



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

Area  
**(YA154622) Whiteville NC**

Machine Id  
**3858**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (11 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0110481</b>	GFL0083369	GFL0083370
Sample Date		Client Info		<b>18 Jun 2024</b>	12 Jan 2024	17 Nov 2023
Machine Age	hrs	Client Info		<b>11737</b>	11215	11004
Oil Age	hrs	Client Info		<b>522</b>	600	600
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	>165	<b>9</b>	4	9
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	<1	2
Lead	ppm	ASTM D5185m	>150	<b>&lt;1</b>	<1	0
Copper	ppm	ASTM D5185m	>90	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>5	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<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.

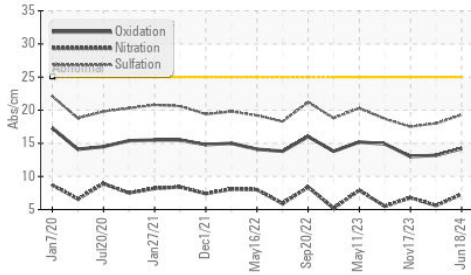
Silicon	ppm	ASTM D5185m	>35	<b>3</b>	4	4
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	1	6
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>7.5	<b>0.7</b>	0.4	0.7
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.3</b>	5.6	6.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.3</b>	18.0	17.5
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**

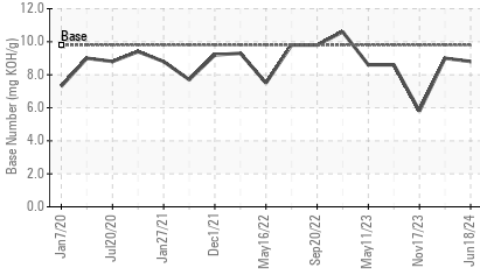
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>4</b>	3	10
Boron	ppm	ASTM D5185m	0	<b>0</b>	0	3
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>62</b>	57	61
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>1061</b>	1021	998
Calcium	ppm	ASTM D5185m	1070	<b>1201</b>	1087	1091
Phosphorus	ppm	ASTM D5185m	1150	<b>1148</b>	1003	1085
Zinc	ppm	ASTM D5185m	1270	<b>1410</b>	1280	1327
Sulfur	ppm	ASTM D5185m	2060	<b>3854</b>	3160	3312
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.2</b>	13.2	13.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.8</b>	9.0	5.8
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.3</b>	14.2	14.0

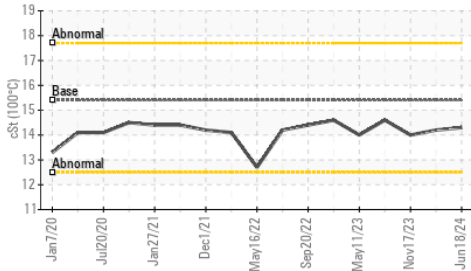
**FT-IR (Direct Trend)**



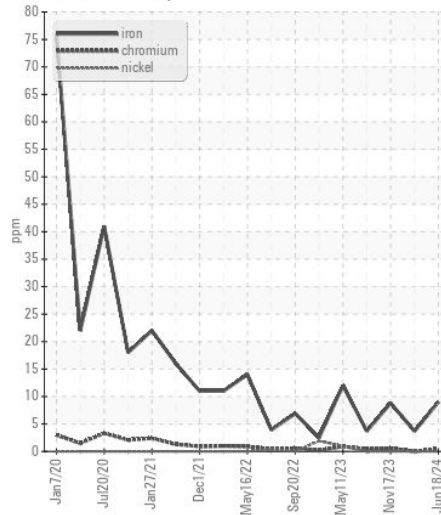
**Base Number**



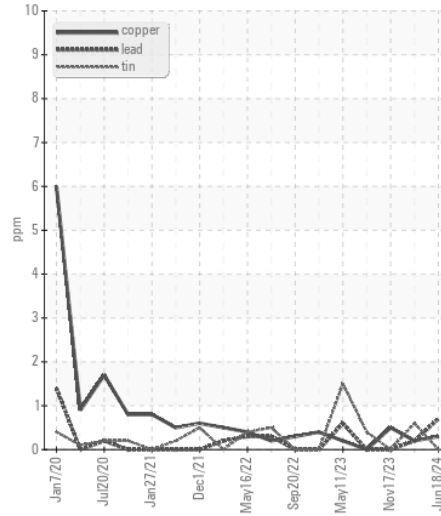
**Viscosity @ 100°C**



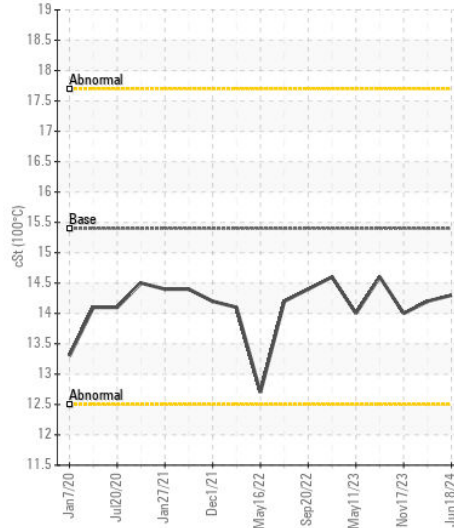
**Ferrous Alloys**



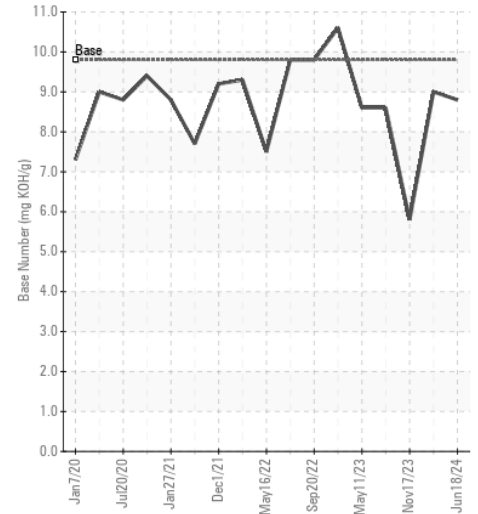
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0110481  
**Lab Number** : 06215546  
**Unique Number** : 11088410  
**Test Package** : FLEET

**Received** : 20 Jun 2024  
**Tested** : 21 Jun 2024  
**Diagnosed** : 21 Jun 2024 - Wes Davis

**GFL Environmental - 108 - Whiteville**  
 5240 James B White Hwy South  
 Whiteville, NC  
 US 28472

Contact: Victor McGee  
 victor.mcgee@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)

T:  
 F: