



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

Area  
**(26831XA)**  
Machine Id  
**528006**  
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>GFL0058106</b>	GFL0058120	GFL0101324
Sample Date		Client Info		<b>09 May 2024</b>	07 Feb 2024	13 Jan 2024
Machine Age	hrs	Client Info		<b>14640</b>	14153	14153
Oil Age	hrs	Client Info		<b>0</b>	13308	13308
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	N/A	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	N/A	Not Changd
Sample Status				<b>ABNORMAL</b>	ATTENTION	SEVERE

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>13</b>	9	14
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	2	3
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	2	9
Tin	ppm	ASTM D5185m	>15	<b>0</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**

Light fuel dilution occurring.

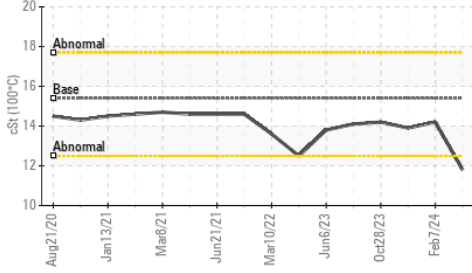
Silicon	ppm	ASTM D5185m	>25	<b>7</b>	5	7
Potassium	ppm	ASTM D5185m	>20	<b>11</b>	77	504
Fuel	%	ASTM D3524	>5	<b>2.5</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	0.10
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.2	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.1</b>	7.2	9.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.6</b>	18.9	21.2
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**

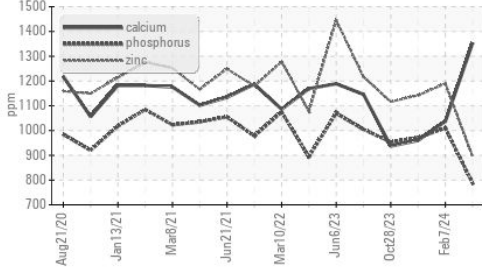
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>3</b>	16	93
Boron	ppm	ASTM D5185m	0	<b>67</b>	0	0
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>26</b>	64	107
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	1
Magnesium	ppm	ASTM D5185m	1010	<b>709</b>	913	880
Calcium	ppm	ASTM D5185m	1070	<b>1354</b>	1037	960
Phosphorus	ppm	ASTM D5185m	1150	<b>787</b>	1010	971
Zinc	ppm	ASTM D5185m	1270	<b>895</b>	1190	1142
Sulfur	ppm	ASTM D5185m	2060	<b>3399</b>	2883	2556
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.2</b>	14.7	18.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.3</b>	7.7	6.5
Visc @ 100°C	cSt	ASTM D445	15.4	<b>11.8</b>	14.2	13.9

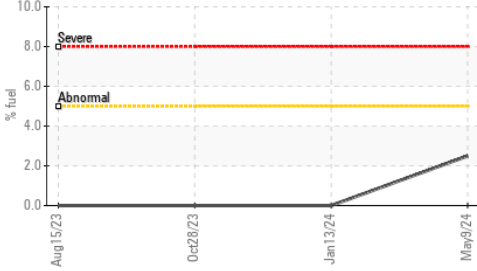
▲ Viscosity @ 100°C



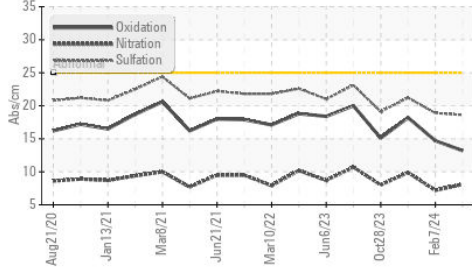
● Additives



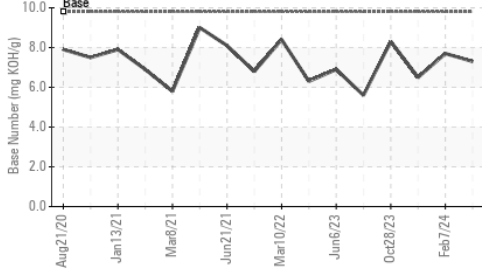
▲ Fuel Dilution



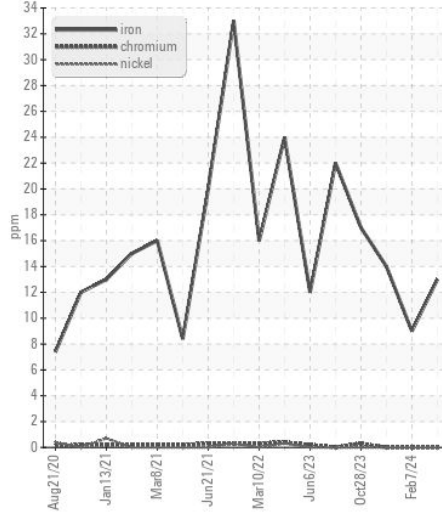
FT-IR (Direct Trend)



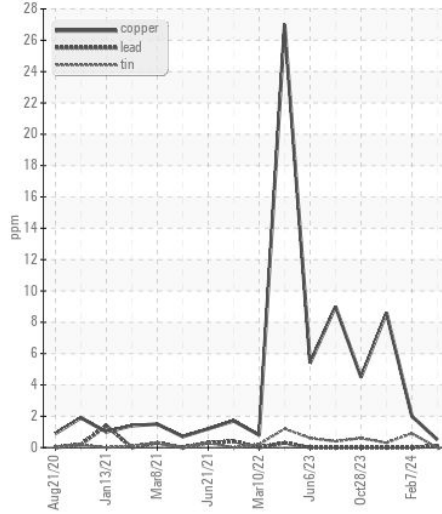
Base Number



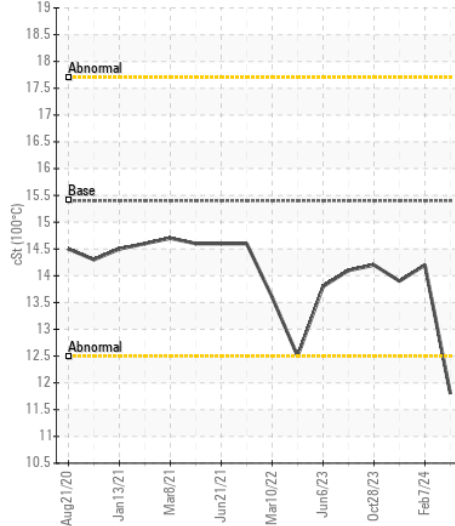
Ferrous Alloys



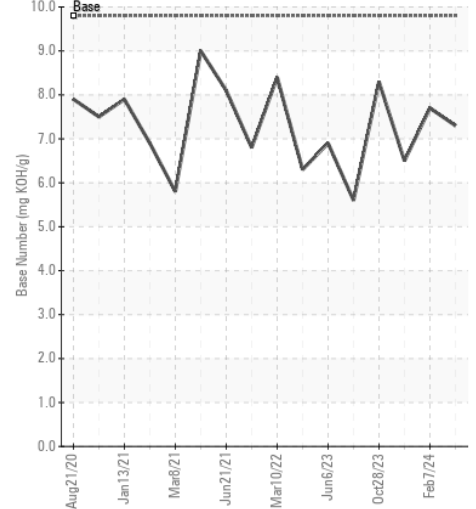
Non-ferrous Metals



▲ Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : GFL0058106

Lab Number : 06175267

Unique Number : 11021320

Test Package : FLEET ( Additional Tests: FuelDilution, PercentFuel )

Received : 10 May 2024

Tested : 15 May 2024

Diagnosed : 15 May 2024 - Wes Davis

GFL Environmental - 654 - Richmond Hauling

11800 Lewis Road

Chester, VA

US 23831

Contact: Jimmy Mayes

jmayes@gflenv.com

T:

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)