

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

INTERNATIONAL 3151L

Diesel Engine

MOBIL 15W40 (20 QTS)

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

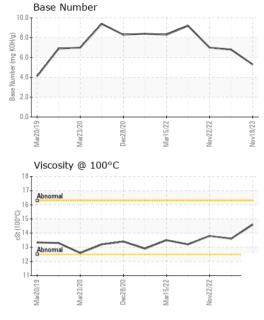
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sample Date Client Info 18 Nov 2023 08 May 2023 22 Nov 2022 Jachine Age mls Client Info 215899 201076 190186 Dil Age mls Client Info 14923 10851 0 Dil Changed Client Info NA Changed Changed Sample Status Client Info NA NORMAL NORMAL NORMAL CONTAMINATION method Imit/base current history1 history2 Euel WC Method >3.0 <1.0 <1.0 <1.0 Water WC Method >0.2 NEG NEG NEG WEAR METALS method imit/base current history1 history2 ron ppm ASTM D5185m >20 0 0 0 Titanium ppm ASTM D5185m >2 0 0 0 Silver ppm ASTM D5185m >20 7 4 6 e.ead ppm	SAMPLE INFORM	1ATION	method	limit/base	current	history1	history2
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Dil Age mls Client Info 14923 10851 0 Dil Changed Client Info N/A Changed Changes Changes Changes <th>Sample Date</th> <th></th> <th>Client Info</th> <th></th> <th>18 Nov 2023</th> <th>08 May 2023</th> <th>22 Nov 2022</th>	Sample Date		Client Info		18 Nov 2023	08 May 2023	22 Nov 2022
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Silver ppm ASTM D5185m >2 0 0 0 Numinum ppm ASTM D5185m >20 7 4 6 ead ppm ASTM D5185m >20 7 4 6 cead ppm ASTM D5185m >330 7 23 <1	Nickel	ppm	ASTM D5185m	>2	0	0	0
Numinum ppm ASTM D5185m >20 7 4 6 ead ppm ASTM D5185m >40 0 0 0 Copper ppm ASTM D5185m >330 7 23 <1	Titanium	ppm	ASTM D5185m	>2	0	0	0
ead ppm ASTM D5185m >40 0 0 0 Copper ppm ASTM D5185m >330 7 23 <1 Tin ppm ASTM D5185m >15 0 <1 <1 /anadium ppm ASTM D5185m >15 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 1 21 Barium ppm ASTM D5185m 0 1 21 Maganese ppm ASTM D5185m 0 <1 1 Magnesium ppm ASTM D5185m 1009 968 754 Calcium ppm ASTM D5185m 1143 1163 1546 Phosphorus ppm	Silver	ppm	ASTM D5185m	>2	0	0	0
Copper ppm ASTM D5185m >330 7 23 <1	Aluminum	ppm	ASTM D5185m	>20	7	4	6
In ppm ASTM D5185m >15 0 <1	Lead	ppm	ASTM D5185m	>40	0	0	0
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Barium ppm ASTM D5185m 2 0 0 Molybdenum ppm ASTM D5185m 68 64 52 Manganese ppm ASTM D5185m 0 <1 <1 Magnesium ppm ASTM D5185m 1009 968 754 Calcium ppm ASTM D5185m 1009 968 754 Calcium ppm ASTM D5185m 1143 1163 1546 Phosphorus ppm ASTM D5185m 962 963 876 Zinc ppm ASTM D5185m 1275 1253 1102 Sulfur ppm ASTM D5185m 3123 2938 3192 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m<>25 6 4 5 Sodium ppm ASTM D5185m<>118 <1 2 2 Potassium ppm ASTM D5185m<>20 6 2 <td< th=""><th>ADDITIVES</th><th></th><th>method</th><th>limit/base</th><th>current</th><th>history1</th><th>history2</th></td<>	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 68 64 52 Manganese ppm ASTM D5185m 0 <1	Boron	ppm	ASTM D5185m		0	1	21
Manganese ppm ASTM D5185m 0 <1	Barium	ppm	ASTM D5185m		2	0	0
Magnesium ppm ASTM D5185m 1009 968 754 Calcium ppm ASTM D5185m 1143 1163 1546 Phosphorus ppm ASTM D5185m 962 963 876 Zinc ppm ASTM D5185m 1275 1253 1102 Sulfur ppm ASTM D5185m 3123 2938 3192 CONTAMINANTS method limit/base current history1 history2 Solicon ppm ASTM D5185m >25 6 4 5 Sodium ppm ASTM D5185m >118 <1	Molybdenum	ppm	ASTM D5185m		68	64	52
Calcium ppm ASTM D5185m 1143 1163 1546 Phosphorus ppm ASTM D5185m 962 963 876 Zinc ppm ASTM D5185m 1275 1253 1102 Sulfur ppm ASTM D5185m 3123 2938 3192 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 4 5 Sodium ppm ASTM D5185m >118 <1 2 2 Potassium ppm ASTM D5185m >20 6 2 2	Manganese	ppm	ASTM D5185m		0	<1	<1
Phosphorus ppm ASTM D5185m 962 963 876 Zinc ppm ASTM D5185m 1275 1253 1102 Sulfur ppm ASTM D5185m 3123 2938 3192 CONTAMINANTS method limit/base current history1 history2 Solicon ppm ASTM D5185m >25 6 4 5 Sodium ppm ASTM D5185m >118 <1	Magnesium	ppm					
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Sulfur ppm ASTM D5185m 3123 2938 3192 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m<>25 6 4 5 Sodium ppm ASTM D5185m<>118 <1 2 2 Potassium ppm ASTM D5185m<>20 6 2 2	Phosphorus	ppm					
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Silicon ppm ASTM D5185m >25 6 4 5 Sodium ppm ASTM D5185m >118 <1	Sulfur	ppm	ASTM D5185m		3123	2938	3192
Sodium ppm ASTM D5185m >118 <1	CONTAMINANTS		method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 6 2 2	Silicon	ppm		>25			
	Sodium	ppm		>118			
INFRA-RED method limit/base current history1 history2	Potassium	ppm	ASTM D5185m	>20	6	2	2
	INFRA-RED		method	limit/base	current	history1	history2
	Soot %			>6			
	Nitration			>20			
Sulfation Abs/.1mm *ASTM D7415 >30 28.3 25.7 28.8		Ale a / damas	*ASTM D7415	>30	28.3	25.7	28.8
FLUID DEGRADATION method limit/base current history1 history2	Sulfation	ADS/.1mm					
Dxidation Abs/.1mm *ASTM D7414 >25 29.7 27.7 31.8			method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 5.3 6.8 7.0		TION					

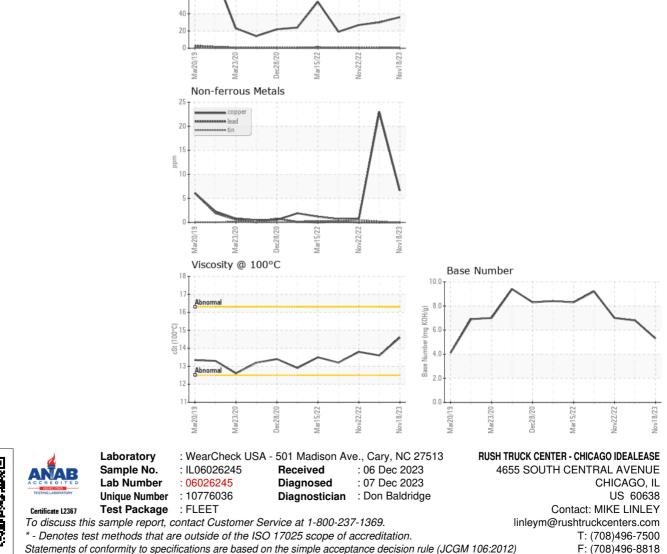


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VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445		14.6	13.6	13.8
GRAPHS						
Ferrous Alloys						
40 iron						
20 - chromium						
00						
80						



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Contact/Location: MIKE LINLEY - IDECHIIL