



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



Area  
**(BD17484)**  
Machine Id  
**910094**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor. ( Customer Sample Comment: 555 hours since last service. Services completed )

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0116239</b>	GFL0116282	GFL0094881
Sample Date		Client Info		<b>08 Jul 2024</b>	18 Apr 2024	22 Jan 2024
Machine Age	hrs	Client Info		<b>5323</b>	4821	4316
Oil Age	hrs	Client Info		<b>555</b>	53	574
Filter Age	hrs	Client Info		<b>555</b>	53	574
Oil Changed		Client Info		<b>Changed</b>	Not Changd	Changed
Filter Changed		Client Info		<b>Changed</b>	Not Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>10</b>	11	14
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	<1	1
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>20	<b>&lt;1</b>	3	3
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	1	1
Copper	ppm	ASTM D5185m	>330	<b>2</b>	4	4
Tin	ppm	ASTM D5185m	>15	<b>0</b>	2	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**

There is no indication of any contamination in the oil.

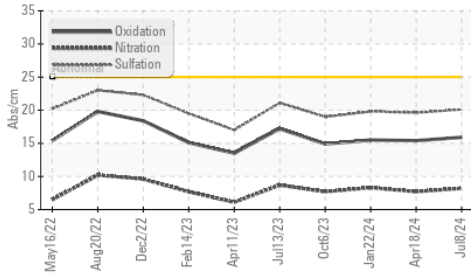
Silicon	ppm	ASTM D5185m	>25	<b>4</b>	5	8
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	5	4
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>4	<b>0.6</b>	0.5	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.2</b>	7.7	8.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.1</b>	19.6	19.8
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**

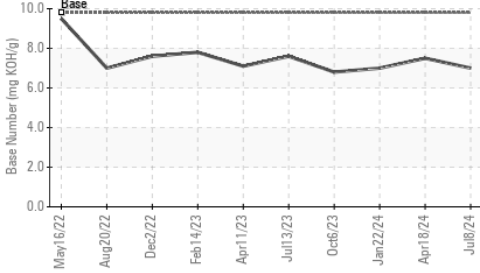
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>6</b>	6	13
Boron	ppm	ASTM D5185m	0	<b>3</b>	3	2
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>55</b>	62	59
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>835</b>	886	912
Calcium	ppm	ASTM D5185m	1070	<b>1203</b>	1067	1043
Phosphorus	ppm	ASTM D5185m	1150	<b>959</b>	1015	930
Zinc	ppm	ASTM D5185m	1270	<b>1175</b>	1181	1168
Sulfur	ppm	ASTM D5185m	2060	<b>2845</b>	2909	2806
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.9</b>	15.4	15.5
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.0</b>	7.5	7.0
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.2</b>	13.0	12.8

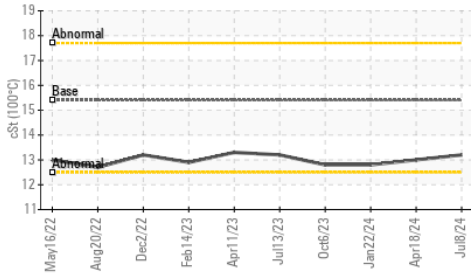
**FT-IR (Direct Trend)**



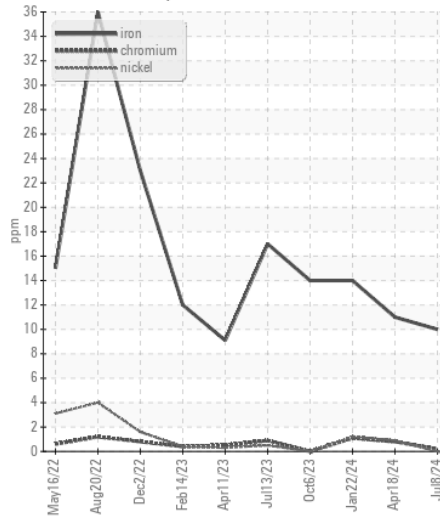
**Base Number**



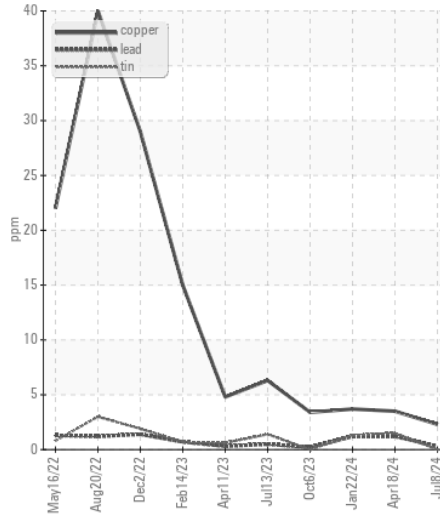
**Viscosity @ 100°C**



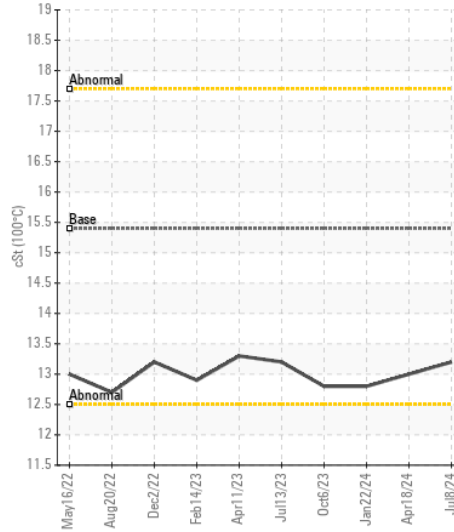
**Ferrous Alloys**



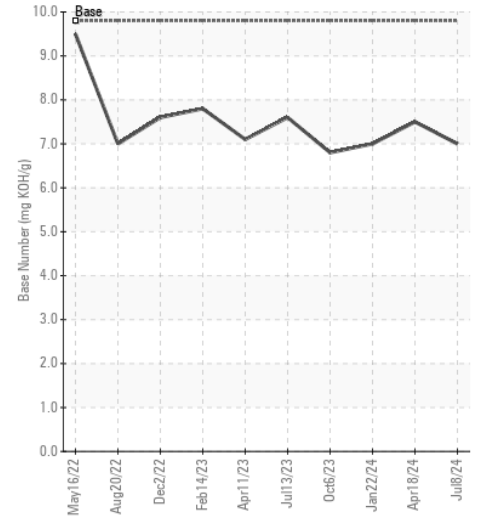
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0116239  
**Lab Number** : 06234326  
**Unique Number** : 11123160  
**Test Package** : FLEET

**GFL Environmental - 625 - Harrison Hauling**  
 2480 S Clare Ave  
 Clare, MI  
 US 48617  
 Contact: Glenda Standen  
 gstanden@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)