



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



Machine Id  
**913152**  
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>GFL0117929</b>	GFL0117935	GFL011953
Sample Date		Client Info		<b>31 May 2024</b>	14 May 2024	19 Apr 2024
Machine Age	hrs	Client Info		<b>3140</b>	3018	2863
Oil Age	hrs	Client Info		<b>498</b>	376	221
Filter Age	hrs	Client Info		<b>498</b>	376	221
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>1</b>	▲ 104	2
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	5	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	5	3
Lead	ppm	ASTM D5185m	>40	<b>0</b>	22	<1
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	2	1
Tin	ppm	ASTM D5185m	>15	<b>0</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.

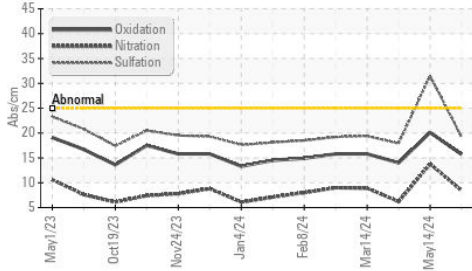
Silicon	ppm	ASTM D5185m	>25	<b>1</b>	16	4
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	5	4
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>4	<b>0.2</b>	▲ 5	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.4</b>	13.8	6.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.2</b>	31.5	17.9
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**

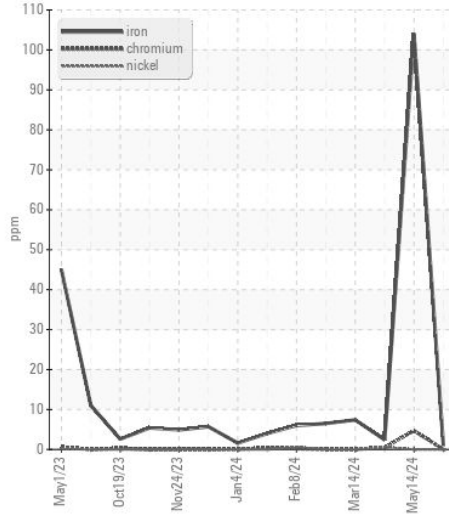
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>1</b>	2	<1
Boron	ppm	ASTM D5185m	0	<b>0</b>	0	2
Barium	ppm	ASTM D5185m	0	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185m	60	<b>62</b>	72	60
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	2	<1
Magnesium	ppm	ASTM D5185m	1010	<b>1008</b>	1213	915
Calcium	ppm	ASTM D5185m	1070	<b>1161</b>	1374	1050
Phosphorus	ppm	ASTM D5185m	1150	<b>1109</b>	1237	1060
Zinc	ppm	ASTM D5185m	1270	<b>1313</b>	1675	1210
Sulfur	ppm	ASTM D5185m	2060	<b>3639</b>	3960	3320
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.7</b>	20.1	14.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.7</b>	0.0	8.7
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.2</b>	▲ 16.4	14.3

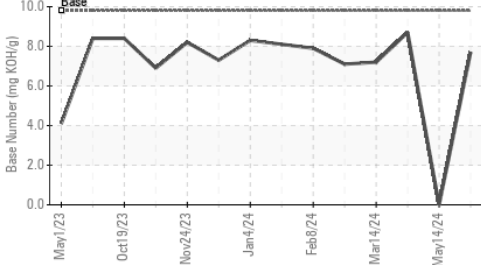
**FT-IR (Direct Trend)**



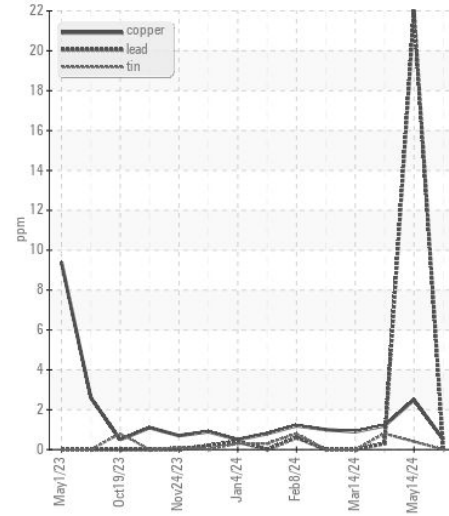
**Ferrous Alloys**



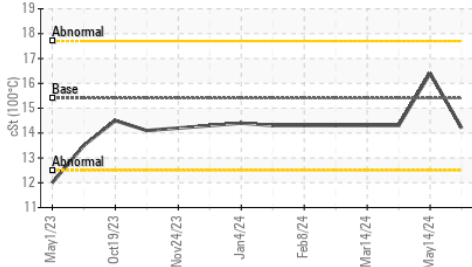
**Base Number**



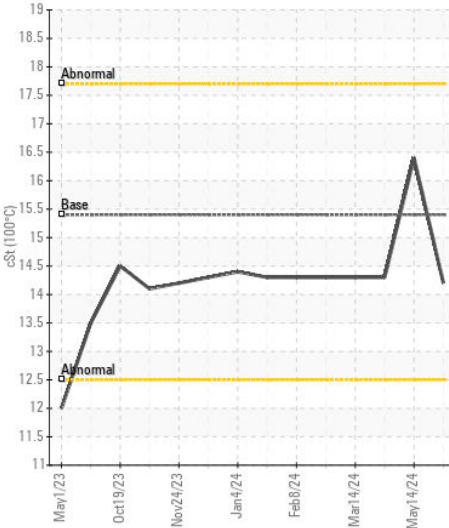
**Non-ferrous Metals**



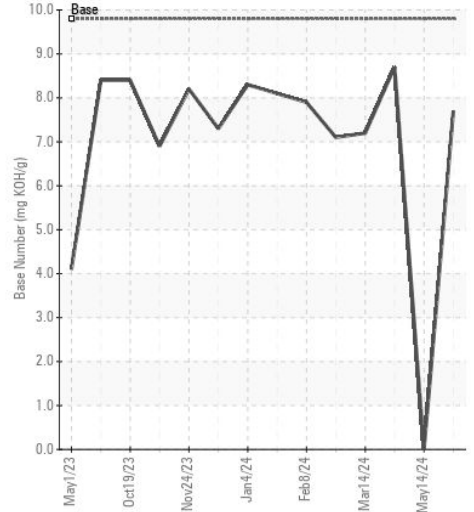
**Viscosity @ 100°C**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0117929  
**Lab Number** : 06197326  
**Unique Number** : 11059449  
**Test Package** : FLEET

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

**GFL Environmental - 892 - Pauls Valley Hauling**  
 1910 S CHICKASAW STREET  
 Pauls Valley, OK  
 US 73075  
 Contact: Tony Graham  
 tgraham2@wcamerica.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: