

OIL ANALYSIS REPORT





DIESEL ENGINE OIL SAE 10W30 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Elevated aluminum (AI) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

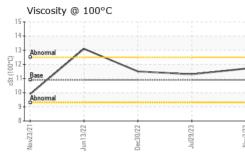
Fluid Condition

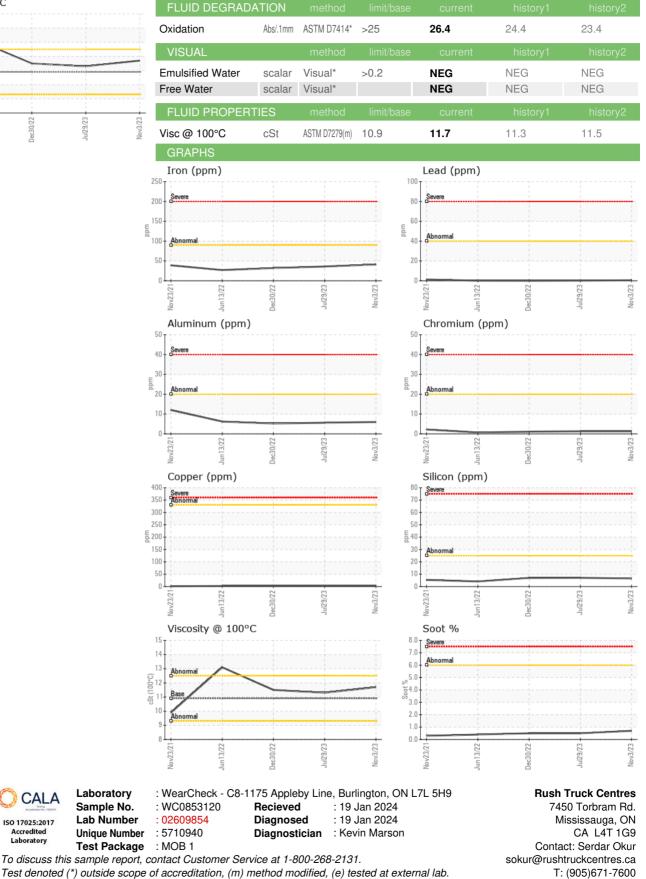
The condition of the oil is acceptable for the time in service.

		Nov2021	Jun2022		Nov2023	
SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0853120	WC0796211	WC0702973
Sample Date		Client Info		03 Nov 2023	29 Jul 2023	30 Dec 2022
Machine Age	kms	Client Info		372131	366000	351597
Oil Age	kms	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	N	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>90	41	36	32
Chromium	ppm	ASTM D5185(m)	>20	1	1	1
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	<1	<1
Silver	ppm	ASTM D5185(m)	>2	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	6	6	5
Lead	ppm	ASTM D5185(m)	>40	<1	<1	0
Copper	ppm	ASTM D5185(m)	>330	4	3	3
Tin	ppm	ASTM D5185(m)	>15	0	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)	250	24	30	19
Barium	ppm	ASTM D5185(m)	10	0	0	0
Molybdenum	ppm	ASTM D5185(m)	100	3	4	12
Manganese	ppm	ASTM D5185(m)		<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	450	722	812	741
Calcium	ppm	ASTM D5185(m)	3000	1285	1402	1332
Phosphorus	ppm	ASTM D5185(m)	1150	695	812	773
Zinc	ppm	ASTM D5185(m)	1350	774	859	844
Sulfur	ppm	ASTM D5185(m)	4250	2527	2690	2531
Lithium	ppm	ASTM D5185(m)		<1	<1	<1
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	6	7	7
Sodium	ppm	ASTM D5185(m)		4	4	4
Potassium	ppm	ASTM D5185(m)	>20	17	4	2
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	0.7	0.5	0.5
Nitration	Abs/cm	ASTM D7624*	>20	15.5	13.5	12.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	28.3	27.3	27.3



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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.

CALA

ISO 17025:2017 Accredited Laboratory

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