



# OIL ANALYSIS REPORT

Sample Rating Trend

VISCOSITY

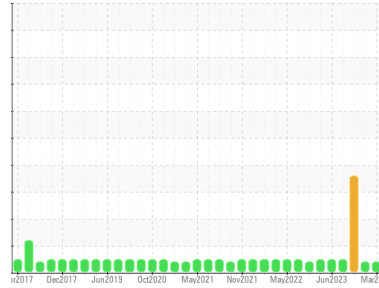


Area  
**(EDB660)**

Machine Id  
**10709**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (11 GAL)**



## DIAGNOSIS

### Recommendation

Oil and filter change at the time of sampling has been noted. 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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0103434</b>	GFL0074648	GFL0074630
Sample Date	Client Info		<b>26 Mar 2024</b>	19 Jan 2024	29 Nov 2023
Machine Age	hrs	Client Info	<b>20852</b>	20570	20270
Oil Age	hrs	Client Info	<b>582</b>	300	0
Oil Changed	Client Info		<b>Changed</b>	Not Changd	Changed
Sample Status			<b>ATTENTION</b>	ATTENTION	ABNORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	<1.0	0.2
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 >100	<b>7</b>	2	6
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m >4	<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 >20	<b>4</b>	2	2
Lead	ppm	ASTM D5185m >40	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m >330	<b>1</b>	<1	2
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>4</b>	3	<1
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>60</b>	51	29
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185m 1010	<b>775</b>	733	416
Calcium	ppm	ASTM D5185m 1070	<b>992</b>	871	526
Phosphorus	ppm	ASTM D5185m 1150	<b>917</b>	871	606
Zinc	ppm	ASTM D5185m 1270	<b>1085</b>	982	661
Sulfur	ppm	ASTM D5185m 2060	<b>2748</b>	2501	1414

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>4</b>	2	1
Sodium	ppm	ASTM D5185m	<b>17</b>	2	1
Potassium	ppm	ASTM D5185m >20	<b>2</b>	1	0

## INFRA-RED

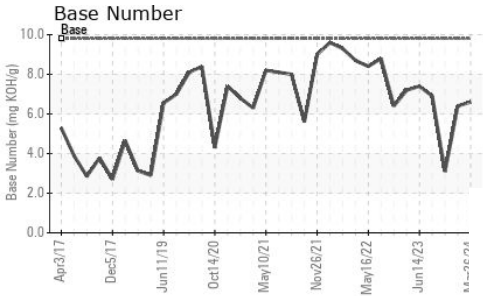
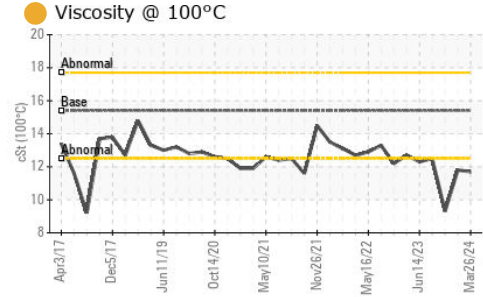
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.3</b>	0.2	0.2
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.2</b>	5.9	5.4
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>17.3</b>	16.8	15.0

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>13.1</b>	12.0	8.9
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>6.6</b>	6.4	3.1



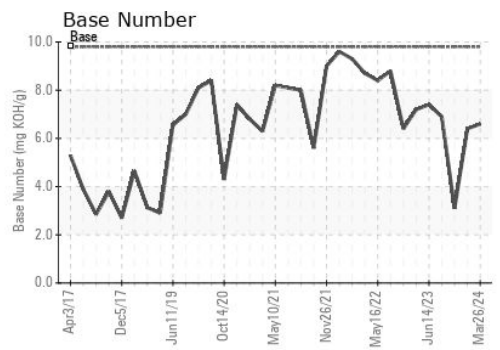
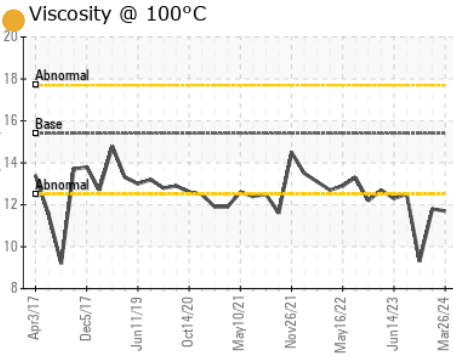
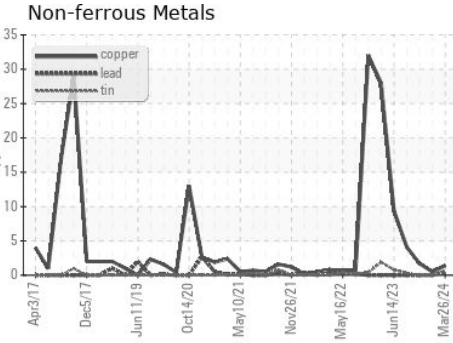
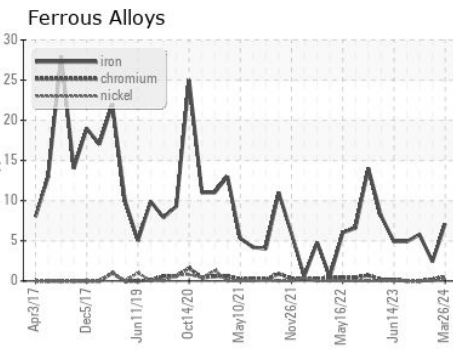
# OIL ANALYSIS REPORT



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	<span style="color: orange;">●</span> 11.7	<span style="color: orange;">●</span> 11.8	<span style="color: orange;">●</span> 9.3

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0103434  
**Lab Number** : 06131763  
**Unique Number** : 10951228  
**Test Package** : FLEET

**Received** : 28 Mar 2024  
**Tested** : 29 Mar 2024  
**Diagnosed** : 02 Apr 2024 - Don Baldrige

**GFL Environmental - 095 - Atlanta West**  
 2699 Cochran Industrial Blvd  
 Douglasville, GA  
 US 30127-1332  
 Contact: Darrell Welch  
 darrell.welch@gflenv.com  
 T: (800)207-6618  
 F:

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)