

OIL ANALYSIS REPORT

^{Area} [7503] 291965

Component **Diesel Engine**

DIESEL ENGINE OIL SAE 15W40 (--- GAL)

Sample Rating Trend



DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the oil is acceptable for the time in service.

		Jun2022	Sep2022 Feb2023	May2023 Aug2023	0ct2023	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0796583	WC0796456	WC0796619
Sample Date		Client Info		07 Oct 2023	15 Aug 2023	08 May 2023
Machine Age	kms	Client Info		640490	252324	238535
Oil Age	kms	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL
CONTAMINATION	١	method	limit/base	current	history1	history2
Glycol		WC Method		NEG	NEG	0.0
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	33	20	33
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	<1	<1
Silver	ppm	ASTM D5185(m)	>3	<1	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	8	6	13
Lead	ppm	ASTM D5185(m)	>40	0	<1	<1
Copper	ppm	ASTM D5185(m)	>330	3	2	3
Tin	ppm	ASTM D5185(m)	>15	0	<1	<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
O = alma !	nnm	ACTM DE10E(m)		^	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	U
ADDITIVES	ррпі	method	limit/base	current	history1	history2
	ppm	. ,	limit/base			
ADDITIVES		method		current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185(m)	250	current 20	history1 26	history2 28
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185(m) ASTM D5185(m)	250 10	current 20 <1	history1 26 0	history2 28 0
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	250 10	current 20 <1 <1	history1 26 0 1	history2 28 0 3
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	250 10 100	20 <1 <1 <1	history1 26 0 1 <1	history2 28 0 3 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	250 10 100 450	current 20 <1 <1 <1 <1 732	history1 26 0 1 <1 703	history2 28 0 3 <1 734
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	250 10 100 450 3000	current 20 <1 <1 <1 732 1363	history1 26 0 1 <1 703 1294	history2 28 0 3 <1 734 1416
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	250 10 100 450 3000 1150	current 20 <1 <1 <1 732 1363 653	history1 26 0 1 <1 703 1294 672	history2 28 0 3 <1 734 1416 735
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	250 10 100 450 3000 1150 1350	current 20 <1 <1 <1 732 1363 653 784	history1 26 0 1 <1 703 1294 672 754	history2 28 0 3 <1 734 1416 735 786
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	250 10 100 450 3000 1150 1350	current 20 <1 <1 <1 732 1363 653 784 2465	history1 26 0 1 <1 703 1294 672 754 2437	history2 28 0 3 <1 734 1416 735 786 2556
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	250 10 100 450 3000 1150 1350 4250	current 20 <1 <1 <1 732 1363 653 784 2465 <1	history1 26 0 1 <1 703 1294 672 754 2437 <1	history2 28 0 3 <1 734 1416 735 786 2556 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	250 10 100 450 3000 1150 1350 4250	current 20 <1 <1 <1 732 1363 653 784 2465 <1 current	history1 26 0 1 <1 703 1294 672 754 2437 <1 history1	history2 28 0 3 <1 734 1416 735 786 2556 <1 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	250 10 100 450 3000 1150 1350 4250 Iimit/base >25	current 20 <1 <1 <1 732 1363 653 784 2465 <1 current 6	history1 26 0 1 <1 703 1294 672 754 2437 <1 history1 5	history2 28 0 3 <1 734 1416 735 786 2556 <1 history2 6
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	250 10 100 450 3000 1150 1350 4250 limit/base >25 >158	current 20 <1 <1 <1 732 1363 653 784 2465 <1 current 6 4	history1 26 0 1 <1 703 1294 672 754 2437 <1 history1 5 3	history2 28 0 3 <1 734 1416 735 786 2556 <1 history2 6 4
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	250 10 100 450 3000 1150 1350 4250 limit/base	current 20 <1 <1 <1 732 1363 653 784 2465 <1 current 6 4 6	history1 26 0 1 <1 703 1294 672 754 2437 <1 history1 5 3 6	history2 28 0 3 <1 734 1416 735 786 2556 <1 history2 6 4 10
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m)	250 10 100 450 3000 1150 1350 4250 limit/base >25 >158 >20 >5	current 20 <1 <1 <1 732 1363 653 784 2465 <1 current 6 4 6 1.5	history1 26 0 1 <1 703 1294 672 754 2437 <1 history1 5 3 6 <1.0	history2 28 0 3 <1 734 1416 735 786 2556 <1 history2 6 4 10 <1.0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m)	250 10 100 450 3000 1150 1350 4250 limit/base >25 >158 >20 >5	current 20 <1 <1 <1 732 1363 653 784 2465 <1 current 6 4 6 1.5 current	history1 26 0 1 <1 703 1294 672 754 2437 <1 history1 5 3 6 <1.0 history1	history2 28 0 3 <1 734 1416 735 786 2556 <1 history2 6 4 10 <1.0 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D7593* method ASTM D7593*	250 10 100 450 3000 1150 1350 4250 limit/base >25 >158 >20 >5 limit/base >3	current 20 <1 <1 <1 732 1363 653 784 2465 <1 current 6 4 6 1.5 current 0.8	history1 26 0 1 <1 703 1294 672 754 2437 <1 history1 5 3 6 <1.0 history1 0.6	history2 28 0 3 <1 734 1416 735 786 2556 <1 history2 6 4 10 <1.0 history2 0.7
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D7844* ASTM D7624*	250 10 100 450 3000 1150 1350 4250 limit/base >25 >158 >20 >5 limit/base >3 >20	current 20 <1 <1 <1 732 1363 653 784 2465 <1 current 6 4 6 1.5 current 0.8 12.6	history1 26 0 1 <1 703 1294 672 754 2437 <1 history1 5 3 6 <1.0 history1 0.6 11.7	history2 28 0 3 <1 734 1416 735 786 2556 <1 history2 6 4 10 <1.0 history2 0.7 11.6



OIL ANALYSIS REPORT





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number

Unique Number

: WC0796583 : 02589522

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10

: 5658588

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Received : 17 Oct 2023

Soot %

5.0 4.0

2.0 1.0

0.0

Diagnosed : 18 Oct 2023 Diagnostician : Kevin Marson **Test Package**: MOB 1 (Additional Tests: FuelDilution, PercentFuel)

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.

Viscosity @ 100°C

Rush Truck Centres 7450 Torbram Rd. Mississauga, ON **CA L4T 1G9** Contact: Serdar Okur sokur@rushtruckcentres.ca T: (905)671-7600

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Contact/Location: Serdar Okur - RUSMIS