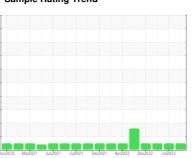


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id 10873C

Component **Natural Gas Engine**

PETRO CANADA DURON GEO LD 15W40 (

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

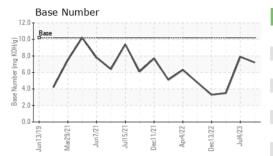
Fluid Condition

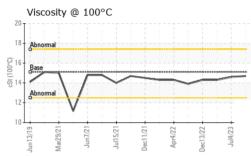
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION method limit/base current history2 history2	(46 GAL)		lun2019 Mar	2021 Jun2021 Jul2021	Dec2021 Apr2022 Dec2022	Jui2023	
Sample Date Client Info 20 Jul 2023 04 Jul 2023 03 Jan 2023	SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 9201 9201 9201 9201 Oil Age hrs Client Info 9201 9201 9201 9201 Oil Changed Client Info Changed Changed Changed Changed Changed	Sample Number		Client Info		GFL0080545	GFL0066838	GFL0055848
Oil Age hrs Client Info 9201 9201 9201 Oil Changed Changed </td <td>Sample Date</td> <td></td> <td>Client Info</td> <td></td> <th>20 Jul 2023</th> <td>04 Jul 2023</td> <td>03 Jan 2023</td>	Sample Date		Client Info		20 Jul 2023	04 Jul 2023	03 Jan 2023
Oil Changed Sample Status Client Info Changed NORMAL Changed NoRMAL Adding NoRMAL Changed NoRMAL Adding NoRMAL Changed NoRMAL Adding NoRMAL Changed NoRMAL Adding NoRMAL Adding NoRMAL Changed NoRMAND NORMAL <td>Machine Age</td> <td>hrs</td> <td>Client Info</td> <td></td> <th>9201</th> <td>9201</td> <td>9201</td>	Machine Age	hrs	Client Info		9201	9201	9201
NORMAL NORMAL NORMAL	Oil Age	hrs	Client Info		9201	9201	9201
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 11 10 23 Chromium ppm ASTM D5185m >4 <1	Oil Changed		Client Info		Changed	Changed	Changed
Iron	Sample Status				NORMAL	NORMAL	NORMAL
Chromium ppm ASTM D5185m >4 <1 <1 2 Nickel ppm ASTM D5185m >2 0 0 0 Titanium ppm ASTM D5185m >2 0 0 0 Silver ppm ASTM D5185m >3 0 0 0 Aluminum ppm ASTM D5185m >9 1 <1	WEAR METAL	S	method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m >2 0 0 0 Titanium ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m >3 0 0 0 Aluminum ppm ASTM D5185m >9 1 <1	Iron	ppm	ASTM D5185m	>50	11	10	23
Titanium	Chromium	ppm	ASTM D5185m	>4	<1	<1	2
Silver	Nickel	ppm	ASTM D5185m	>2	0	0	0
Aluminum	Titanium	ppm	ASTM D5185m		0	0	0
Lead	Silver	ppm	ASTM D5185m	>3			
Copper ppm ASTM D5185m >95 0 2 <1 Tin ppm ASTM D5185m >4 0 <1	Aluminum	ppm	ASTM D5185m	>9	1	<1	
Tin ppm ASTM D5185m >4 0 <1 0 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 50 18 23 6 Barium ppm ASTM D5185m 50 0 0 0 Molybdenum ppm ASTM D5185m 50 55 53 58 Manganese ppm ASTM D5185m 50 41 1 <1 <1 Magnesium ppm ASTM D5185m 560 673 648 611 Calcium ppm ASTM D5185m 780 843 815 770 Zinc ppm ASTM D5185m 870 1062 1016 1001 Sulfur ppm ASTM D5185m <	Lead	ppm	ASTM D5185m	>30	0	<1	2
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 18 23 6 Barium ppm ASTM D5185m 50 0 0 0 Molybdenum ppm ASTM D5185m 50 55 53 58 Manganese ppm ASTM D5185m 50 55 53 58 Manganesium ppm ASTM D5185m 560 673 648 611 Calcium ppm ASTM D5185m 1510 1667 1561 1717 Phosphorus ppm ASTM D5185m 870 1062 1016 1001 Sulfur ppm ASTM D5185m 2040 3094 3037 2857 CONTAMINANTS method limit/base current history1	Copper	ppm	ASTM D5185m	>35	0	2	<1
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 50 18 23 6 Barium ppm ASTM D5185m 50 0 0 0 Molybdenum ppm ASTM D5185m 50 55 53 58 Manganese ppm ASTM D5185m 0 <1	Tin	ppm	ASTM D5185m	>4	0	<1	0
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 50 18 23 6 Barium ppm ASTM D5185m 5 0 0 0 Molybdenum ppm ASTM D5185m 50 55 53 58 Manganese ppm ASTM D5185m 500 673 648 611 Calcium ppm ASTM D5185m 560 673 648 611 Calcium ppm ASTM D5185m 780 843 815 770 Phosphorus ppm ASTM D5185m 870 1062 1016 1001 Sulfur ppm ASTM D5185m 2040 3094 3037 2857 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 4 6 16 Sodium ppm ASTM D5185m >20	Vanadium	ppm	ASTM D5185m		0	0	0
Boron ppm ASTM D5185m 50 18 23 6 Barium ppm ASTM D5185m 5 0 0 0 Molybdenum ppm ASTM D5185m 50 55 53 58 Manganese ppm ASTM D5185m 0 <1 1 <1 Magnesium ppm ASTM D5185m 560 673 648 611 Calcium ppm ASTM D5185m 560 673 648 611 Calcium ppm ASTM D5185m 750 1667 1561 1717 Phosphorus ppm ASTM D5185m 780 843 815 770 Zinc ppm ASTM D5185m 870 1062 1016 1001 Sulfur ppm ASTM D5185m >4100 4 6 16 Sodium ppm ASTM D5185m >+100 4 6 16 Sodium ppm ASTM D5185m >20	Cadmium	ppm	ASTM D5185m		0	0	0
Barium ppm ASTM D5185m 5 0 0 0 Molybdenum ppm ASTM D5185m 50 55 53 58 Manganese ppm ASTM D5185m 0 <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 50 55 53 58 Manganese ppm ASTM D5185m 0 <1 1 <1 Magnesium ppm ASTM D5185m 560 673 648 611 Calcium ppm ASTM D5185m 560 673 648 611 Calcium ppm ASTM D5185m 760 1667 1561 1717 Phosphorus ppm ASTM D5185m 780 843 815 770 Zinc ppm ASTM D5185m 870 1062 1016 1001 Sulfur ppm ASTM D5185m 2040 3094 3037 2857 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 4 6 16 Sodium ppm ASTM D5185m >20 10 20 <1 INFRA-RED method lim	Boron	ppm	ASTM D5185m	50	18	23	6
Manganese ppm ASTM D5185m 0 <1 1 <1 Magnesium ppm ASTM D5185m 560 673 648 611 Calcium ppm ASTM D5185m 1510 1667 1561 1717 Phosphorus ppm ASTM D5185m 780 843 815 770 Zinc ppm ASTM D5185m 870 1062 1016 1001 Sulfur ppm ASTM D5185m 2040 3094 3037 2857 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 4 6 16 Sodium ppm ASTM D5185m >20 10 20 <1	Barium	ppm	ASTM D5185m	5	0	0	0
Magnesium ppm ASTM D5185m 560 673 648 611 Calcium ppm ASTM D5185m 1510 1667 1561 1717 Phosphorus ppm ASTM D5185m 780 843 815 770 Zinc ppm ASTM D5185m 870 1062 1016 1001 Sulfur ppm ASTM D5185m 2040 3094 3037 2857 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 4 6 16 Sodium ppm ASTM D5185m >+100 4 6 18 Potassium ppm ASTM D5185m >20 10 20 <1	Molybdenum	ppm	ASTM D5185m	50	55	53	58
Calcium ppm ASTM D5185m 1510 1667 1561 1717 Phosphorus ppm ASTM D5185m 780 843 815 770 Zinc ppm ASTM D5185m 870 1062 1016 1001 Sulfur ppm ASTM D5185m 2040 3094 3037 2857 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 4 6 16 Sodium ppm ASTM D5185m >20 10 20 <1	Manganese	ppm	ASTM D5185m	0	<1	1	<1
Phosphorus ppm ASTM D5185m 780 843 815 770 Zinc ppm ASTM D5185m 870 1062 1016 1001 Sulfur ppm ASTM D5185m 2040 3094 3037 2857 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 4 6 16 Sodium ppm ASTM D5185m >20 10 20 <1	Magnesium	ppm	ASTM D5185m	560	673	648	611
Zinc ppm ASTM D5185m 870 1062 1016 1001 Sulfur ppm ASTM D5185m 2040 3094 3037 2857 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 4 6 16 Sodium ppm ASTM D5185m >20 10 20 <1	Calcium	ppm	ASTM D5185m		1667	1561	1717
Sulfur ppm ASTM D5185m 2040 3094 3037 2857 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 4 6 16 Sodium ppm ASTM D5185m >+100 4 6 18 Potassium ppm ASTM D5185m >20 10 20 <1	Phosphorus	ppm	ASTM D5185m	780	843	815	770
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >+100 4 6 16 Sodium ppm ASTM D5185m >20 6 6 18 Potassium ppm ASTM D5185m >20 10 20 <1	Zinc	ppm	ASTM D5185m	870	1062	1016	1001
Silicon ppm ASTM D5185m >+100 4 6 16 Sodium ppm ASTM D5185m 6 6 6 18 Potassium ppm ASTM D5185m >20 10 20 <1 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 8.8 8.4 12.8 Sulfation Abs/.1mm *ASTM D7415 >30 19.0 19.4 25.1 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.5 16.5 20.2	Sulfur	ppm	ASTM D5185m	2040	3094	3037	2857
Sodium ppm ASTM D5185m 6 6 18 Potassium ppm ASTM D5185m >20 10 20 <1 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 8.8 8.4 12.8 Sulfation Abs/.1mm *ASTM D7415 >30 19.0 19.4 25.1 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.5 16.5 20.2	CONTAMINAN	TS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 10 20 <1 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 8.8 8.4 12.8 Sulfation Abs/.1mm *ASTM D7415 >30 19.0 19.4 25.1 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.5 16.5 20.2	Silicon	ppm	ASTM D5185m	>+100	4	6	16
INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 8.8 8.4 12.8 Sulfation Abs/.1mm *ASTM D7415 >30 19.0 19.4 25.1 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.5 16.5 20.2	Sodium	ppm	ASTM D5185m		6	6	18
Soot % % *ASTM D7844 0 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 8.8 8.4 12.8 Sulfation Abs/.1mm *ASTM D7415 >30 19.0 19.4 25.1 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.5 16.5 20.2	Potassium	ppm	ASTM D5185m	>20	10	20	<1
Nitration Abs/cm *ASTM D7624 >20 8.8 8.4 12.8 Sulfation Abs/.1mm *ASTM D7415 >30 19.0 19.4 25.1 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.5 16.5 20.2	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 19.0 19.4 25.1 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.5 16.5 20.2	Soot %	%	*ASTM D7844		0	0.1	0.1
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.5 20.2	Nitration	Abs/cm	*ASTM D7624	>20	8.8	8.4	12.8
Oxidation Abs/.1mm *ASTM D7414 >25 16.5 16.5 20.2	Sulfation	Abs/.1mm	*ASTM D7415	>30	19.0	19.4	25.1
	FLUID DEGRA	DATION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	16.5	16.5	20.2
	Base Number (BN)	mg KOH/g	ASTM D2896	10.2			3.5



OIL ANALYSIS REPORT

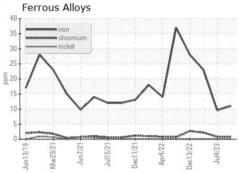


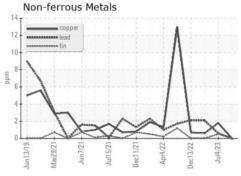


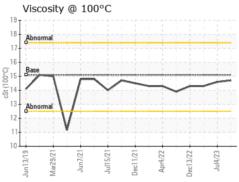
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

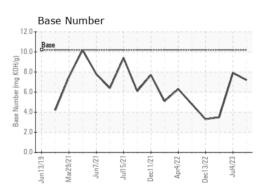
FLUID PROPE	RTIES	method				history2
Visc @ 100°C	cSt	ASTM D445	15.1	14.7	14.6	14.3

GRAPHS













Certificate L2367

Laboratory Sample No. Lab Number Unique Number : 10565536 Test Package : FLEET

: GFL0080545 : 05904180

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 21 Jul 2023 Diagnosed Diagnostician : Wes Davis

: 21 Jul 2023

GFL Environmental - 018 - Fayetteville

4621 Marracco Drive Hope Mills, NC US 28348 Contact: Robert Carter

robert.carter@gflenv.com T: (910)596-1170

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)