



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

Machine Id  
**925049-370**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0121421</b>	GFL0115852	GFL0111082
Sample Date		Client Info		<b>17 May 2024</b>	16 Apr 2024	07 Feb 2024
Machine Age	hrs	Client Info		<b>10749</b>	10684	10510
Oil Age	hrs	Client Info		<b>10749</b>	10684	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>29</b>	26	13
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	2	<1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	4	2
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m	>330	<b>2</b>	2	<1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	<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.

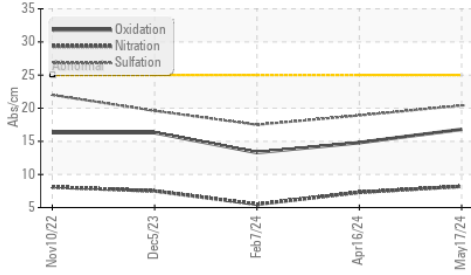
Silicon	ppm	ASTM D5185m	>25	<b>7</b>	5	4
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	<1
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.4	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.2</b>	7.3	5.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.4</b>	18.9	17.5
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**

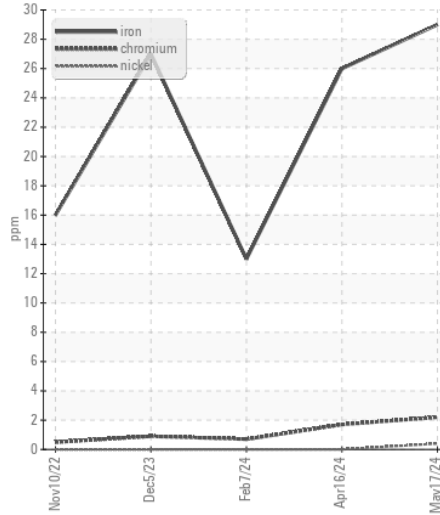
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>7</b>	7	4
Boron	ppm	ASTM D5185m	0	<b>12</b>	10	15
Barium	ppm	ASTM D5185m	0	<b>3</b>	2	3
Molybdenum	ppm	ASTM D5185m	60	<b>64</b>	61	60
Manganese	ppm	ASTM D5185m	0	<b>2</b>	1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>924</b>	902	908
Calcium	ppm	ASTM D5185m	1070	<b>1158</b>	1121	1144
Phosphorus	ppm	ASTM D5185m	1150	<b>1090</b>	932	972
Zinc	ppm	ASTM D5185m	1270	<b>1199</b>	1077	1127
Sulfur	ppm	ASTM D5185m	2060	<b>3255</b>	3260	2958
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.8</b>	14.8	13.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.9</b>	8.7	9.0
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.7</b>	13.4	13.0

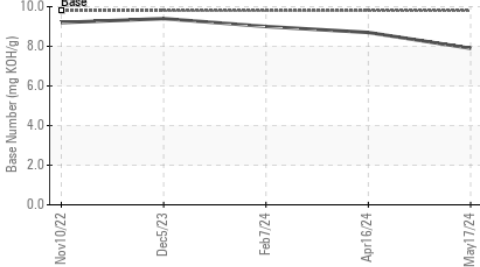
**FT-IR (Direct Trend)**



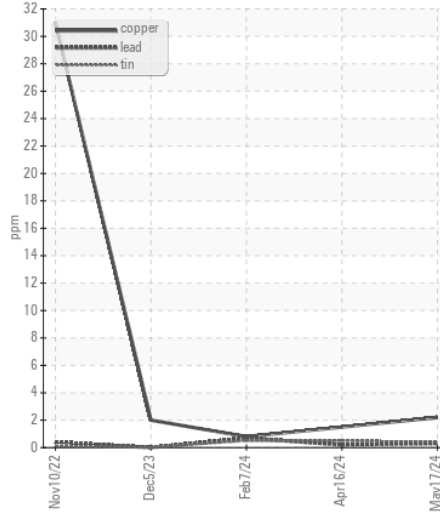
**Ferrous Alloys**



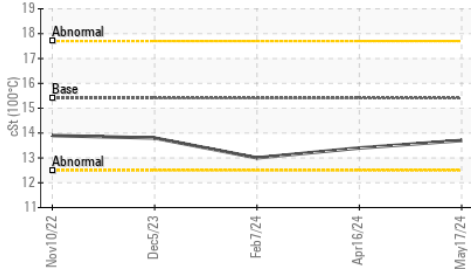
**Base Number**



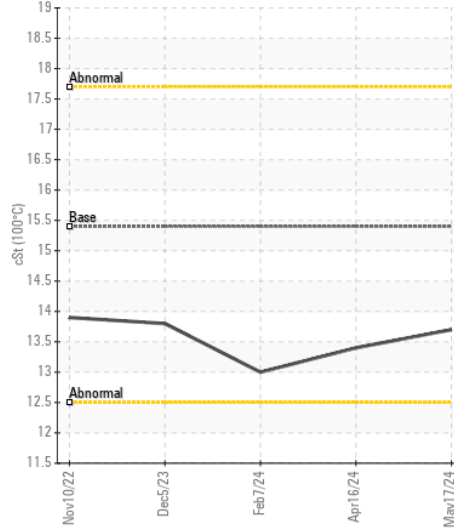
**Non-ferrous Metals**



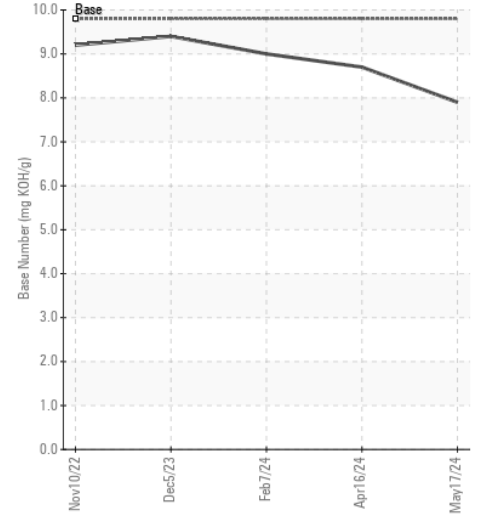
**Viscosity @ 100°C**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0121421  
**Lab Number** : 06196298  
**Unique Number** : 11058421  
**Test Package** : FLEET

**Received** : 31 May 2024  
**Tested** : 03 Jun 2024  
**Diagnosed** : 03 Jun 2024 - Wes Davis

GFL Environmental - 868 - Childersburg Fines Hauling (Alpine)  
 13737 Plant Rd  
 Childersburg, AL  
 US 35044

Contact: JONATHAN WILLIAMS  
 jonathan.williams@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: