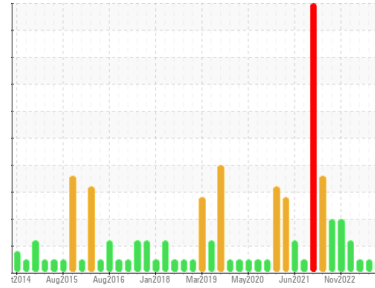




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**10453**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (11 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>GFL0091426</b>	GFL0088767	GFL0074571
Sample Date	Client Info	<b>05 Sep 2023</b>	07 Aug 2023	04 Apr 2023
Machine Age	hrs	<b>129</b>	26180	22553
Oil Age	hrs	<b>129</b>	0	0
Oil Changed	Client Info	<b>Not Chngd</b>	Changed	Changed
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL

## 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>2</b>	6	49
Chromium	ppm	ASTM D5185m >5	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m >4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m >2	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >15	<b>0</b>	4	3
Lead	ppm	ASTM D5185m >25	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m >100	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 0	<b>15</b>	19	6
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>59</b>	82	65
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>919</b>	1042	874
Calcium	ppm	ASTM D5185m 1070	<b>1231</b>	1456	1065
Phosphorus	ppm	ASTM D5185m 1150	<b>977</b>	1253	949
Zinc	ppm	ASTM D5185m 1270	<b>1235</b>	1487	1183
Sulfur	ppm	ASTM D5185m 2060	<b>3786</b>	3813	2727

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	<b>4</b>	6	12
Sodium	ppm	ASTM D5185m	<b>2</b>	7	47
Potassium	ppm	ASTM D5185m >20	<b>4</b>	2	2

## INFRA-RED

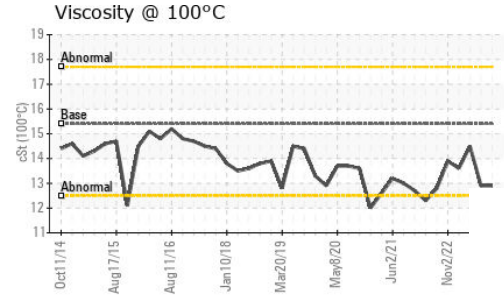
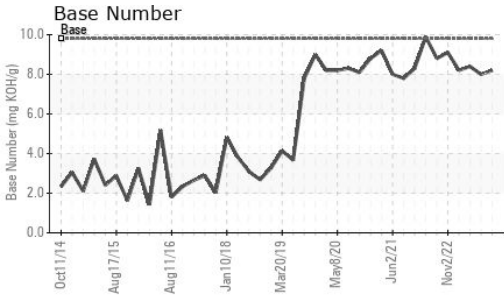
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844 >6	<b>0.1</b>	0.2	2.5
Nitration	Abs/cm	*ASTM D7624 >20	<b>4.4</b>	5.1	9.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>15.9</b>	16.5	22.6

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>10.9</b>	11.5	14.6
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.2</b>	8.0	8.4



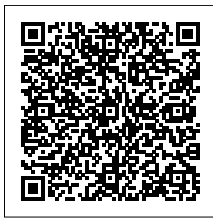
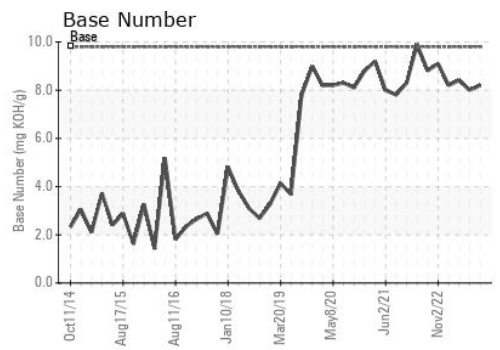
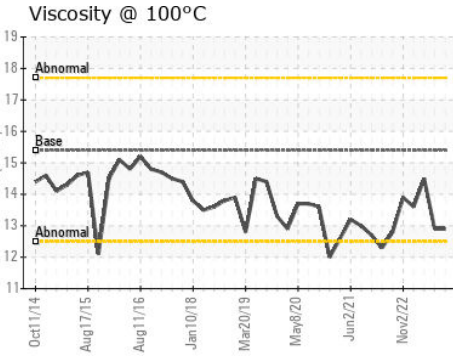
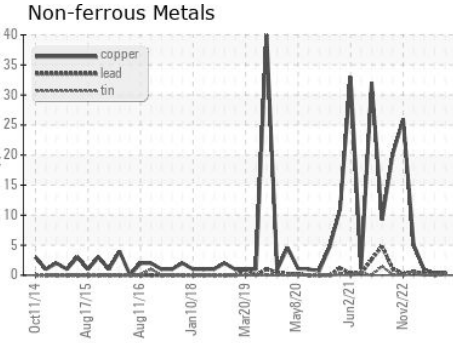
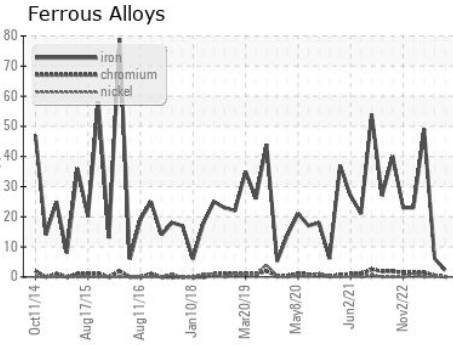
# OIL ANALYSIS REPORT



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>12.9</b>	12.9	14.5

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0091426 **Received** : 08 Sep 2023  
**Lab Number** : **05946385** **Diagnosed** : 11 Sep 2023  
**Unique Number** : 10642344 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 010 - Stockbridge**  
 1280 Rum Creek Parkway  
 Stockbridge, GA  
 US 30281  
 Contact: JOSHUA TINKER  
 joshuatinker@gflenv.com

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)