



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

Machine Id  
**727108-310052**  
 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>GFL0105081</b>	GFL0105227	GFL0105050
Sample Date		Client Info		<b>31 May 2024</b>	02 May 2024	25 Apr 2024
Machine Age	hrs	Client Info		<b>3089</b>	2961	2840
Oil Age	hrs	Client Info		<b>150</b>	600	150
Filter Age	hrs	Client Info		<b>150</b>	600	150
Oil Changed		Client Info		<b>Not Chngd</b>	Changed	Not Chngd
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	>80	<b>8</b>	8	13
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>30	<b>1</b>	2	5
Lead	ppm	ASTM D5185m	>30	<b>&lt;1</b>	0	2
Copper	ppm	ASTM D5185m	>150	<b>1</b>	<1	1
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	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.

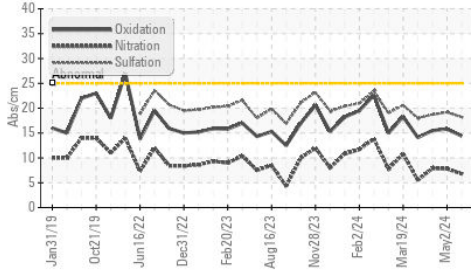
Silicon	ppm	ASTM D5185m	>20	<b>3</b>	3	7
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	3	5
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.8</b>	7.8	7.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.2</b>	19.2	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**

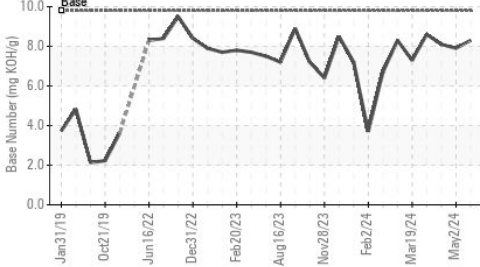
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>5</b>	5	3
Boron	ppm	ASTM D5185m	0	<b>0</b>	0	0
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>54</b>	52	55
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m	1010	<b>831</b>	866	876
Calcium	ppm	ASTM D5185m	1070	<b>961</b>	928	1003
Phosphorus	ppm	ASTM D5185m	1150	<b>968</b>	947	1056
Zinc	ppm	ASTM D5185m	1270	<b>1122</b>	1137	1166
Sulfur	ppm	ASTM D5185m	2060	<b>3188</b>	3165	2964
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.4</b>	15.8	15.5
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.3</b>	7.9	8.1
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.1</b>	12.6	12.6

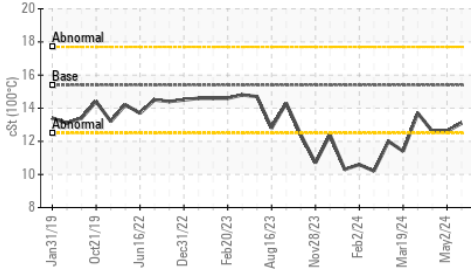
**FT-IR (Direct Trend)**



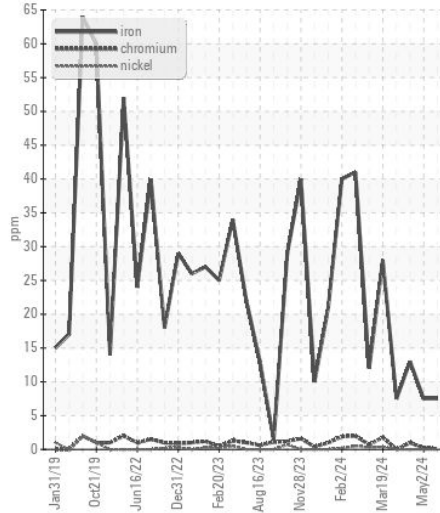
**Base Number**



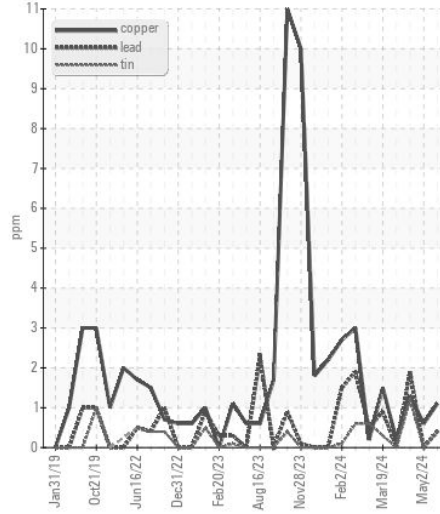
**Viscosity @ 100°C**



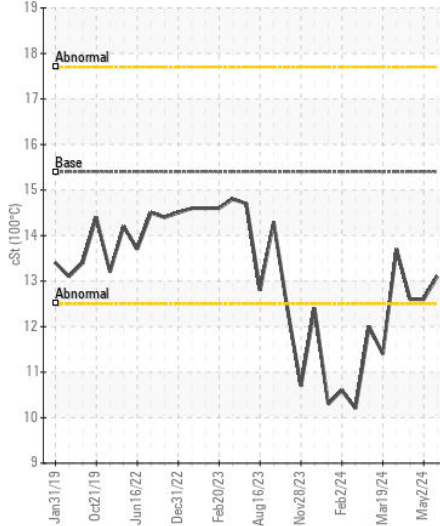
**Ferrous Alloys**



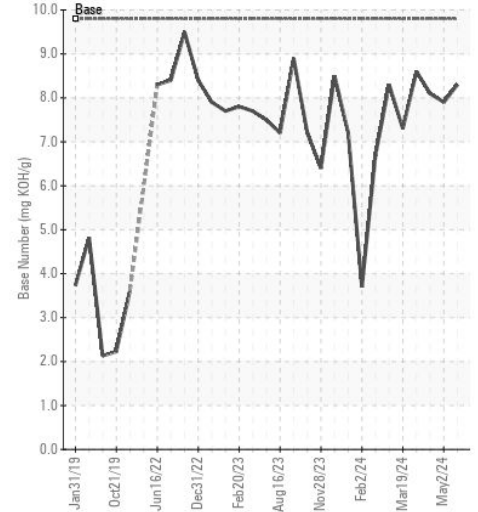
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0105081  
**Lab Number** : 06209777  
**Unique Number** : 11082641  
**Test Package** : FLEET

**Received** : 14 Jun 2024  
**Tested** : 15 Jun 2024  
**Diagnosed** : 15 Jun 2024 - Wes Davis

**GFL Environmental - 821 - Ozarks Hauling**  
 33924 Olath Drive  
 Lebanon, MO  
 US 65536

Contact: Landen Johnson  
 landen.johnson@gflenv.com

T: (417)664-0010

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)