



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

Area

**(NR6797) [D service]**

Machine Id

**212017**

Component

**Diesel Engine**

Fluid

**PETRO CANADA DURON SHP 15W40 (--- QTS)**

**RECOMMENDATION**

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0124487</b>	GFL0087792	GFL0073794
Sample Date		Client Info		<b>15 Jul 2024</b>	26 Jul 2023	13 Apr 2023
Machine Age	hrs	Client Info		<b>65500</b>	3677	3163
Oil Age	hrs	Client Info		<b>900</b>	514	750
Filter Age	hrs	Client Info		<b>0</b>	0	0
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	>100	<b>70</b>	24	24
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>6</b>	3	<1
Lead	ppm	ASTM D5185m	>40	<b>2</b>	0	<1
Copper	ppm	ASTM D5185m	>330	<b>11</b>	6	19
Tin	ppm	ASTM D5185m	>15	<b>2</b>	<1	1
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.

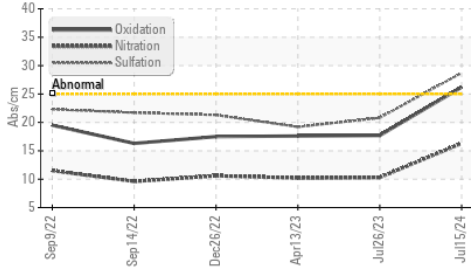
Silicon	ppm	ASTM D5185m	>25	<b>9</b>	5	6
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	0	2
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>1.7</b>	0.6	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>16.3</b>	10.3	10.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>28.7</b>	20.8	19.2
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**

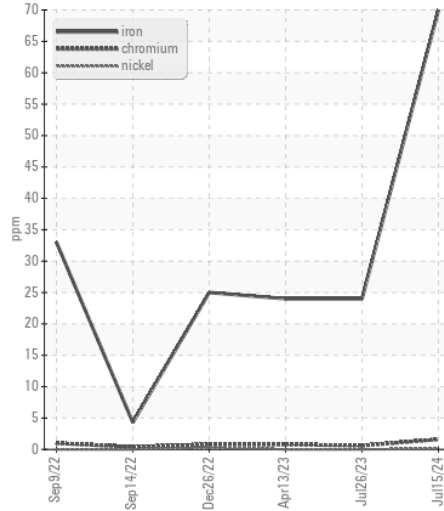
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>6</b>	2	0
Boron	ppm	ASTM D5185m	0	<b>4</b>	6	8
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	2
Molybdenum	ppm	ASTM D5185m	60	<b>69</b>	72	69
Manganese	ppm	ASTM D5185m	0	<b>2</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>1024</b>	1059	825
Calcium	ppm	ASTM D5185m	1070	<b>1256</b>	1345	1299
Phosphorus	ppm	ASTM D5185m	1150	<b>1112</b>	1214	1048
Zinc	ppm	ASTM D5185m	1270	<b>1404</b>	1452	1288
Sulfur	ppm	ASTM D5185m	2060	<b>3357</b>	3966	3045
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>26.2</b>	17.7	17.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>6.4</b>	8.2	6.2
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.3</b>	13.9	13.6

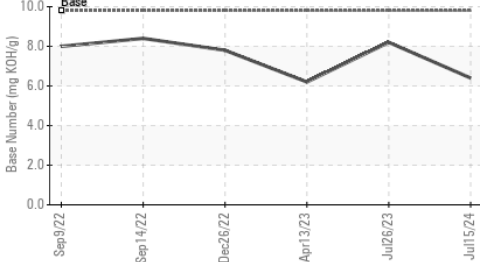
**FT-IR (Direct Trend)**



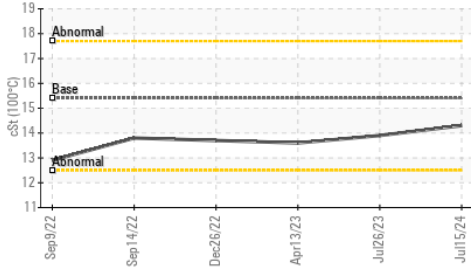
**Ferrous Alloys**



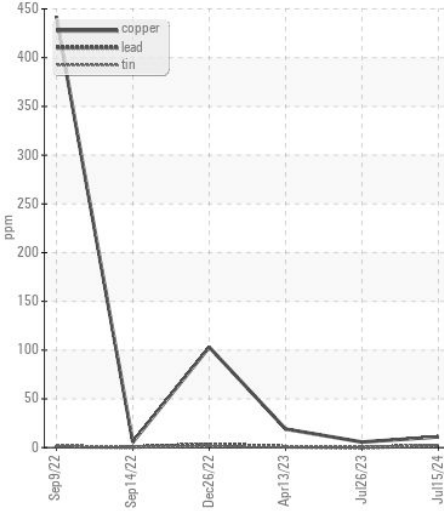
**Base Number**



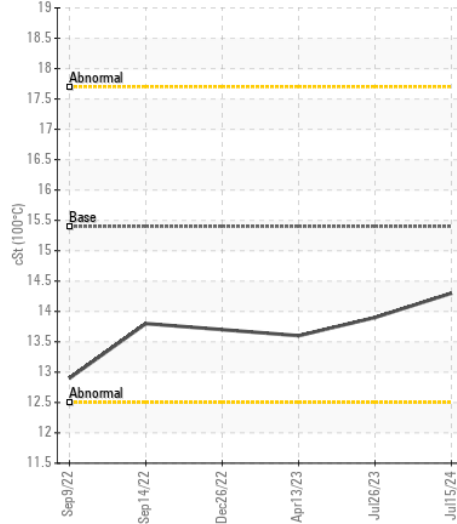
**Viscosity @ 100°C**



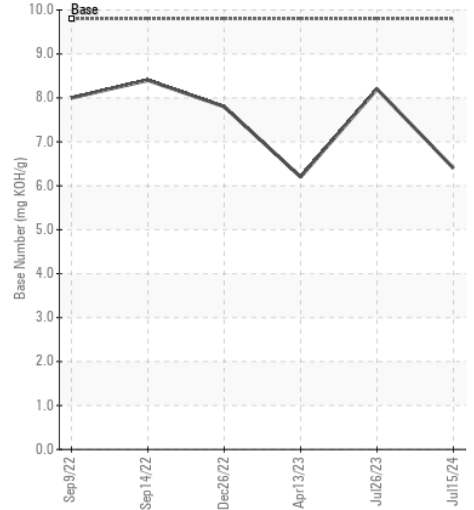
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0124487  
**Lab Number** : 06238782  
**Unique Number** : 11127616  
**Test Package** : FLEET

**Received** : 17 Jul 2024  
**Tested** : 17 Jul 2024  
**Diagnosed** : 18 Jul 2024 - Sean Felton

**GFL Environmental - 006 - Wilmington**  
 3618 US Highway 421 N  
 Wilmington, NC  
 US 28401  
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 F: (910)762-6880

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)