



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



Area  
**(00691H8)**  
Machine Id  
**811055**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (9 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0098889</b>	GFL0099015	GFL0098864
Sample Date		Client Info		<b>30 Apr 2024</b>	21 Mar 2024	29 Feb 2024
Machine Age	hrs	Client Info		<b>6851</b>	6384	6384
Oil Age	hrs	Client Info		<b>3826</b>	3826	3826
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Diff Oil</b>	Diff Oil	N/A
Filter Changed		Client Info		<b>Changed</b>	Changed	N/A
Sample Status				<b>NORMAL</b>	NORMAL	ABNORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>15</b>	9	16
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>5	<b>2</b>	<1	0
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>6</b>	1	3
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	4
Copper	ppm	ASTM D5185m	>330	<b>36</b>	<1	<1
Tin	ppm	ASTM D5185m	>15	<b>1</b>	0	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.

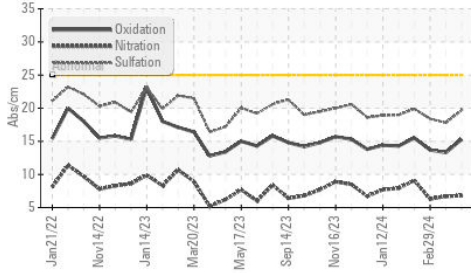
Silicon	ppm	ASTM D5185m	>25	<b>12</b>	3	4
Potassium	ppm	ASTM D5185m	>20	<b>15</b>	2	▲ 80
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	▲ 2.1
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>4	<b>0.2</b>	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.8</b>	6.7	6.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.7</b>	17.8	18.4
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**

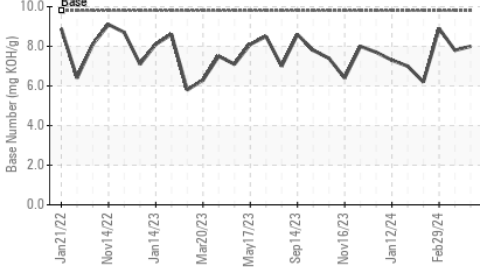
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>1</b>	2	▲ 128
Boron	ppm	ASTM D5185m	0	<b>37</b>	0	1
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>68</b>	57	72
Manganese	ppm	ASTM D5185m	0	<b>1</b>	<1	0
Magnesium	ppm	ASTM D5185m	1010	<b>853</b>	962	981
Calcium	ppm	ASTM D5185m	1070	<b>1113</b>	1124	1149
Phosphorus	ppm	ASTM D5185m	1150	<b>972</b>	1022	1199
Zinc	ppm	ASTM D5185m	1270	<b>1120</b>	1289	1283
Sulfur	ppm	ASTM D5185m	2060	<b>2920</b>	3788	3676
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.3</b>	13.3	13.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.0</b>	7.8	8.9
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.0</b>	14.0	● 11.8

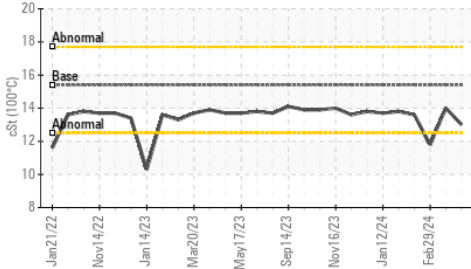
**FT-IR (Direct Trend)**



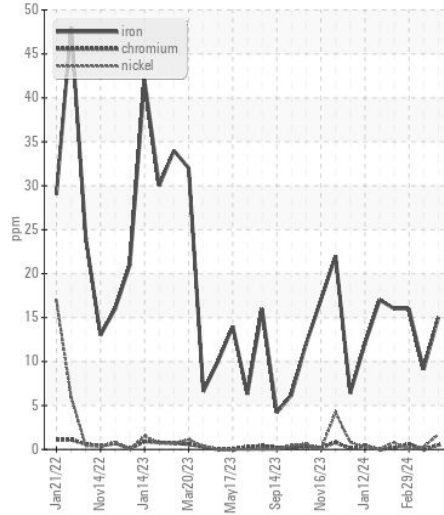
**Base Number**



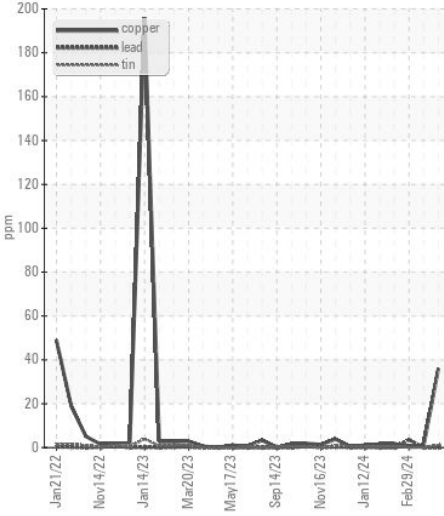
**Viscosity @ 100°C**



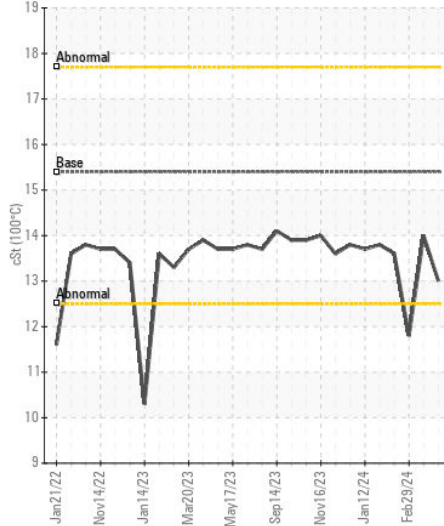
**Ferrous Alloys**



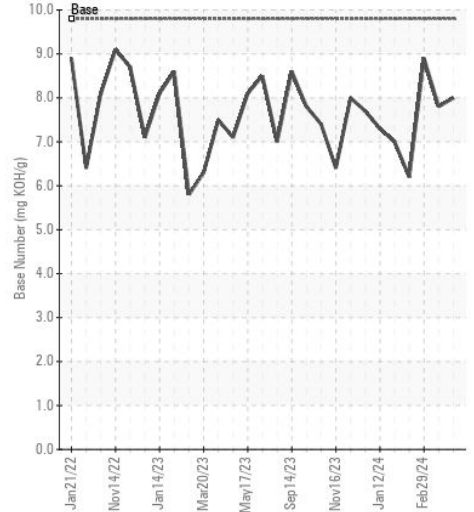
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0098889  
**Lab Number** : 06174954  
**Unique Number** : 11021007  
**Test Package** : FLEET

**Received** : 09 May 2024  
**Tested** : 10 May 2024  
**Diagnosed** : 10 May 2024 - Wes Davis

**GFL Environmental - 084 - Clarksville**  
 699 Jack Miller Boulevard  
 Clarksville, TN  
 US 37042

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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)