



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

Area

**166**  
Machine Id  
**223030-1**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (600 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0118661</b>	GFL0118706	GFL0118704
Sample Date		Client Info		<b>07 May 2024</b>	30 Apr 2024	25 Apr 2024
Machine Age	hrs	Client Info		<b>1394</b>	478529	478529
Oil Age	hrs	Client Info		<b>200</b>	465379	465379
Filter Age	hrs	Client Info		<b>200</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	Changed	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Changed	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	<b>4</b>	18	17
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>30	<b>1</b>	0	0
Lead	ppm	ASTM D5185m	>30	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>150	<b>3</b>	0	0
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
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.

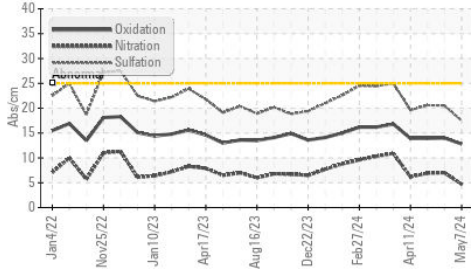
Silicon	ppm	ASTM D5185m	>20	<b>6</b>	17	17
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	1.4	1.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>4.7</b>	7.0	6.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>17.5</b>	20.5	20.6
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**

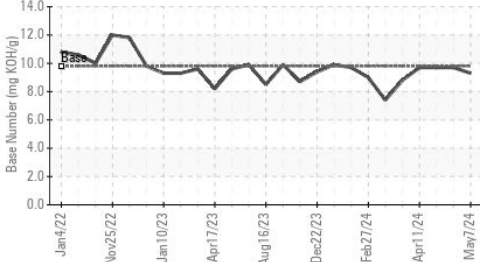
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>1</b>	0	0
Boron	ppm	ASTM D5185m	0	<b>1</b>	0	0
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>58</b>	63	63
Manganese	ppm	ASTM D5185m	0	<b>1</b>	0	0
Magnesium	ppm	ASTM D5185m	1010	<b>978</b>	1050	1047
Calcium	ppm	ASTM D5185m	1070	<b>1061</b>	1164	1171
Phosphorus	ppm	ASTM D5185m	1150	<b>1067</b>	1136	1116
Zinc	ppm	ASTM D5185m	1270	<b>1261</b>	1400	1403
Sulfur	ppm	ASTM D5185m	2060	<b>3584</b>	3934	3921
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>12.8</b>	14.0	13.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>9.3</b>	9.7	9.7
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.1</b>	14.0	14.0

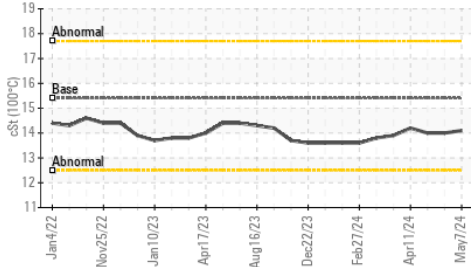
**FT-IR (Direct Trend)**



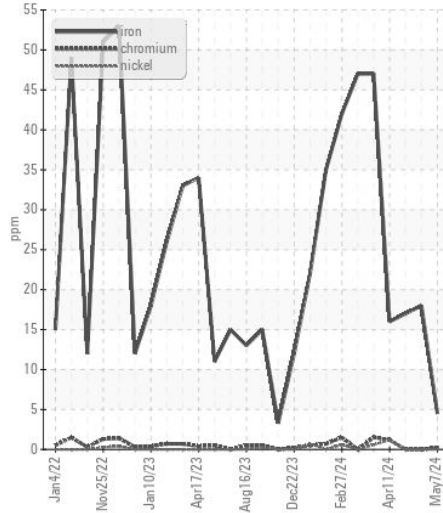
**Base Number**



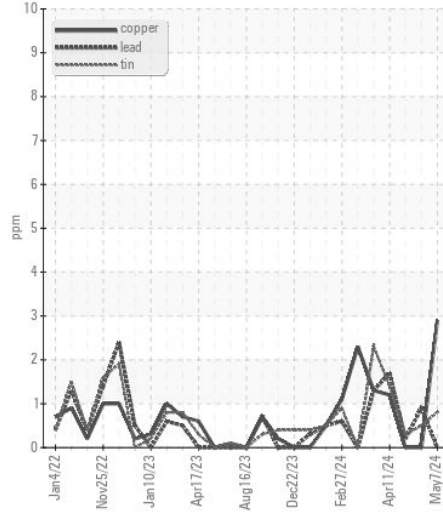
**Viscosity @ 100°C**



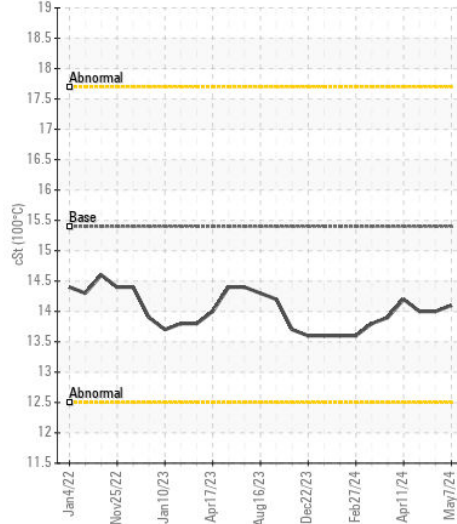
**Ferrous Alloys**



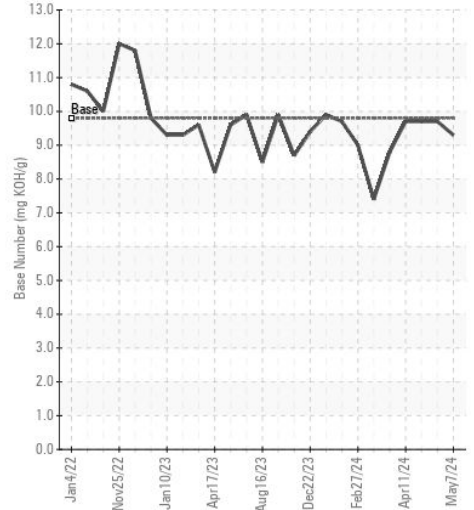
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0118661  
**Lab Number** : 06176715  
**Unique Number** : 11022768  
**Test Package** : FLEET

**Received** : 13 May 2024  
**Tested** : 14 May 2024  
**Diagnosed** : 14 May 2024 - Wes Davis

**GFL Environmental - 166 - Phenix City**  
 18 Old Brickyard Rd  
 Phenix City, AL  
 US 36869  
 Contact: DEAN PEACE JR  
 dean.peace@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: