



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

Machine Id  
**828060-101267**

Component  
**Diesel Engine**

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

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0101988</b>	GFL0101981	GFL0101961
Sample Date		Client Info		<b>13 Feb 2024</b>	26 Jan 2024	19 Dec 2023
Machine Age	hrs	Client Info		<b>13922</b>	13823	13670
Oil Age	hrs	Client Info		<b>474</b>	375	222
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>14</b>	15	10
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	4	2
Lead	ppm	ASTM D5185m	>40	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>330	<b>1</b>	<1	<1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

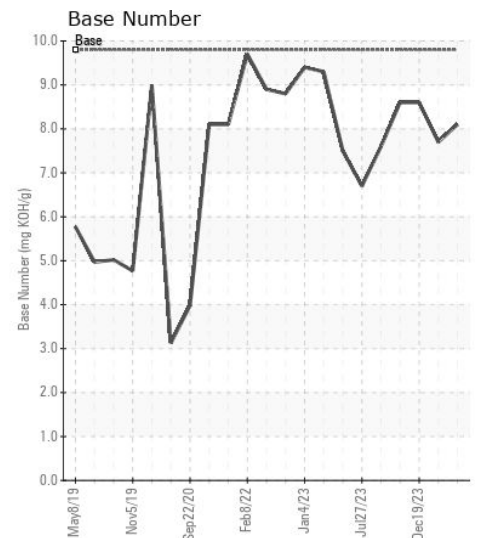
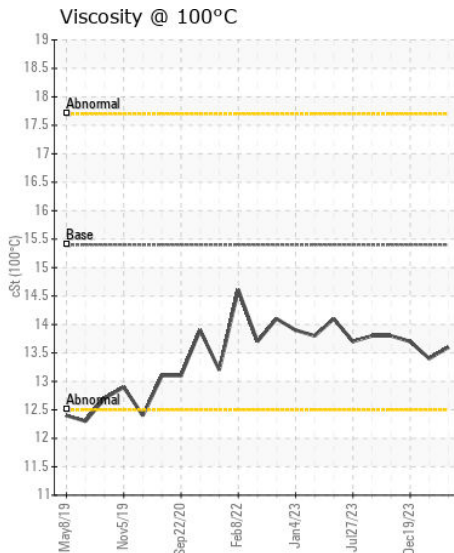
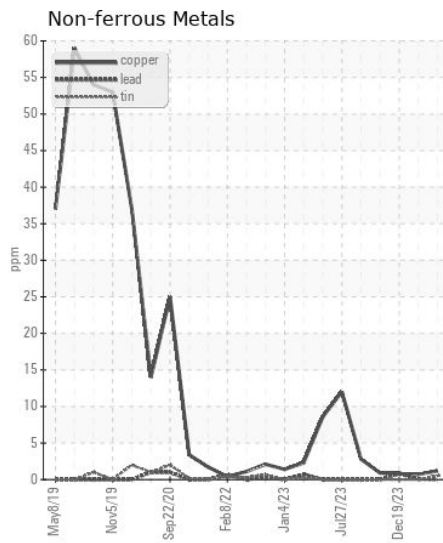
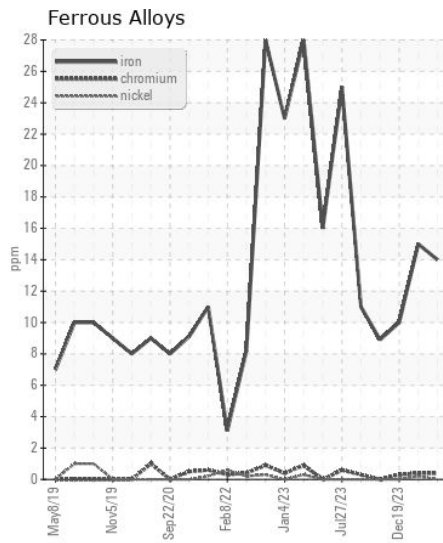
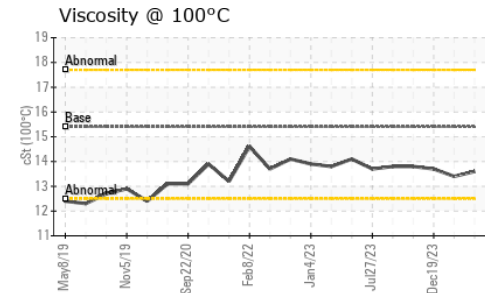
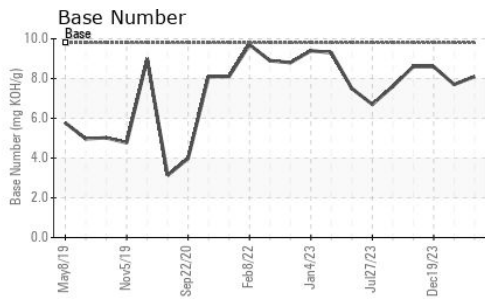
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>5</b>	5	4
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	2	<1
Fuel		WC Method	>5	<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	>3	<b>0.3</b>	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.8</b>	8.0	7.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.4</b>	19.4	18.8
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>23</b>	21	20
Boron	ppm	ASTM D5185m	0	<b>3</b>	2	2
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>60</b>	59	58
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m	1010	<b>993</b>	1012	908
Calcium	ppm	ASTM D5185m	1070	<b>1060</b>	1120	1032
Phosphorus	ppm	ASTM D5185m	1150	<b>1073</b>	1124	950
Zinc	ppm	ASTM D5185m	1270	<b>1271</b>	1348	1167
Sulfur	ppm	ASTM D5185m	2060	<b>3154</b>	3268	2978
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.1</b>	16.1	15.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.1</b>	7.7	8.6
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.6</b>	13.4	13.7



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0101988  
**Lab Number** : 06089409  
**Unique Number** : 10876854  
**Test Package** : FLEET

**Received** : 14 Feb 2024  
**Tested** : 15 Feb 2024  
**Diagnosed** : 15 Feb 2024 - Wes Davis

**GFL Environmental - 894 - Ada Hauling**  
 1904 North Broadway, Suite D  
 Ada, OK  
 US 74820

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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)