



## **PROBLEM SUMMARY**





### COMPONENT CONDITION SUMMARY





#### RECOMMENDATION

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS	
Sample Status	SEVERE

Sample Status				SEVERE	 
Fuel	%	ASTM D3524	>3.0	<b>52.6</b>	 
Visc @ 100°C	cSt	ASTM D445	15.7	<b>3.8</b>	 

Customer Id: RDONORNE Sample No.: SBP0006550 Lab Number: 06157277 Test Package: FLEET



To manage this report scan the QR code

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To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

RECOMMENDED ACTIONS					
Action Change Fluid	Status 	Date	Done By ?	<b>Description</b> Oil and filter change at the time of sampling has been noted.	
Change Filter			?	Oil and filter change at the time of sampling has been noted.	
Resample			?	We recommend an early resample to monitor this condition.	
Check Fuel/injector System			?	We advise that you check the fuel injection system.	

### HISTORICAL DIAGNOSIS



## **OIL ANALYSIS REPORT**

Sample Rating Trend





## MACK 3D RECYCLING Diesel Engine

# SHELL ROTELLA T 15W40 (--- GAL)

DIAGNOSIS	

Recommendation

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

### Wear

All component wear rates are normal.

### Contamination

There is a high amount of fuel present in the oil.

### Fluid Condition

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

SAMPLE INFORM	ATION	hethod	iinii/base	current	Tilstory I	nistory2
Sample Number		Client Info		SBP0006550		
Sample Date		Client Info		15 Apr 2024		
Machine Age	mls	Client Info		673744		
Oil Age	mls	Client Info		10000		
Oil Changed		Client Info		Changed		
Sample Status				SEVERE		
	a.	mothod	limit/baco	ourropt	history1	history?
CONTAMINATION	N	method	IIIIII/Dase	Current	Thistory I	TIIStOFy2
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	nnm	ASTM D5185m	120	<i>/</i> 1		
Chromium	ppm	ASTM D5185m	>120	-1		
Nickel	nom	ASTM D5185m	>5	0		
Titanium	nom	ASTM D5185m	>2	۰ د1		
Silver	ppm	ASTM D5185m	~2	0		
Aluminum	nom	ASTM D5185m	>20	-1		
Lead	nom	ASTM D5185m	<u>&gt;40</u>	1		
Conner	nom	ASTM D5185m	>330	0		
Tin	ppm	ASTM D5185m	>15	-1		
Vanadium	nom	ASTM D5185m	210	0		
Cadmium	ppm	ASTM D5185m		0		
Cuarmann	ppm			Ĵ		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	316	11		
Barium	ppm	ASTM D5185m	0.0	0		
Molybdenum	ppm	ASTM D5185m	1.2	6		
Manganese	ppm	ASTM D5185m		<1		
Magnesium	ppm	ASTM D5185m	24	99		
Calcium	ppm	ASTM D5185m	2292	859		
Phosphorus	ppm	ASTM D5185m	1064	436		
Zinc	ppm	ASTM D5185m	1160	503		
Sulfur	ppm	ASTM D5185m	4996	1725		
CONTAMINANTS		method	limit/base	current	history1	history2
CONTAMINANTS	nnm	method	limit/base	current	history1	history2
Silicon	ppm	method ASTM D5185m	limit/base >25	current 11 23	history1	history2
Silicon Sodium Potassium	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base >25	current 11 23 11	history1  	history2  
Silicon Sodium Potassium	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524	limit/base >25 >20 >3.0	current 11 23 11 52 6	history1	history2  
Silicon Sodium Potassium Fuel	ppm ppm ppm %	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524	limit/base >25 >20 >3.0	current 11 23 11 ▲ 52.6	history1	history2   
Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm %	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524 method	limit/base >25 >20 >3.0 limit/base	current 11 23 11 ▲ 52.6 current	history1	history2    history2
Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm ppm ppm %	methodASTM D5185mASTM D5185mASTM D3524method*ASTM D7844	limit/base >25 >20 >3.0 limit/base >4	current 11 23 11 ▲ 52.6 current 0.8	history1 history1 history1	history2 history2 history2
CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm ppm % % Abs/cm	methodASTM D5185mASTM D5185mASTM D3524Method*ASTM D7844*ASTM D7624	limit/base >25 >20 >3.0 limit/base >4 >20	current 11 23 11 ▲ 52.6 current 0.8 6.1	history1 history1	history2 history2 history2
CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm % % Abs/cm Abs/.tm	methodASTM D5185mASTM D5185mASTM D3524method*ASTM D78444*ASTM D7624*ASTM D7415	limit/base >25 >20 >3.0 limit/base >4 >20 >30	current         11         23         11         52.6         current         0.8         6.1         15.2	history1 history1 history1	history2 history2 history2
CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm ppm % % Abs/cm Abs/.1mm	method ASTM D5185m ASTM D5185m ASTM D3524 *ASTM D3524 *ASTM D7844 *ASTM D7624 *ASTM D7415	limit/base >25 >20 >3.0 limit/base >4 >20 >30	current 11 23 11 ▲ 52.6 Current 0.8 6.1 15.2 Current	history1 history1 history1 history1	history2 history2 history2 history2 history2
CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA Oxidation	ppm ppm ppm % % Abs/cm Abs/.1mm	method         ASTM D5185m         ASTM D5185m         ASTM D5185m         ASTM D5185m         Method         *ASTM D3524         *ASTM D7844         *ASTM D7624         *ASTM D7415         method	limit/base >25 >20 >3.0 limit/base >20 >20 >30 limit/base >25	current 11 23 11 ▲ 52.6 Current 0.8 6.1 15.2 Current 8.7	history1 history1 history1 history1 history1	history2 history2 history2 history2 history2
CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA Oxidation Base Number (BN)	ppm ppm ppm % % Abs/cm Abs/cm Abs/.1mm mg KOH/a	method           ASTM D5185m           ASTM D5185m           ASTM D5185m           ASTM D5185m           ASTM D5185m           ASTM D5185m           *ASTM D3524           *ASTM D7844           *ASTM D7844           *ASTM D7624           *ASTM D7415           method           *ASTM D7414           *ASTM D7414	limit/base >25 >20 >3.0 limit/base >20 >30 limit/base >25 10.1	current         11         23         11         52.6         current         0.8         6.1         15.2         current         8.7         5.6	history1 history1 history1 history1 history1	history2 history2 history2 history2 history2 history2



# **OIL ANALYSIS REPORT**



Contact/Location: BO QUALLS - RDONORNE