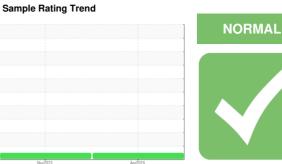


OIL ANALYSIS REPORT

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Machine Id
933014
Component
Natural Gas Engine
Fluid
DIESEL ENGINE OIL S

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil

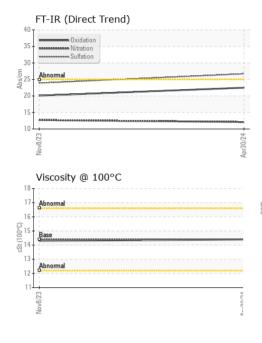
Fluid Condition

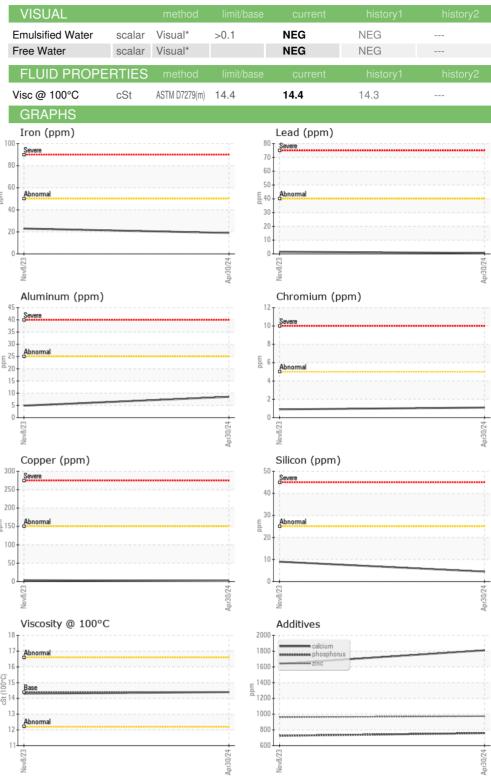
The condition of the oil is acceptable for the time in service.

Boron ppm ASTM D5185(m) 250 8	AE 15W40 ((GAL)		Nov2023	Apr2024		
Sample Number Client Info GFL0112696 GFL0100349	SAMPLE INFOR	MATION	method	limit/hase	current	history1	history2
Company Comp		IIVIATION		mmebase			
Machine Age	•						
Dil Changed	•	la u a			•		
Client Info Changed NORMAL NORM							
NORMAL N	•	1115			-		
Mater			Client inio		_	Ü	
Water WC Method >0.1 NEG NEG	·	TION	method	limit/hase			
WEAR METALS method limit/base current history1 history2 ron ppm ASTM D5185(m) >50 19 23 Chromium ppm ASTM D5185(m) >50 1 <1		ION					
Description		S					history2
Description							
Action A	-		. ,		-		
Silver			, ,				
Silver			. ,				
Astmotion Astmobilistic			. ,				
December December	-		. ,				
Description			1 /				
Antimony			. ,				
Antimony	• •	ppm	, ,				
Aranadium		ppm		>4			
Sery S	,	ppm	, ,				
ADDITIVES		ppm	. ,				
ADDITIVES	•	ppm	, ,				
Soron ppm ASTM D5185(m) 250 8 8 8		ppm	ASTM D5185(m)		0	0	
Sarium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185(m) 100 59 57 Manganese ppm ASTM D5185(m) 450 625 643 Magnesium ppm ASTM D5185(m) 3000 1810 1640 Calcium ppm ASTM D5185(m) 3000 1810 1640 Phosphorus ppm ASTM D5185(m) 1150 759 725 Zinc ppm ASTM D5185(m) 1350 974 961 Sulfur ppm ASTM D5185(m) 4250 2049 2011 Lithium ppm ASTM D5185(m) <1	Boron	ppm	ASTM D5185(m)	250	8	8	
Manganese ppm ASTM D5185(m) <1 2 Magnesium ppm ASTM D5185(m) 450 625 643 Calcium ppm ASTM D5185(m) 3000 1810 1640 Phosphorus ppm ASTM D5185(m) 1150 759 725 Zinc ppm ASTM D5185(m) 1350 974 961 Sulfur ppm ASTM D5185(m) 4250 2049 2011 Lithium ppm ASTM D5185(m) 4250 2049 2011 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >25 4 9 Godium ppm ASTM D5185(m) >158 9 9 Potassium ppm ASTM D5185(m) >20 5 3 INFRA-RED method limit/base <td>Barium</td> <td>ppm</td> <td>ASTM D5185(m)</td> <td>10</td> <td><1</td> <td><1</td> <td></td>	Barium	ppm	ASTM D5185(m)	10	<1	<1	
Magnesium ppm ASTM D5185(m) 450 625 643 Calcium ppm ASTM D5185(m) 3000 1810 1640 Phosphorus ppm ASTM D5185(m) 1150 759 725 Zinc ppm ASTM D5185(m) 1350 974 961 Sulfur ppm ASTM D5185(m) 4250 2049 2011 Lithium ppm ASTM D5185(m) 4250 2049 2011 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >25 4 9 Potassium ppm ASTM D5185(m) >158 9 9 Potassium ppm ASTM D5185(m) >20 5 3 INFRA-RED method limit/base current history1 history2 Soot % % AS	Molybdenum	ppm	ASTM D5185(m)	100	59	57	
Calcium ppm ASTM D5185(m) 3000 1810 1640 Phosphorus ppm ASTM D5185(m) 1150 759 725 Zinc ppm ASTM D5185(m) 1350 974 961 Sulfur ppm ASTM D5185(m) 4250 2049 2011 Lithium ppm ASTM D5185(m) 4250 2049 2011 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >25 4 9 Potassium ppm ASTM D5185(m) >158 9 9 Potassium ppm ASTM D5185(m) >20 5 3 INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844* 0 0 Sulfation Abs/cm ASTM D7415* <	Manganese	ppm	ASTM D5185(m)		<1	2	
Phosphorus ppm ASTM D5185(m) 1150 759 725 Zinc ppm ASTM D5185(m) 1350 974 961 Sulfur ppm ASTM D5185(m) 4250 2049 2011 Lithium ppm ASTM D5185(m) 4250 2049 2011 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >25 4 9 Godium ppm ASTM D5185(m) >158 9 9 Potassium ppm ASTM D5185(m) >20 5 3 INFRA-RED method limit/base current history1 history2 Silicon Abs/cm ASTM D7624* >20 12.1 12.7 Sulfation Abs/cm ASTM D7415* >30 26.7 23.9 FLUID DEGRADATION method <td>//agnesium</td> <td>ppm</td> <td>ASTM D5185(m)</td> <td>450</td> <td>625</td> <td>643</td> <td></td>	//agnesium	ppm	ASTM D5185(m)	450	625	643	
Solifur	Calcium	ppm	ASTM D5185(m)	3000	1810	1640	
Zinc	Phosphorus	ppm	ASTM D5185(m)	1150	759	725	
Lithium ppm ASTM D5185(m) <1 <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >25 4 9 Sodium ppm ASTM D5185(m) >158 9 9 Potassium ppm ASTM D5185(m) >20 5 3 INFRA-RED method limit/base current history1 history2 Goot % % ASTM D7844* 0 0 Nitration Abs/cm ASTM D7624* >20 12.1 12.7 FLUID DEGRADATION method limit/base current history1 history2	Zinc	ppm	ASTM D5185(m)	1350	974	961	
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >25 4 9 Sodium ppm ASTM D5185(m) >158 9 9 Potassium ppm ASTM D5185(m) >20 5 3 INFRA-RED method limit/base current history1 history2 Goot % % ASTM D7844* 0 0 Sulfration Abs/cm ASTM D7624* >20 12.1 12.7 FLUID DEGRADATION method limit/base current history1 history2	Sulfur	ppm	ASTM D5185(m)	4250	2049	2011	
Solicon ppm ASTM D5185(m) >25 4 9	ithium	ppm	ASTM D5185(m)		<1	<1	
Sodium ppm ASTM D5185(m) >158 9 9	CONTAMINAN	NTS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185(m) >20 5 3 INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844* 0 0 Vitration Abs/cm ASTM D7624* >20 12.1 12.7 Sulfation Abs/.1mm ASTM D7415* >30 26.7 23.9 FLUID DEGRADATION method limit/base current history1 history2	Silicon	ppm	ASTM D5185(m)	>25	4	9	
INFRA-RED	Sodium	ppm	ASTM D5185(m)	>158	9	9	
Goot % % ASTM D7844* 0 0 Vitration Abs/cm ASTM D7624* >20 12.1 12.7 Sulfation Abs/.1mm ASTM D7415* >30 26.7 23.9 FLUID DEGRADATION method limit/base current history1 history2	Potassium	ppm	ASTM D5185(m)	>20	5	3	
Nitration Abs/cm ASTM D7624* >20 12.1 12.7 Sulfation Abs/.1mm ASTM D7415* >30 26.7 23.9 FLUID DEGRADATION method limit/base current history1 history2	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm ASTM D7415* >30 26.7 23.9 FLUID DEGRADATION method limit/base current history1 history2	Soot %	%	ASTM D7844*		0	0	
FLUID DEGRADATION method limit/base current history1 history2	Nitration	Abs/cm	ASTM D7624*	>20	12.1	12.7	
	Sulfation	Abs/.1mm	ASTM D7415*	>30	26.7	23.9	
Dxidation Abs/.1mm ASTM D7414* >25 22.5 20.1	FLUID DEGRA	DATION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	ASTM D7414*	>25	22.5	20.1	



OIL ANALYSIS REPORT







CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

Lab Number : 02633993 Unique Number : 5775146

: GFL0112696

Test Package : MOB 1

Received : 08 May 2024 **Tested** Diagnosed

: 08 May 2024 : 08 May 2024 - Wes Davis

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 253 - TOR APT 15 Bermondsey Road - Building B Toronto, ON CA M4B 1Y9

Contact: Natalia Stalynska nstalynska@gflenv.com T:

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.

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