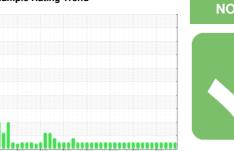


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



3496C AUTOCAR

Component

Natural Gas Engine

PETRO CANADA DURON GEO LD 15W40 (48 QTS)

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

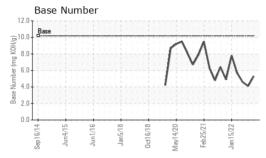
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

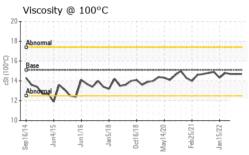
(48 QTS)						
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0087103	GFL0056648	GFL0052346
Sample Date		Client Info		12 Jul 2023	04 Apr 2023	24 Aug 2022
Machine Age	hrs	Client Info		1196	619	0
Oil Age	hrs	Client Info		0	622	0
Oil Changed		Client Info		Not Changd	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL
WEAR METALS	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	13	33	14
Chromium	ppm	ASTM D5185m	>4	2	8	2
Nickel	ppm	ASTM D5185m	>2	<1	2	<1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>9	3	4	2
Lead	ppm	ASTM D5185m	>30	1	8	1
Copper	ppm	ASTM D5185m	>35	<1	3	<1
Tin	ppm	ASTM D5185m	>4	<1	1	1
Antimony	ppm	ASTM D5185m				
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 6	history1 13	history2 9
	ppm ppm					•
Boron		ASTM D5185m	50	6	13	9
Boron Barium	ppm	ASTM D5185m ASTM D5185m	50 5	6 2	13 2	9
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50	6 2 55	13 2 63	9 0 56
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0	6 2 55 <1	13 2 63 1	9 0 56 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560	6 2 55 <1 523 1630 702	13 2 63 1 566 1723 779	9 0 56 <1 537 1554 633
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	6 2 55 <1 523 1630	13 2 63 1 566 1723	9 0 56 <1 537 1554
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 ASTM D5185m	50 5 50 0 560 1510 780	6 2 55 <1 523 1630 702	13 2 63 1 566 1723 779	9 0 56 <1 537 1554 633
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 ASTM D5185m	50 5 50 0 560 1510 780 870	6 2 55 <1 523 1630 702	13 2 63 1 566 1723 779 1015	9 0 56 <1 537 1554 633 874
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 ASTM D5185m	50 5 50 0 560 1510 780 870 2040	6 2 55 <1 523 1630 702 978 2708	13 2 63 1 566 1723 779 1015 2710	9 0 56 <1 537 1554 633 874 2306
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	50 5 50 0 560 1510 780 870 2040 limit/base	6 2 55 <1 523 1630 702 978 2708 current	13 2 63 1 566 1723 779 1015 2710	9 0 56 <1 537 1554 633 874 2306 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	50 5 50 0 560 1510 780 870 2040 limit/base >+100	6 2 55 <1 523 1630 702 978 2708 current	13 2 63 1 566 1723 779 1015 2710 history1	9 0 56 <1 537 1554 633 874 2306 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	50 5 50 0 560 1510 780 870 2040 limit/base >+100	6 2 55 <1 523 1630 702 978 2708 current 12 20	13 2 63 1 566 1723 779 1015 2710 history1 9 52	9 0 56 <1 537 1554 633 874 2306 history2 6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	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	6 2 55 <1 523 1630 702 978 2708 current 12 20 6	13 2 63 1 566 1723 779 1015 2710 history1 9 52 6	9 0 56 <1 537 1554 633 874 2306 history2 6 42
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 limit/base	6 2 55 <1 523 1630 702 978 2708 current 12 20 6 current	13 2 63 1 566 1723 779 1015 2710 history1 9 52 6 history1	9 0 56 <1 537 1554 633 874 2306 history2 6 42 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method *ASTM D5185m 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 limit/base	6 2 55 <1 523 1630 702 978 2708 current 12 20 6 current 0.1	13 2 63 1 566 1723 779 1015 2710 history1 9 52 6 history1 0.1	9 0 56 <1 537 1554 633 874 2306 history2 6 42 2 history2 0.1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m	50 5 50 0 560 1510 780 870 2040 limit/base >+100 >20 limit/base	6 2 55 <1 523 1630 702 978 2708 current 12 20 6 current 0.1 11.1	13 2 63 1 566 1723 779 1015 2710 history1 9 52 6 history1 0.1 13.0	9 0 56 <1 537 1554 633 874 2306 history2 6 42 2 history2 0.1 12.3

Base Number (BN) mg KOH/g ASTM D2896 10.2 5.3



OIL ANALYSIS REPORT

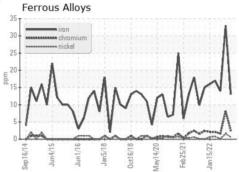


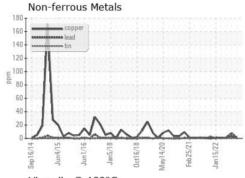


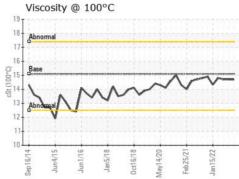
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

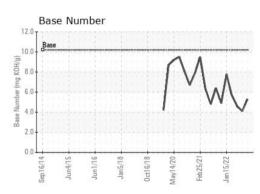
FLUID PROPE	ERTIES	method				history2
Visc @ 100°C	cSt	ASTM D445	15.1	14.7	14.7	14.7

GRAPHS













Certificate L2367

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

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : GFL0087103 : 05898334 : 10559690

To discuss this sample report, contact Customer Service at 1-800-237-1369.

Received : 14 Jul 2023 Diagnosed : 17 Jul 2023 Diagnostician : Wes Davis

GFL Environmental - 001 - Raleigh(CNG)

3741 Conquest Drive Garner, NC US 27529 Contact: Craig Johnson

craig.johnson@gflenv.com T: (919)662-7100

* - 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)662-7130