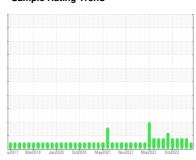


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id 3710C Component

Natural Gas Engine

PETRO CANADA DURON GEO LD 15W40 (32 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.

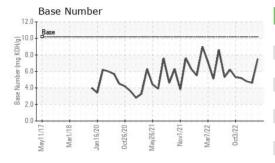
Fluid Condition

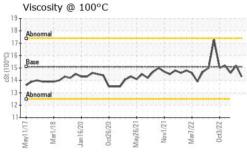
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sample Date	(32 QTS)						
Sample Date Client Info 28 Dec 2023 13 Nov 2023 07 May 2023 Machine Age hrs Client Info 15571 15278 13834 Oil Age hrs Client Info 293 Oil Age Oil Changed Client Info Not Changd Changed N/A ABNORMAL ABNORMAL	SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 15571 15278 13834 Oil Age hrs Client Info 293 618 0 Oil Changed Client Info Not Changed NA Sample Status NORMAL ABNORMAL ABNORMAL CONTAMINATION method limit/base current history1 history2 WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 18 34 23 Chromium ppm ASTM D5185m >50 18 34 23 Chromium ppm ASTM D5185m >2 <1	Sample Number		Client Info		GFL0098493	GFL0098503	GFL0073778
Machine Age hrs Client Info 15571 15278 13834 Oil Age hrs Client Info 293 618 0 Oil Changed Client Info Not Changed NA Sample Status NORMAL ABNORMAL ABNORMAL CONTAMINATION method limit/base current history1 history2 WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 18 34 23 Chromium ppm ASTM D5185m >50 18 34 23 Chromium ppm ASTM D5185m >2 <1	Sample Date		Client Info		28 Dec 2023	13 Nov 2023	07 May 2023
Coli Changed Sample Status		hrs	Client Info		15571	15278	13834
NORMAL ABNORMAL ABNORMAL CONTAMINATION method limit/base current history1 history2 history2	Oil Age	hrs	Client Info		293	618	0
CONTAMINATION method limit/base current history1 history2 Water WC Method >0.1 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 18 34 23 Chromium ppm ASTM D5185m >4 2 ↑5 ♠ 6 Nickel ppm ASTM D5185m >4 2 ↑	Oil Changed		Client Info		Not Changd	Changed	N/A
Water WC Method >0.1 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 18 34 23 Chromium ppm ASTM D5185m >4 2 ▲ 5 ♠ 6 Nickel ppm ASTM D5185m >2 <1 <1 <1 Titanium ppm ASTM D5185m >2 <1 0 0 Silver ppm ASTM D5185m >3 0 <1 0 Aluminum ppm ASTM D5185m >30 1 8 <1 Copper ppm ASTM D5185m >30 1 8 <1 Copper ppm ASTM D5185m >4 <1 <1 0 Vanadium ppm ASTM D5185m >4 <1 <1 0 Vanadium ppm ASTM D5185m 50 17 11 <t< td=""><td>Sample Status</td><td></td><td></td><td></td><th>NORMAL</th><td>ABNORMAL</td><td>ABNORMAL</td></t<>	Sample Status				NORMAL	ABNORMAL	ABNORMAL
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >5 18 34 23 Chromium ppm ASTM D5185m >4 2 5 4 Nickel ppm ASTM D5185m >2 -1 -1 -1 Titanium ppm ASTM D5185m >3 0 -1 0 Aluminum ppm ASTM D5185m >3 0 -1 0 Aluminum ppm ASTM D5185m >9 3 4 2 Lead ppm ASTM D5185m >9 3 4 2 Lead ppm ASTM D5185m >9 3 4 2 Lead ppm ASTM D5185m >9 3 8 20 Tin ppm ASTM D5185m >4 -1 -1 0 Cadmium ppm ASTM D5185m 0 0 0 0 <td>CONTAMINAT</td> <td>ION</td> <td>method</td> <td>limit/base</td> <th>current</th> <td>history1</td> <td>history2</td>	CONTAMINAT	ION	method	limit/base	current	history1	history2
Pron	Water		WC Method	>0.1	NEG	NEG	NEG
Chromium ppm ASTM D5185m >4 2 5 6 Nickel ppm ASTM D5185m >2 <1	WEAR METAL	S	method	limit/base	current	history1	history2
Nickel	Iron	ppm			18	34	23
Silver	Chromium	ppm	ASTM D5185m	>4	2	<u>^</u> 5	<u>^</u> 6
Silver	Nickel	ppm		>2			
Aluminum	Titanium	ppm	ASTM D5185m		<1	0	0
Lead	Silver	ppm	ASTM D5185m	>3	0	<1	0
Copper ppm ASTM D5185m >35 3 8 20 Tin ppm ASTM D5185m >4 <1	Aluminum	ppm	ASTM D5185m	>9	3	4	2
Tin	Lead	ppm	ASTM D5185m	>30	1	8	<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 17 11 13 Barium ppm ASTM D5185m 50 6 0 Molybdenum ppm ASTM D5185m 50 52 62 52 Manganese ppm ASTM D5185m 50 574 580 583 Calcium ppm ASTM D5185m 760 595 751 Phosphorus ppm ASTM D5185m 780 760 795 751 Zinc ppm ASTM D5185m 870 952 1002 964 Sulfur ppm ASTM D5185m 2040 2263 2579 2636 CONTAMINANTS method limit/base current history1 history2	Copper	ppm	ASTM D5185m	>35	3	8	20
ADDITIVES	Tin	ppm	ASTM D5185m	>4	<1	<1	0
ADDITIVES	Vanadium	ppm	ASTM D5185m		0	0	0
Boron ppm ASTM D5185m 50 17 11 13 13 13 14 15 14 15 15 15 15 15	Cadmium	ppm	ASTM D5185m		0	0	0
Barium ppm ASTM D5185m 5 0 6 0 Molybdenum ppm ASTM D5185m 50 52 62 52 Manganese ppm ASTM D5185m 0 <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 50 52 62 52 Manganese ppm ASTM D5185m 0 <1	Boron	ppm	ASTM D5185m	50	17	11	13
Manganese ppm ASTM D5185m 0 <1 <1 1 Magnesium ppm ASTM D5185m 560 574 580 583 Calcium ppm ASTM D5185m 1510 1536 1734 1576 Phosphorus ppm ASTM D5185m 780 760 795 751 Zinc ppm ASTM D5185m 870 952 1002 964 Sulfur ppm ASTM D5185m 2040 2263 2579 2636 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 9 6 6 Sodium ppm ASTM D5185m >+100 9 6 6 Sodium ppm ASTM D5185m >20 4 14 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >20 </td <td>Barium</td> <td>ppm</td> <td>ASTM D5185m</td> <td>5</td> <th>0</th> <td>6</td> <td>0</td>	Barium	ppm	ASTM D5185m	5	0	6	0
Magnesium ppm ASTM D5185m 560 574 580 583 Calcium ppm ASTM D5185m 1510 1536 1734 1576 Phosphorus ppm ASTM D5185m 780 760 795 751 Zinc ppm ASTM D5185m 870 952 1002 964 Sulfur ppm ASTM D5185m 2040 2263 2579 2636 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 9 6 6 Sodium ppm ASTM D5185m 19 11 5 Potassium ppm ASTM D5185m >20 4 14 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >20 9.7 11.6 9.3 Sulfation Abs/cm *ASTM D7415 >30	Molybdenum	ppm	ASTM D5185m	50	52	62	52
Calcium ppm ASTM D5185m 1510 1536 1734 1576 Phosphorus ppm ASTM D5185m 780 760 795 751 Zinc ppm ASTM D5185m 870 952 1002 964 Sulfur ppm ASTM D5185m 2040 2263 2579 2636 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 9 6 6 Sodium ppm ASTM D5185m 19 11 5 Potassium ppm ASTM D5185m >20 4 14 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0 0 0 Nitration Abs/.1mm *ASTM D7415 >30 19.3 23.9 19.6 FLUID DEGRADATION method limit/base cu	Manganese	ppm	ASTM D5185m	0	<1	<1	1
Phosphorus ppm ASTM D5185m 780 760 795 751 Zinc ppm ASTM D5185m 870 952 1002 964 Sulfur ppm ASTM D5185m 2040 2263 2579 2636 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 9 6 6 Sodium ppm ASTM D5185m >+100 9 6 6 Sodium ppm ASTM D5185m >20 4 14 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0 0 0 Nitration Abs/cm *ASTM D7624 >20 9.7 11.6 9.3 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 23.9 19.6 FLUID DEGRADATION method limit/base	Magnesium	ppm	ASTM D5185m	560	574	580	583
Zinc	Calcium	ppm	ASTM D5185m	1510	1536	1734	1576
Zinc ppm ASTM D5185m 870 952 1002 964 Sulfur ppm ASTM D5185m 2040 2263 2579 2636 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 9 6 6 Sodium ppm ASTM D5185m 19 11 5 Potassium ppm ASTM D5185m >20 4 14 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0 0 0 Nitration Abs/cm *ASTM D7624 >20 9.7 11.6 9.3 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 23.9 19.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25	Phosphorus	ppm	ASTM D5185m	780	760	795	751
Sulfur ppm ASTM D5185m 2040 2263 2579 2636 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 9 6 6 Sodium ppm ASTM D5185m 19 11 5 Potassium ppm ASTM D5185m >20 4 14 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0 0 0 Nitration Abs/cm *ASTM D7624 >20 9.7 11.6 9.3 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 23.9 19.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.9 20.9 16.9			ASTM D5185m	870	952	1002	964
Silicon ppm ASTM D5185m >+100 9 6 6 Sodium ppm ASTM D5185m 19 11 5 Potassium ppm ASTM D5185m >20 4 14 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0 0 0 Nitration Abs/cm *ASTM D7624 >20 9.7 11.6 9.3 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 23.9 19.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.9 20.9 16.9	Sulfur		ASTM D5185m	2040	2263	2579	2636
Sodium ppm ASTM D5185m 19 11 5 Potassium ppm ASTM D5185m >20 4 14 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0 0 0 Nitration Abs/cm *ASTM D7624 >20 9.7 11.6 9.3 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 23.9 19.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.9 20.9 16.9	CONTAMINAN	ITS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 4 14 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0 0 0 Nitration Abs/cm *ASTM D7624 >20 9.7 11.6 9.3 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 23.9 19.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.9 20.9 16.9	Silicon	ppm	ASTM D5185m	>+100	9	6	6
INFRA-RED	Sodium	ppm	ASTM D5185m		19	11	5
Soot % % *ASTM D7844 0 0 0 Nitration Abs/cm *ASTM D7624 >20 9.7 11.6 9.3 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 23.9 19.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.9 20.9 16.9	Potassium	ppm	ASTM D5185m	>20	4	14	3
Nitration Abs/cm *ASTM D7624 >20 9.7 11.6 9.3 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 23.9 19.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.9 20.9 16.9	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 19.3 23.9 19.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.9 20.9 16.9	Soot %	%	*ASTM D7844		0	0	0
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.9 20.9 16.9	Nitration	Abs/cm	*ASTM D7624	>20	9.7	11.6	9.3
Oxidation	Sulfation	Abs/.1mm	*ASTM D7415	>30	19.3		19.6
	FLUID DEGRA	OATION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	16.9	20.9	16.9
	Base Number (BN)	mg KOH/g	ASTM D2896		7.5	4.6	4.8



OIL ANALYSIS REPORT

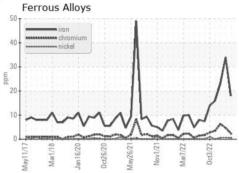


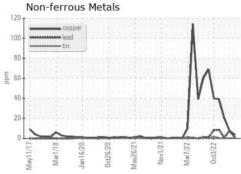


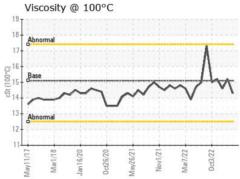
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	LIGHT	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	NONE	NONE
Sand/Dirt	scalar	*Visual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

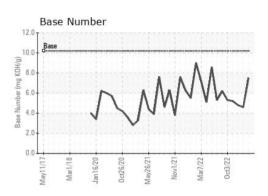
FLUID PROPE	RHES	method			history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	14.3	15.2	14.6

GRAPHS













Certificate L2367

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

: GFL0098493 : 06050676

: 10816625

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Recieved : 04 Jan 2024 Diagnosed : 04 Jan 2024

Diagnostician : Don Baldridge

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)

GFL Environmental - 006 - Wilmington

3618 US Highway 421 N Wilmington, NC US 28401

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Submitted By: Eric Wood

F: (910)762-6880