

WEAR NORMAL CONTAMINATION ABNORMAL FLUID CONDITION ATTENTION

## Machine Id FREIGHTLINER 537459 (S/N 1FUJGEDV00ELFT9206) Diesel Engine Fluid DURALENE Dura-Max 15W40 (--- GAL) Test UOM

Check for low coolant level. We advise that you check for the source of the coolant leak. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

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WEAR

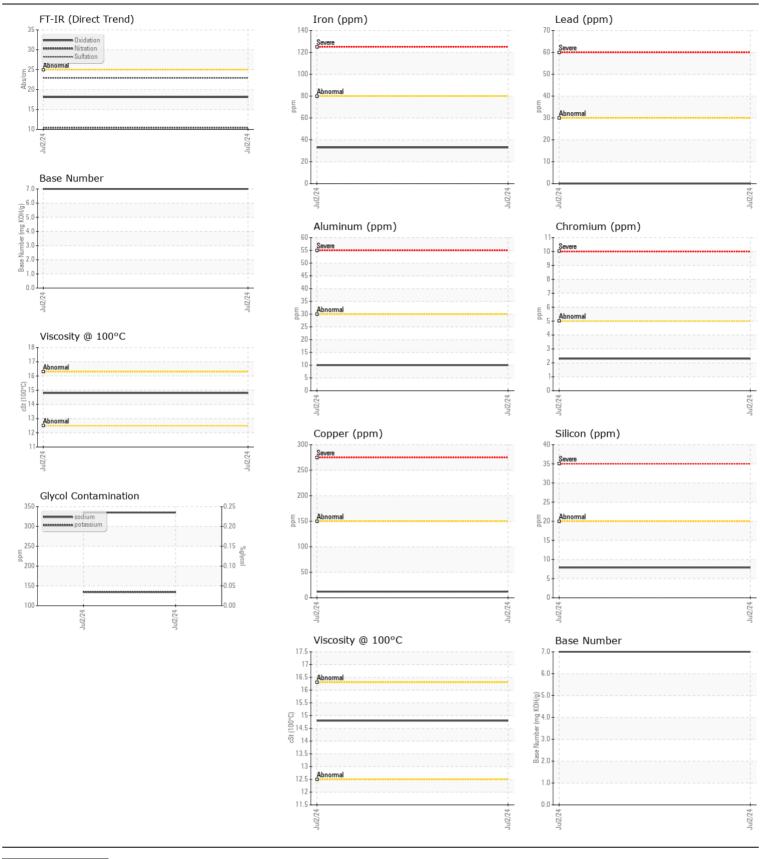
Sodium and/or potassium levels are high.

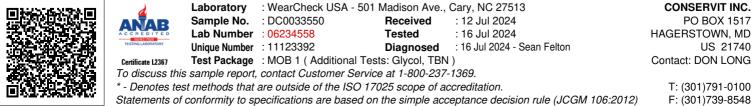
All component wear rates are normal.

## FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil.

Test						
	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DC0033550		
Sample Date		Client Info		02 Jul 2024		
Machine Age	mls	Client Info		476068		
Oil Age	mls	Client Info		27651		
Filter Age	mls	Client Info		27651		
Oil Changed		Client Info		Changed		
Filter Changed		Client Info		Changed		
Sample Status				ABNORMAL		
Iron	ppm	ASTM D5185m	>80	33		
Chromium	ppm	ASTM D5185m	>5	2		
Nickel	ppm	ASTM D5185m	>2	<1		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m	>3	2		
Aluminum	ppm	ASTM D5185m	>30	10		
Lead	ppm	ASTM D5185m	>30	0		
Copper	ppm	ASTM D5185m	>150	12		
Tin	ppm	ASTM D5185m	>5	<1		
Vanadium	ppm	ASTM D5185m		<1		
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Silicon	ppm	ASTM D5185m	>20	8		
Potassium	ppm	ASTM D5185m	>20	<u> </u>		
Fuel		WC Method	>5	<1.0		
Water		WC Method	>0.2	NEG		
Glycol	%	*ASTM D2982		NEG		
Soot %	%	*ASTM D7844	>3	0.7		
Nitration	Abs/cm	*ASTM D7624	>20	10.4		
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.9		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML		
Odor	scalar	*Visual	NORML	NORML		
Emulsified Water	scalar	*Visual	>0.2	NEG		
0				005		
Sodium	ppm	ASTM D5185m		335		
Boron	ppm	ASTM D5185m		18		
Barium	ppm	ASTM D5185m		0		
Molybdenum	ppm	ASTM D5185m		72		
Manganese	ppm	ASTM D5185m		<1		
Magnesium	ppm	ASTM D5185m		415		
Calcium	ppm	ASTM D5185m		1836		
	ppm	ASTM D5185m		971		
Phosphorus		ASTM D5185m		1178		
Phosphorus Zinc	ppm					
Phosphorus Zinc Sulfur	ppm	ASTM D5185m		2867		
Phosphorus Zinc Sulfur Oxidation	ppm Abs/.1mm	ASTM D5185m *ASTM D7414	>25	2867 18.1		
Phosphorus Zinc Sulfur	ppm	ASTM D5185m	>25	2867		





Contact/Location: DON LONG - CONHAGMD Page 2 of 2