

R& M Couriers

1491095 Component Diesel Engine

SHELL 15W40 (48 QTS)

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 Number		Client Info		RPL0021224	RPL0021158	
	Sample Date		Client Info		09 Jul 2024	29 May 2024	
	Machine Age	hrs	Client Info		1116	0	
	Oil Age	hrs	Client Info		1116	0	
	Filter Age	hrs	Client Info		0	0	
	Oil Changed		Client Info		Not Changd	Not Changd	
	Filter Changed		Client Info		N/A	N/A	
	Sample Status				NORMAL	ABNORMAL	
WEAR	Iron	ppm	ASTM D5185m		6	39	
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>20	<1	<1	
	Nickel	ppm	ASTM D5185m	>4	0	<1	
	Titanium	ppm	ASTM D5185m		<1	<1	
	Silver	ppm	ASTM D5185m		0	0	
	Aluminum	ppm	ASTM D5185m	>20	4	7	
	Lead	ppm	ASTM D5185m		0	0	
	Copper	ppm	ASTM D5185m		3	48	
	Tin	ppm	ASTM D5185m	>15	0	<1	
	Vanadium	ppm	ASTM D5185m		<1	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
	Silicon		ASTM D5185m	. 05	-	A 04	
CONTAMINATION		ppm			7	▲ 34 9	
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m WC Method				
	Fuel				<1.0	<1.0	
	Water		WC Method	>0.2	NEG	NEG	
	Glycol Soot %	0/	WC Method	. 0	NEG	NEG	
	Nitration	% Abs/cm	*ASTM D7844 *ASTM D7624	>3 >20	0.1 7.0	0.3	
	Sulfation	Abs/.1mm			18.7	23.3	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
	Appearance	scalar	*Visual	NORML	NORML	NORML	
	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water		*Visual	>0.2	NEG	NEG	
		304141	Visual	20.2		NLG	
FLUID CONDITION	Sodium	ppm	ASTM D5185m	>150	2	5	
	Boron	ppm	ASTM D5185m		95	188	
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	7	
	Molybdenum	ppm	ASTM D5185m		95	106	
	Manganese	ppm	ASTM D5185m		0	7	
	Magnesium	ppm	ASTM D5185m		580	685	
	Calcium	ppm	ASTM D5185m		1329	1453	
	Phosphorus	ppm	ASTM D5185m		723	654	
	Zinc	ppm	ASTM D5185m		826	790	
	Sulfur	ppm	ASTM D5185m		2617	2638	

Oxidation

Visc @ 100°C cSt

Abs/.1mm *ASTM D7414 >25

ASTM D445

Base Number (BN) mg KOH/g ASTM D2896

20.3

7.3

12.8

15.4

7.5

13.3

NORMAL

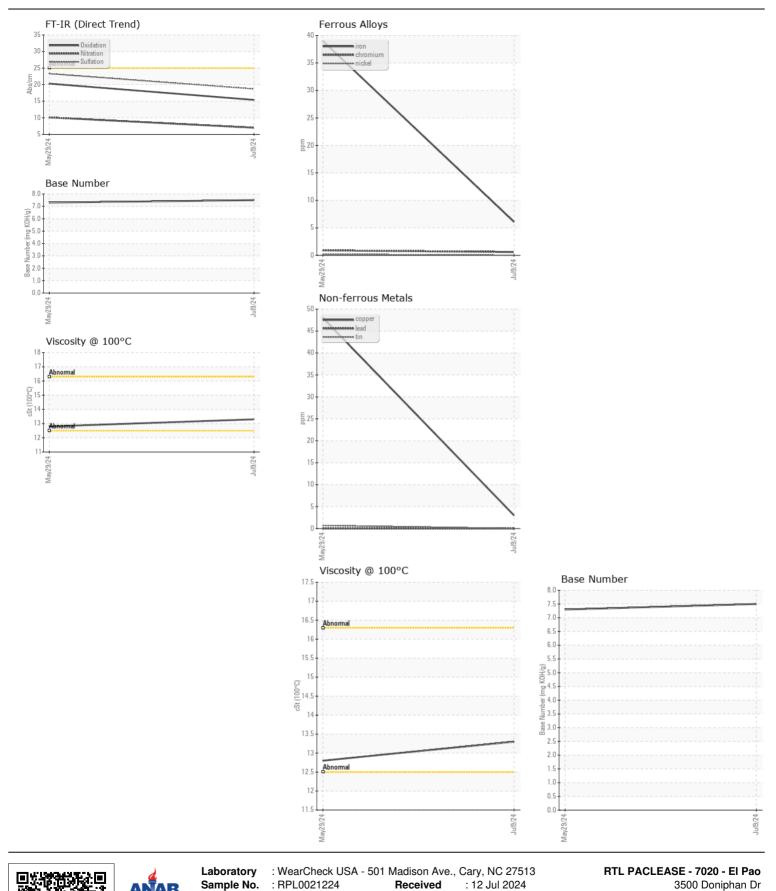
NORMAL

NORMAL

WEAR

CONTAMINATION

FLUID CONDITION



Lab Number : 06234589 Tested El Paso, TX : 12 Jul 2024 Unique Number : 11123423 Diagnosed : 12 Jul 2024 - Wes Davis US 79922 Test Package : FLEET Contact: JUAN MARTINEZ Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. martinezj15@rushenterprises.com * - 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)

Submitted By: JUAN MARTINEZ Page 2 of 2

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