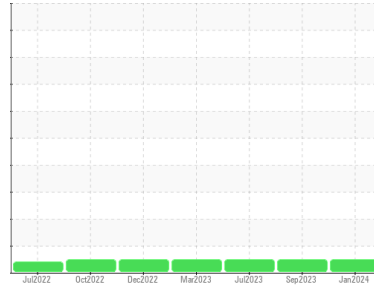




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**912082**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (10 GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### 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.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>GFL0095369</b>	GFL0076942	GFL0076929
Sample Date	Client Info	<b>10 Jan 2024</b>	22 Sep 2023	14 Jul 2023
Machine Age	hrs	<b>3715</b>	3137	2737
Oil Age	hrs	<b>578</b>	400	2159
Oil Changed	Client Info	<b>Changed</b>	Changed	Changed
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
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

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >110	<b>12</b>	5	11
Chromium	ppm ASTM D5185m >4	<b>&lt;1</b>	<1	<1
Nickel	ppm ASTM D5185m >2	<b>0</b>	0	0
Titanium	ppm ASTM D5185m	<b>0</b>	0	0
Silver	ppm ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >25	<b>5</b>	2	4
Lead	ppm ASTM D5185m >45	<b>0</b>	0	0
Copper	ppm ASTM D5185m >85	<b>1</b>	0	<1
Tin	ppm ASTM D5185m >4	<b>0</b>	0	<1
Vanadium	ppm ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>4</b>	8	11
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>61</b>	60	66
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>958</b>	1030	980
Calcium	ppm ASTM D5185m 1070	<b>1142</b>	1199	1197
Phosphorus	ppm ASTM D5185m 1150	<b>1049</b>	1100	1057
Zinc	ppm ASTM D5185m 1270	<b>1240</b>	1353	1325
Sulfur	ppm ASTM D5185m 2060	<b>3065</b>	3660	3828

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >30	<b>4</b>	3	3
Sodium	ppm ASTM D5185m	<b>1</b>	1	1
Potassium	ppm ASTM D5185m >20	<b>5</b>	3	4

## INFRA-RED

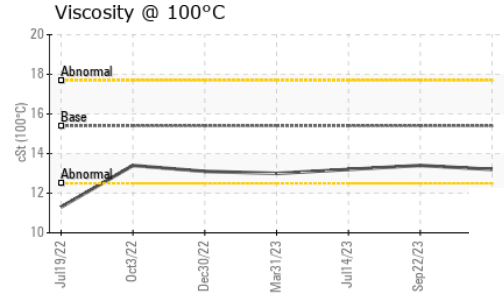
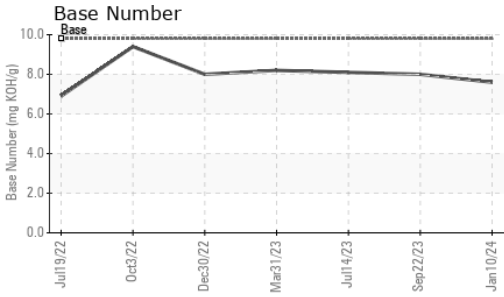
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.4</b>	0.3	0.4
Nitration	Abs/cm *ASTM D7624 >20	<b>8.0</b>	6.8	8.2
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>19.2</b>	18.2	19.1

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>14.8</b>	13.8	15.0
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>7.6</b>	8.0	8.1



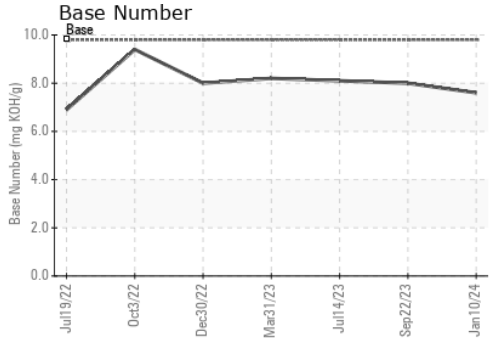
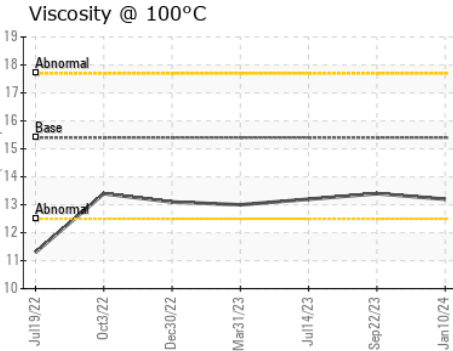
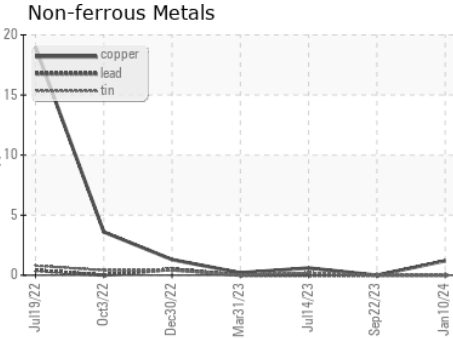
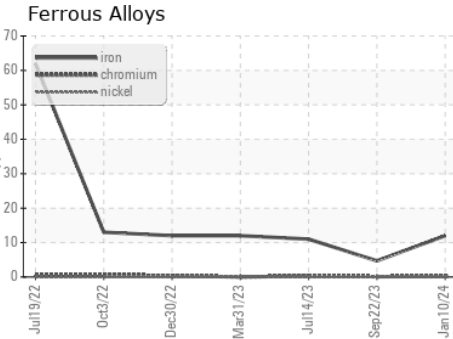
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.2</b>	13.4	13.2

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0095369 **Received** : 16 Jan 2024  
**Lab Number** : 06061650 **Diagnosed** : 17 Jan 2024  
**Unique Number** : 10833032 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 930 - Mosinee HC**  
 1372 State Highway 34  
 MOSINEE, WI  
 US 54455  
 Contact: Kirk Koss

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)

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F: