuel		WC Method	>5	<b>&lt;1.0</b>	▲ 3.9	▲ 9.9
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	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.4</b>	10.3	8.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.9</b>	21.0	19.6
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>16</b>	15	10
Boron	ppm	ASTM D5185m		<b>13</b>	● 10	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>69</b>	55	55
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>984</b>	● 862	876
Calcium	ppm	ASTM D5185m		<b>1156</b>	● 1075	929
Phosphorus	ppm	ASTM D5185m	1360	<b>1132</b>	● 1004	961
Zinc	ppm	ASTM D5185m	1480	<b>1350</b>	1201	1129
Sulfur	ppm	ASTM D5185m		<b>3313</b>	2977	2906
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.7</b>	18.2	16.8
Base Number (BN)	mg KOH/g	ASTM D2896	12.2	<b>8.4</b>	8.1	8.5
Visc @ 100°C	cSt	ASTM D445	15.1	<b>13.8</b>	▲ 11.1	▲ 9.7



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0102970  
**Lab Number** : 06103576  
**Unique Number** : 10901806  
**Test Package** : FLEET

**Received** : 28 Feb 2024  
**Tested** : 02 Mar 2024  
**Diagnosed** : 02 Mar 2024 - Don Baldrige

**GFL Environmental - 816 - WCA of South Arkansas**  
 3083 Smackover Hwy  
 El Dorado, AR  
 US 71730  
 Contact: Mike Howell  
 mike.howell@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)

T:  
F: