



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



Machine Id  
**912001**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (9 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0115204</b>	GFL0115120	GFL0106641
Sample Date		Client Info		<b>22 May 2024</b>	14 Mar 2024	05 Jan 2024
Machine Age	hrs	Client Info		<b>8042</b>	7464	6864
Oil Age	hrs	Client Info		<b>575</b>	600	592
Filter Age	hrs	Client Info		<b>575</b>	600	592
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
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	>120	<b>21</b>	16	25
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	3	2
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m	>330	<b>2</b>	4	3
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	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.

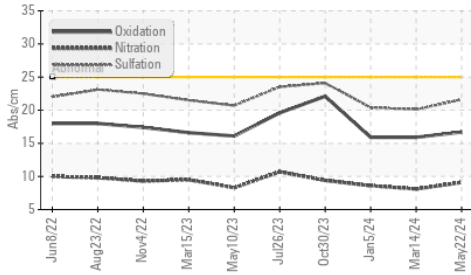
Silicon	ppm	ASTM D5185m	>25	<b>4</b>	4	4
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	3	3
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>4	<b>1.3</b>	0.7	0.9
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.1</b>	8.1	8.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.6</b>	20.1	20.4
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**

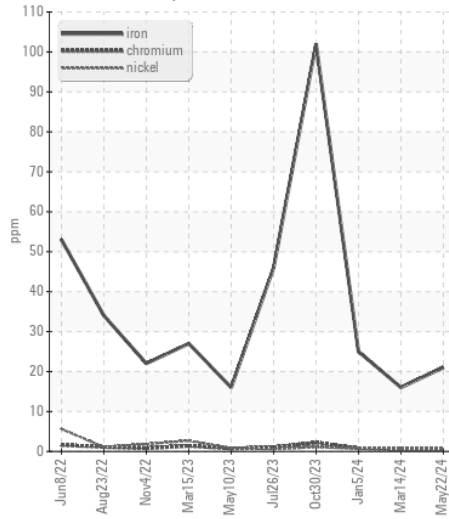
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>5</b>	2	2
Boron	ppm	ASTM D5185m	0	<b>&lt;1</b>	1	0
Barium	ppm	ASTM D5185m	0	<b>0</b>	2	0
Molybdenum	ppm	ASTM D5185m	60	<b>59</b>	60	56
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>941</b>	900	902
Calcium	ppm	ASTM D5185m	1070	<b>1027</b>	1070	1016
Phosphorus	ppm	ASTM D5185m	1150	<b>981</b>	961	924
Zinc	ppm	ASTM D5185m	1270	<b>1242</b>	1196	1165
Sulfur	ppm	ASTM D5185m	2060	<b>2805</b>	2813	2576
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.7</b>	15.9	15.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>6.5</b>	6.7	6.8
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.0</b>	13.8	14.0

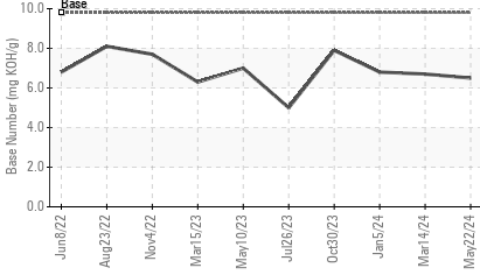
**FT-IR (Direct Trend)**



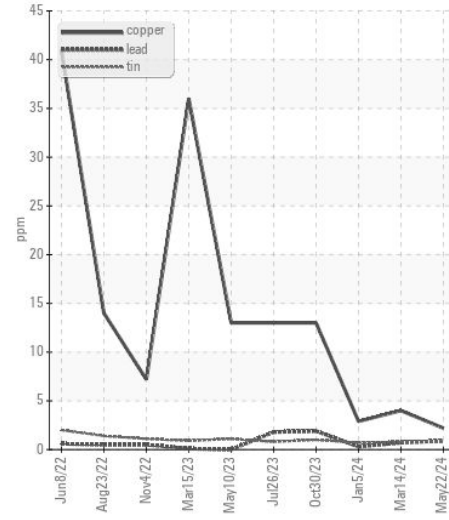
**Ferrous Alloys**



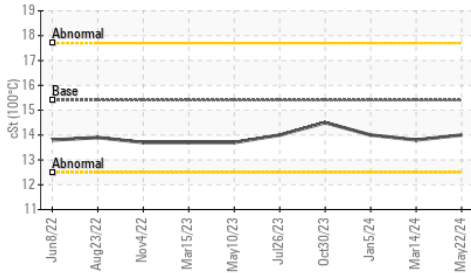
**Base Number**



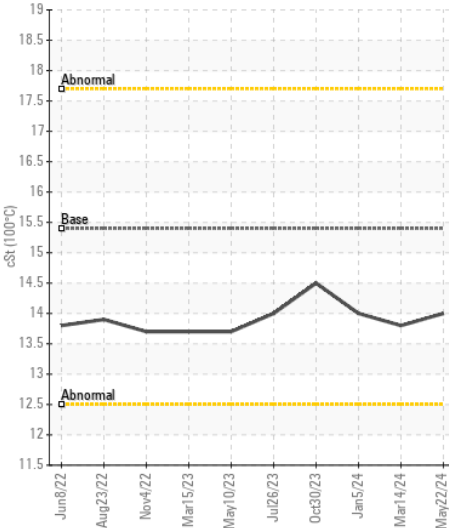
**Non-ferrous Metals**



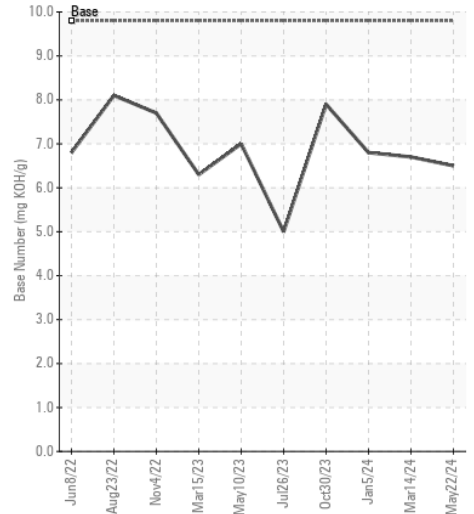
**Viscosity @ 100°C**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0115204  
**Lab Number** : 06193400  
**Unique Number** : 11050152  
**Test Package** : FLEET

**Received** : 28 May 2024  
**Tested** : 30 May 2024  
**Diagnosed** : 30 May 2024 - Wes Davis

**GFL Environmental - 405 - Arbor Hills**  
 7811 Chubb Rd  
 NORTHVILLE, MI  
 US 48168

Contact: Anthony Hopkins  
 ahopkins@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: