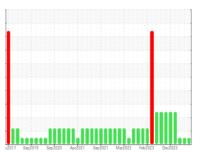


# **OIL ANALYSIS REPORT**

Sample Rating Trend







2618C

Machine Id

Natural Gas Engine

PETRO CANADA DURON GEO LD 15W40 (12 GAL)

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

## **Fluid Condition**

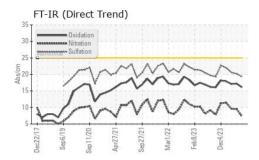
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

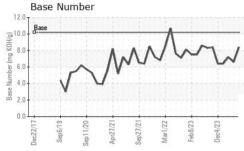
(12 GAL)		czo i z ospzo	13 OBDZOZO ADIZOZI	OURSEL MULTILE TOURSES S	962023	
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0125715	GFL0112910	GFL0112933
Sample Date		Client Info		16 Jul 2024	07 May 2024	21 Mar 2024
Machine Age	hrs	Client Info		10732	10732	10732
Oil Age	hrs	Client Info		330	331	284
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	5	6	8
Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	2	<1	2
Lead	ppm	ASTM D5185m	>30	0	1	<1
Copper	ppm	ASTM D5185m	>35	6	0	<1
Tin	ppm	ASTM D5185m	>4	0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	50	21	4	7
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	50	47	48	53
Manganese	ppm	ASTM D5185m	0	2	<1	<1
Magnesium					< 1	< 1
9	ppm	ASTM D5185m	560	564	569	567
Calcium	ppm	ASTM D5185m ASTM D5185m		564 1455		
			560		569	567
Calcium	ppm	ASTM D5185m	560 1510	1455	569 1584	567 1605
Calcium Phosphorus	ppm ppm	ASTM D5185m ASTM D5185m	560 1510 780	1455 772	569 1584 782	567 1605 745
Calcium Phosphorus Zinc	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	560 1510 780 870	1455 772 924	569 1584 782 964	567 1605 745 978
Calcium Phosphorus Zinc Sulfur	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	560 1510 780 870 2040	1455 772 924 2770	569 1584 782 964 2895	567 1605 745 978 2423
Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	560 1510 780 870 2040 limit/base	1455 772 924 2770	569 1584 782 964 2895 history1	567 1605 745 978 2423 history2
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	560 1510 780 870 2040 limit/base	1455 772 924 2770 current	569 1584 782 964 2895 history1	567 1605 745 978 2423 history2
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm TS ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	560 1510 780 870 2040 limit/base >+100	1455 772 924 2770 current 30 20	569 1584 782 964 2895 history1 5	567 1605 745 978 2423 history2 9 52
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm TS ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m	560 1510 780 870 2040 limit/base >+100	1455 772 924 2770 current 30 20 138	569 1584 782 964 2895 history1 5 32 202	567 1605 745 978 2423 history2 9 52 261
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	560 1510 780 870 2040 limit/base >+100 >20	1455 772 924 2770 current 30 20 138	569 1584 782 964 2895 history1 5 32 202 history1	567 1605 745 978 2423 history2 9 52 261 history2
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  *ASTM D5185m	560 1510 780 870 2040 limit/base >+100 >20	1455 772 924 2770 current 30 20 138 current	569 1584 782 964 2895 history1 5 32 202 history1 0.1	567 1605 745 978 2423 history2 9 52 261 history2
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm TS ppm ppm ppm Abs/cm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  *ASTM D7844  *ASTM D7624  *ASTM D7415	560 1510 780 870 2040 limit/base >+100 >20 limit/base	1455 772 924 2770 current 30 20 138 current 0 7.3	569 1584 782 964 2895 history1 5 32 202 history1 0.1 9.5	567 1605 745 978 2423 history2 9 52 261 history2 0 9.6

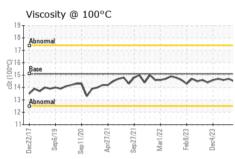
Base Number (BN) mg KOH/g ASTM D2896 10.2 8.4



# **OIL ANALYSIS REPORT**



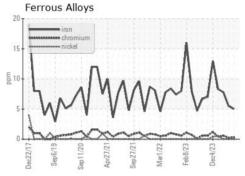


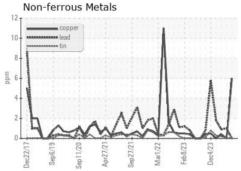


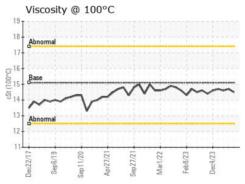
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

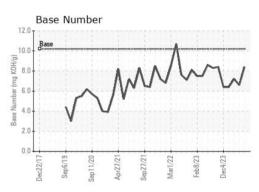
FLUID PROPERTIES		method				history2
Visc @ 100°C	cSt	ASTM D445	15.1	14.5	14.7	14.6

## **GRAPHS**













Certificate 12367

Laboratory Sample No. Lab Number : 06238778

Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : GFL0125715 Unique Number : 11127612

Received : 17 Jul 2024 **Tested** : 17 Jul 2024 Diagnosed

: 17 Jul 2024 - Wes Davis

GFL Environmental - 017 - Durham

148 Stone Park Court Durham, NC

US 27703 Contact:

bill.waring@wearcheck.com T: (919)596-1363

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) F: (919)598-1852