



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



Area  
**(JN5Z43)**  
Machine Id  
**11101**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (7 GAL)**

**RECOMMENDATION**

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0077443</b>	GFL0071334	GFLI-485770
Sample Date		Client Info		<b>21 May 2024</b>	09 Aug 2023	15 Apr 2019
Machine Age	mls	Client Info		<b>216201</b>	0	216201
Oil Age	mls	Client Info		<b>0</b>	0	113550
Filter Age	mls	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	NORMAL

**WEAR**

The aluminum level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>130	<b>49</b>	41	61
Chromium	ppm	ASTM D5185m	>10	<b>4</b>	11	1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	1
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>▲ 30</b>	● 19	6
Lead	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	0
Copper	ppm	ASTM D5185m	>125	<b>8</b>	3	1
Tin	ppm	ASTM D5185m	>4	<b>1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

**CONTAMINATION**

There is no indication of any contamination in the oil.

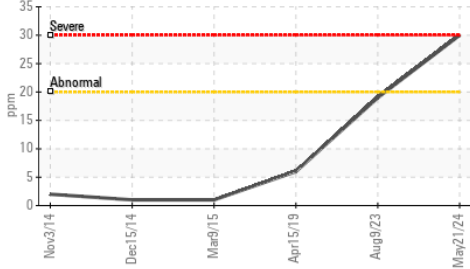
Silicon	ppm	ASTM D5185m	>25	<b>7</b>	▲ 51	8
Potassium	ppm	ASTM D5185m	>20	<b>21</b>	2	8
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	0.5
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>6	<b>0.9</b>	0.2	0.8
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.3</b>	4.7	12
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.1</b>	16.7	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	---

**FLUID CONDITION**

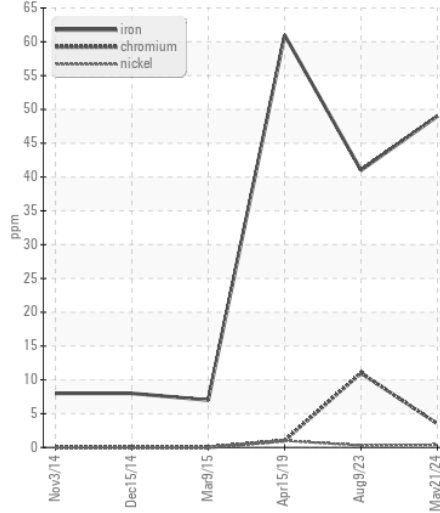
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>7</b>	2	4
Boron	ppm	ASTM D5185m	0	<b>3</b>	4	101
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>63</b>	58	102
Manganese	ppm	ASTM D5185m	0	<b>1</b>	<1	0
Magnesium	ppm	ASTM D5185m	1010	<b>902</b>	855	609
Calcium	ppm	ASTM D5185m	1070	<b>1067</b>	1007	1565
Phosphorus	ppm	ASTM D5185m	1150	<b>1006</b>	974	735
Zinc	ppm	ASTM D5185m	1270	<b>1218</b>	1119	927
Sulfur	ppm	ASTM D5185m	2060	<b>2721</b>	2924	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>20.8</b>	12.0	17
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>5.1</b>	8.8	2.17
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.7</b>	13.9	13.4

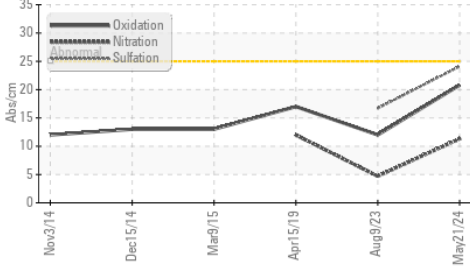
▲ Aluminum (ppm)



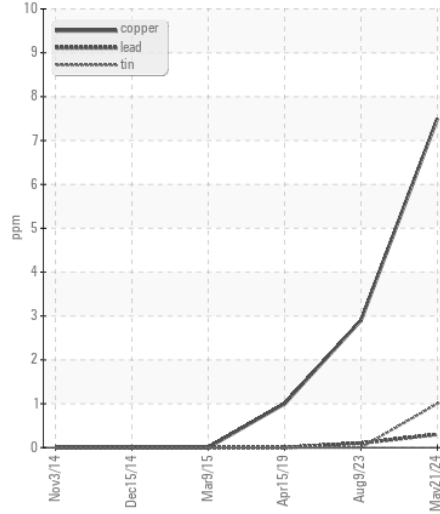
Ferrous Alloys



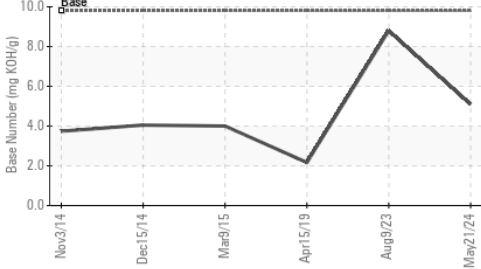
FT-IR (Direct Trend)



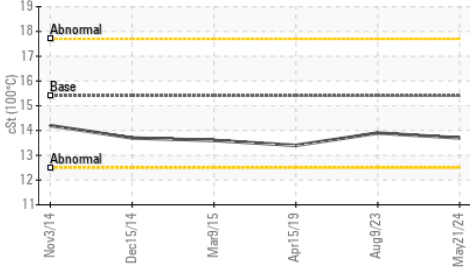
Non-ferrous Metals



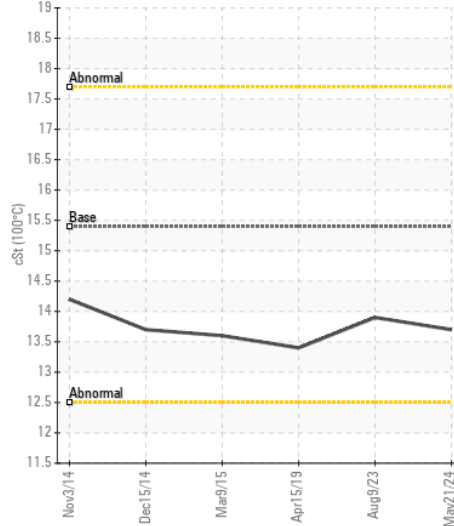
Base Number



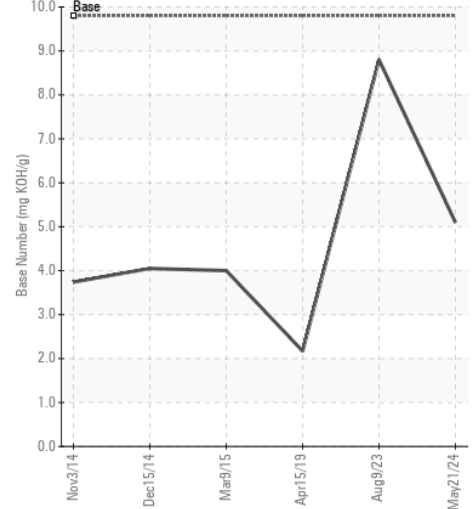
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0077443  
 Lab Number : 06193753  
 Unique Number : 11050505  
 Test Package : FLEET

Received : 29 May 2024  
 Tested : 30 May 2024  
 Diagnosed : 30 May 2024 - Sean Felton

GFL Environmental - 072 - Americus - Transwaste  
 361 McMath Mill Road  
 Americus, GA  
 US 31719

Contact: RICHARD HEINZERLING  
 richard.heinzerling@gflenv.com

T: (229)924-3669

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)

F: