

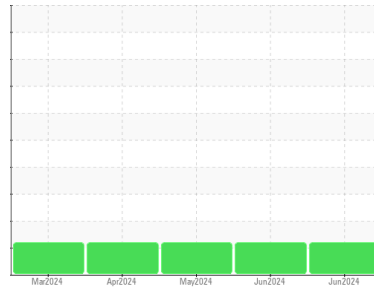


# OIL ANALYSIS REPORT



Machine Id  
**834054**  
 Component  
**Natural Gas Engine**  
 Fluid  
**PETRO CANADA DURON GEO LD 15W40 (--- GAL)**

### Sample Rating Trend



COOL CHEMICALS



### 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

Sodium and/or potassium levels remain high. Test for glycol is negative.

#### 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>GFL0122852</b>	GFL0122807	GFL0122834
Sample Date	Client Info	<b>26 Jun 2024</b>	14 Jun 2024	24 May 2024
Machine Age	hrs	Client Info	543	428
Oil Age	hrs	Client Info	543	428
Oil Changed	Client Info	<b>Not Chngd</b>	Not Chngd	Not Chngd
Sample Status		<b>ATTENTION</b>	ATTENTION	ATTENTION

### CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.1	<b>NEG</b>	NEG	NEG

### WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >50	<b>21</b>	22	22
Chromium	ppm ASTM D5185m >5	<b>&lt;1</b>	<1	0
Nickel	ppm ASTM D5185m >4	<b>0</b>	<1	0
Titanium	ppm ASTM D5185m >5	<b>0</b>	0	0
Silver	ppm ASTM D5185m >3	<b>0</b>	<1	0
Aluminum	ppm ASTM D5185m >25	<b>5</b>	5	6
Lead	ppm ASTM D5185m >40	<b>0</b>	<1	0
Copper	ppm ASTM D5185m >150	<b>4</b>	5	4
Tin	ppm ASTM D5185m >4	<b>1</b>	1	<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 50	<b>13</b>	14	16
Barium	ppm ASTM D5185m 5	<b>0</b>	<1	0
Molybdenum	ppm ASTM D5185m 50	<b>97</b>	98	100
Manganese	ppm ASTM D5185m 0	<b>2</b>	2	2
Magnesium	ppm ASTM D5185m 560	<b>621</b>	657	625
Calcium	ppm ASTM D5185m 1510	<b>1239</b>	1278	1177
Phosphorus	ppm ASTM D5185m 780	<b>635</b>	651	605
Zinc	ppm ASTM D5185m 870	<b>757</b>	784	710
Sulfur	ppm ASTM D5185m 2040	<b>2911</b>	3120	2891

### CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>22</b>	22	24
Sodium	ppm ASTM D5185m	<b>4</b>	5	5
Potassium	ppm ASTM D5185m >20	<b>76</b>	76	89

### INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844	<b>0</b>	0	0.1
Nitration	Abs/cm *ASTM D7624 >20	<b>7.8</b>	7.5	8.5
Sulfation	Abs.1mm *ASTM D7415 >30	<b>20.9</b>	21.1	22.2

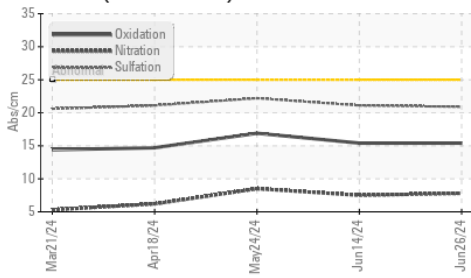
### FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs.1mm *ASTM D7414 >25	<b>15.4</b>	15.4	16.9
Base Number (BN)	mg KOH/g ASTM D2896 10.2	<b>5.7</b>	6.0	5.7

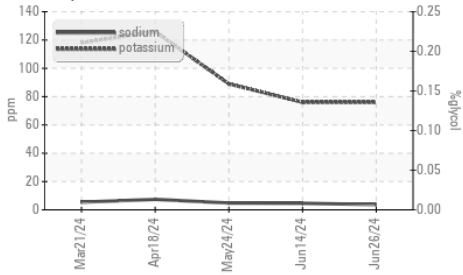


# OIL ANALYSIS REPORT

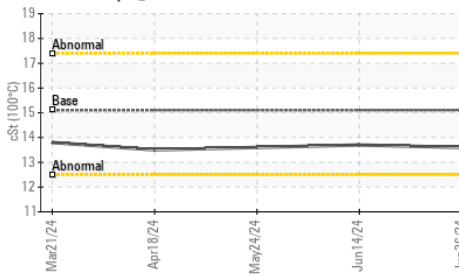
FT-IR (Direct Trend)



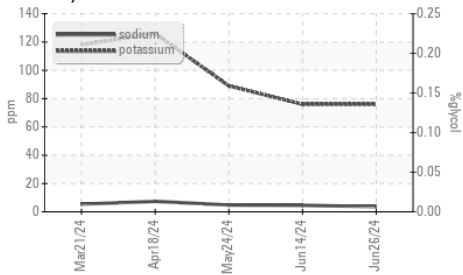
Glycol Contamination



Viscosity @ 100°C



Glycol Contamination

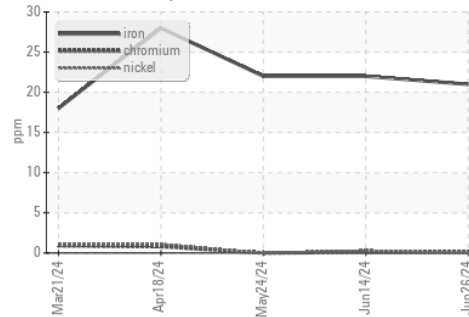


PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

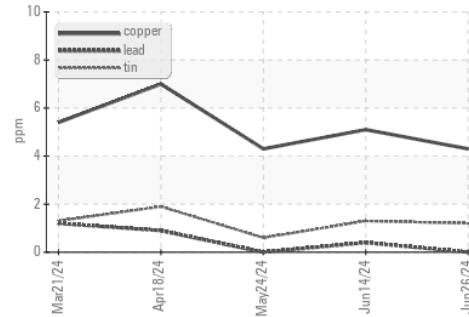
PARAMETER	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	13.6	13.7

## GRAPHS

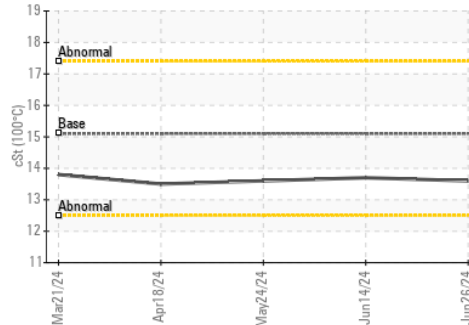
Ferrous Alloys



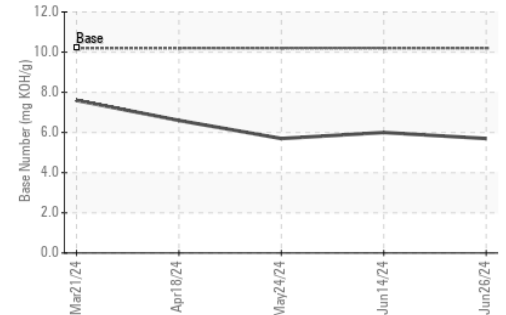
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : GFL0122852

Lab Number : 06225607

Unique Number : 11103804

Test Package : FLEET ( Additional Tests: Glycol )

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)

Received : 01 Jul 2024

Tested : 03 Jul 2024

Diagnosed : 03 Jul 2024 - Jonathan Hester

GFL Environmental - 837 - Harrison TS

22820 S State Route 291

Harrisonville, MO

US 64701

Contact: SARA PATRICK

spatrick@gflenv.com

T:

F: