WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL



Machine Id 9145 Component Natural Gas Engine

PETRO CANADA DURON GEO LD 15W40 ( GAL)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Please note that all wear metal and contaminant levels are being considered accumulative. Resample at the next service interval to monitor. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using MOB 2 test kits, this testkit includes BN to determine the suitability of the oil for continued use.	Sample Number		Client Info		GFL0125472	GFL0060171	GFL0048926
	Sample Date		Client Info		02 Jul 2024	21 Oct 2022	30 Mar 2022
	Machine Age	hrs	Client Info		15059	155193	142655
	Oil Age	hrs	Client Info		1200	0	0
	Filter Age	hrs	Client Info		1200	0	0
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	NORMAL	NORMAL
WEAR	Iron	ppm	ASTM D5185(m)	>50	27	24	19
An increase in the copper level is noted. All other component wear rates are normal.	Chromium	ppm	ASTM D5185(m)	>5	1	2	2
	Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
	Titanium	ppm	ASTM D5185(m)	>5	0	<1	0
	Silver	ppm	ASTM D5185(m)	>3	<1	0	0
	Aluminum	ppm	ASTM D5185(m)	>25	5	16	8
	Lead	ppm	ASTM D5185(m)	>40	4	4	<1
	Copper	ppm	ASTM D5185(m)	>150	76	6	9
	Tin	ppm	ASTM D5185(m)	>4	0	<1	<1
	Vanadium	ppm	ASTM D5185(m)		0	0	0
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>25	3	7	6
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185(m)	>20	1	<1	<1
	Water		WC Method	>0.1	NEG	NEG	NEG
	Soot %	%	ASTM D7844*		0	0	0
	Nitration	Abs/cm	ASTM D7624*	>20	7.1	10.9	11.2
	Sulfation	Abs/.1mm	ASTM D7415*	>30	21.4	25.6	21.5
	Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		4	9	7
The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185(m)	50	11	10	16
	Barium	ppm	ASTM D5185(m)	5	0	0	0
	Molybdenum	ppm	ASTM D5185(m)	50	118	54	52
	Manganese	ppm	ASTM D5185(m)	0	1	<1	<1
	Magnesium	ppm	ASTM D5185(m)	560	103	564	631
	Calcium	ppm	ASTM D5185(m)	1510	1725	1672	1524
	Phosphorus	ppm	ASTM D5185(m)	780	564	756	824
	Zinc	ppm	ASTM D5185(m)	870	691	879	936
	Sulfur	ppm	ASTM D5185(m)	2040	2058	2052	2072
	Oxidation	Abs/.1mm	ASTM D7414*	>25	12.9	20.4	17.9

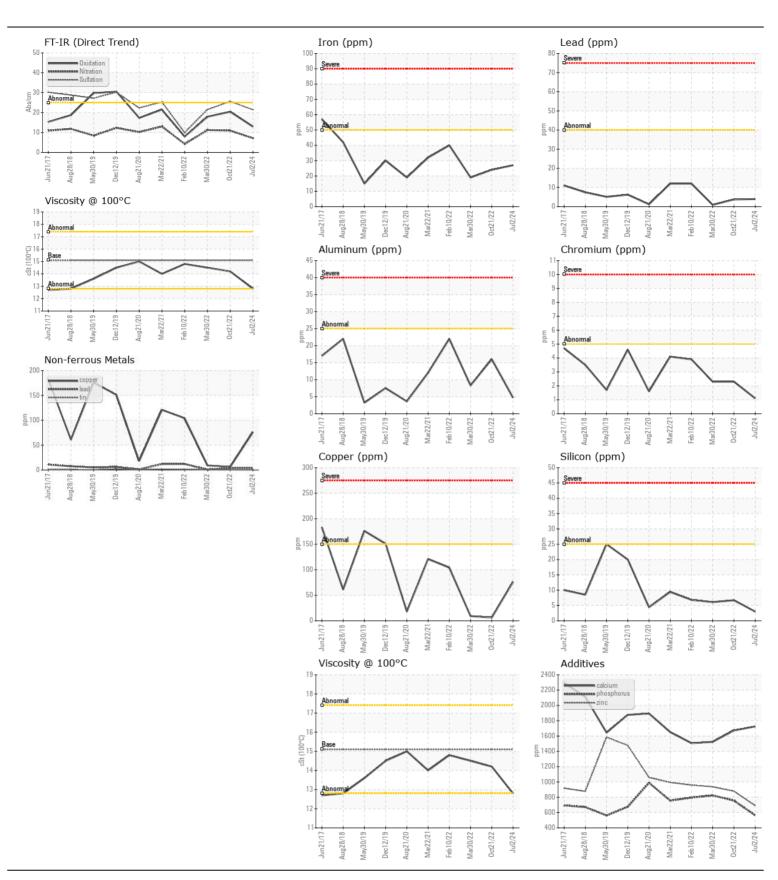
Visc @ 100°C cSt

ASTM D7279(m) 15.1

14.2

12.8

14.5





CALA ISO 17025:2017 Accredited

Laboratory

Laboratory

Sample No.

: GFL0125472 Lab Number : 02645128 Unique Number : 5802667 Test Package : MOB 1

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Received : 03 Jul 2024 **Tested** : 03 Jul 2024 Diagnosed

: 03 Jul 2024 - Kevin Marson

560 Seaman Street Stoney Creek, ON **CA L8E 3X7** Contact: Fred Carleton fred.carleton@gflenv.com T: (289)925-6693 F: (905)664-9008

GFL Environmental - 209 - Hamilton

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.