

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

220066

Diesel Engine

Fluid PETRO CANADA DURON XL SYN BLEND 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

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.

SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0112452	GFL0117346	GFL0099540
Sample Date		Client Info		18 Jun 2024	16 May 2024	27 Dec 2023
Machine Age	hrs	Client Info		101	13528	462797
Oil Age	hrs	Client Info		101	600	0
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	8	19	6
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	0	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	1	2	2
Lead	ppm	ASTM D5185(m)	>40	0	0	0
Copper	ppm	ASTM D5185(m)	>330	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	1	9	3	4
Barium	ppm		1	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	57	58	55
Manganese	ppm	ASTM D5185(m)		0	<1	0
Magnesium	ppm	ASTM D5185(m)	1010	915	965	916
Calcium	ppm	ASTM D5185(m)	1070	1025	1072	1040
Phosphorus	ppm	ASTM D5185(m)	1150	948	968	971
Zinc	ppm	ASTM D5185(m)	1270	1128	1187	1135
Sulfur	ppm	ASTM D5185(m)	2060	2467	2325	2653
Lithium	ppm	ASTM D5185(m)		<1	<1	<1
CONTAMINAN		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	4	2	4
Sodium	ppm	ASTM D5185(m)		1	2	<1
Potassium	ppm	ASTM D5185(m)	>20	<1	1	0
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0	0	0
Nitration	Abs/cm	ASTM D7644 ASTM D7624*		5.2	7.1	4.9
Sulfation	Abs/cm Abs/.1mm	ASTM D7624 ASTM D7415*	>20	5.2 18.6	19.5	4.9
Sullation	AD2/.111111	AOTIVI D7410	>00	10.0	19.0	10.4



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250

200

150

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50

50

40

30

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400

300

la 200

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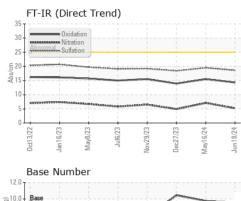
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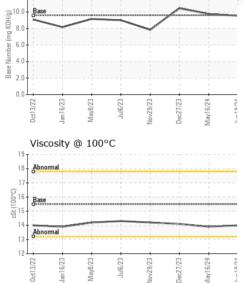
16

12

Laboratory

cSt (100°C)





FLUID DEGRADATION method >25 14.3 13.9 Oxidation Abs/.1mm ASTM D7414* 15.5 Base Number (BN) mg KOH/g ASTM D2896* 9.6 9.54 9.76 10.45 VISUAL NEG NEG NEG Emulsified Water >0.2 scalar Visual* Free Water NEG scalar Visual* NEG NEG FLUID PROPERTIES cSt 15.5 13.9 14.1 Visc @ 100°C ASTM D7279(m) 14.0 GRAPHS Iron (ppm) Lead (ppm) 100 80 60 ar 20 0 0ct13/22 lan 16/23 20/02/ av16/24 an Aluminum (ppm) Chromium (ppm) 50 40 30 10 0ct13/22 ul6/73 /ay16/24 an16/23 Aav8/73 ec/7/23 lun18/24 Jan 16/23 Dec27/23 /lav/16/24 50/ b C/vy 12/8/m 20/60/ml Oct13 Copper (ppm) Silicon (ppm) 80 Severe 60 ۲<u>ط</u> 40 Ab 20 0ct13/22 lov29/23 lun18/24 an 16/73 ul6/73)ec27/23 May16/24 an16/23 lav16/24 Viscosity @ 100°C Base Number (B)10.0 HOX 8.0 8.0 (ma 6.0 Vumber 4.0 Abno Base 2.0 0.0 Jun18/24 Mav8/23 ul6/73 v29/23 Dec27/23 May16/24 Jan 16/23 18/24 Jan 16/23 1av8/23 50/60ml Dec77/73 Mav16/24 : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 550 - Rocky View County



Sample No. : GFL0112452 Received : 25 Jun 2024 Lab Number : 02643977 Tested : 26 Jun 2024 Rocky View County, AB ISO 17025:2017 Accredited Unique Number : 5801516 Diagnosed : 26 Jun 2024 - Wes Davis Laboratory Test Package : MOB 2 To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

Contact: GFL Calgary calgarymaintenance@gflenv.com T: F: (403)369-6163

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