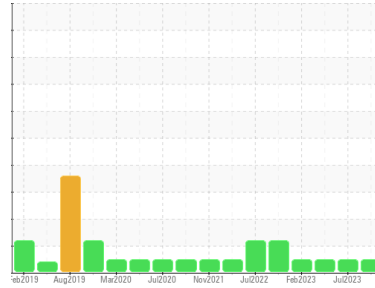




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**928067-205259**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (--- 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>GFL0095322</b>	GFL0081474	GFL0061922
Sample Date	Client Info	<b>11 Oct 2023</b>	25 Jul 2023	01 May 2023
Machine Age	hrs	<b>14267</b>	13687	13064
Oil Age	hrs	<b>650</b>	650	650
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
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

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

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>1</b>	0	3
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>63</b>	62	65
Manganese	ppm ASTM D5185m 0	<b>0</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>932</b>	1007	1014
Calcium	ppm ASTM D5185m 1070	<b>1060</b>	1109	1043
Phosphorus	ppm ASTM D5185m 1150	<b>1026</b>	1058	1076
Zinc	ppm ASTM D5185m 1270	<b>1217</b>	1259	1348
Sulfur	ppm ASTM D5185m 2060	<b>3251</b>	3721	3993

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>4</b>	4	2
Sodium	ppm ASTM D5185m	<b>4</b>	3	34
Potassium	ppm ASTM D5185m >20	<b>4</b>	<1	27

## INFRA-RED

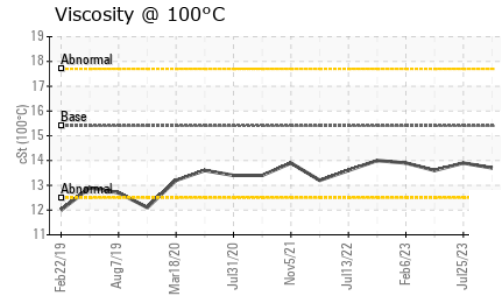
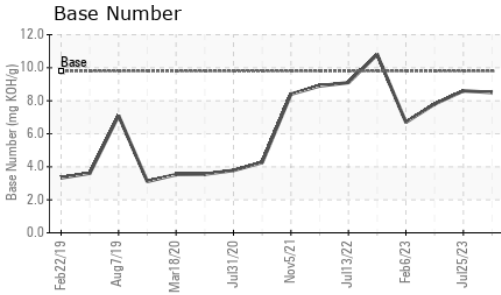
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.6</b>	0.9	0.5
Nitration	Abs/cm *ASTM D7624 >20	<b>6.2</b>	6.3	6.1
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>17.6</b>	18.7	16.7

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>12.9</b>	13.1	12.8
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.5</b>	8.6	7.8



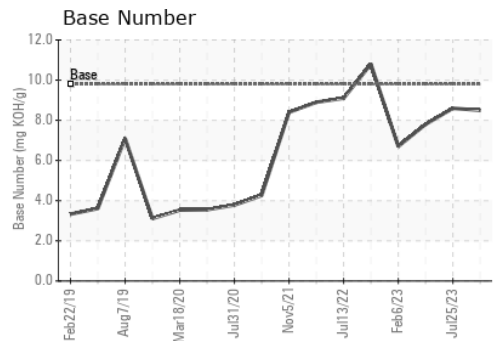
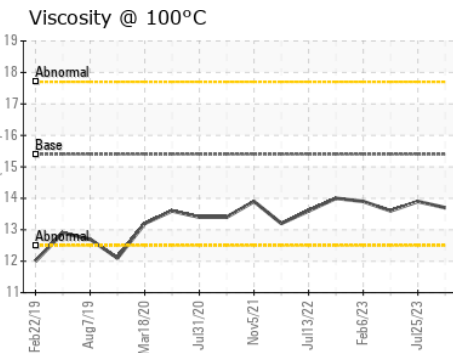
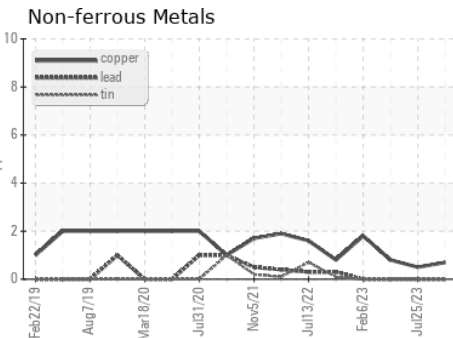
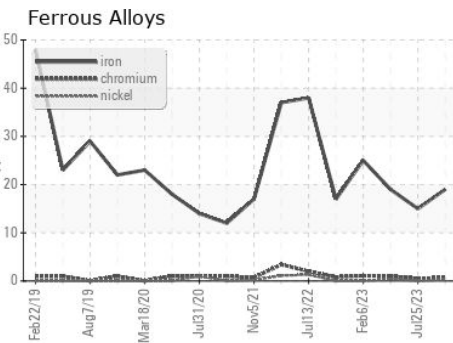
# OIL ANALYSIS REPORT



PARAMETER	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>13.7</b>	13.9	13.6

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0095322  
 Lab Number : **05983418**  
 Unique Number : 10700713  
 Test Package : FLEET

**GFL Environmental - 893 - OK East Hauling**  
 2100 Lilly Street  
 Seminole, OK  
 US 74868  
 Contact: Roger Barlow  
 rbarlow@gflenv.com  
 T: (405)204-6183  
 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)