



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

Area

**(YA150006)**

Machine Id

**10946**

Component

**Front 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>GFL0094492</b>	GFL0058873	GFL0072411
Sample Date		Client Info		<b>08 Jul 2024</b>	03 Jan 2024	07 Sep 2023
Machine Age	hrs	Client Info		<b>8218</b>	8218	8218
Oil Age	hrs	Client Info		<b>8218</b>	8218	8218
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>	NORMAL	SEVERE

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	<b>3</b>	5	13
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>15	<b>2</b>	2	0
Lead	ppm	ASTM D5185m	>25	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>100	<b>&lt;1</b>	1	3
Tin	ppm	ASTM D5185m	>4	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</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.

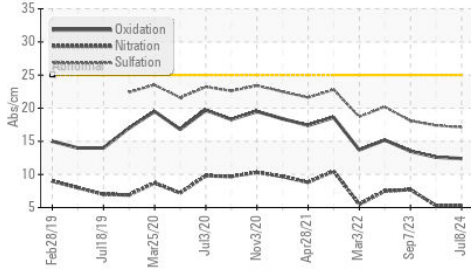
Silicon	ppm	ASTM D5185m	>25	<b>2</b>	4	16
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	23	▲ 781
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	▲ 0.12
Soot %	%	*ASTM D7844	>6	<b>0.2</b>	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.3</b>	5.3	7.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>17.1</b>	17.4	18.1
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**

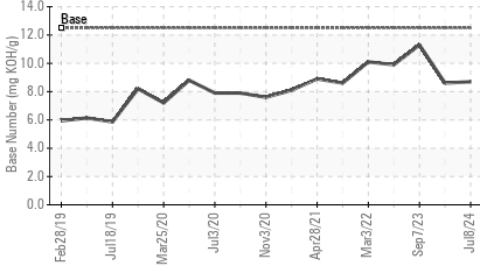
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>5</b>	34	● 606
Boron	ppm	ASTM D5185m	151	<b>4</b>	13	● 9
Barium	ppm	ASTM D5185m	0.4	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	250	<b>58</b>	61	94
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	0	<b>877</b>	929	● 1010
Calcium	ppm	ASTM D5185m	2046	<b>1089</b>	1066	1273
Phosphorus	ppm	ASTM D5185m	1043	<b>997</b>	870	1070
Zinc	ppm	ASTM D5185m	943	<b>1158</b>	1185	● 1287
Sulfur	ppm	ASTM D5185m	5012	<b>2722</b>	3122	3964
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>12.4</b>	12.6	13.5
Base Number (BN)	mg KOH/g	ASTM D2896	12.5	<b>8.7</b>	8.6	11.3
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.5</b>	13.3	14.1

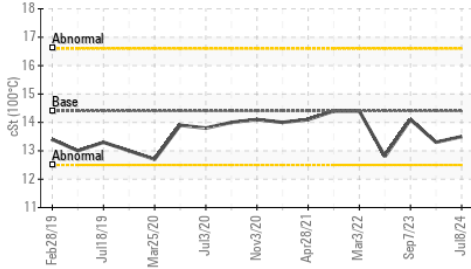
**FT-IR (Direct Trend)**



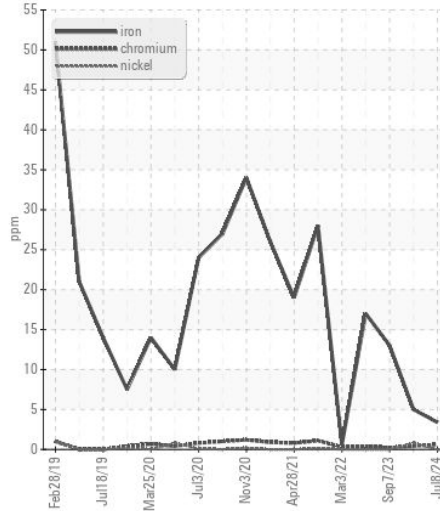
**Base Number**



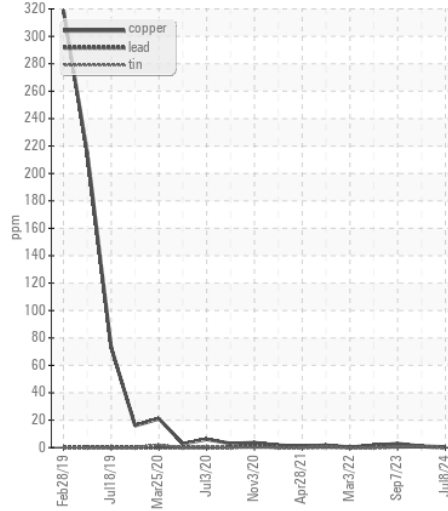
**Viscosity @ 100°C**



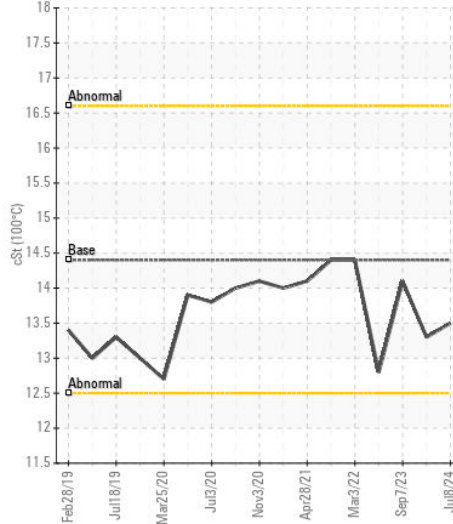
**Ferrous Alloys**



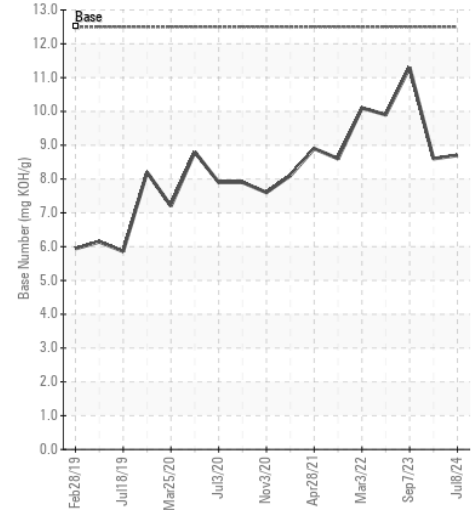
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : GFL0094492

**Lab Number** : 06234609

**Unique Number** : 11123443

**Test Package** : FLEET

**Received** : 12 Jul 2024

**Tested** : 15 Jul 2024

**Diagnosed** : 15 Jul 2024 - Don Baldridge

**GFL Environmental - 119 - Williamston Hauling/TriEast**

1805 West Main Street

Williamston, NC

US 27892

Contact: Spencer Ligon

spencer.ligon@gflenv.com

T: (800)207-6618

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)