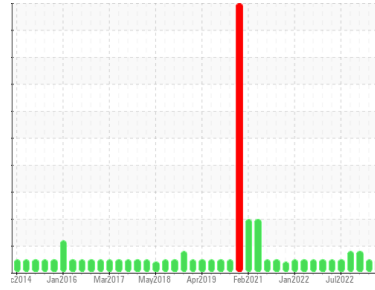




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id

**2525**

Component

**Diesel Engine**

Fluid

**PETRO CANADA DURON SHP 15W40 (8 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>GFL0080551</b>	GFL0074430	GFL0066823
Sample Date	Client Info	<b>20 Jul 2023</b>	25 Apr 2023	07 Apr 2023
Machine Age	hrs	Client Info	<b>149169</b>	149169
Oil Age	hrs	Client Info	<b>149169</b>	149169
Oil Changed	Client Info	<b>Changed</b>	Changed	Changed
Sample Status		<b>NORMAL</b>	NORMAL	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 >165	<b>50</b>	32	▲ 205
Chromium	ppm ASTM D5185m >5	<b>3</b>	<1	5
Nickel	ppm ASTM D5185m >4	<b>0</b>	0	0
Titanium	ppm ASTM D5185m >2	<b>0</b>	0	0
Silver	ppm ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>3</b>	2	8
Lead	ppm ASTM D5185m >150	<b>6</b>	0	14
Copper	ppm ASTM D5185m >90	<b>1</b>	<1	8
Tin	ppm ASTM D5185m >5	<b>&lt;1</b>	0	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>4</b>	4	15
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>68</b>	62	63
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	2
Magnesium	ppm ASTM D5185m 1010	<b>1028</b>	929	614
Calcium	ppm ASTM D5185m 1070	<b>1239</b>	1103	1352
Phosphorus	ppm ASTM D5185m 1150	<b>1129</b>	1026	874
Zinc	ppm ASTM D5185m 1270	<b>1390</b>	1304	1064
Sulfur	ppm ASTM D5185m 2060	<b>3740</b>	3386	2604

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >35	<b>7</b>	5	17
Sodium	ppm ASTM D5185m	<b>6</b>	4	8
Potassium	ppm ASTM D5185m >20	<b>&lt;1</b>	16	2

## INFRA-RED

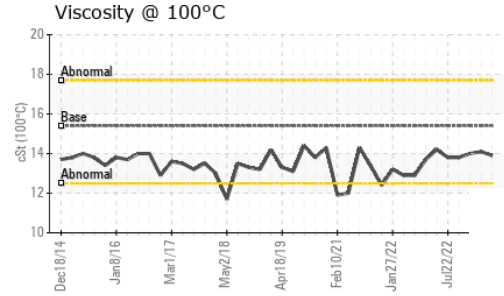
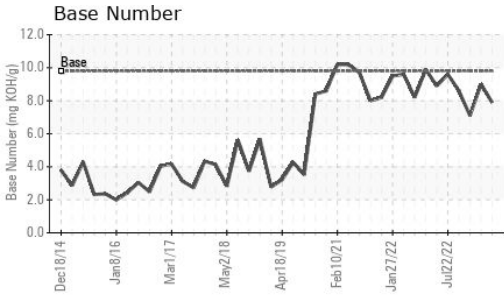
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >7.5	<b>1.4</b>	0.4	2.1
Nitration	Abs/cm *ASTM D7624 >20	<b>11.7</b>	6.6	13.8
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>23.9</b>	19.0	27.0

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>19.8</b>	14.8	22.6
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>7.9</b>	9.0	7.1



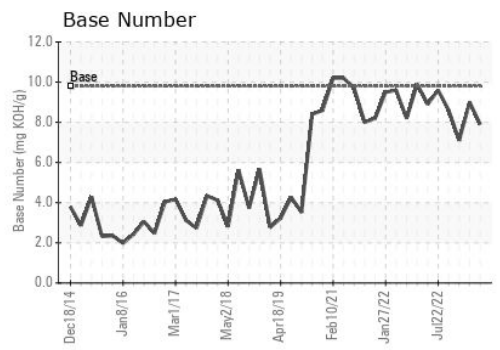
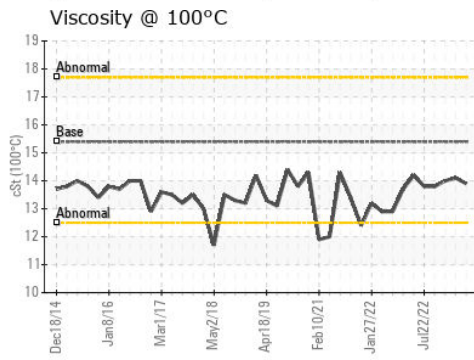
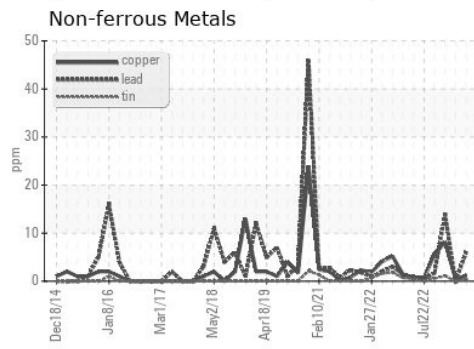
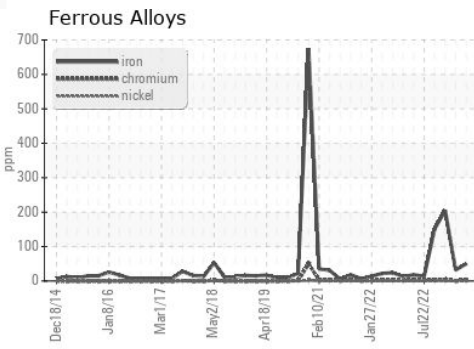
# OIL ANALYSIS REPORT



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>13.9</b>	14.1	14.0

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0080551 **Received** : 21 Jul 2023  
**Lab Number** : **05904182** **Diagnosed** : 21 Jul 2023  
**Unique Number** : 10565538 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 018 - Fayetteville**  
 4621 Marracco Drive  
 Hope Mills, NC  
 US 28348  
 Contact: Robert Carter  
 robert.carter@gflenv.com  
 T: (910)596-1170  
 F:

Certificate L2367  
 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)