



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

Machine Id  
**428058-402378**

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>GFL0105244</b>	GFL0105320	GFL0090321
Sample Date		Client Info		<b>26 Feb 2024</b>	02 Feb 2024	20 Dec 2023
Machine Age	hrs	Client Info		<b>13529</b>	13374	13161
Oil Age	hrs	Client Info		<b>300</b>	600	150
Filter Age	hrs	Client Info		<b>300</b>	600	150
Oil Changed		Client Info		<b>Not Chngd</b>	Changed	Not Chngd
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	>110	<b>9</b>	10	2
Chromium	ppm	ASTM D5185m	>4	<b>1</b>	<1	0
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>3</b>	2	<1
Lead	ppm	ASTM D5185m	>45	<b>1</b>	1	<1
Copper	ppm	ASTM D5185m	>85	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

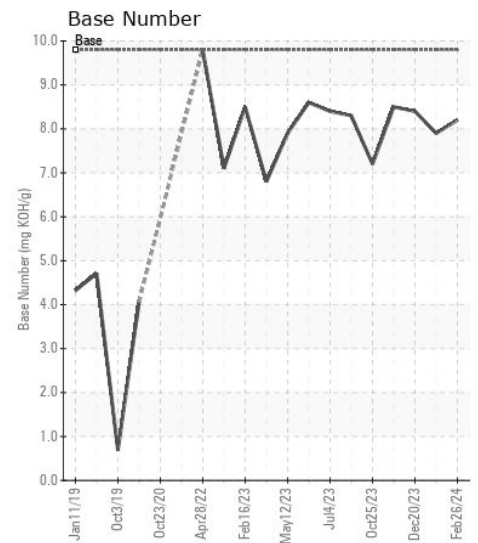
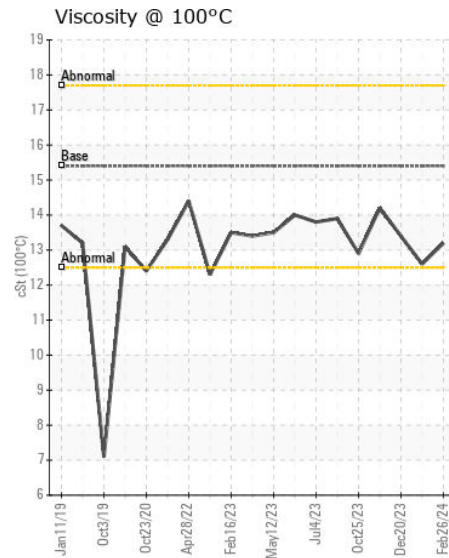
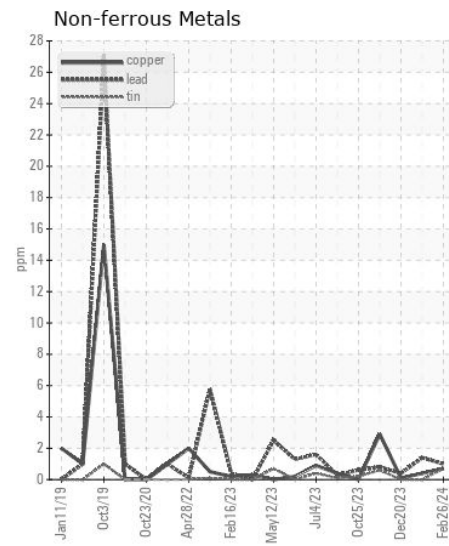
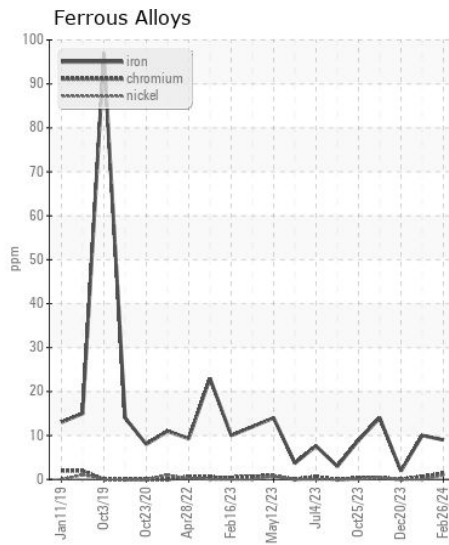
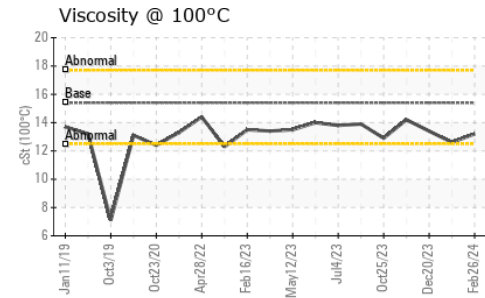
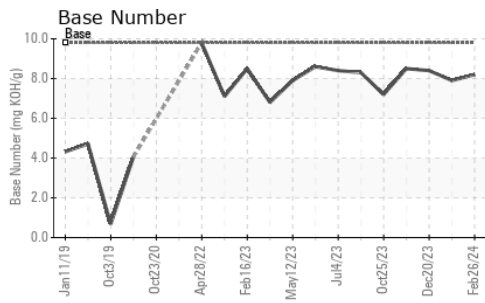
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	<b>5</b>	4	3
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	3	0
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>0.2</b>	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.3</b>	7.4	5.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.5</b>	19.1	18.4
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>	4	3
Boron	ppm	ASTM D5185m	0	<b>3</b>	0	0
Barium	ppm	ASTM D5185m	0	<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>72</b>	56	53
Manganese	ppm	ASTM D5185m	0	<b>1</b>	<1	0
Magnesium	ppm	ASTM D5185m	1010	<b>1092</b>	901	910
Calcium	ppm	ASTM D5185m	1070	<b>1206</b>	978	962
Phosphorus	ppm	ASTM D5185m	1150	<b>1050</b>	973	1012
Zinc	ppm	ASTM D5185m	1270	<b>1417</b>	1196	1198
Sulfur	ppm	ASTM D5185m	2060	<b>3775</b>	2919	2985
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.8</b>	14.9	14.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.2</b>	7.9	8.4
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.2</b>	12.6	13.4



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0105244  
**Lab Number** : 06102739  
**Unique Number** : 10900969  
**Test Package** : FLEET

**Received** : 28 Feb 2024  
**Tested** : 29 Feb 2024  
**Diagnosed** : 29 Feb 2024 - Wes Davis

**GFL Environmental - 821 - Ozarks Hauling**  
 33924 Olath Drive  
 Lebanon, MO  
 US 65536

Contact: Landen Johnson  
 landen.johnson@gflenv.com

T: (417)664-0010

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)

F: