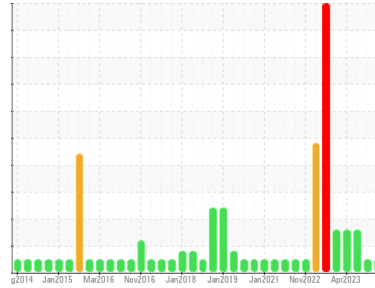




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**10297**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (40 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>GFL0088387</b>	GFL0070048	GFL0070045
Sample Date	Client Info	<b>11 Jul 2023</b>	13 Jun 2023	02 May 2023
Machine Age	hrs	<b>4437</b>	73951	73951
Oil Age	hrs	<b>73951</b>	73951	73951
Oil Changed	Client Info	<b>N/A</b>	Changed	Not Chngd
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 >75	<b>12</b>	14	49
Chromium	ppm ASTM D5185m >5	<b>&lt;1</b>	<1	2
Nickel	ppm ASTM D5185m >4	<b>0</b>	0	<1
Titanium	ppm ASTM D5185m >2	<b>0</b>	0	<1
Silver	ppm ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >15	<b>3</b>	<1	7
Lead	ppm ASTM D5185m >25	<b>&lt;1</b>	0	1
Copper	ppm ASTM D5185m >100	<b>2</b>	1	4
Tin	ppm ASTM D5185m >4	<b>&lt;1</b>	0	<1
Vanadium	ppm ASTM D5185m	<b>0</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>10</b>	0	2
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>52</b>	57	66
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	2
Magnesium	ppm ASTM D5185m 1010	<b>907</b>	961	1047
Calcium	ppm ASTM D5185m 1070	<b>1176</b>	1067	1184
Phosphorus	ppm ASTM D5185m 1150	<b>1004</b>	1013	1133
Zinc	ppm ASTM D5185m 1270	<b>1247</b>	1244	1419
Sulfur	ppm ASTM D5185m 2060	<b>3708</b>	3833	4083

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>5</b>	9	▲ 65
Sodium	ppm ASTM D5185m	<b>5</b>	7	31
Potassium	ppm ASTM D5185m >20	<b>4</b>	3	15

## INFRA-RED

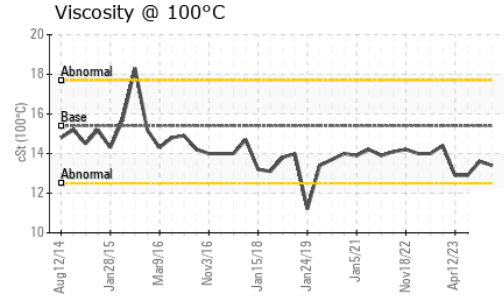
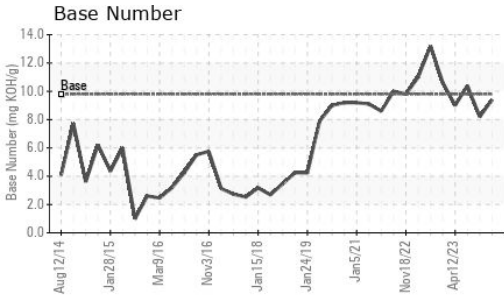
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >6	<b>0.6</b>	0.5	1
Nitration	Abs/cm *ASTM D7624 >20	<b>6.1</b>	5.9	7.9
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>19.8</b>	18.9	20.7

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>14.7</b>	14.7	14.9
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>9.4</b>	8.2	10.4



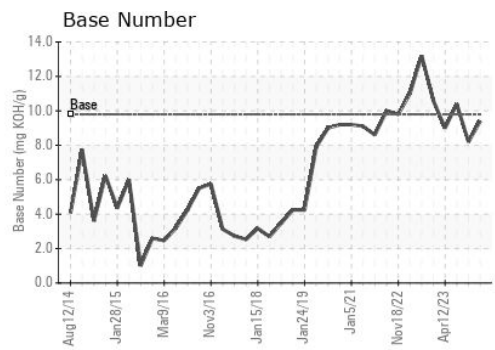
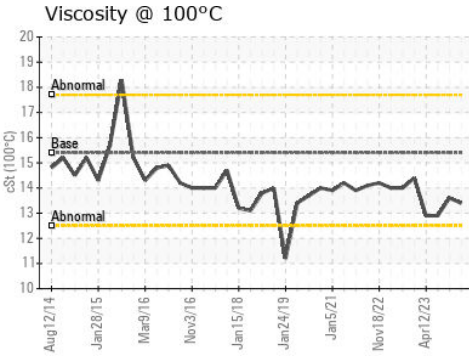
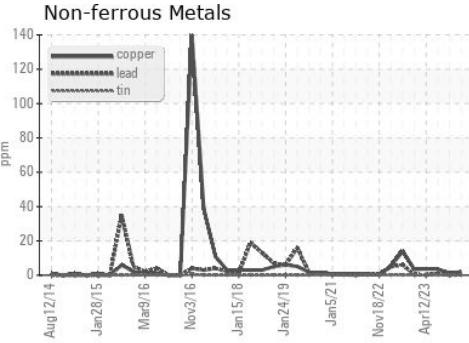
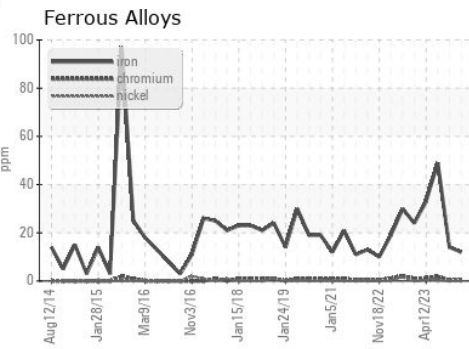
# OIL ANALYSIS REPORT



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>13.4</b>	13.6	12.9

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0088387  
**Lab Number** : **05899176**  
**Unique Number** : 10560532  
**Test Package** : FLEET

**GFL Environmental - 084 - Clarksville**  
 699 Jack Miller Boulevard  
 Clarksville, TN  
 US 37042  
 Contact: ROBERT THIBAUT  
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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)