



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



Area  
**(GAC711)**  
Machine Id  
**913015**  
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>GFL0103405</b>	GFL0103411	GFL0092456
Sample Date		Client Info		<b>08 Apr 2024</b>	24 Jan 2024	11 Dec 2023
Machine Age	hrs	Client Info		<b>4222</b>	3657	3584
Oil Age	hrs	Client Info		<b>565</b>	73	546
Filter Age	hrs	Client Info		<b>565</b>	73	546
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	ATTENTION

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>17</b>	4	11
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	9	▲ 8
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	2	1
Lead	ppm	ASTM D5185m	>40	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>330	<b>54</b>	<1	2
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<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.

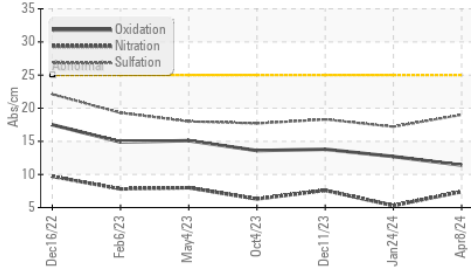
Silicon	ppm	ASTM D5185m	>25	<b>6</b>	3	3
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	2	2
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	0.2
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>4	<b>0.3</b>	0.1	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.4</b>	5.3	7.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.0</b>	17.2	18.3
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**

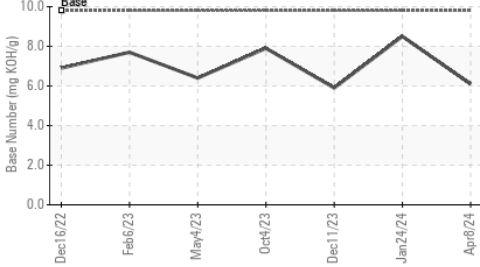
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>1</b>	3	3
Boron	ppm	ASTM D5185m	0	<b>&lt;1</b>	11	2
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>6</b>	53	51
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m	1010	<b>110</b>	810	728
Calcium	ppm	ASTM D5185m	1070	<b>2374</b>	1108	845
Phosphorus	ppm	ASTM D5185m	1150	<b>964</b>	973	765
Zinc	ppm	ASTM D5185m	1270	<b>1165</b>	1173	970
Sulfur	ppm	ASTM D5185m	2060	<b>4131</b>	3022	2551
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>11.4</b>	12.7	13.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>6.1</b>	8.5	5.9
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.2</b>	13.6	● 12.0

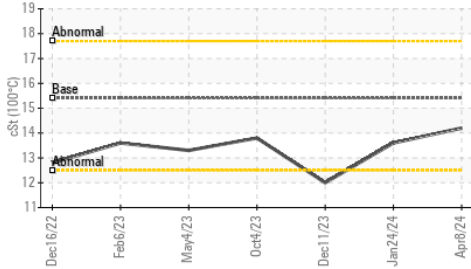
**FT-IR (Direct Trend)**



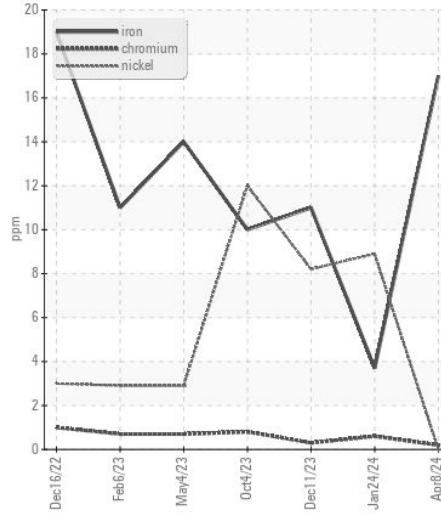
**Base Number**



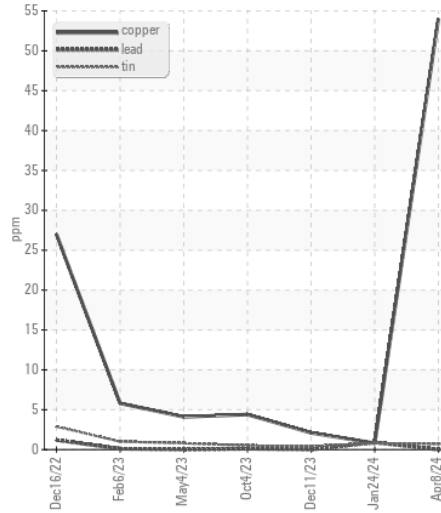
**Viscosity @ 100°C**



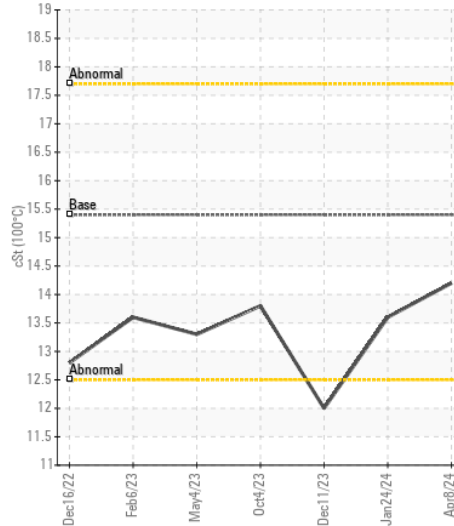
**Ferrous Alloys**



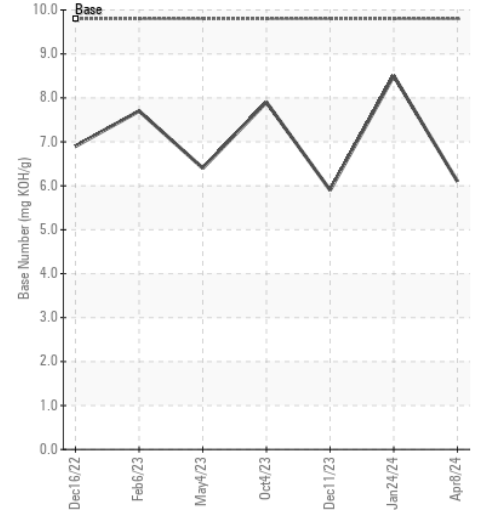
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0103405  
**Lab Number** : 06146494  
**Unique Number** : 10976572  
**Test Package** : FLEET

**Received** : 11 Apr 2024  
**Tested** : 12 Apr 2024  
**Diagnosed** : 15 Apr 2024 - Sean Felton

**GFL Environmental - 095 - Atlanta West**  
 2699 Cochran Industrial Blvd  
 Douglasville, GA  
 US 30127-1332  
 Contact: Darrell Welch  
 darrell.welch@gflenv.com  
 T: (800)207-6618  
 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)