



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



Area  
**(P8572D) [GFL152]**  
Machine Id  
**429080**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (8 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0106046</b>	GFL0106201	GFL0078671
Sample Date		Client Info		<b>25 Jun 2024</b>	20 Mar 2024	24 Oct 2023
Machine Age	hrs	Client Info		<b>13831</b>	13831	12799
Oil Age	hrs	Client Info		<b>600</b>	0	600
Filter Age	hrs	Client Info		<b>600</b>	0	600
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>6</b>	7	4
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	2	0
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	3	1
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	1	<1
Copper	ppm	ASTM D5185m	>330	<b>1</b>	33	<1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	1	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.

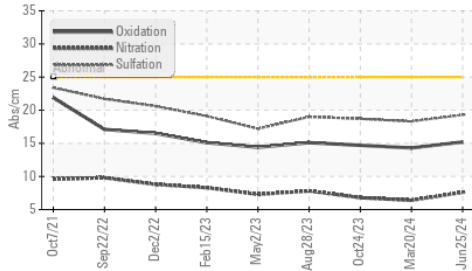
Silicon	ppm	ASTM D5185m	>25	<b>6</b>	4	4
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	3	3
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>4	<b>0.2</b>	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.6</b>	6.4	6.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.3</b>	18.3	18.7
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**

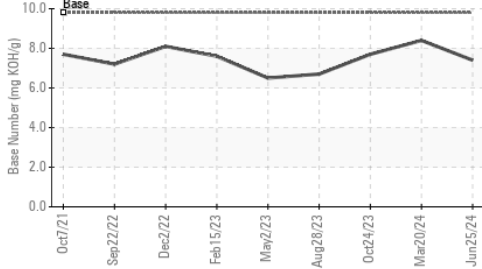
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>5</b>	0	3
Boron	ppm	ASTM D5185m	0	<b>8</b>	17	9
Barium	ppm	ASTM D5185m	0	<b>0</b>	1	0
Molybdenum	ppm	ASTM D5185m	60	<b>75</b>	70	61
Manganese	ppm	ASTM D5185m	0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>1106</b>	878	917
Calcium	ppm	ASTM D5185m	1070	<b>1339</b>	1299	1020
Phosphorus	ppm	ASTM D5185m	1150	<b>1284</b>	1113	941
Zinc	ppm	ASTM D5185m	1270	<b>1533</b>	1294	1260
Sulfur	ppm	ASTM D5185m	2060	<b>3413</b>	3653	2718
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.2</b>	14.3	14.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.4</b>	8.4	7.7
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.5</b>	13.8	13.6

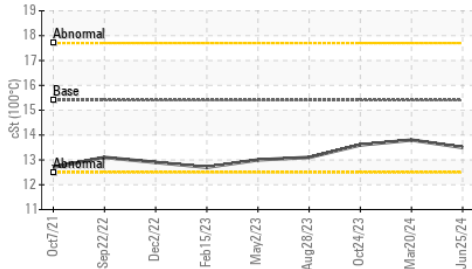
**FT-IR (Direct Trend)**



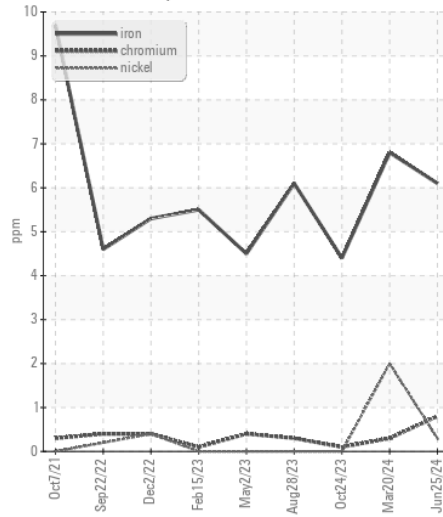
**Base Number**



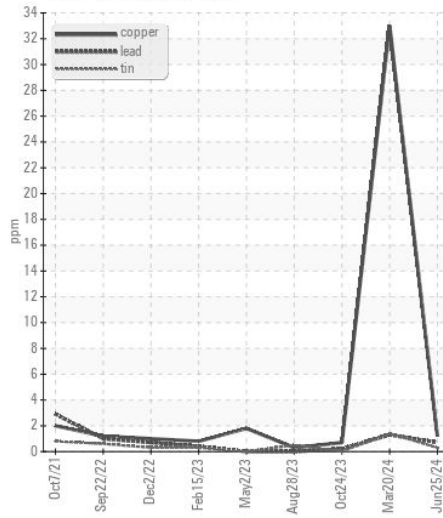
**Viscosity @ 100°C**



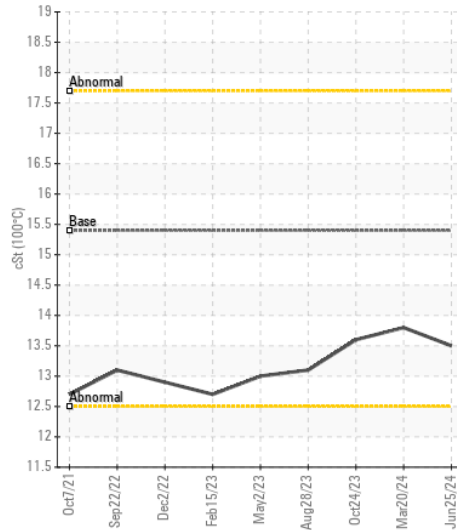
**Ferrous Alloys**



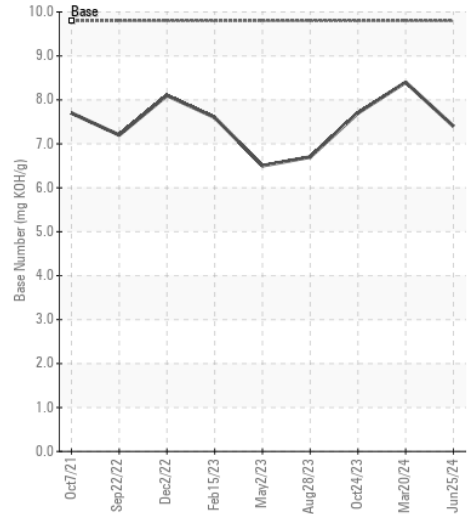
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0106046  
**Lab Number** : 06224182  
**Unique Number** : 11102379  
**Test Package** : FLEET

**Received** : 28 Jun 2024  
**Tested** : 01 Jul 2024  
**Diagnosed** : 01 Jul 2024 - Wes Davis

**GFL Environmental - 152 - Jacksonville**  
 7580 PHILIPS HWY  
 Jacksonville, FL  
 US 32256  
 Contact: Chris Smith  
 chris.smith@gflenv.com  
 T: (904)252-0013  
 F:

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)