

Machine Id SZLG730247 Component Diesel Engine Fluid {not provided} (---- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

WEAR

All component wear rates are normal.

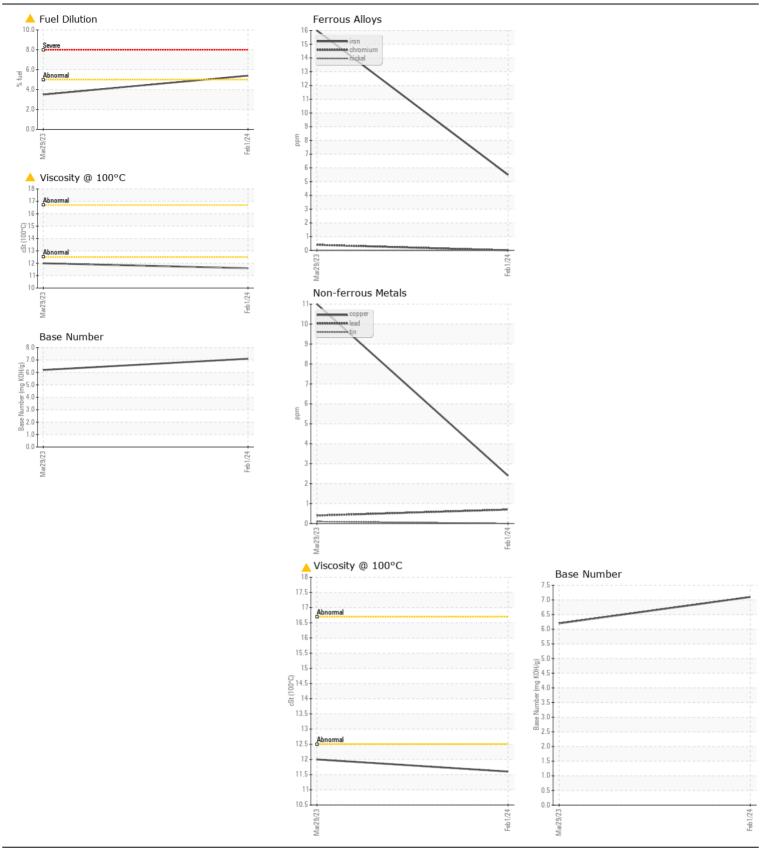
CONTAMINATION

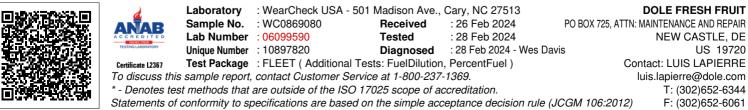
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

TestUOMMethodLimit/MCurrentHistory1History2Sample NumberClient InfoWC02980900WC0779318Sample DateClient Info029 Mar 2023Machine AgehrsClient Info00Oil AgehrsClient Info00Oil ChangedClient Info00Bitter ChangedClient InfoChangedN/ASample StatusClient InfoChangedN/ATronppmASTM D5185m>100616NickelppmASTM D5185m>400NickelppmASTM D5185m>400SilverppmASTM D5185m>30616CopperppmASTM D5185m>302111CopperppmASTM D5185m>302111VanadumppmASTM D5185m>302111VanadumppmASTM D5185m>10<-1Valte Metalscalar"VisualNONENONENONEValte Metalscalar"VisualNONENONESiliconppmASTM D5185m>254& 3.5Materiascalar"VisualNONENONEValte Metalscalar"Visual					~~~~~		
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Titanium ppm ASTM D5185m <	Chromium	ppm	ASTM D5185m	>20	0	<1	
Silver ppm ASTM D5185m >3 0 0 Aluminum ppm ASTM D5185m >20 2 3 Lead ppm ASTM D5185m >40 <1 Copper ppm ASTM D5185m >330 2 11 Vanadium ppm ASTM D5185m >15 0 <1 Vanadium ppm ASTM D5185m >15 0 <1 Vanadium ppm ASTM D5185m >25 4 8 Vellow Metal scalar "Visual NONE NONE NONE Silicon ppm ASTM D5185m<>25 4 8 Vellow Metal scalar "Visual NONE NONE Soli % % 'ASTM D7185 30 21.5 28.0 Soot % % 'ASTM D71624	Nickel	ppm	ASTM D5185m	>4	0	0	
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Lead ppm ASTM D5185m >40 <1	Silver	ppm	ASTM D5185m	>3	0	0	
Lead ppm ASTM D5185m >40 <1	Aluminum		ASTM D5185m	>20	2	3	
Copper ppm ASTM D5185m >330 2 11 Tin ppm ASTM D5185m >15 0 <1 Vanadium ppm ASTM D5185m NONE NONE NONE White Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Visual NONE ASTM D5185m<>20 4 8 Potassium ppm ASTM D5185m<>20 0 2 Water WC Method >0.2 NEG NEG Glycol WC Method >0 2 2 Soot % % ASTM D764 >30 21.5 28.0 Sulfation <th>Lead</th> <th>ppm</th> <th>ASTM D5185m</th> <th>>40</th> <th><1</th> <th><1</th> <th></th>	Lead	ppm	ASTM D5185m	>40	<1	<1	
TinppmASTM D5185m>150<1	Copper		ASTM D5185m	>330	2	11	
Vanadium ppm ASTM D5185m 0 <1			ASTM D5185m	>15	0	<1	
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Fuel % ASTM D3524 >5 ▲ 5.4 ▲ 3.5 Water W WC Method >0.2 NEG NEG Glycol WC Method >0.2 NEG NEG Soot % % *ASTM D7844 >3 0.1 0.2 Nitration Abs/cm *ASTM D7624 >20 6.9 9.2 Sulfation Abs/tm *ASTM D7145 >30 21.5 28.0 Sulfation scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML NORML NORML Godor	Silicon	ppm	ASTM D5185m	>25	4	8	
Water WC Method >0.2 NEG NEG Glycol WC Method NEG NEG Soot % % *ASTM D7844 >3 0.1 0.2 Nitration Abs/cm *ASTM D7844 >3 0.1 0.2 Sulfation Abs/tm *ASTM D7624 >20 6.9 9.2 Sulfation Abs/tm *ASTM D7624 >20 6.9 9.2 Sulfation Abs/tm *ASTM D7624 >30 21.5 28.0 Sulfation Abs/tm *Visual NONE NONE NONE Sand/Dirt scalar *Visual NOR NORM NORML Appearance scalar *Visual NORM NORML NORML Gor scalar *Visual NORM NORML NORML Boron ppm ASTM D5185m 393 <	Potassium	ppm	ASTM D5185m	>20	0	2	
Glycol WC Method NEG NEG Soot % % *ASTM D7844 >3 0.1 0.2 Nitration Abs/cm *ASTM D7624 >20 6.9 9.2 Sulfation Abs/cm *ASTM D7615 >30 21.5 28.0 Silt scalar *Visual NONE NONE NONE Debris scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NOR NORML NORML Appearance scalar *Visual NOR NORML NORML Odor scalar *Visual NOR NORML NORML Boron ppm ASTM D5185m 17 14 Boron ppm ASTM D5185m 393 272 Maganese ppm ASTM D5185m 363 597	Fuel	%	ASTM D3524	>5	5 .4	3 .5	
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Siltscalar*VisualNONENONENONEDebrisscalar*VisualNONENONENONESand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLEmulsified Waterscalar*VisualNORMLNORMLNORMLSodiumppmASTM D5185m11714BoronppmASTM D5185m00MalganeseppmASTM D5185m38097ManganeseppmASTM D5185m363597PhosphorusppmASTM D5185m113281544PhosphorusppmASTM D5185m922708SulfurppmASTM D5185m28302849SulfurppmASTM D5185m28302849SulfurppmASTM D5185m28302849SulfurppmASTM D5185m28302849SulfurppmASTM D5185m26302849SulfurppmASTM D5185m26302849SulfurppmASTM D5185m26302849SulfurppmASTM D5185m26302849SulfurppmASTM D5185m2630	Nitration	Abs/cm	*ASTM D7624	>20	6.9	9.2	
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Sand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLIncomeIncomeOdorscalar*VisualNORMLNORMLNORMLNORMLIncomeEmulsified Waterscalar*Visual>0.2NEGNEGIncomeSodiumppmASTM D5185mIncomeIncomeIncomeIncomeBoronppmASTM D5185mIncomeIncomeIncomeIncomeBariumppmASTM D5185mIncomeIncomeIncomeIncomeMolybdenumppmASTM D5185mIncomeIncomeIncomeIncomeMaganeseppmASTM D5185mIncomeIncomeIncomeIncomePhosphorusppmASTM D5185mIncomeIncomeIncomeIncomeZincppmASTM D5185mIncomeIncomeIncomeIncomeSulfurppmASTM D5185mIncomeIncomeIncomeIncomeSulfurppmASTM D5185mIncomeIncomeIncomeIncomeSulfurppmASTM D5185mIncomeIncomeIncomeIncomeSulfurppmASTM D5185mIncomeIncomeIncomeIncomeSulfurppmASTM D5185mIncomeIncomeIncomeIncomeSulfurppmASTM D5185mIncomeIncomeIncomeIncomeSulfurppmASTM D	Silt	scalar	*Visual	NONE	NONE	NONE	
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Odorscalar*VisualNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGSodiumppmASTM D5185mI1714BoronppmASTM D5185mI3933272IBariumppmASTM D5185mI00IMolybdenumppmASTM D5185mI800977IManganeseppmASTM D5185mI41MagnesiumppmASTM D5185mI36335977ICalciumppmASTM D5185mI36331544PhosphorusppmASTM D5185mI99227088IZincppmASTM D5185mI106888922SulfurppmASTM D5185mI2830028499IOxidationAbs/Imm*ASTM D7414>2517.629.9IBase Number (BN)mg KOHgASTM D2896I7.16.2I	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
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Molybdenum ppm ASTM D5185m 80 97 Manganese ppm ASTM D5185m <1 <1 Magnesium ppm ASTM D5185m 363 597 Calcium ppm ASTM D5185m 1328 1544 Phosphorus ppm ASTM D5185m 922 708 Zinc ppm ASTM D5185m 1068 892 Sulfur ppm ASTM D5185m 2830 2849 Oxidation Abs/.1mm *ASTM D7414<>25 17.6 29.9 Base Number (BN) mg KOHg ASTM D2896 7.1 6.2		ppm					
Manganese ppm ASTM D5185m <1							
Magnesium ppm ASTM D5185m 363 597 Calcium ppm ASTM D5185m 1328 1544 Phosphorus ppm ASTM D5185m 922 708 Zinc ppm ASTM D5185m 1068 892 Sulfur ppm ASTM D5185m 2830 2849 Oxidation Abs/.1mm *ASTM D7414<>25 17.6 29.9 Base Number (BN) mg KOH/g ASTM D2896 7.1 6.2	-	ppm			80		
Calcium ppm ASTM D5185m 1328 1544 Phosphorus ppm ASTM D5185m 922 708 Zinc ppm ASTM D5185m 1068 892 Sulfur ppm ASTM D5185m 2830 2849 Oxidation Abs/.1mm *ASTM D7414 >25 17.6 29.9 Base Number (BN) mg KOH/g ASTM D2896 7.1 6.2	0						
Phosphorus ppm ASTM D5185m 922 708 Zinc ppm ASTM D5185m 1068 892 Sulfur ppm ASTM D5185m 2830 2849 Oxidation Abs/.1mm *ASTM D7414 >25 17.6 29.9 Base Number (BN) mg KOH/g ASTM D2896 7.1 6.2	-	ppm					
Zinc ppm ASTM D5185m 1068 892 Sulfur ppm ASTM D5185m 2830 2849 Oxidation Abs/.tmm<*ASTM D7414							
Sulfur ppm ASTM D5185m 2830 2849 Oxidation Abs/.1mm *ASTM D7414 >25 17.6 29.9 Base Number (BN) mg KOH/g ASTM D2896 7.1 6.2	Phosphorus	ppm	ASTM D5185m		922	708	
Oxidation Abs/.1mm *ASTM D7414 >25 17.6 29.9 Base Number (BN) mg KOH/g ASTM D2896 7.1 6.2		ppm			1068		
Base Number (BN) mg KOH/g ASTM D2896 7.1 6.2	Sulfur	ppm	ASTM D5185m		2830	2849	
	Oxidation	Abs/.1mm		>25		29.9	
Visc @ 100°C cSt ASTM D445 🛛 🤚 11.6 🕖 12.0	Base Number (BN)	mg KOH/g	ASTM D2896		7.1	6.2	
	Visc @ 100°C	cSt	ASTM D445		🔺 11.6 🌙	12.0	





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