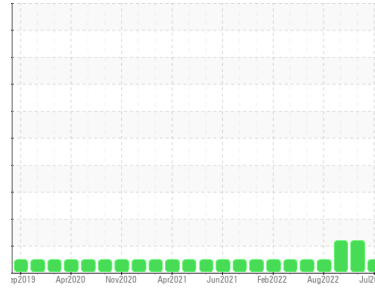




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**12066**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (32 QTS)**

## 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>GFL0071578</b>	GFL0071596	GFL0061720
Sample Date	Client Info	<b>18 Jul 2023</b>	16 May 2023	31 Jan 2023
Machine Age	hrs	<b>8531</b>	8531	8531
Oil Age	hrs	<b>600</b>	600	600
Oil Changed	Client Info	<b>Changed</b>	Changed	Changed
Sample Status		<b>NORMAL</b>	ABNORMAL	ABNORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >3.0	<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 >75	<b>21</b>	37	35
Chromium	ppm ASTM D5185m >5	<b>2</b>	2	1
Nickel	ppm ASTM D5185m >4	<b>2</b>	3	<1
Titanium	ppm ASTM D5185m >2	<b>0</b>	<1	<1
Silver	ppm ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >15	<b>6</b>	6	4
Lead	ppm ASTM D5185m >25	<b>0</b>	1	0
Copper	ppm ASTM D5185m >100	<b>3</b>	4	3
Tin	ppm ASTM D5185m >4	<b>&lt;1</b>	<1	<1
Vanadium	ppm ASTM D5185m	<b>0</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>5</b>	5	49
Barium	ppm ASTM D5185m 0	<b>1</b>	0	2
Molybdenum	ppm ASTM D5185m 60	<b>59</b>	62	49
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	1
Magnesium	ppm ASTM D5185m 1010	<b>924</b>	933	516
Calcium	ppm ASTM D5185m 1070	<b>1116</b>	1146	1596
Phosphorus	ppm ASTM D5185m 1150	<b>1076</b>	1031	776
Zinc	ppm ASTM D5185m 1270	<b>1275</b>	1283	970
Sulfur	ppm ASTM D5185m 2060	<b>3712</b>	3461	2706

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>9</b>	15	18
Sodium	ppm ASTM D5185m	<b>25</b>	▲ 91	▲ 125
Potassium	ppm ASTM D5185m >20	<b>3</b>	8	4

## INFRA-RED

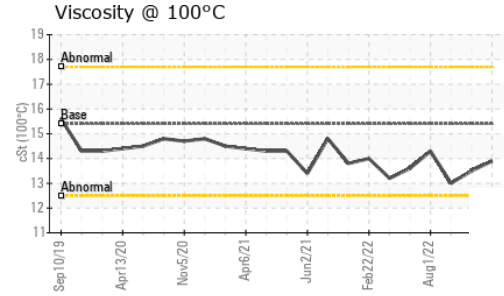
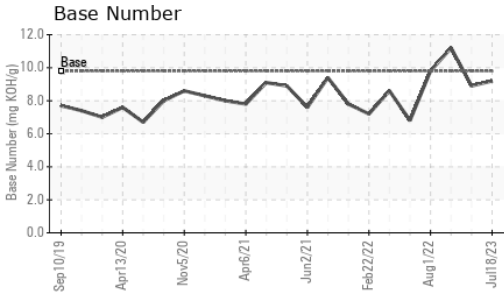
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >6	<b>0.4</b>	0.8	0.3
Nitration	Abs/cm *ASTM D7624 >20	<b>7.3</b>	10.5	6.4
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>19.0</b>	21.4	21.8

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>14.8</b>	17.0	19.2
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>9.2</b>	8.9	11.2



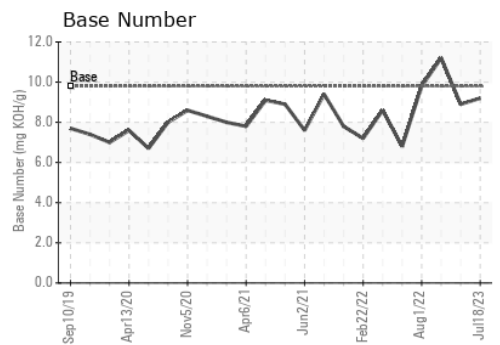
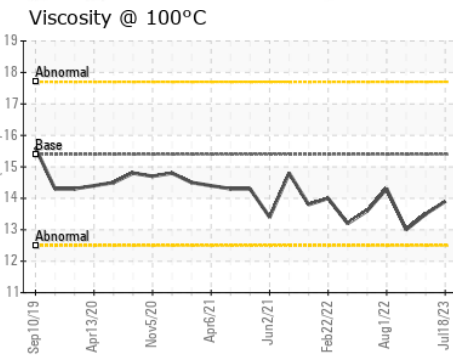
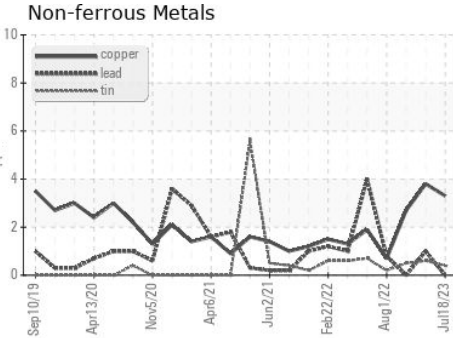
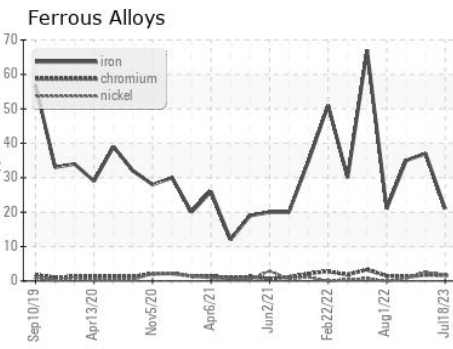
# OIL ANALYSIS REPORT



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>13.9</b>	13.5	13.0

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0071578 **Received** : 24 Jul 2023  
**Lab Number** : **05905279** **Diagnosed** : 24 Jul 2023  
**Unique Number** : 10566635 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 035 - Greensboro**  
 1236 Elon Place  
 High Point, NC  
 US 27263  
 Contact: JORGE COSTA  
 jorge.costa@gflenv.com  
 T: (336)668-3712  
 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)