



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

Machine Id  
**12036**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (32 QTS)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0111414</b>	GFL0068835	GFL0068878
Sample Date		Client Info		<b>20 May 2024</b>	29 Mar 2024	08 Feb 2024
Machine Age	hrs	Client Info		<b>14668</b>	14332	13968
Oil Age	hrs	Client Info		<b>336</b>	489	125
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	Changed	Not Changd
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	<b>8</b>	14	5
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>15	<b>2</b>	2	3
Lead	ppm	ASTM D5185m	>25	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>100	<b>&lt;1</b>	0	0
Tin	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	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.

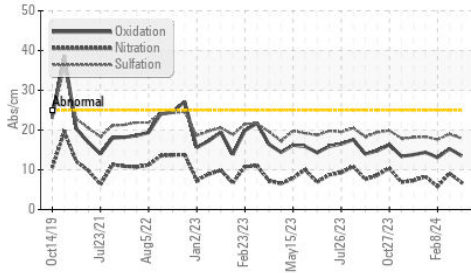
Silicon	ppm	ASTM D5185m	>25	<b>4</b>	6	7
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	3	0
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>6	<b>0.3</b>	0.6	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.8</b>	9.1	5.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>17.9</b>	19.0	17.6
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**

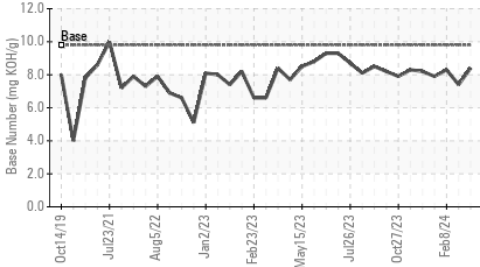
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>79</b>	▲ 187	64
Boron	ppm	ASTM D5185m	0	<b>1</b>	6	6
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>61</b>	62	55
Manganese	ppm	ASTM D5185m	0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>1011</b>	867	860
Calcium	ppm	ASTM D5185m	1070	<b>1091</b>	951	932
Phosphorus	ppm	ASTM D5185m	1150	<b>1068</b>	967	978
Zinc	ppm	ASTM D5185m	1270	<b>1343</b>	1144	1129
Sulfur	ppm	ASTM D5185m	2060	<b>3774</b>	3189	2808
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.5</b>	15.3	13.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.4</b>	7.4	8.3
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.4</b>	12.9	13.1

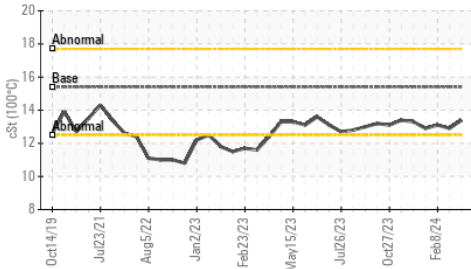
**FT-IR (Direct Trend)**



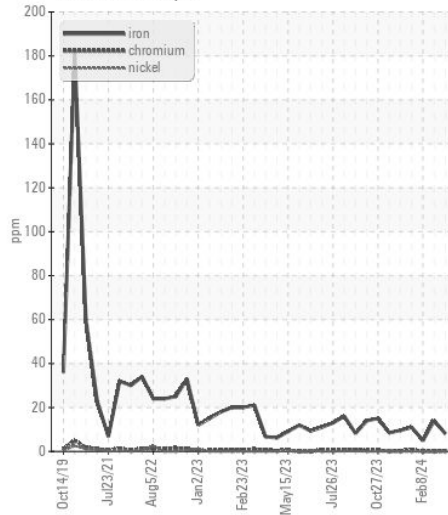
**Base Number**



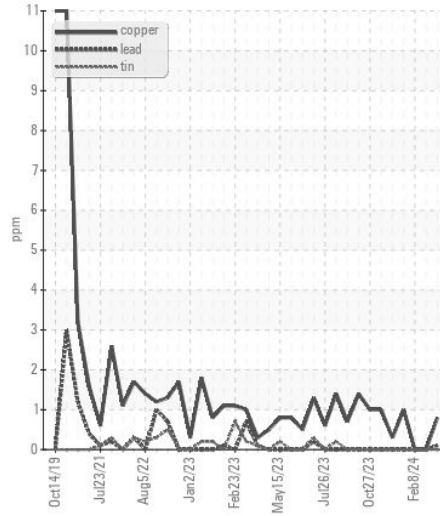
**Viscosity @ 100°C**



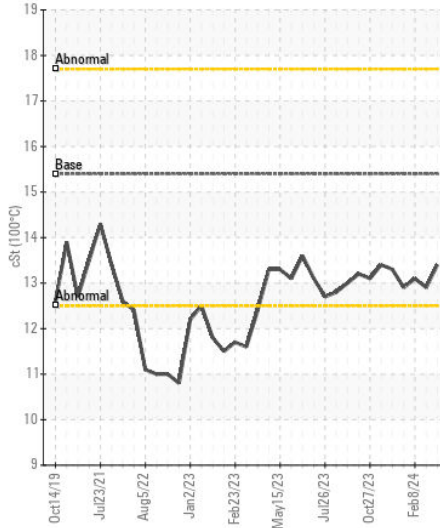
**Ferrous Alloys**



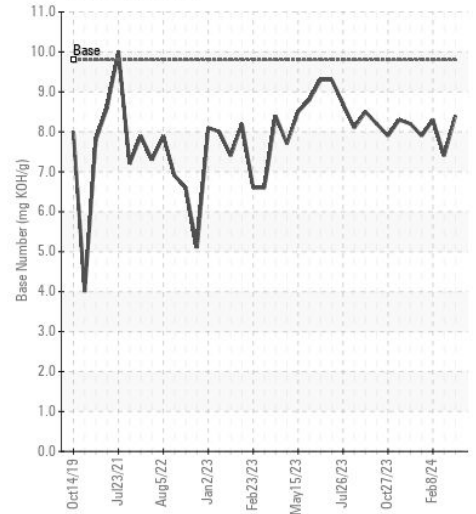
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0111414  
**Lab Number** : 06187503  
**Unique Number** : 11044255  
**Test Package** : FLEET

**Received** : 22 May 2024  
**Tested** : 23 May 2024  
**Diagnosed** : 23 May 2024 - Wes Davis

**GFL Environmental - 073 - Warner Robins - Transwaste**  
 155 Story Road  
 Warner Robins, GA  
 US 31093  
 Contact: JOSH MALONEY  
 jmaloney@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: