

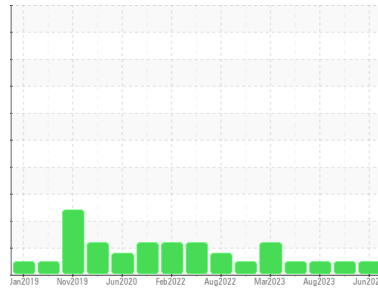


# OIL ANALYSIS REPORT



Area  
**(GJL4700)**  
 Machine Id  
**425060**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

Sample Rating Trend



**NORMAL**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. ( Customer Sample Comment: Engine oil sample )

### 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>GFL0125233</b>	GFL0100469	GFL0083488
Sample Date	Client Info		<b>17 Jun 2024</b>	27 Nov 2023	10 Aug 2023
Machine Age	mls Client Info		<b>385655</b>	383289	380124
Oil Age	mls Client Info		<b>385655</b>	383289	21181
Oil Changed	Client Info		<b>Changed</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
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	>120	<b>8</b>	4	6
Chromium	ppm ASTM D5185m	>20	<b>0</b>	<1	<1
Nickel	ppm ASTM D5185m	>5	<b>&lt;1</b>	<1	0
Titanium	ppm ASTM D5185m	>2	<b>0</b>	0	<1
Silver	ppm ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m	>20	<b>4</b>	2	<1
Lead	ppm ASTM D5185m	>40	<b>0</b>	0	0
Copper	ppm ASTM D5185m	>330	<b>28</b>	1	2
Tin	ppm ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
Vanadium	ppm ASTM D5185m		<b>0</b>	0	<1
Cadmium	ppm ASTM D5185m		<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	0	<b>6</b>	12	0
Barium	ppm ASTM D5185m	0	<b>0</b>	2	0
Molybdenum	ppm ASTM D5185m	60	<b>59</b>	50	59
Manganese	ppm ASTM D5185m	0	<b>&lt;1</b>	0	<1
Magnesium	ppm ASTM D5185m	1010	<b>955</b>	687	980
Calcium	ppm ASTM D5185m	1070	<b>1091</b>	1212	1095
Phosphorus	ppm ASTM D5185m	1150	<b>1090</b>	811	1009
Zinc	ppm ASTM D5185m	1270	<b>1257</b>	982	1225
Sulfur	ppm ASTM D5185m	2060	<b>3762</b>	3956	3558

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m	>25	<b>4</b>	3	5
Sodium	ppm ASTM D5185m		<b>4</b>	<1	4
Potassium	ppm ASTM D5185m	>20	<b>3</b>	1	<1

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	% *ASTM D7844	>4	<b>0.2</b>	0.2	0.4
Nitration	Abs/cm *ASTM D7624	>20	<b>6.7</b>	7.8	8.9
Sulfation	Abs/.1mm *ASTM D7415	>30	<b>18.1</b>	18.8	18.6

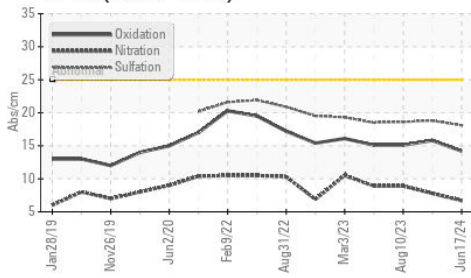
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414	>25	<b>14.2</b>	15.8	15.1
Base Number (BN)	mg KOH/g ASTM D2896	9.8	<b>9.4</b>	8.5	7.0

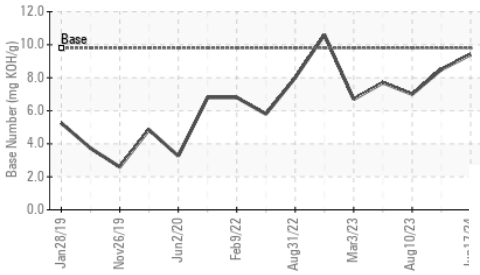


# OIL ANALYSIS REPORT

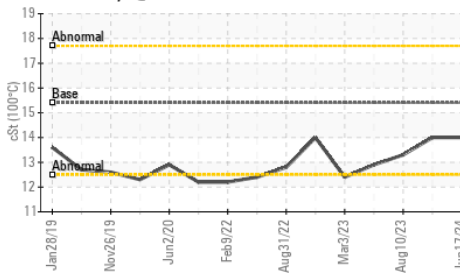
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C



## VISUAL

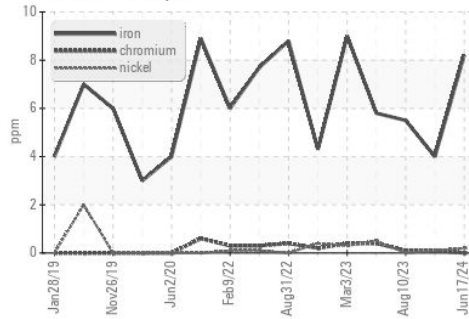
	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*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

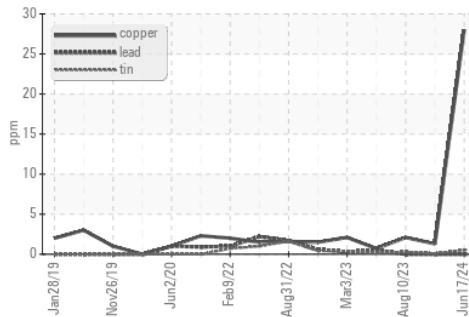
	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	14.0	13.3

## GRAPHS

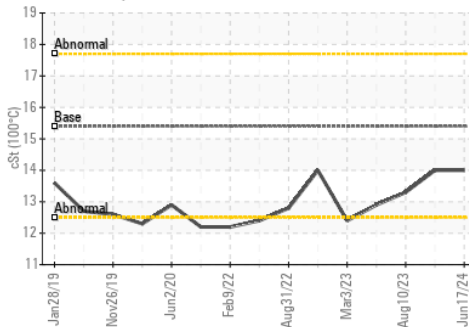
Ferrous Alloys



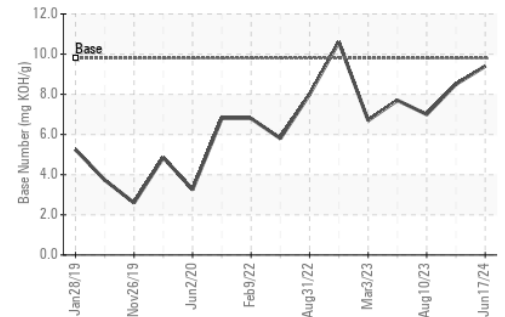
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0125233  
 Lab Number : 06217509  
 Unique Number : 11090373  
 Test Package : FLEET

Received : 21 Jun 2024  
 Tested : 25 Jun 2024  
 Diagnosed : 25 Jun 2024 - Sean Felton

GFL Environmental - 865 - East Mount Hauling  
 7213 East Mount Houston Road  
 Houston, TX  
 US 77050

Contact: Saul Castillo  
 saul.castillo@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)

T:  
F: