



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

Machine Id  
**731123**  
 Component  
**Natural Gas Engine**  
 Fluid  
**15W30 CNG (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0124087</b>	GFL0124067	GFL0120169
Sample Date		Client Info		<b>16 Jul 2024</b>	21 Jun 2024	24 May 2024
Machine Age	hrs	Client Info		<b>6861</b>	6696	5123
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>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>14</b>	9	12
Chromium	ppm	ASTM D5185m	>4	<b>1</b>	1	2
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	<1	1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	1
Aluminum	ppm	ASTM D5185m	>9	<b>2</b>	9	2
Lead	ppm	ASTM D5185m	>30	<b>3</b>	17	2
Copper	ppm	ASTM D5185m	>35	<b>&lt;1</b>	8	2
Tin	ppm	ASTM D5185m	>4	<b>0</b>	<1	1
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.

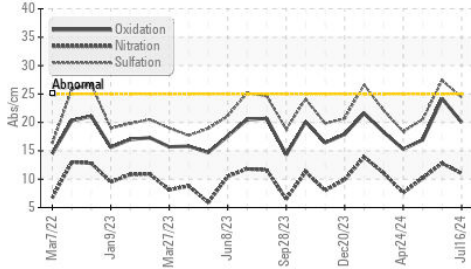
Silicon	ppm	ASTM D5185m	>+100	<b>5</b>	11	6
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	2
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0</b>	0.1	0
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.0</b>	12.8	10.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.4</b>	27.4	20.5
Silt	scalar	*Visual	NONE	<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	>0.1	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

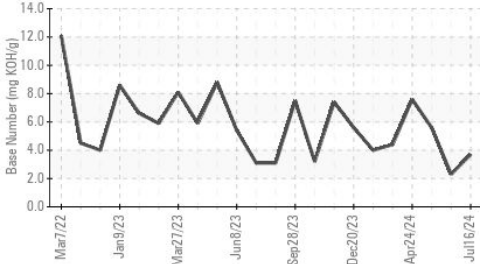
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>8</b>	4	6
Boron	ppm	ASTM D5185m		<b>7</b>	9	13
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>54</b>	56	53
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	1	1
Magnesium	ppm	ASTM D5185m		<b>565</b>	650	550
Calcium	ppm	ASTM D5185m		<b>1766</b>	1699	1612
Phosphorus	ppm	ASTM D5185m		<b>755</b>	865	789
Zinc	ppm	ASTM D5185m		<b>980</b>	1071	1018
Sulfur	ppm	ASTM D5185m		<b>2711</b>	3009	3017
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>20.0</b>	24.2	16.9
Base Number (BN)	mg KOH/g	ASTM D2896		<b>3.7</b>	2.3	5.6
Visc @ 100°C	cSt	ASTM D445		<b>14.4</b>	13.4	14.3

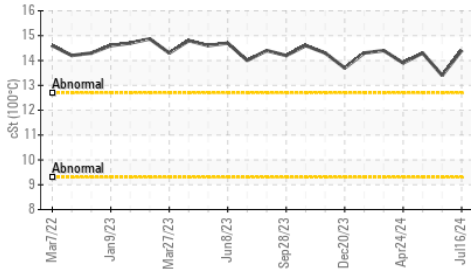
**FT-IR (Direct Trend)**



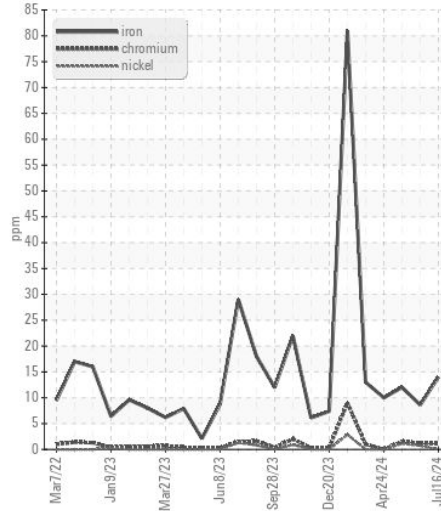
**Base Number**



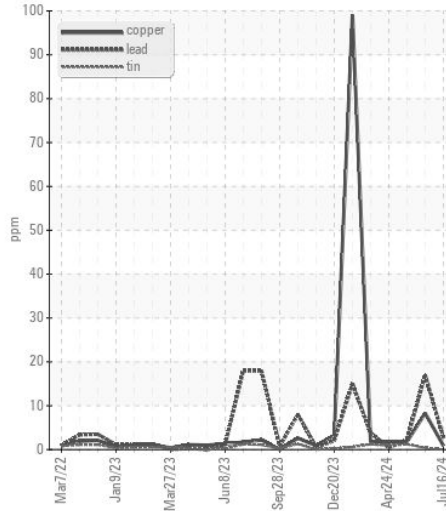
**Viscosity @ 100°C**



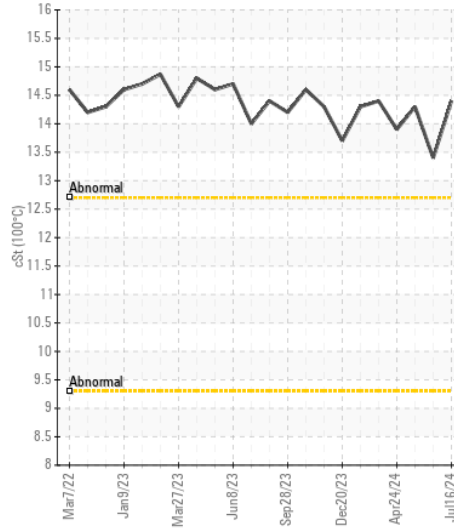
**Ferrous Alloys**



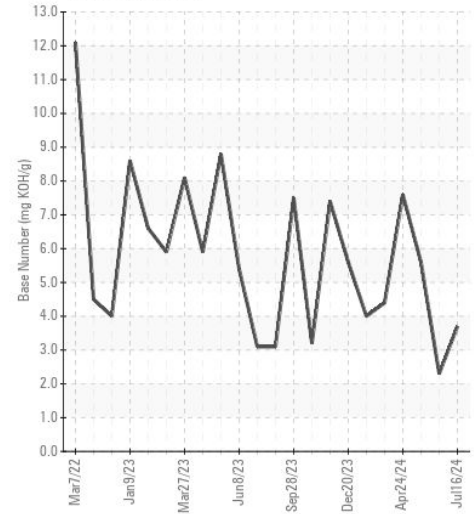
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0124087  
**Lab Number** : 06241496  
**Unique Number** : 11130330  
**Test Package** : FLEET

**Received** : 19 Jul 2024  
**Tested** : 22 Jul 2024  
**Diagnosed** : 22 Jul 2024 - Wes Davis

**GFL Environmental - 836 - Kansas City Hauling**  
 7801 East Truman Road  
 Kansas City, MO  
 US 64126  
 Contact: Loyce Stewart  
 loyce.stewart@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: