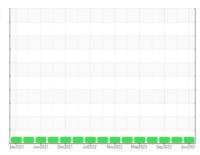


OIL ANALYSIS REPORT

Sample Rating Trend







Machine Id **927064** Component

Component

Diesel Engine

PETRO CANADA DURON SHP 15W40 (40 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. (Customer Sample Comment: Unit has 4 liters Motorsilk engine treatment 1140 hours ago.)

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

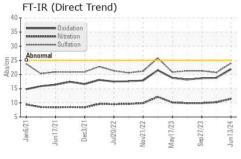
Fluid Condition

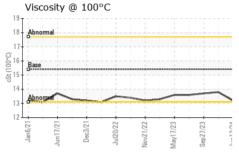
The condition of the oil is acceptable for the time in service.

LTR)	Jan2021 Jun2021 Dev2021 Jul2022 Nov2022 May2023 Sep2023 Jun2024					
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0061145	GFL0101403	GFL0093800
Sample Date		Client Info		13 Jun 2024	07 Dec 2023	27 Sep 2023
Machine Age	hrs	Client Info		20355	19215	297265
Oil Age	hrs	Client Info		1140	0	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	16	5	6
Chromium	ppm	ASTM D5185(m)	>20	<1	0	0
Nickel	ppm	ASTM D5185(m)	>4	1	<1	<1
Titanium	ppm	ASTM D5185(m)		<1	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	4	1	2
Lead	ppm	ASTM D5185(m)	>40	4	1	3
Copper	ppm	ASTM D5185(m)	>330	1	<1	<1
Tin	ppm	ASTM D5185(m)	>15	<1	0	<1
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)	0	25	2	5
Barium	ppm	ASTM D5185(m)	0	0	<1	<1
Molybdenum	ppm	ASTM D5185(m)	60	68	60	62
Manganese	ppm	ASTM D5185(m)	0	<1	0	0
Magnesium	ppm	ASTM D5185(m)	1010	888	976	980
Calcium	ppm	ASTM D5185(m)	1070	1174	1072	1069
Phosphorus	ppm	ASTM D5185(m)	1150	1005	1002	1008
Zinc	ppm	ASTM D5185(m)	1270	1214	1192	1206
Sulfur	ppm	ASTM D5185(m)	2060	2512	2463	2465
Lithium	ppm	ASTM D5185(m)		<1	<1	<1
CONTAMINAN	NTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	17	2	3
Sodium	ppm	ASTM D5185(m)		8	4	5
Potassium	ppm	ASTM D5185(m)	>20	2	0	<1
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0.5	0.2	0.2
Nitration	Abs/cm	ASTM D7624*	>20	11.4	10.2	9.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	24.0	20.7	21.3



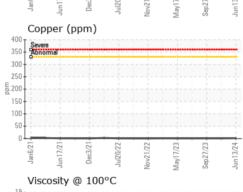
OIL ANALYSIS REPORT

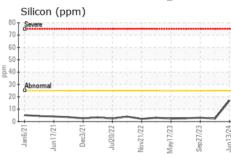


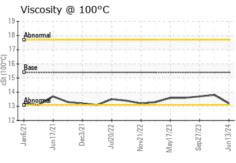


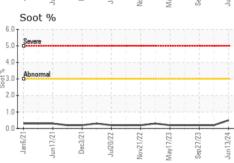
FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	21.9	18.8	18.7
VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.2	13.8	13.7
GRAPHS						

Lead (ppm)
80 - Severe
60 - Abnormal
Jan6/21 Jun17/21 Jul20/22 Nov21/22 Sep27/23
Chromium (ppm)
50 40 - Severe











CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

: GFL0061145 Lab Number : 02641940

Unique Number : 5799479 Test Package : MOB 1

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

Received : 14 Jun 2024 **Tested** : 14 Jun 2024 Diagnosed : 14 Jun 2024 - Kevin Marson

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.

GFL Environmental - 216

15 Bermondsey Road Toronto, ON **CA M4B 1Y9** Contact: Tom Hatzioannidis

thatzioannidis@gflenv.com T: (416)678-9340

Submitted By: Tom Hatzioannidis