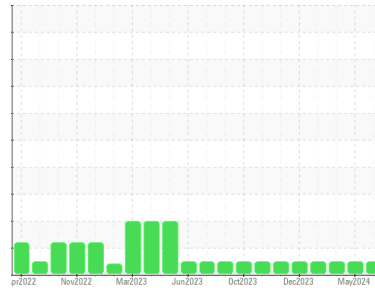




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**227070-16**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (3 GAL)**

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

Fuel content negligible. 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>GFL0118695</b>	GFL0118671	GFL0118712
Sample Date	Client Info		<b>28 May 2024</b>	21 May 2024	29 Apr 2024
Machine Age	mls	Client Info	<b>7363</b>	36013	359143
Oil Age	mls	Client Info	<b>400</b>	600	150
Oil Changed	Client Info		<b>Changed</b>	Not Changd	Not Changd
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >80	<b>8</b>	2	3
Chromium	ppm	ASTM D5185m >5	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m >30	<b>2</b>	<1	0
Lead	ppm	ASTM D5185m >30	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m >150	<b>&lt;1</b>	0	0
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>1</b>	0	0
Barium	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>67</b>	60	63
Manganese	ppm	ASTM D5185m 0	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m 1010	<b>1048</b>	985	1054
Calcium	ppm	ASTM D5185m 1070	<b>1213</b>	1149	1208
Phosphorus	ppm	ASTM D5185m 1150	<b>1195</b>	1104	1151
Zinc	ppm	ASTM D5185m 1270	<b>1343</b>	1244	1388
Sulfur	ppm	ASTM D5185m 2060	<b>3526</b>	3601	3955

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	<b>5</b>	1	2
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	2	0
Potassium	ppm	ASTM D5185m >20	<b>2</b>	0	0
Fuel	%	ASTM D3524 >5	<b>0.5</b>	<1.0	<1.0

## INFRA-RED

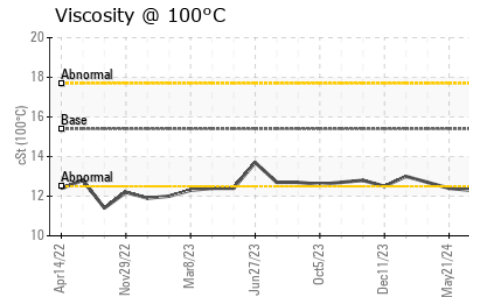
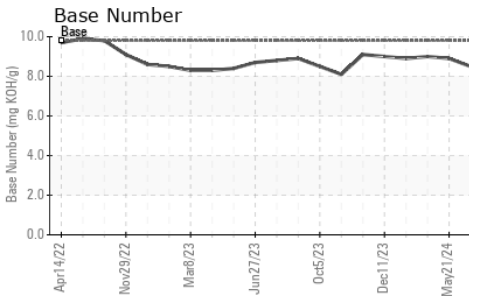
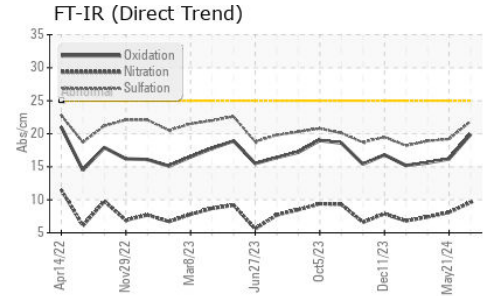
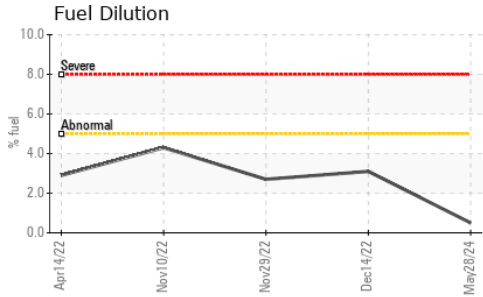
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.5</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.6</b>	8.1	7.4
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>21.9</b>	19.2	18.9

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>19.9</b>	16.2	15.6
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.5</b>	8.9	9.0



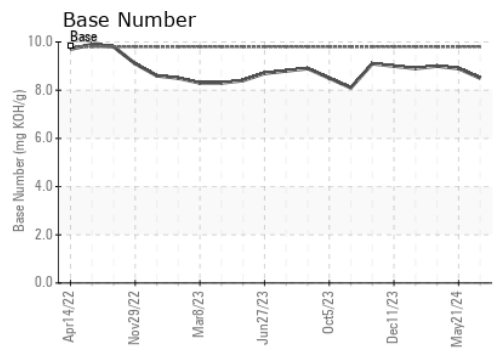
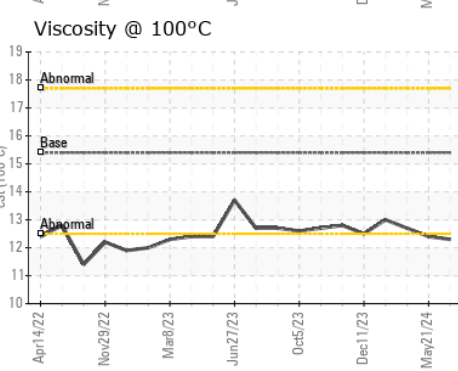
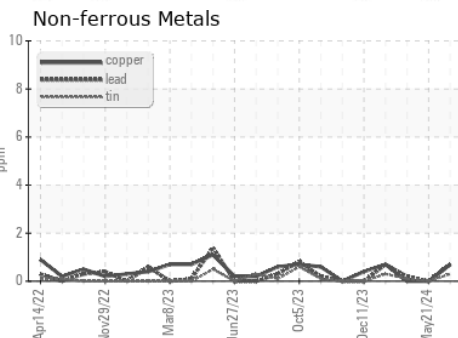
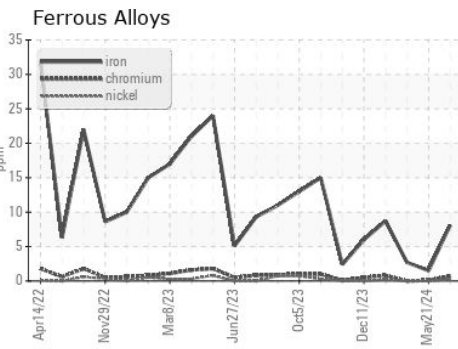
# OIL ANALYSIS REPORT



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>12.3</b>	12.4	12.7

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0118695      **Received** : 31 May 2024  
**Lab Number** : **06196288**      **Tested** : 05 Jun 2024  
**Unique Number** : 11058411      **Diagnosed** : 05 Jun 2024 - Wes Davis  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

**GFL Environmental - 166 - Phenix City**  
 18 Old Brickyard Rd  
 Phenix City, AL  
 US 36869  
 Contact: DEAN PEACE JR  
 dean.peace@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)