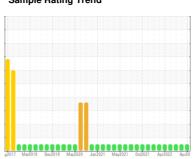


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id 3761C Component

Natural Gas Engine

PETRO CANADA DURON GEO LD 15W40 (40 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

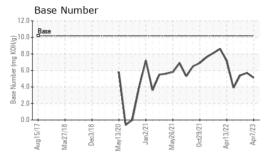
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

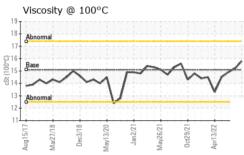
(40 QTS)							
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2	
Sample Number		Client Info		GFL0070780	GFL0058581	GFL0051205	
Sample Date		Client Info		07 Apr 2023	14 Oct 2022	12 Aug 2022	
Machine Age	hrs	Client Info		18578	15528	15041	
Oil Age	hrs	Client Info		600	15015	600	
Oil Changed		Client Info		Changed	Changed	N/A	
Sample Status				NORMAL	NORMAL	NORMAL	
WEAR METALS	S	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>50	34	30	16	
Chromium	ppm	ASTM D5185m	>4	4	4	3	
Nickel	ppm	ASTM D5185m	>2	0	0	<1	
Titanium	ppm	ASTM D5185m		0	<1	0	
Silver	ppm	ASTM D5185m	>3	0	0	0	
Aluminum	ppm	ASTM D5185m	>9	4	4	5	
Lead	ppm	ASTM D5185m	>30	7	6	4	
Copper	ppm	ASTM D5185m	>35	<1	<1	8	
Tin	ppm	ASTM D5185m	>4	<1	<1	<1	
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	50	14	14	13	
Boron Barium	ppm ppm		50 5	14 0	14 2	13	
Boron Barium Molybdenum	• • • • • • • • • • • • • • • • • • • •	ASTM D5185m	50 5 50	14 0 65	14 2 69	13 0 56	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0	14 0 65	14 2 69	13 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	14 0 65 1 690	14 2 69 1 648	13 0 56 <1 536	
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	14 0 65 1 690 2061	14 2 69 1 648 2096	13 0 56 <1 536 1675	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm 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	14 0 65 1 690 2061 913	14 2 69 1 648 2096 936	13 0 56 <1 536 1675 762	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	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	14 0 65 1 690 2061 913 1129	14 2 69 1 648 2096 936 1208	13 0 56 <1 536 1675 762 1006	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	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	14 0 65 1 690 2061 913	14 2 69 1 648 2096 936 1208 3184	13 0 56 <1 536 1675 762 1006 2455	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	50 5 50 0 560 1510 780 870 2040	14 0 65 1 690 2061 913 1129 2444 current	14 2 69 1 648 2096 936 1208 3184 history1	13 0 56 <1 536 1675 762 1006 2455 history2	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	50 5 50 0 560 1510 780 870 2040	14 0 65 1 690 2061 913 1129 2444 current	14 2 69 1 648 2096 936 1208 3184 history1	13 0 56 <1 536 1675 762 1006 2455 history2	
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	14 0 65 1 690 2061 913 1129 2444 current	14 2 69 1 648 2096 936 1208 3184 history1 8	13 0 56 <1 536 1675 762 1006 2455 history2 6 9	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	50 5 50 0 560 1510 780 870 2040	14 0 65 1 690 2061 913 1129 2444 current	14 2 69 1 648 2096 936 1208 3184 history1	13 0 56 <1 536 1675 762 1006 2455 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	14 0 65 1 690 2061 913 1129 2444 current 8 14	14 2 69 1 648 2096 936 1208 3184 history1 8	13 0 56 <1 536 1675 762 1006 2455 history2 6 9	
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	14 0 65 1 690 2061 913 1129 2444 current 8 14 0	14 2 69 1 648 2096 936 1208 3184 history1 8 11	13 0 56 <1 536 1675 762 1006 2455 history2 6 9 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	14 0 65 1 690 2061 913 1129 2444 current 8 14 0	14 2 69 1 648 2096 936 1208 3184 history1 8 11 2	13 0 56 <1 536 1675 762 1006 2455 history2 6 9 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	14 0 65 1 690 2061 913 1129 2444 current 8 14 0 current	14 2 69 1 648 2096 936 1208 3184 history1 8 11 2 history1 0.1	13 0 56 <1 536 1675 762 1006 2455 history2 6 9 2 history2 0	
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 Method *ASTM D7844 *ASTM D7624 *ASTM D76145	50 5 50 0 560 1510 780 870 2040 limit/base >+100 >20 limit/base	14 0 65 1 690 2061 913 1129 2444 current 8 14 0 current 0.1 13.5	14 2 69 1 648 2096 936 1208 3184 history1 8 11 2 history1 0.1 13.0	13 0 56 <1 536 1675 762 1006 2455 history2 6 9 2 history2 0 11.5	

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



OIL ANALYSIS REPORT

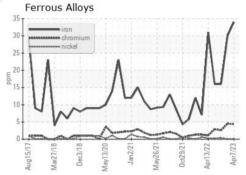


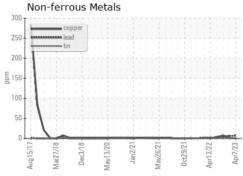


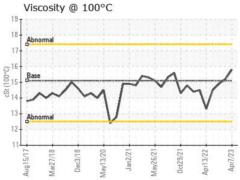
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	LIGHT	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT	NONE
Sand/Dirt	scalar	*Visual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

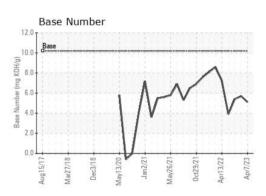
FLUID PROPERTIES		method				history2
Visc @ 100°C	cSt	ASTM D445	15.1	15.8	15.2	14.9

GRAPHS













Certificate L2367

Laboratory

Sample No. Lab Number Unique Number : 10417688 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : 05814896

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

: GFL0070780

Received : 10 Apr 2023 Diagnosed : 12 Apr 2023 Diagnostician : Don Baldridge GFL Environmental - 030 - Conway Myrtle Beach

3010 HWY 378 Conway, SC US 29527

Contact: CHET STROSCHINE

cstroschine@gflenv.com T:

* - 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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