



# OIL ANALYSIS REPORT

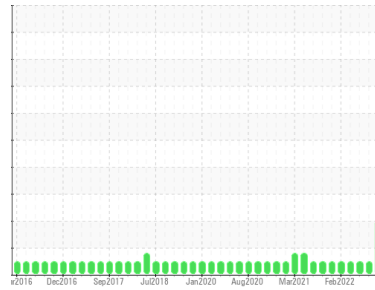
Sample Rating Trend

DEGRADATION

Machine Id  
**3644C AUTOCAR ACX**

Component  
**Natural Gas Engine**

Fluid  
**PETRO CANADA DURON GEO LD 15W40 (48 QTS)**



## DIAGNOSIS

### Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

The lead level is abnormal. All other component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The BN level is low. The condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0103251</b>	GFL0087112	GFL0052424
Sample Date	Client Info		<b>03 Jan 2024</b>	05 Jul 2023	20 May 2022
Machine Age	hrs	Client Info	<b>2938</b>	1756	18148
Oil Age	hrs	Client Info	<b>0</b>	550	570
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>ABNORMAL</b>	NORMAL	NORMAL

## 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>	16	6
Chromium	ppm	ASTM D5185m >4	<b>2</b>	1	<1
Nickel	ppm	ASTM D5185m >2	<b>1</b>	<1	<1
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m >9	<b>5</b>	<1	1
Lead	ppm	ASTM D5185m >30	<b>▲ 31</b>	1	<1
Copper	ppm	ASTM D5185m >35	<b>2</b>	2	2
Tin	ppm	ASTM D5185m >4	<b>4</b>	2	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	<b>9</b>	9	30
Barium	ppm	ASTM D5185m 5	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185m 50	<b>59</b>	52	47
Manganese	ppm	ASTM D5185m 0	<b>1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 560	<b>690</b>	594	614
Calcium	ppm	ASTM D5185m 1510	<b>1782</b>	1646	1558
Phosphorus	ppm	ASTM D5185m 780	<b>872</b>	697	783
Zinc	ppm	ASTM D5185m 870	<b>1099</b>	952	914
Sulfur	ppm	ASTM D5185m 2040	<b>2310</b>	2669	2213

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	<b>12</b>	12	6
Sodium	ppm	ASTM D5185m	<b>13</b>	14	3
Potassium	ppm	ASTM D5185m >20	<b>8</b>	17	0

## INFRA-RED

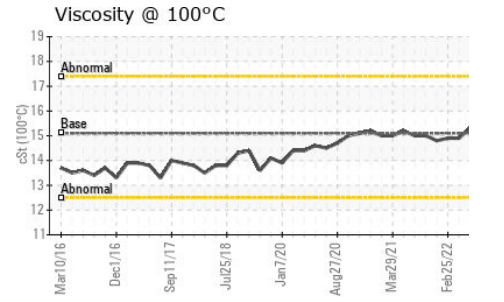
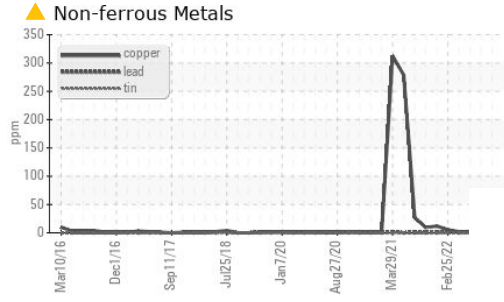
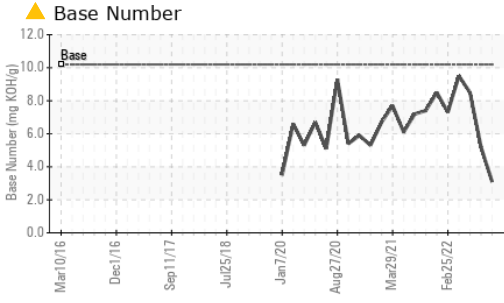
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	<b>0</b>	0.1	0
Nitration	Abs/cm	*ASTM D7624 >20	<b>12.3</b>	10.0	7.6
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>27.4</b>	21.2	19.3

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>25.0</b>	18.7	16.2
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	<b>▲ 3.1</b>	5.2	8.5



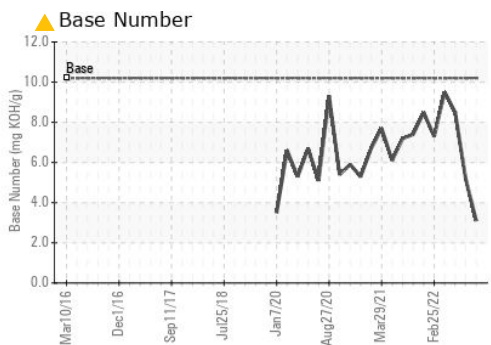
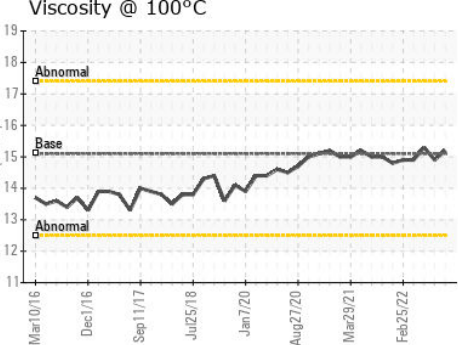
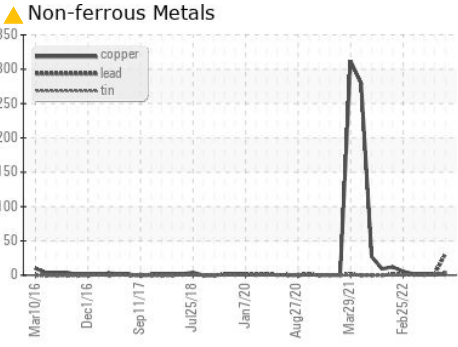
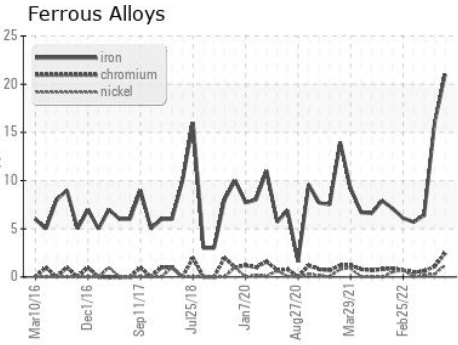
# OIL ANALYSIS REPORT



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	LIGHT
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

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.1	<b>15.2</b>	14.9	15.3

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0103251 **Received** : 04 Jan 2024  
**Lab Number** : **06050682** **Diagnosed** : 04 Jan 2024  
**Unique Number** : 10816631 **Diagnostician** : Don Baldrige  
**Test Package** : FLEET

**GFL Environmental - 001 - Raleigh(CNG)**  
 3741 Conquest Drive  
 Garner, NC  
 US 27529  
 Contact: Craig Johnson  
 craig.johnson@gflenv.com  
 T: (919)662-7100  
 F: (919)662-7130

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)