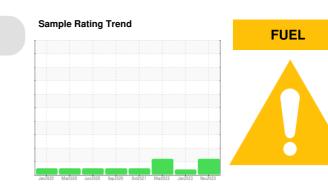


OIL ANALYSIS REPORT



Diesel Engine Fluid DIESEL ENGINE OIL SAE 15W40 (--- GAL)

DIAGNOSIS

Machine Id 9596 Component

A Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Light fuel dilution occurring. No other contaminants were detected in the oil.

Fluid Condition

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

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0853221	WC0702988	WC0654420
Sample Date		Client Info		09 Nov 2023	14 Jan 2023	26 Mar 2022
Machine Age	kms	Client Info		279525	216910	157629
Oil Age	kms	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
	N	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	0.0	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>90	13	34	37
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	1
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	<1	0
Silver	ppm	ASTM D5185(m)	>2	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	7	19	6
Lead	ppm	ASTM D5185(m)	>40	′ <1	0	<1
Copper	ppm	. ,	>330	1	3	6
Tin	ppm	ASTM D5185(m)	>15	0	0	<1
Antimony	ppm	ASTM D5185(m)	210	0	<1	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	55	57	30
Barium	ppm	ASTM D5185(m)	10	0	0	0
Molybdenum	ppm	ASTM D5185(m)	100	5	4	5
Manganese	ppm	ASTM D5185(m)	100	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	450	743	698	722
Calcium	ppin	/10/111/B0/100(11)	100			
	ppm	ASTM D5185(m)	3000			
	ppm ppm	ASTM D5185(m) ASTM D5185(m)	3000 1150	1306	1422	1309
Phosphorus	ppm	ASTM D5185(m)	1150	1306 727	1422 707	1309 681
Phosphorus Zinc	ppm ppm	ASTM D5185(m) ASTM D5185(m)	1150 1350	1306 727 792	1422 707 774	1309 681 771
Phosphorus Zinc Sulfur	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	1150 1350 4250	1306 727	1422 707	1309 681
Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	1150 1350 4250	1306 727 792 2688 <1	1422 707 774 2590	1309 681 771 2507
Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method	1150 1350 4250 limit/base	1306 727 792 2688 <1 current	1422 707 774 2590 <1 history1	1309 681 771 2507 <1 history2
Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m)	1150 1350 4250 limit/base >25	1306 727 792 2688 <1 current 5	1422 707 774 2590 <1 history1 10	1309 681 771 2507 <1 history2 8
Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m)	1150 1350 4250 limit/base >25 >158	1306 727 792 2688 <1 <u>current</u> 5 2	1422 707 774 2590 <1 history1 10 4	1309 681 771 2507 <1 history2 8 3
Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m)	1150 1350 4250 limit/base >25	1306 727 792 2688 <1 current 5	1422 707 774 2590 <1 history1 10	1309 681 771 2507 <1 history2 8
Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	1150 1350 4250 limit/base >25 >158 >20	1306 727 792 2688 <1 <u>current</u> 5 2 3	1422 707 774 2590 <1 history1 10 4 10	1309 681 771 2507 <1 history2 8 3 3 3
Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ppm ppm ppm %	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D7593*	1150 1350 4250 limit/base >25 >158 >20 >3.0 limit/base	1306 727 792 2688 <1	1422 707 774 2590 <1 history1 10 4 10 1.8 history1	1309 681 771 2507 <1 history2 8 3 3 3 ▲ 2.1 history2
Phosphorus Zinc Sulfur Lithium CONTAMINANTS Solicon Sodium Potassium Fuel INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm %	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D7593* method ASTM D7844*	1150 1350 4250 limit/base >25 >158 >20 >3.0 limit/base >6	1306 727 792 2688 <1 5 2 3 3 1.5 2 0.3	1422 707 774 2590 <1 history1 10 4 10 1.8 history1 0.1	1309 681 771 2507 <1 history2 8 3 3 ▲ 2.1 history2 0.7
Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ppm ppm ppm %	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D7593*	1150 1350 4250 limit/base >25 >158 >20 >3.0 limit/base >6	1306 727 792 2688 <1	1422 707 774 2590 <1 history1 10 4 10 1.8 history1	1309 681 771 2507 <1 history2 8 3 3 3 ▲ 2.1 history2



OIL ANALYSIS REPORT

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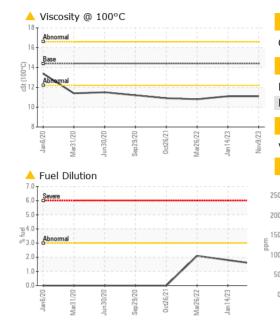
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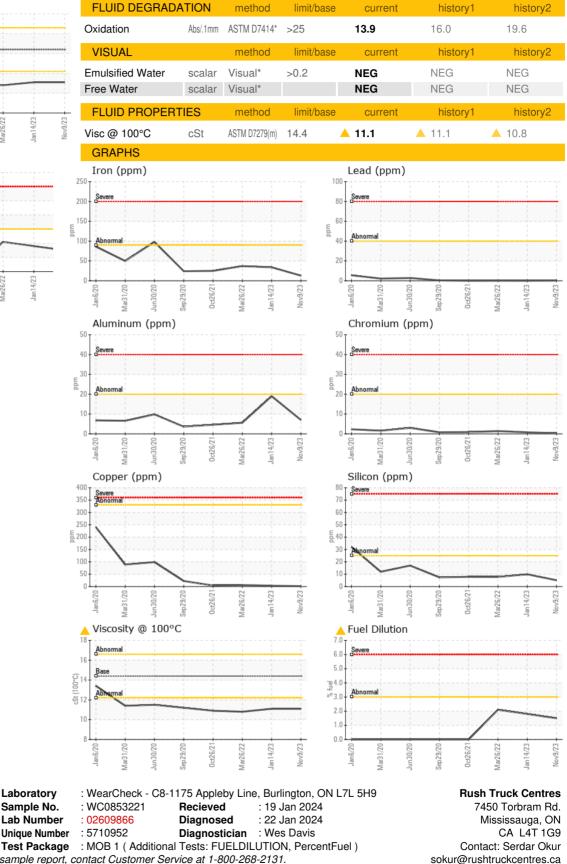
Laboratory

Sample No.

Lab Number

Unique Number





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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