WEAR CONTAMINATION **FLUID CONDITION**

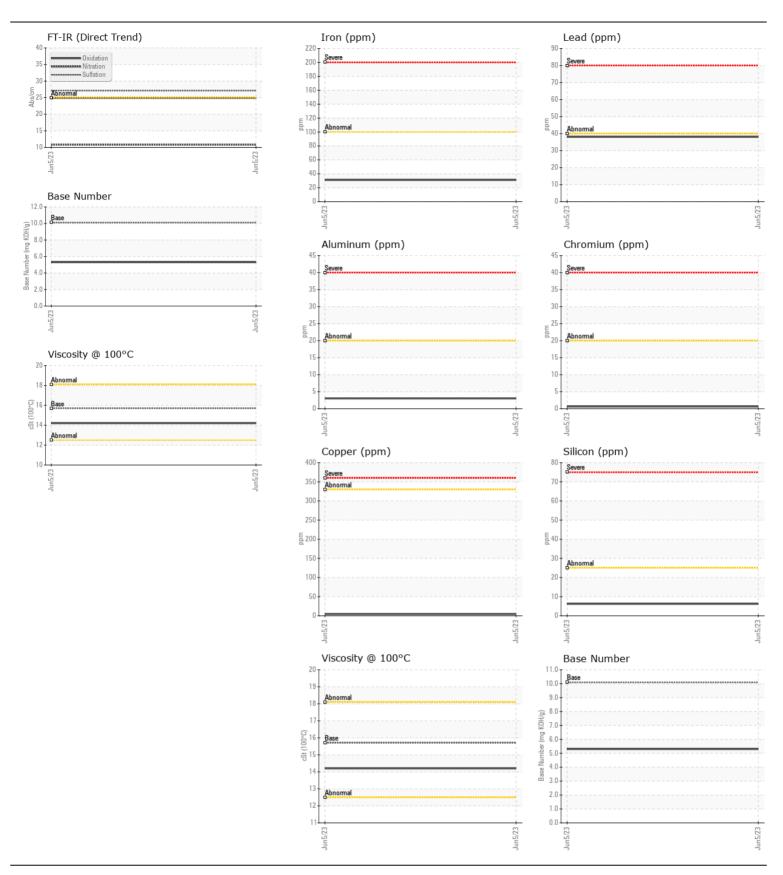
NORMAL NORMAL NORMAL

Machine Id

FTL-270
Component
Diesel Engine

SHELL ROTELLA T 15W40 (--- QTS)

Sample Number Cilent Info Cilent Info	SHELL ROTELLA T 15W40 (QTS)					.,		
Sample Number Client Info Client Info Cample Data Cample Data Cample Data Client Info Cample Data Cample Data	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Sample Date Machine Age ins Cilient Info 34089		Sample Number		Client Info				
Machine Age mils Client Info 312025	Resample at the next service interval to monitor. Please specify the component make and model with your next sample.					05 Jun 2023		
Oil Age			mls					
Filter Age		Oil Age	mls	Client Info		34089		
Oil Changed Client Info Changed Client Info Changed Client Info Changed Changed Client Info Changed Changed Client Info Changed								
Filter Changed Sample Status Sample Stat		-						
Normal N		-						
All component wear rates are normal. Chromium ppm ASTM 05185m 20 41 Titanium ppm ASTM 05185m 4 41 Silver ppm ASTM 05185m 20 3 Aluminum ppm ASTM 05185m 20 3 Aluminum ppm ASTM 05185m 20 3 Lead ppm ASTM 05185m 20 3 Vanadium ppm ASTM 05185m 20 3 Vanadium ppm ASTM 05185m 20 3 Value Policy ASTM 05185m 20 3 Value Policy ASTM 05185m 20 3 Value Policy ASTM 05185m 20 5 Value Policy ASTM 05185m 20 5 Value Policy		_				_		
All component wear rates are normal. Chromium ppm ASTM 05185m 20 41 Titanium ppm ASTM 05185m 4 41 Silver ppm ASTM 05185m 20 3 Aluminum ppm ASTM 05185m 20 3 Aluminum ppm ASTM 05185m 20 3 Lead ppm ASTM 05185m 20 3 Vanadium ppm ASTM 05185m 20 3 Vanadium ppm ASTM 05185m 20 3 Value Policy ASTM 05185m 20 3 Value Policy ASTM 05185m 20 3 Value Policy ASTM 05185m 20 5 Value Policy ASTM 05185m 20 5 Value Policy	WEAR.			AOTM DEGOS	400			
Nickel ppm ASTM DS185m >4 <1 Titanium ppm ASTM DS185m >3 0 Silver ppm ASTM DS185m >3 0 Aluminum ppm ASTM DS185m >3 0 Aluminum ppm ASTM DS185m >2 3 Lead ppm ASTM DS185m >4 38 Copper ppm ASTM DS185m >3 0 Copper ppm ASTM DS185m >3 0 Copper ppm ASTM DS185m >3 0 Vanadium ppm ASTM DS185m >3 0 Vanadium ppm ASTM DS185m >4 Vanadium ppm ASTM DS185m >5 <1 Vanadium ppm ASTM DS185m >5 <1 Vanadium ppm ASTM DS185m >2 5 Vanadium ppm ASTM DS185m >2 5 Valve	WEAR							
Nicket Dill Titrainum Dill Silver Dill Dill Silver Dill Dill	All component wear rates are normal.		ppm					
Silver					>4			
Aluminum ppm ASTM D5185m >20 3			ppm					
Lead								
Copper		Aluminum	ppm	ASTM D5185m	>20			
Tin		Lead	ppm	ASTM D5185m	>40	38		
Vanadium Vanadium		Copper	ppm	ASTM D5185m	>330	4		
White Metal Yellow Metal Scalar "Visual NONE NON		Tin	ppm	ASTM D5185m	>15	<1		
Yellow Metal Scalar Visual NONE NONE Potassium ppm ASTM D5185m >25 6 Potassium ppm ASTM D5185m >20 5 Water WC Method >0.2 NEG Water WC Method >0.2 NEG Water WC Method >0.2 NEG Soot % *ASTM D5185m >20 0.4 Soot % *ASTM D7244 >3 0.4 Silt Scalar *Visual NONE NONE NONE Silt Scalar *Visual NONE NONE NONE Sand/Dirt Scalar *Visual NONE NONE NONE Sand/Dirt Scalar *Visual NONE NONE NONE Appearance Scalar *Visual NORML NO		Vanadium	ppm	ASTM D5185m		0		
Silicon ppm ASTM D5185m >25 6 Potassium ppm ASTM D5185m >20 5 Potassium ppm ASTM D5185m >20 5 Fuel WC Method >5 <1.0 Water WC Method >0.2 NEG Glycol WC Method NEG Soot % % ASTM D784d >3 0.4 Nitration Abs/cm *ASTM D784d >20 10.8 Silit scalar *Visual NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Appearance scalar *Visual NORML NORML NORML NORML NORML NORML Emulsified Water scalar *Visual NORML NORM		White Metal	scalar	*Visual	NONE	NONE		
Potassium ppm ASTM D5185m 2-20 5		Yellow Metal	scalar	*Visual	NONE	NONE		
Potassium ppm ASTM D5185m 2-20 5	CONTAMINATION	Silicon	nnm	ASTM D5185m	> 25	6		
Fuel WC Method >5 <1.0	CONTAININATION		• •					
Water WC Method VC Metho	There is no indication of any contamination in the oil.		ррпп					
Glycol Soot % % *ASTM D7844 S3 O.4 STM D7844 S3 O.4 SMITH TABLE SMITH D78624 SOOT *ASTM D7844 S3 O.4 SMITH D78624 SOOT *ASTM D7844 S3 O.4 SMITH D78624 SOOT *ASTM D7845 SOOT *ASTM D5856 SOOT *ASTM D5856								
Soot %					>0.2			
Nitration Abs/cm			0/		0			
Sulfation								
Silt Scalar *Visual NONE NORML NORML								
Debris Scalar *Visual NONE NONE NONE Sand/Dirt Scalar *Visual NONE NORML NORML								
Sand/Dirt Scalar *Visual NONE NONE NONE Appearance Scalar *Visual NORML NORM								
Appearance Scalar *Visual NORML NORML NORML Codor Scalar *Visual NORML N					NONE			
Codor Emulsified Water Scalar *Visual NORML NORML		Sand/Dirt	scalar					
Emulsified Water scalar *Visual >0.2 NEG		Appearance	scalar	*Visual	NORML			
Sodium ppm ASTM D5185m 316 43		Odor	scalar	*Visual	NORML	NORML		
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. Boron ppm ASTM D5185m 0.0 2		Emulsified Water	scalar	*Visual	>0.2	NEG		
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. Boron ppm ASTM D5185m 0.0 2	FLUID CONDITION	Sodium	nnm	ASTM D5185m		Д		
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. Barium ppm ASTM D5185m 0.0 2 Molybdenum ppm ASTM D5185m 1.2 99 Magnaese ppm ASTM D5185m 24 261 Calcium ppm ASTM D5185m 2292 1955 Phosphorus ppm ASTM D5185m 1064 1040 Zinc ppm ASTM D5185m 1160 1251 Sulfur ppm ASTM D5185m 4996 3479 Oxidation Abs/.1mm *ASTM D7414 >25 24.9 Base Number (BN) mg KOH/g ASTM D2896 10.1 5.3	I LOID CONDITION				316	42		
Oil. The condition of the oil is suitable for further service. Molybdenum ppm ASTM D5185m 1.2 99 Manganese ppm ASTM D5185m 24 261 Calcium ppm ASTM D5185m 2292 1955 Phosphorus ppm ASTM D5185m 1064 1040 Zinc ppm ASTM D5185m 1160 1251 Sulfur ppm ASTM D5185m 4996 3479 Oxidation Abs/.1mm *ASTM D7414 >25 24.9 Base Number (BN) mg KOH/g ASTM D2896 10.1 5.3	The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.							
Manganese ppm ASTM D5185m <1 Magnesium ppm ASTM D5185m 24 261 Calcium ppm ASTM D5185m 2292 1955 Phosphorus ppm ASTM D5185m 1064 1040 Zinc ppm ASTM D5185m 1160 1251 Sulfur ppm ASTM D5185m 4996 3479 Oxidation Abs/.1mm *ASTM D7414 >25 24.9 Base Number (BN) mg KOH/g ASTM D2896 10.1 5.3								
Magnesium ppm ASTM D5185m 24 261 Calcium ppm ASTM D5185m 2292 1955 Phosphorus ppm ASTM D5185m 1064 1040 Zinc ppm ASTM D5185m 1160 1251 Sulfur ppm ASTM D5185m 4996 3479 Oxidation Abs/.1mm *ASTM D7414 >25 24.9 Base Number (BN) mg KOH/g ASTM D2896 10.1 5.3					1.∠			
Calcium ppm ASTM D5185m 2292 1955 Phosphorus ppm ASTM D5185m 1064 1040 Zinc ppm ASTM D5185m 1160 1251 Sulfur ppm ASTM D5185m 4996 3479 Oxidation Abs/.1mm *ASTM D7414 >25 24.9 Base Number (BN) mg KOH/g ASTM D2896 10.1 5.3					0.4			
Phosphorus ppm ASTM D5185m 1064 1040 Zinc ppm ASTM D5185m 1160 1251 Sulfur ppm ASTM D5185m 4996 3479 Oxidation Abs/.1mm *ASTM D7414 >25 24.9 Base Number (BN) mg KOH/g ASTM D2896 10.1 5.3								
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Oxidation Abs/.1mm *ASTM D7414 >25 24.9 Base Number (BN) mg KOH/g ASTM D2896 10.1 5.3								
Base Number (BN) mg KOH/g ASTM D2896 10.1 5.3								
Visc @ 100°C cSt ASTM D445 15.7 14.2								
		Visc @ 100°C	cSt	ASTM D445	15.7	14.2		





Certificate L2367

Laboratory Sample No.

: KL0008470 Lab Number : 05870602 Unique Number: 10510386 Test Package : MOB1+

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 12 Jun 2023 **Tested** : 12 Jun 2023

: 12 Jun 2023 - Wes Davis Diagnosed

FTL LTD 2302 E DUPONT AVE BELLE, WV US 25015

Contact: JOHN SMITH johnhotrodsmith@gmail.com T:

To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

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

F: