



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

Machine Id  
**421040-455**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (11 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0108549</b>	GFL0066153	GFL0066148
Sample Date		Client Info		<b>06 Mar 2024</b>	26 Dec 2023	19 Oct 2023
Machine Age	hrs	Client Info		<b>8533</b>	7958	7454
Oil Age	hrs	Client Info		<b>600</b>	600	500
Filter Age	hrs	Client Info		<b>600</b>	600	500
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	>80	<b>18</b>	6	<1
Chromium	ppm	ASTM D5185m	>5	<b>1</b>	<1	1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>30	<b>3</b>	2	2
Lead	ppm	ASTM D5185m	>30	<b>1</b>	0	0
Copper	ppm	ASTM D5185m	>150	<b>1</b>	4	0
Tin	ppm	ASTM D5185m	>5	<b>1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</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.

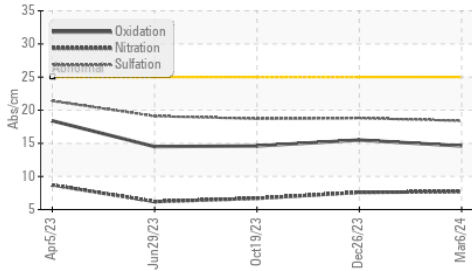
Silicon	ppm	ASTM D5185m	>20	<b>5</b>	3	0
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	4	0
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.7</b>	7.6	6.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.4</b>	18.8	18.7
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**

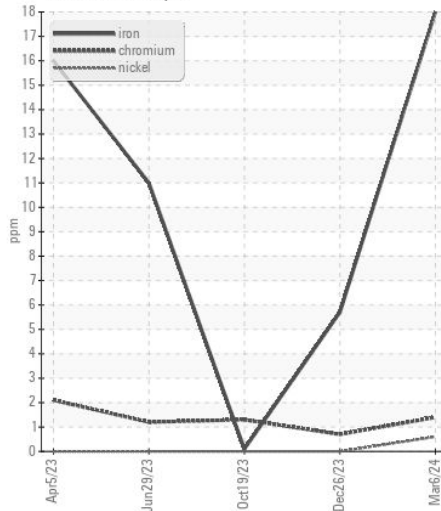
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>4</b>	2	0
Boron	ppm	ASTM D5185m	0	<b>4</b>	3	0
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	4
Molybdenum	ppm	ASTM D5185m	60	<b>62</b>	63	58
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m	1010	<b>926</b>	1020	898
Calcium	ppm	ASTM D5185m	1070	<b>1123</b>	1052	1039
Phosphorus	ppm	ASTM D5185m	1150	<b>1044</b>	1067	979
Zinc	ppm	ASTM D5185m	1270	<b>1237</b>	1283	1164
Sulfur	ppm	ASTM D5185m	2060	<b>3202</b>	2979	3215
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.6</b>	15.5	14.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>5.9</b>	8.1	8.0
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.6</b>	14.2	13.9

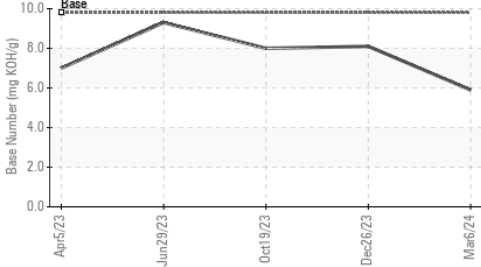
**FT-IR (Direct Trend)**



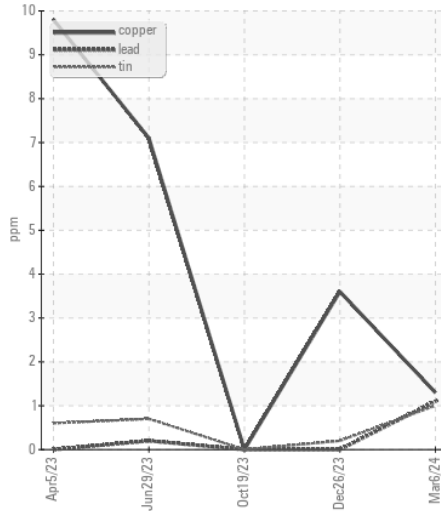
**Ferrous Alloys**



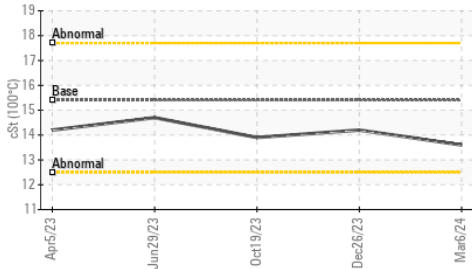
**Base Number**



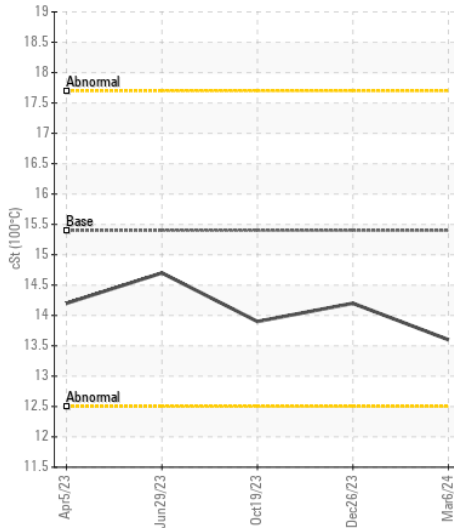
**Non-ferrous Metals**



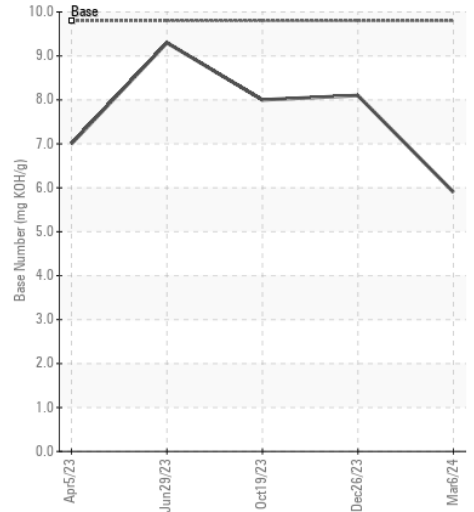
**Viscosity @ 100°C**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0108549  
**Lab Number** : 06153975  
**Unique Number** : 10989398  
**Test Package** : FLEET

**Received** : 19 Apr 2024  
**Tested** : 22 Apr 2024  
**Diagnosed** : 22 Apr 2024 - Wes Davis

**GFL Environmental - 904A - Thorpe**  
 N14985 Tieman Ave  
 Thorp, WI  
 US 54771  
 Contact: Andy Kane  
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 T: (715)202-3420  
 F:

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)