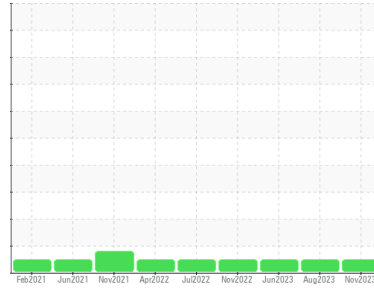




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**(BB27195)**  
Machine Id  
**528008-1107**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. ( Customer Sample Comment: Sample only )

### 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>GFL0094847</b>	GFL0088264	GFL0077514
Sample Date	Client Info	<b>01 Nov 2023</b>	18 Aug 2023	21 Jun 2023
Machine Age	hrs	<b>14551</b>	14071	13660
Oil Age	hrs	<b>483</b>	798	387
Oil Changed	Client Info	<b>Not Chngd</b>	Changed	Not Chngd
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
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	<b>42</b>	74	31
Chromium	ppm ASTM D5185m >20	<b>2</b>	3	<1
Nickel	ppm ASTM D5185m >4	<b>&lt;1</b>	0	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>10</b>	19	9
Lead	ppm ASTM D5185m >40	<b>1</b>	7	2
Copper	ppm ASTM D5185m >330	<b>1</b>	2	<1
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	<1	0
Vanadium	ppm ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>2</b>	2	6
Barium	ppm ASTM D5185m 0	<b>5</b>	0	4
Molybdenum	ppm ASTM D5185m 60	<b>61</b>	67	58
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	0
Magnesium	ppm ASTM D5185m 1010	<b>869</b>	965	846
Calcium	ppm ASTM D5185m 1070	<b>1042</b>	1209	1030
Phosphorus	ppm ASTM D5185m 1150	<b>1014</b>	1074	898
Zinc	ppm ASTM D5185m 1270	<b>1163</b>	1281	1123
Sulfur	ppm ASTM D5185m 2060	<b>3139</b>	2824	3073

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>7</b>	6	4
Sodium	ppm ASTM D5185m	<b>2</b>	4	6
Potassium	ppm ASTM D5185m >20	<b>22</b>	46	15

## INFRA-RED

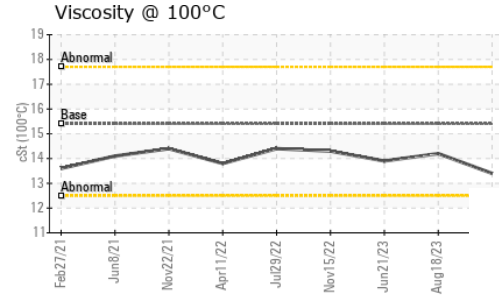
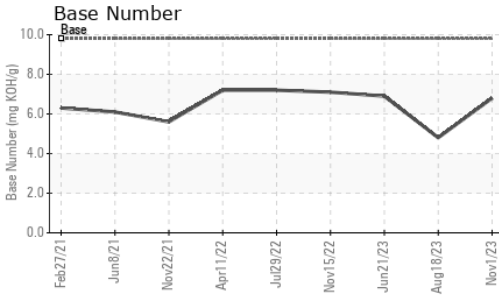
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.7</b>	1.3	0.8
Nitration	Abs/cm *ASTM D7624 >20	<b>10.7</b>	12.6	10.9
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>21.9</b>	27.0	23.1

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>17.6</b>	22.9	19.8
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>6.8</b>	4.8	6.9



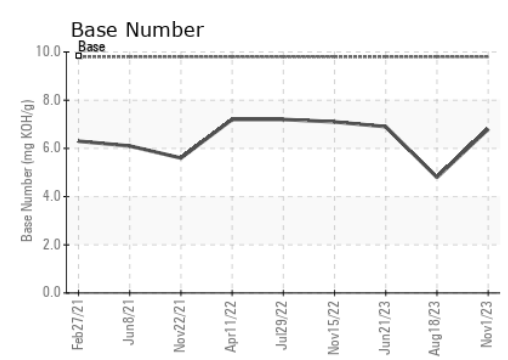
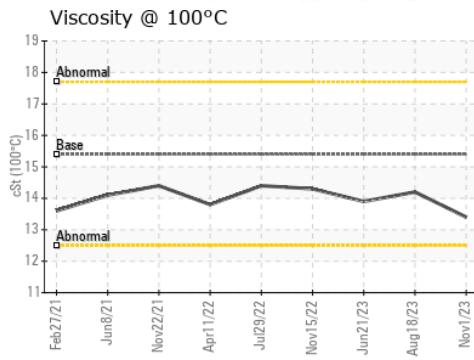
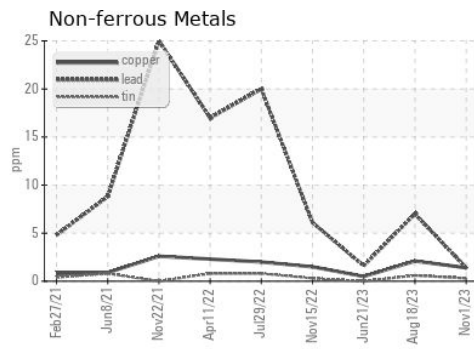
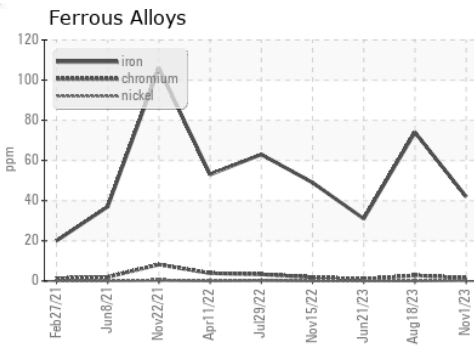
# OIL ANALYSIS REPORT



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>13.4</b>	14.2	13.9

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0094847  
**Lab Number** : 05999751  
**Unique Number** : 10728111  
**Test Package** : FLEET  
**Received** : 06 Nov 2023  
**Diagnosed** : 08 Nov 2023  
**Diagnostician** : Don Baldrige

**GFL Environmental - 625 - Harrison Hauling**  
 4102 Industrial Pkwy  
 Harrison, MI  
 US 48625  
 Contact: Glenda Standen  
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 T:  
 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)