



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



Area  
**(BC71118)**  
Machine Id  
**4551M**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (5 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0124754</b>	GFL0115079	GFL0107082
Sample Date		Client Info		<b>19 Jun 2024</b>	26 Mar 2024	19 Dec 2023
Machine Age	hrs	Client Info		<b>20245</b>	20283	20272
Oil Age	hrs	Client Info		<b>118</b>	156	600
Filter Age	hrs	Client Info		<b>118</b>	156	600
Oil Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	<b>35</b>	63	9
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	4	<1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	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	>20	<b>6</b>	14	2
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>1</b>	<1	2
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
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.

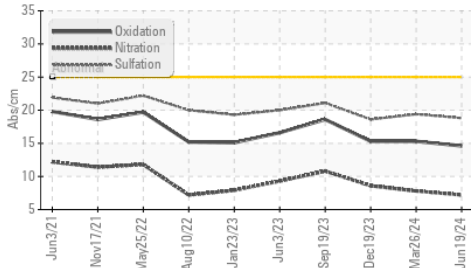
Silicon	ppm	ASTM D5185m	>25	<b>9</b>	18	2
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	3	4
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>6	<b>0.4</b>	0.6	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.2</b>	7.8	8.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.8</b>	19.4	18.6
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**

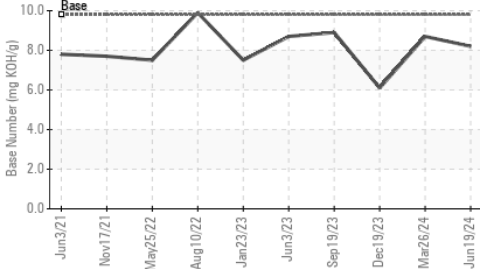
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>4</b>	8	2
Boron	ppm	ASTM D5185m	0	<b>4</b>	2	<1
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>60</b>	55	59
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	1	0
Magnesium	ppm	ASTM D5185m	1010	<b>947</b>	887	903
Calcium	ppm	ASTM D5185m	1070	<b>1190</b>	965	1068
Phosphorus	ppm	ASTM D5185m	1150	<b>1075</b>	1003	945
Zinc	ppm	ASTM D5185m	1270	<b>1349</b>	1187	1208
Sulfur	ppm	ASTM D5185m	2060	<b>3884</b>	3249	3072
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.6</b>	15.3	15.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.2</b>	8.7	6.1
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.9</b>	13.6	13.5

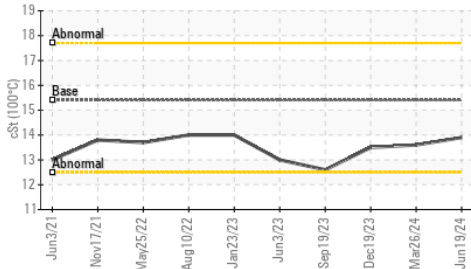
**FT-IR (Direct Trend)**



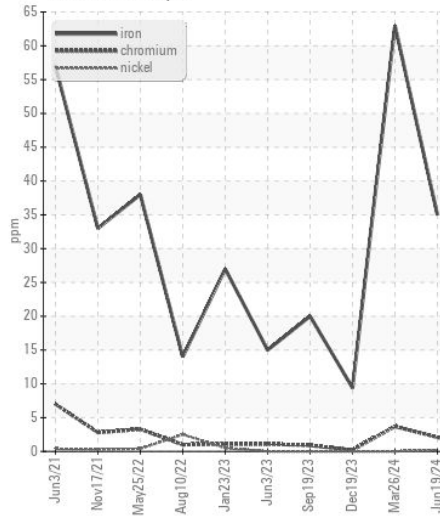
**Base Number**



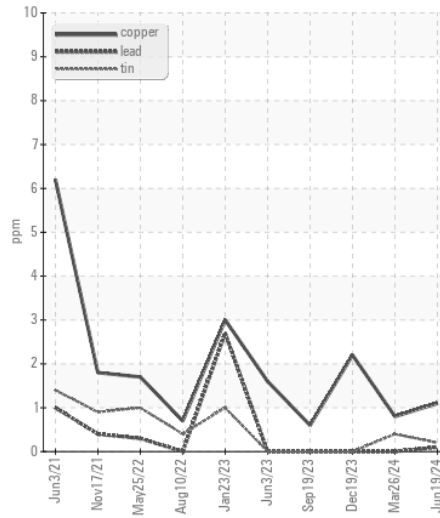
**Viscosity @ 100°C**



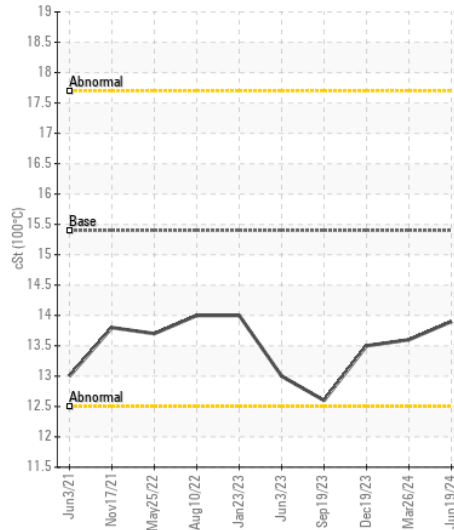
**Ferrous Alloys**



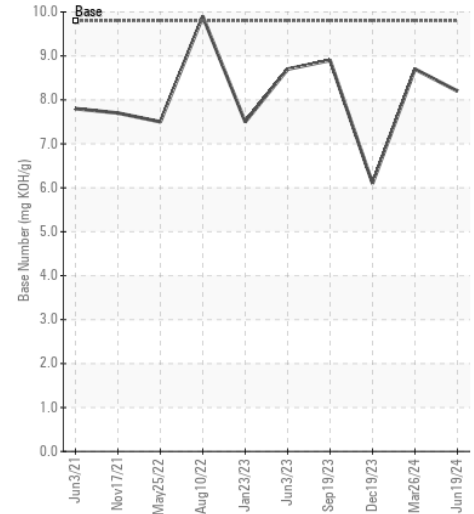
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

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

**Sample No.** : GFL0124754

**Lab Number** : 06224358

**Unique Number** : 11102555

**Test Package** : FLEET

**Received** : 01 Jul 2024

**Tested** : 02 Jul 2024

**Diagnosed** : 02 Jul 2024 - Jonathan Hester

**GFL Environmental - 405 - Arbor Hills**

7811 Chubb Rd

NORTHVILLE, MI

US 48168

Contact: Anthony Hopkins

ahopkins@gflenv.com

T:

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)