



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



Machine Id  
**712016 MACK LR64**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (48 QTS)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0103175</b>	GFL0094677	GFL0089335
Sample Date		Client Info		<b>30 Jan 2024</b>	27 Oct 2023	14 Aug 2023
Machine Age	hrs	Client Info		<b>5252</b>	4511	3904
Oil Age	hrs	Client Info		<b>741</b>	607	956
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>120	<b>8</b>	8	6
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>2</b>	<1	<1
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	<1	2
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	1	1
Tin	ppm	ASTM D5185m	>15	<b>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**

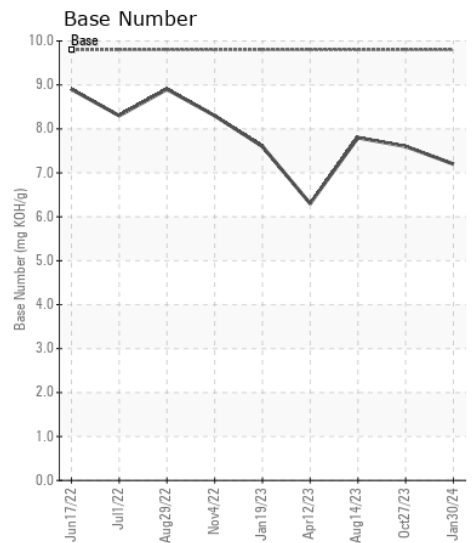
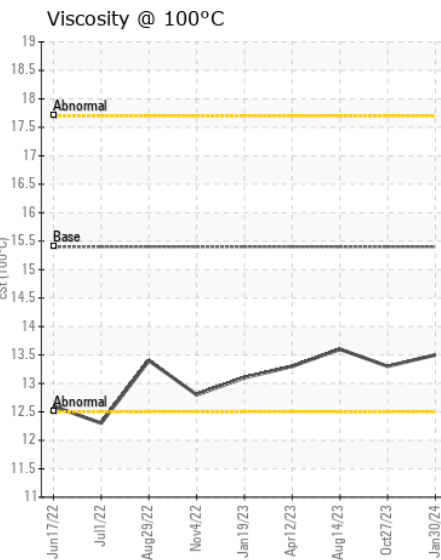
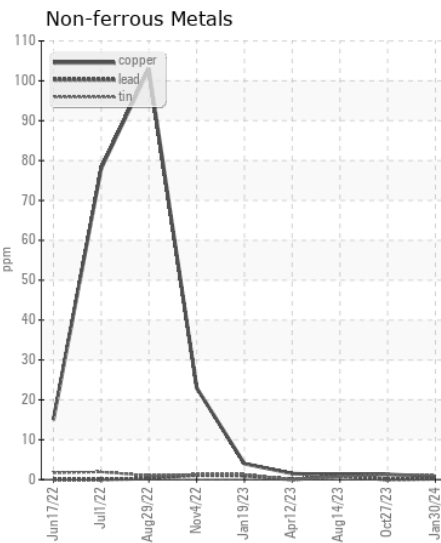
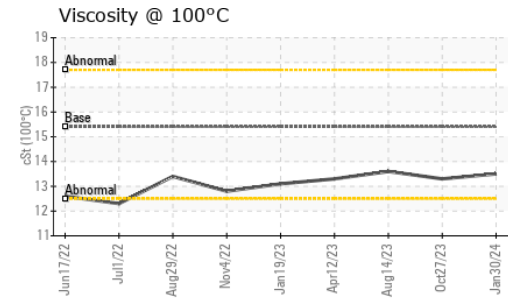
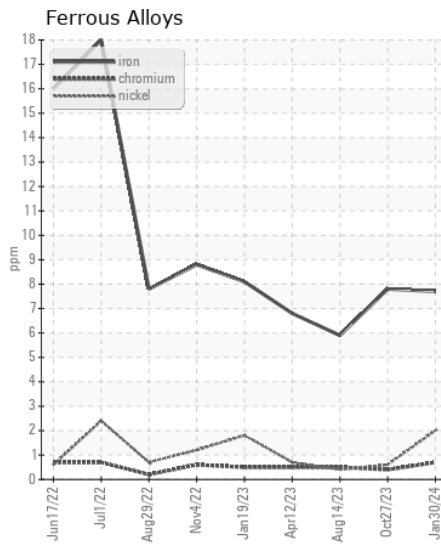
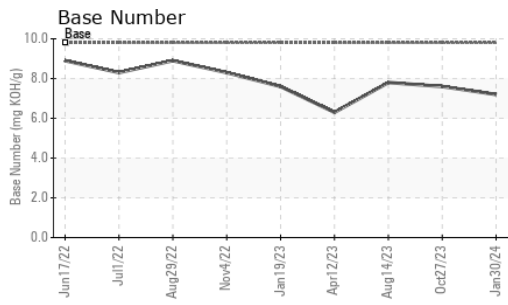
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	4	4
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	5	7
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>	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.1</b>	7.4	6.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.6</b>	18.8	18.7
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>1</b>	4	4
Boron	ppm	ASTM D5185m	0	<b>2</b>	3	<1
Barium	ppm	ASTM D5185m	0	<b>0</b>	19	0
Molybdenum	ppm	ASTM D5185m	60	<b>55</b>	61	58
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>978</b>	882	985
Calcium	ppm	ASTM D5185m	1070	<b>1057</b>	882	1101
Phosphorus	ppm	ASTM D5185m	1150	<b>988</b>	927	1004
Zinc	ppm	ASTM D5185m	1270	<b>1200</b>	1131	1253
Sulfur	ppm	ASTM D5185m	2060	<b>2767</b>	3595	3428
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.6</b>	14.8	14.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.2</b>	7.6	7.8
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.5</b>	13.3	13.6



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0103175 **Received** : 31 Jan 2024  
**Lab Number** : 06075373 **Diagnosed** : 01 Feb 2024  
**Unique Number** : 10857464 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 001 - Raleigh(CNG)**  
 3741 Conquest Drive  
 Garner, NC  
 US 27529  
 Contact: Craig Johnson  
 craig.johnson@gflenv.com  
 T: (919)662-7100  
 F: (919)662-7130

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)