



# OIL ANALYSIS REPORT

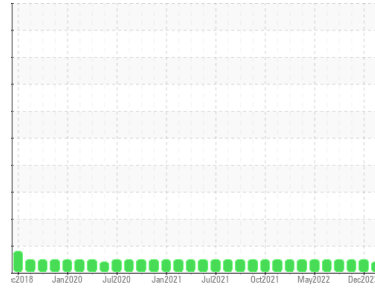
Sample Rating Trend

VIS DEBRIS

Area  
**(P662031)**  
Machine Id  
**10892C**

Component  
**Natural Gas Engine**

Fluid  
**PETRO CANADA DURON GEO LD 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

Moderate concentration of visible dirt/debris present in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. 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>GFL0096913</b>	GFL0069746	GFL0084243
Sample Date	Client Info		<b>07 Feb 2024</b>	28 Dec 2023	21 Jun 2023
Machine Age	hrs	Client Info	<b>5580</b>	5270	4004
Oil Age	hrs	Client Info	<b>5580</b>	5270	4004
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>43</b>	11	20
Chromium	ppm	ASTM D5185m >4	<b>4</b>	<1	2
Nickel	ppm	ASTM D5185m >2	<b>2</b>	<1	1
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >9	<b>4</b>	2	4
Lead	ppm	ASTM D5185m >30	<b>7</b>	3	<1
Copper	ppm	ASTM D5185m >35	<b>2</b>	<1	1
Tin	ppm	ASTM D5185m >4	<b>1</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	<b>10</b>	6	28
Barium	ppm	ASTM D5185m 5	<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m 50	<b>73</b>	63	88
Manganese	ppm	ASTM D5185m 0	<b>2</b>	<1	<1
Magnesium	ppm	ASTM D5185m 560	<b>749</b>	678	859
Calcium	ppm	ASTM D5185m 1510	<b>1750</b>	1668	2135
Phosphorus	ppm	ASTM D5185m 780	<b>922</b>	801	1173
Zinc	ppm	ASTM D5185m 870	<b>1206</b>	1096	1407
Sulfur	ppm	ASTM D5185m 2040	<b>2595</b>	2561	4096

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	<b>43</b>	8	11
Sodium	ppm	ASTM D5185m	<b>8</b>	7	4
Potassium	ppm	ASTM D5185m >20	<b>4</b>	0	2

## INFRA-RED

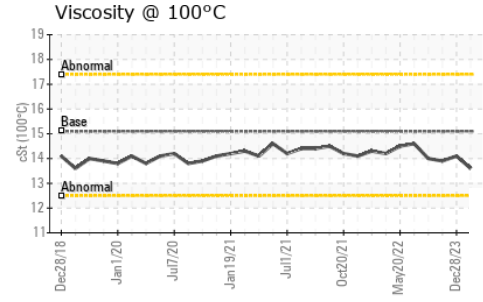
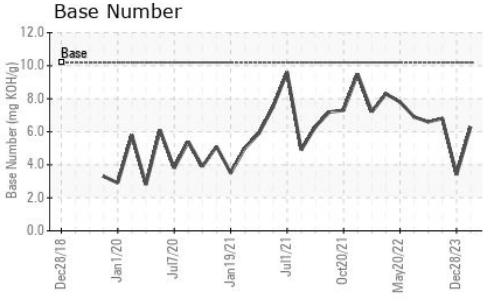
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	<b>0.1</b>	0	0.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>13.6</b>	11.3	8.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>25.1</b>	24.3	20.1

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>20.3</b>	19.4	16.7
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	<b>6.3</b>	3.4	6.8



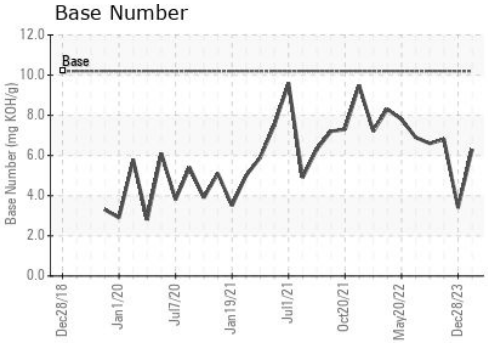
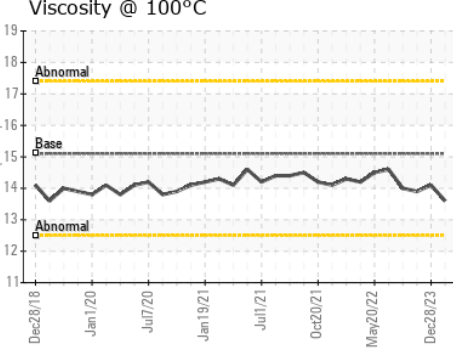
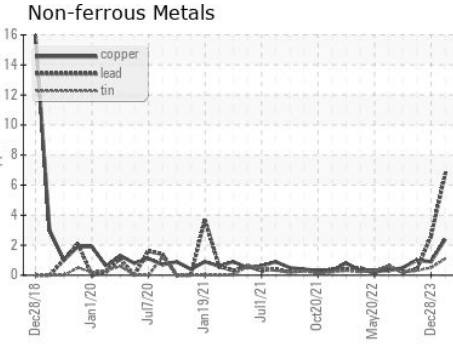
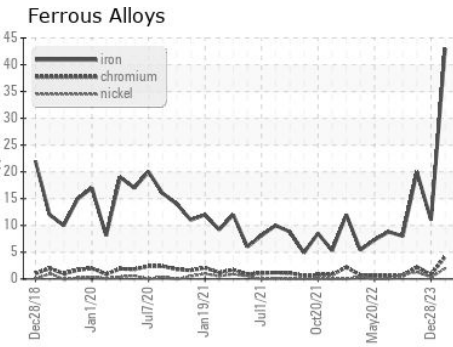
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VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	▲ MODER	NONE	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

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.1	<b>13.6</b>	14.1	13.9

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0096913 **Received** : 09 Feb 2024  
**Lab Number** : 06085279 **Tested** : 12 Feb 2024  
**Unique Number** : 10872724 **Diagnosed** : 12 Feb 2024 - Don Baldrige  
**Test Package** : FLEET

**GFL Environmental - 031 - Greenville/Spartanburg**  
 1635 Antioch Church Rd  
 Piedmont, SC  
 US 29673  
 Contact: TECHNICIAN ACCOUNT  
 catherine.anastasio@wearcheck.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)

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