



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



Machine Id  
**729071-30**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (--- LTR)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0058065</b>	GFL0070949	GFL0058059
Sample Date		Client Info		<b>22 May 2024</b>	01 Apr 2024	25 Mar 2024
Machine Age	hrs	Client Info		<b>12061</b>	11862	11796
Oil Age	hrs	Client Info		<b>600</b>	30	600
Filter Age	hrs	Client Info		<b>600</b>	30	600
Oil Changed		Client Info		<b>Changed</b>	Not Chngd	Changed
Filter Changed		Client Info		<b>Changed</b>	Not Chngd	Changed
Sample Status				<b>NORMAL</b>	MARGINAL	SEVERE

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	<b>14</b>	6	29
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>10</b>	3	13
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	0	1
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	2
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
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.

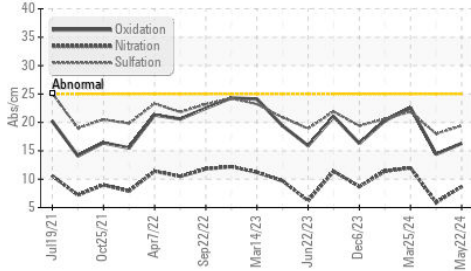
Silicon	ppm	ASTM D5185m	>25	<b>4</b>	2	5
Potassium	ppm	ASTM D5185m	>20	<b>21</b>	5	26
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	▲ 1.9	▲ 8.4
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>6	<b>0.4</b>	0.1	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.7</b>	5.9	12.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.4</b>	18.0	21.9
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**

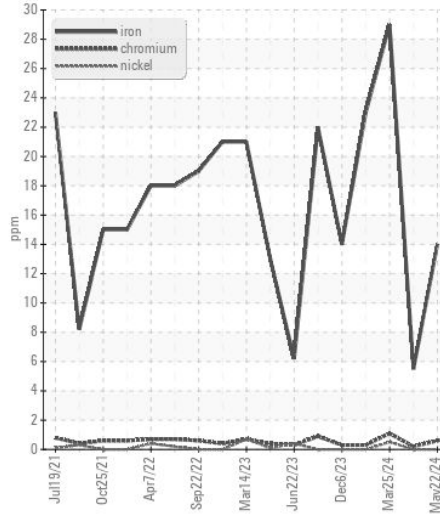
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>5</b>	2	8
Boron	ppm	ASTM D5185m	0	<b>0</b>	1	<1
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>58</b>	59	54
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m	1010	<b>980</b>	1025	881
Calcium	ppm	ASTM D5185m	1070	<b>1067</b>	1113	973
Phosphorus	ppm	ASTM D5185m	1150	<b>1055</b>	1103	896
Zinc	ppm	ASTM D5185m	1270	<b>1239</b>	1350	1122
Sulfur	ppm	ASTM D5185m	2060	<b>3610</b>	4093	3259
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.3</b>	14.4	22.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.5</b>	8.9	5.3
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.6</b>	14.1	▲ 12.1

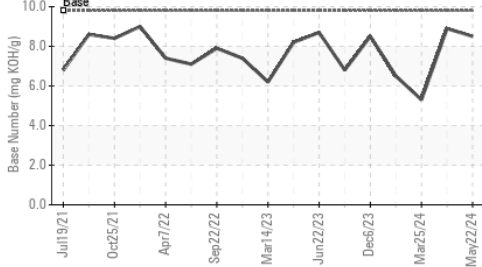
**FT-IR (Direct Trend)**



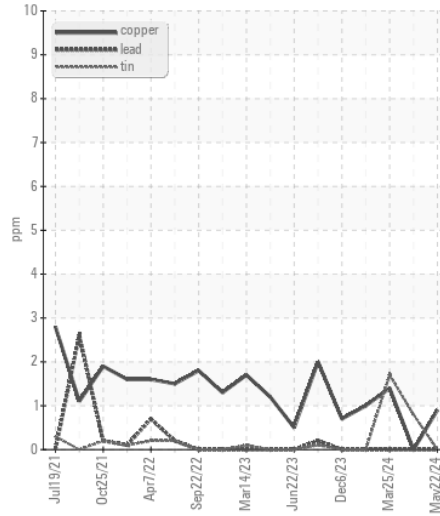
**Ferrous Alloys**



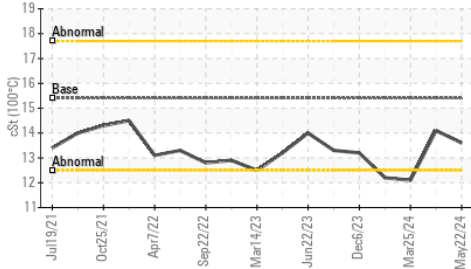
**Base Number**



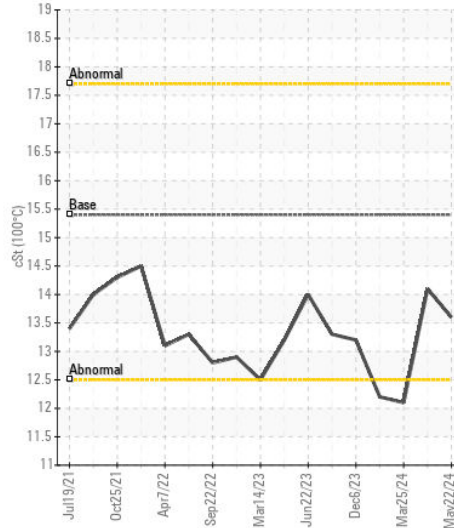
**Non-ferrous Metals**



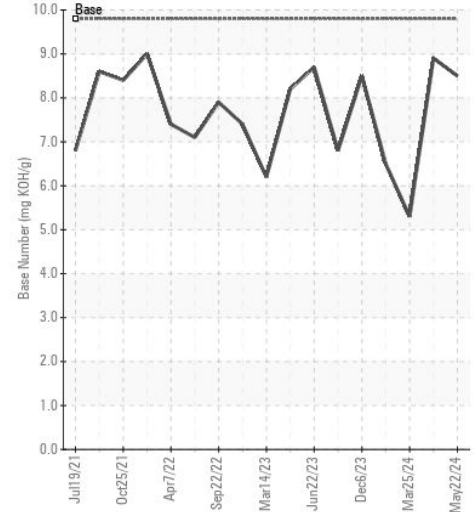
**Viscosity @ 100°C**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0058065  
**Lab Number** : 06191433  
**Unique Number** : 11048185  
**Test Package** : FLEET

**Received** : 24 May 2024  
**Tested** : 29 May 2024  
**Diagnosed** : 29 May 2024 - Wes Davis

**GFL Environmental - 683 - Ruckersville Hauling**  
 261 INDUSTRIAL DR  
 Ruckersville, VA  
 US 22698

Contact: Jaf Finney  
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 T: (434)990-4972

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)

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