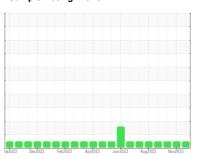


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



912066

Component **Natural Gas Engine**

PETRO CANADA DURON GEO LD 15W40 (--- GAL)

DIAGNOSIS

Recommendation

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

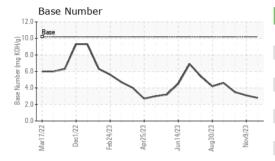
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

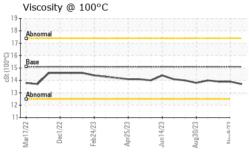
(GAL)		Tar2022 De	2022 Feb2023 Ap	r2023 Jun2023 Aug2023	Nov2023	
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0099969	GFL0095170	GFL0095135
Sample Date		Client Info		13 Nov 2023	09 Nov 2023	16 Oct 2023
Machine Age	hrs	Client Info		4771	4753	4594
Oil Age	hrs	Client Info		1200	0	0
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
WEAR METAL	.S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	2	4	4
Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>9	3	2	2
Lead	ppm	ASTM D5185m	>30	2	2	1
Copper	ppm	ASTM D5185m	>35	2	2	1
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	<1	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 4	history1 4	history2 7
	ppm					· · · · · · · · · · · · · · · · · · ·
Boron		ASTM D5185m	50	4	4	7
Boron Barium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	50 5	4 0	4 0	7
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50	4 0 48	4 0 54	7 0 54
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0	4 0 48 <1	4 0 54 <1	7 0 54
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560	4 0 48 <1 534	4 0 54 <1 547	7 0 54 0 543
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560 1510	4 0 48 <1 534 1443	4 0 54 <1 547 1559	7 0 54 0 543 1530
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560 1510 780	4 0 48 <1 534 1443 685	4 0 54 <1 547 1559 721	7 0 54 0 543 1530 661
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560 1510 780 870	4 0 48 <1 534 1443 685	4 0 54 <1 547 1559 721 933	7 0 54 0 543 1530 661 953
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560 1510 780 870 2040	4 0 48 <1 534 1443 685 893 2232	4 0 54 <1 547 1559 721 933 2622	7 0 54 0 543 1530 661 953 2667
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	50 5 50 0 560 1510 780 870 2040	4 0 48 <1 534 1443 685 893 2232 current	4 0 54 <1 547 1559 721 933 2622 history1	7 0 54 0 543 1530 661 953 2667 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	50 5 50 0 560 1510 780 870 2040	4 0 48 <1 534 1443 685 893 2232 current 6	4 0 54 <1 547 1559 721 933 2622 history1	7 0 54 0 543 1530 661 953 2667 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	50 5 50 0 560 1510 780 870 2040 limit/base >+100	4 0 48 <1 534 1443 685 893 2232 current 6 4	4 0 54 <1 547 1559 721 933 2622 history1 7	7 0 54 0 543 1530 661 953 2667 history2 7
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	50 5 50 0 560 1510 780 870 2040 limit/base >+100 >20	4 0 48 <1 534 1443 685 893 2232 current 6 4	4 0 54 <1 547 1559 721 933 2622 history1 7 0	7 0 54 0 543 1530 661 953 2667 history2 7 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	50 5 50 0 560 1510 780 870 2040 limit/base >+100 >20	4 0 48 <1 534 1443 685 893 2232 current 6 4 <1	4 0 54 <1 547 1559 721 933 2622 history1 7 0 2	7 0 54 0 543 1530 661 953 2667 history2 7 2 2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560 1510 780 870 2040 limit/base >+100 >20	4 0 48 <1 534 1443 685 893 2232 current 6 4 <1	4 0 54 <1 547 1559 721 933 2622 history1 7 0 2	7 0 54 0 543 1530 661 953 2667 history2 7 2 2 history2 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm	ASTM D5185m method *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7415	50 5 50 0 560 1510 780 870 2040 limit/base >+100 >20 limit/base	4 0 48 <1 534 1443 685 893 2232 current 6 4 <1 current 0 11.3	4 0 54 <1 547 1559 721 933 2622 history1 7 0 2 history1 0 11.1	7 0 54 0 543 1530 661 953 2667 history2 7 2 2 history2 0 10.3

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



OIL ANALYSIS REPORT

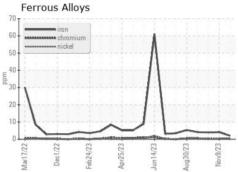


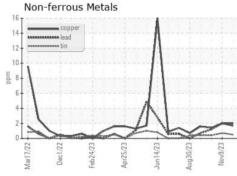


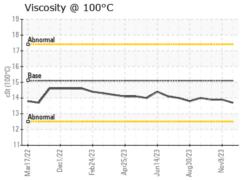
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

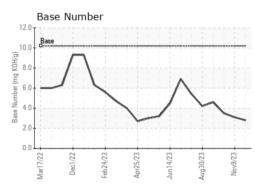
FLUID PROPERTIES		method				history2
Visc @ 100°C	cSt	ASTM D445	15.1	13.7	13.9	13.9

GRAPHS













Certificate L2367

Laboratory Sample No. Lab Number Unique Number : 10742731 Test Package : FLEET

: GFL0099969 : 06008969

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 15 Nov 2023 Diagnosed : 16 Nov 2023

Diagnostician : Wes Davis

GFL Environmental - 836 - Kansas City Hauling 7801 East Truman Road

Kansas City, MO US 64126 Contact: Robert Hart

rhart@gflenv.com T: (580)461-1509

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)