



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



Area  
**(BD56834) {UNASSIGNED}**  
Machine Id  
**914045 MACK TE64R**  
Component  
**Diesel Engine**  
Fluid  
**TIER ONE 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0115231</b>	GFL0115241	GFL0061428
Sample Date		Client Info		<b>08 Jul 2024</b>	20 May 2024	18 Mar 2024
Machine Age	hrs	Client Info		<b>2001</b>	1779	1311
Oil Age	hrs	Client Info		<b>132</b>	9	141
Filter Age	hrs	Client Info		<b>132</b>	9	141
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**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>6</b>	16	6
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	2	<1
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	2	2
Lead	ppm	ASTM D5185m	>40	<b>0</b>	1	<1
Copper	ppm	ASTM D5185m	>330	<b>14</b>	66	47
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</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**

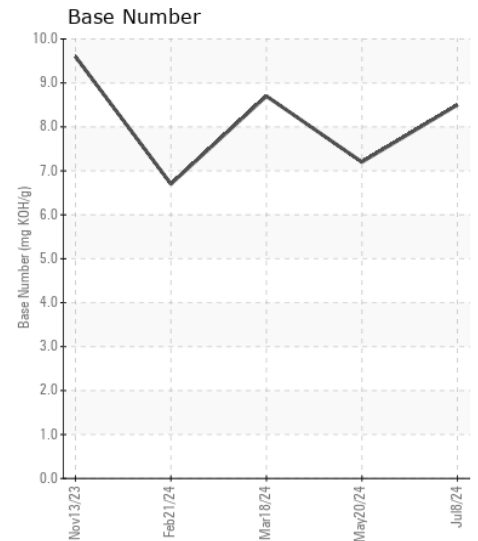
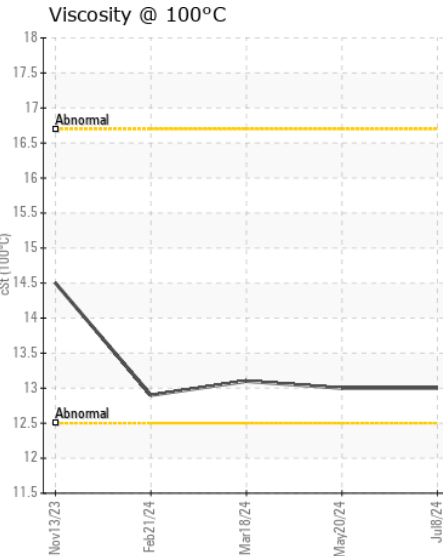
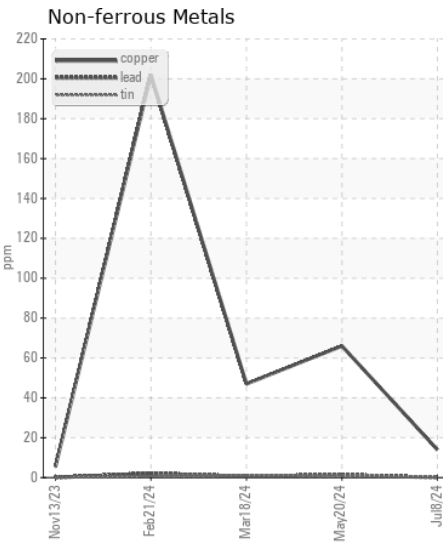
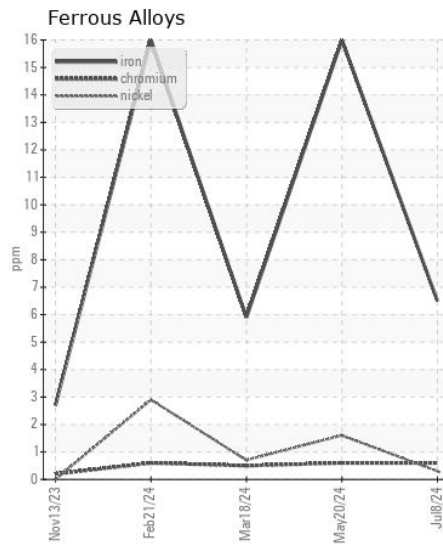
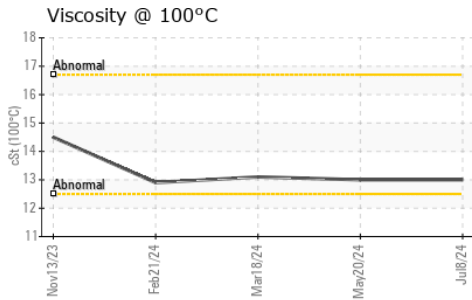
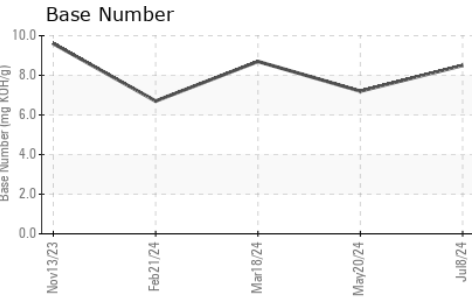
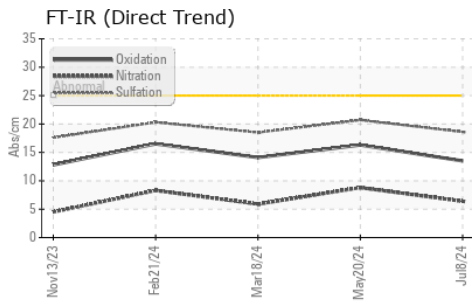
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	7	6
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	5	2
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	NEG
Soot %	%	*ASTM D7844	>4	<b>0.3</b>	0.6	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.4</b>	8.8	5.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.6</b>	20.7	18.5
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	>0.2	<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>2</b>	3	2
Boron	ppm	ASTM D5185m		<b>8</b>	5	21
Barium	ppm	ASTM D5185m		<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185m		<b>58</b>	56	58
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>811</b>	803	835
Calcium	ppm	ASTM D5185m		<b>1154</b>	1062	1107
Phosphorus	ppm	ASTM D5185m		<b>977</b>	936	1007
Zinc	ppm	ASTM D5185m		<b>1145</b>	1134	1135
Sulfur	ppm	ASTM D5185m		<b>2607</b>	2598	3157
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.5</b>	16.3	14.1
Base Number (BN)	mg KOH/g	ASTM D2896		<b>8.5</b>	7.2	8.7
Visc @ 100°C	cSt	ASTM D445		<b>13.0</b>	13.0	13.1



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0115231  
**Lab Number** : 06234723  
**Unique Number** : 11123557  
**Test Package** : FLEET

**Received** : 12 Jul 2024  
**Tested** : 15 Jul 2024  
**Diagnosed** : 15 Jul 2024 - Wes Davis

**GFL Environmental - 642- Grand Rapids Hauling**  
 5826 Alden Nash Ave SE  
 Lowell, MI  
 US 49331

Contact: Chad Crosby  
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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)