



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

Machine Id  
**727105-310043**  
 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>GFL0105204</b>	GFL0105077	GFL0105192
Sample Date		Client Info		<b>11 Apr 2024</b>	25 Mar 2024	19 Mar 2024
Machine Age	hrs	Client Info		<b>18759</b>	18692	18636
Oil Age	hrs	Client Info		<b>150</b>	10	600
Filter Age	hrs	Client Info		<b>150</b>	10	600
Oil Changed		Client Info		<b>Not Chngd</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	ATTENTION

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>110	<b>1</b>	5	41
Chromium	ppm	ASTM D5185m	>4	<b>0</b>	<1	2
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	<1	1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>0</b>	1	9
Lead	ppm	ASTM D5185m	>45	<b>0</b>	1	<1
Copper	ppm	ASTM D5185m	>85	<b>0</b>	1	1
Tin	ppm	ASTM D5185m	>4	<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.

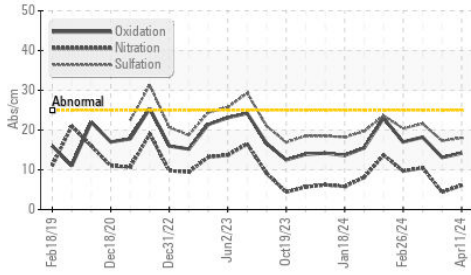
Silicon	ppm	ASTM D5185m	>30	<b>3</b>	5	12
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	35	11
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.1	1
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.1</b>	4.4	10.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.0</b>	17.3	21.6
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**

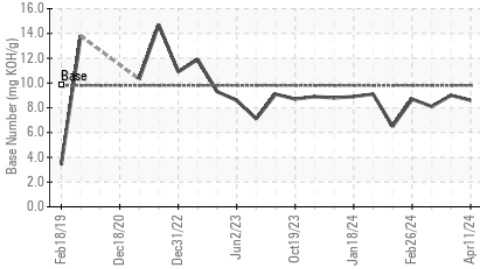
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>4</b>	48	96
Boron	ppm	ASTM D5185m	0	<b>&lt;1</b>	2	<1
Barium	ppm	ASTM D5185m	0	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185m	60	<b>51</b>	61	94
Manganese	ppm	ASTM D5185m	0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>831</b>	889	1368
Calcium	ppm	ASTM D5185m	1070	<b>957</b>	1046	1500
Phosphorus	ppm	ASTM D5185m	1150	<b>963</b>	1070	1436
Zinc	ppm	ASTM D5185m	1270	<b>1087</b>	1160	1789
Sulfur	ppm	ASTM D5185m	2060	<b>3055</b>	3180	4110
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.2</b>	13.1	18.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.6</b>	9.0	8.1
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.5</b>	14.6	14.0

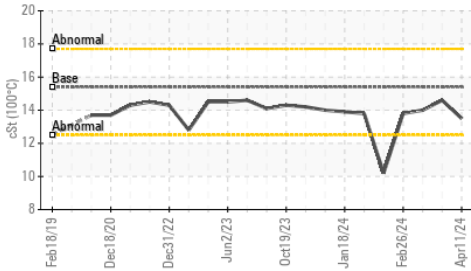
**FT-IR (Direct Trend)**



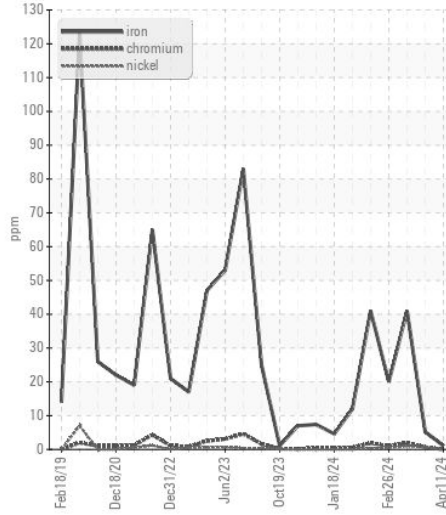
**Base Number**



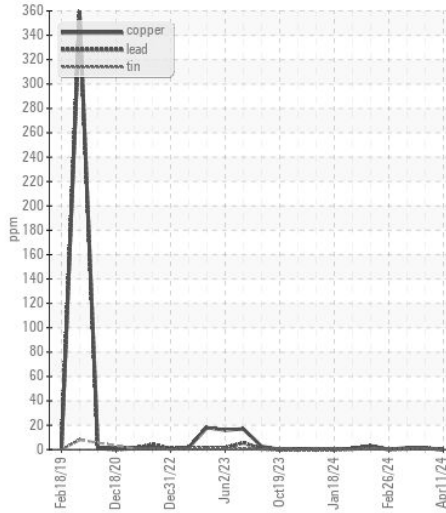
**Viscosity @ 100°C**



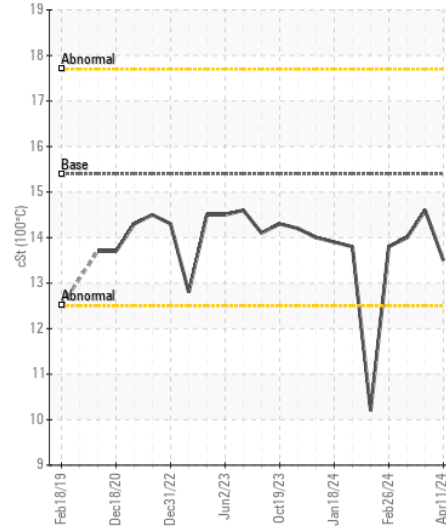
**Ferrous Alloys**



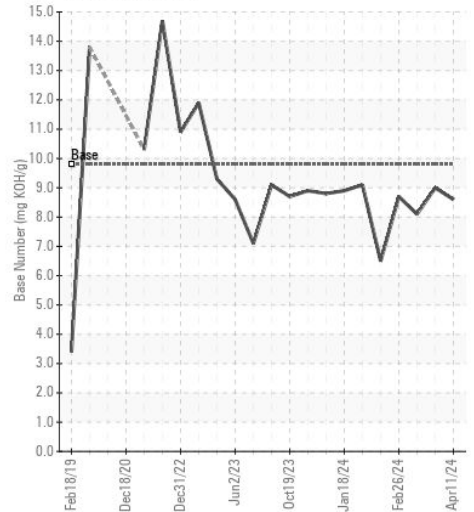
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0105204  
**Lab Number** : 06148267  
**Unique Number** : 10978345  
**Test Package** : FLEET

**Received** : 15 Apr 2024  
**Tested** : 15 Apr 2024  
**Diagnosed** : 15 Apr 2024 - Wes Davis

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

Contact: Landen Johnson  
 landen.johnson@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: (417)664-0010

F: