WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL



GFL218 Machine Id 833047 Component

Natural Gas Engine
NOT GIVEN (--- GAL)

NOT GIVEN (GAL)					.,		
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		GFL0126613	GFL0116356	
Resample at the next service interval to monitor.	Sample Date		Client Info		19 Jun 2024	11 Mar 2024	
	Machine Age	hrs	Client Info		15557	12212	
	Oil Age	hrs	Client Info		2277	8464	
	Filter Age	hrs	Client Info		0	0	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				NORMAL	NORMAL	
WEAR	Iron	ppm	ASTM D5185(m)	>50	15	10	
WEAR	Chromium	ppm	ASTM D5185(m)		<1	<1	
All component wear rates are normal.	Nickel	ppm	ASTM D5185(m)		<1	<1	
	Titanium	ppm	ASTM D5185(m)	72	0	0	
	Silver	ppm	ASTM D5185(m)	~3	0	0	
	Aluminum	ppm	ASTM D5185(m)		1	2	
	Lead	ppm	ASTM D5185(m)	>30	- <1	<1	
	Copper	ppm	ASTM D5185(m)		2	1	
	Tin	ppm	ASTM D5185(m)		<1	<1	
	Vanadium	ppm	ASTM D5185(m)	7 1	0	0	
	White Metal	scalar	Visual*	NONE	NONE		
	Yellow Metal	scalar	Visual*	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>+100	3	4	
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185(m)	>20	<1	0	
There is no indication of any contamination in the oil.	Water		WC Method	>0.1	NEG	NEG	
	Soot %	%	ASTM D7844*		0	0	
	Nitration	Abs/cm	ASTM D7624*	>20	10.7	10.7	
	Sulfation	Abs/.1mm	ASTM D7415*	>30	21.6	20.1	
	Silt	scalar	Visual*	NONE	NONE		
	Debris	scalar	Visual*	NONE	NONE		
	Sand/Dirt	scalar	Visual*	NONE	NONE		
	Appearance	scalar	Visual*	NORML	NORML		
	Odor	scalar	Visual*	NORML	NORML	NORML	
	Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		7	6	
	Boron	ppm	ASTM D5185(m)		9	14	
The condition of the oil is acceptable for the time in service.	Barium	ppm	ASTM D5185(m)		0	0	
	Molybdenum	ppm	ASTM D5185(m)		51	50	
	Manganese	ppm	ASTM D5185(m)		<1	<1	
	Magnesium	ppm	ASTM D5185(m)		518	582	
	Calcium	ppm	ASTM D5185(m)		1537	1527	
	Phosphorus	ppm	ASTM D5185(m)		623	757	
	Zinc	ppm	ASTM D5185(m)		872	894	
	Sulfur	ppm	ASTM D5185(m)		1937	2089	
	Oxidation	Abs/.1mm	ASTM D7414*	>25	17.9	16.6	
	Visc @ 100°C	cSt	ASTM D7279(m)		14.3	14.4	





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Lab Number : 02643359

: GFL0126613 Unique Number : 5800898

Received **Tested** Diagnosed Test Package : MOB 1 (Additional Tests: Visual)

: 21 Jun 2024 : 21 Jun 2024

: 21 Jun 2024 - Wes Davis Contact: Rick Philip rphilip@gflenv.com T: (416)745-8080

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 - 225 - COT(D2)

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