

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



OJ029998

Component **Diesel Engine**

DIESEL ENGINE OIL SAE 40 (--- GAL)

DI			

Recommendation

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 40. Please confirm. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

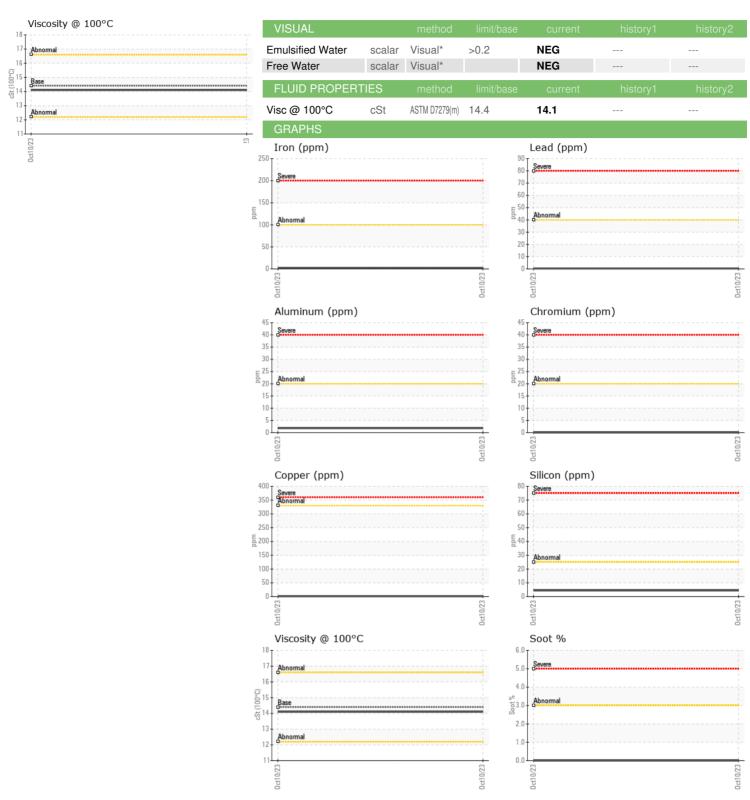
Fluid Condition

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

SAMPLE INFORMATION method limit/bass current history1 history2							
Sample Number Client Info WC0831727					Oct2023		
Sample Date Client Info 0 Oct 2023	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Date Client Info 0 0 0 0 0 0 0 0 0	Sample Number		Client Info		WC0831727		
Machine Age hrs Client Info 0 Oil Age hrs Client Info 0 Sample Status NORMAL CONTAMINATION method Imitibase current history1 history2 Fuel WC Method >5 <1.0 Glycol WC Method NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM DS185(m) >100 2 Chromium ppm ASTM DS185(m) >20 0 Nickel ppm ASTM DS185(m) >3 <1 Silver ppm ASTM DS185(m) >3 <1 Silver ppm ASTM DS185(m) >40 <1 Copper ppm ASTM DS185(m)			Client Info		10 Oct 2023		
Oil Changed Sample Status Client Info N/A	Machine Age	hrs	Client Info		0		
Sample Status		hrs	Client Info		0		
CONTAMINATION	Oil Changed		Client Info		N/A		
Fuel	-				NORMAL		
WEAR METALS	CONTAMINATION	٧	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>5	<1.0		
WEAR METALS	Glycol						
Iron				11 1.0		11.0	
Chromium ppm ASTM D5185(m) >20 0 Nickel ppm ASTM D5185(m) >4 0 Titanium ppm ASTM D5185(m) >3 <1 Silver ppm ASTM D5185(m) >3 <1 Aluminum ppm ASTM D5185(m) >40 <1 Lead ppm ASTM D5185(m) >40 <1 Copper ppm ASTM D5185(m) >330 <1 Tin ppm ASTM D5185(m) >15 0 Antimony ppm ASTM D5185(m) >1 Vanadium ppm ASTM D5185(m) >0 Beryllium ppm ASTM D5185(m) 0 Cadmium ppm ASTM D5185(m) 10 <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185(m)	>100	2		
Titanium		ppm	. ,	>20	0		
Silver	Nickel	ppm	. ,	>4	-		
Aluminum		ppm	(/				
Lead			. ,				
Copper ppm ASTM D5185(m) >330 <1	Aluminum	ppm	ASTM D5185(m)	>20	2		
Tin ppm ASTM D5185(m) >15 0 Antimony ppm ASTM D5185(m) <1	Lead	ppm	ASTM D5185(m)	>40	<1		
Antimony ppm ASTM D5185(m) <1	Copper	ppm	ASTM D5185(m)	>330	<1		
Vanadium ppm ASTM D5185(m) <1		ppm	. ,	>15	0		
Beryllium	Antimony	ppm	ASTM D5185(m)				
Cadmium ppm ASTM D5185(m) 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 250 125 Barium ppm ASTM D5185(m) 10 <1 Molybdenum ppm ASTM D5185(m) 100 6 Manganese ppm ASTM D5185(m) 100 471 Magnesium ppm ASTM D5185(m) 450 471 Calcium ppm ASTM D5185(m) 3000 1640 Phosphorus ppm ASTM D5185(m) 1350 1138 Zinc ppm ASTM D5185(m) 4250 3206 Sulfur ppm ASTM D5185(m) >25 4 CONTAMINANTS method limit/base <th></th> <th>ppm</th> <th>. ,</th> <th></th> <th></th> <th></th> <th></th>		ppm	. ,				
ADDITIVES	Beryllium	ppm	ASTM D5185(m)		0		
Boron ppm ASTM D5185(m) 250 125 Barium ppm ASTM D5185(m) 10 <1 Molybdenum ppm ASTM D5185(m) 100 6 Manganese ppm ASTM D5185(m) 450 471 Magnesium ppm ASTM D5185(m) 3000 1640 Calcium ppm ASTM D5185(m) 1150 992 Phosphorus ppm ASTM D5185(m) 1350 1138 Zinc ppm ASTM D5185(m) 4250 3206 Sulfur ppm ASTM D5185(m) <1 Lithium ppm ASTM D5185(m) >25 4 Sodium ppm ASTM D5185(m) >216 3 Potassium ppm ASTM D5185(m) </th <th>Cadmium</th> <th>ppm</th> <th>ASTM D5185(m)</th> <th></th> <th>0</th> <th></th> <th></th>	Cadmium	ppm	ASTM D5185(m)		0		
Barium ppm ASTM D5185(m) 10 <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185(m) 100 6 Manganese ppm ASTM D5185(m) 0 Magnesium ppm ASTM D5185(m) 450 471 Calcium ppm ASTM D5185(m) 3000 1640 Phosphorus ppm ASTM D5185(m) 1150 992 Zinc ppm ASTM D5185(m) 1350 1138 Sulfur ppm ASTM D5185(m) 4250 3206 Lithium ppm ASTM D5185(m) >25 4 CONTAMINANTS method limit/base current history1 history2 Sodium ppm ASTM D5185(m) >20 2 INFRA-RED method limit/base current history1 history2 Soot % ASTM D7844* >3	Boron	ppm	ASTM D5185(m)	250	125		
Manganese ppm ASTM D5185(m) 0 Magnesium ppm ASTM D5185(m) 450 471 Calcium ppm ASTM D5185(m) 3000 1640 Phosphorus ppm ASTM D5185(m) 1150 992 Zinc ppm ASTM D5185(m) 1350 1138 Sulfur ppm ASTM D5185(m) 4250 3206 Lithium ppm ASTM D5185(m) <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >216 3 Sodium ppm ASTM D5185(m) >20 2 INFRA-RED method limit/base current history1 history2 Soot % ASTM D7844* >3 0 <	Barium	ppm	ASTM D5185(m)	10	<1		
Magnesium ppm ASTM D5185(m) 450 471 Calcium ppm ASTM D5185(m) 3000 1640 Phosphorus ppm ASTM D5185(m) 1150 992 Zinc ppm ASTM D5185(m) 1350 1138 Sulfur ppm ASTM D5185(m) 4250 3206 Lithium ppm ASTM D5185(m) <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >216 3 Sodium ppm ASTM D5185(m) >20 2 INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844* >3 0	Molybdenum	ppm	ASTM D5185(m)	100	6		
Calcium ppm ASTM D5185(m) 3000 1640 Phosphorus ppm ASTM D5185(m) 1150 992 Zinc ppm ASTM D5185(m) 1350 1138 Sulfur ppm ASTM D5185(m) 4250 3206 Lithium ppm ASTM D5185(m) <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >25 4 Sodium ppm ASTM D5185(m) >216 3 Potassium ppm ASTM D5185(m) >20 2 INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844* >3 0	Manganese	ppm	ASTM D5185(m)		0		
Phosphorus ppm ASTM D5185(m) 1150 992 Zinc ppm ASTM D5185(m) 1350 1138 Sulfur ppm ASTM D5185(m) 4250 3206 Lithium ppm ASTM D5185(m) <1	Magnesium	ppm	ASTM D5185(m)	450	471		
Zinc ppm ASTM D5185(m) 1350 1138 Sulfur ppm ASTM D5185(m) 4250 3206 Lithium ppm ASTM D5185(m) <1	Calcium	ppm	ASTM D5185(m)	3000	1640		
Sulfur ppm ASTM D5185(m) 4250 3206 Lithium ppm ASTM D5185(m) 4250 3206 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >25 4 Sodium ppm ASTM D5185(m) >216 3 Potassium ppm ASTM D5185(m) >20 2 INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844* >3 0	Phosphorus	ppm	ASTM D5185(m)	1150	992		
Lithium ppm ASTM D5185(m) <1	Zinc	ppm	ASTM D5185(m)	1350	1138		
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >25 4 Sodium ppm ASTM D5185(m) >216 3 Potassium ppm ASTM D5185(m) >20 2 INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844* >3 0	Sulfur	ppm	ASTM D5185(m)	4250	3206		
Silicon ppm ASTM D5185(m) >25 4 Sodium ppm ASTM D5185(m) >216 3 Potassium ppm ASTM D5185(m) >20 2 INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844* >3 0	Lithium	ppm	ASTM D5185(m)		<1		
Sodium ppm ASTM D5185(m) >216 3 Potassium ppm ASTM D5185(m) >20 2 INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844* >3 0	CONTAMINANTS		method	limit/base	current	history1	history2
Potassium ppm ASTM D5185(m) >20 2 INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844* >3 0	Silicon	ppm	ASTM D5185(m)	>25	4		
INFRA-RED method limit/base current history1 history2 Soot %	Sodium	ppm	ASTM D5185(m)	>216	3		
Soot %	Potassium	ppm	ASTM D5185(m)	>20	2		
	INFRA-RED		method	limit/base	current	history1	history2
Nitration Abs/cm ASTM D7624* >20 6.0	Soot %	%	ASTM D7844*	>3	0		
THOUSE PLOT IN THE PROPERTY OF	Nitration	Abs/cm	ASTM D7624*	>20	6.0		
Sulfation Abs/.1mm ASTM D7415* >30 18.7		Abs/.1mm		>30	18.7		
FLUID DEGRADATION method limit/base current history1 history2	FLUID DEGRADA	TION _	method_	limit/ba <u>se</u>	current_	history1	history2
Oxidation					13.3		



OIL ANALYSIS REPORT





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number Unique Number

: WC0831727 : 02588084 : 5657150 Test Package : MOB 1

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Received Diagnosed

: 11 Oct 2023 Diagnostician : Wes Davis

: 11 Oct 2023

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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