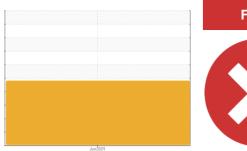


OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

YANMAR 150467

Component
Diesel Engine

ALPHA (--- QTS)

DIAGNOSIS

▲ Recommendation

We advise that you check the fuel injection system. The oil 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.

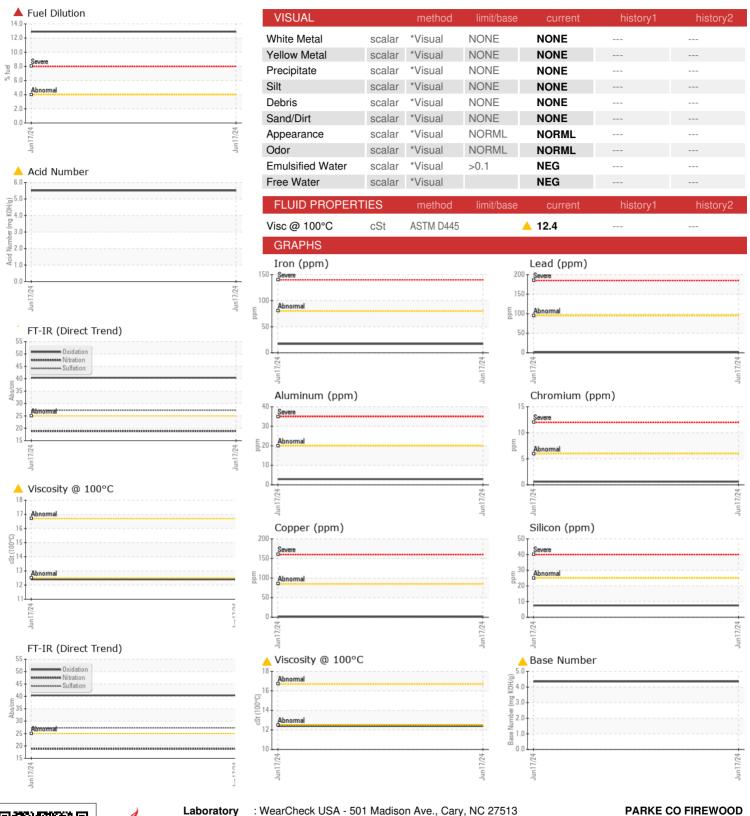
Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The BN level is low. The AN level is at the top-end of the recommended limit. The oil is no longer serviceable due to the presence of contaminants.

				Jun2024		
SAMPLE INFORM	/ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0904997		
Sample Date		Client Info		17 Jun 2024		
Machine Age	hrs	Client Info		7909		
Oil Age	hrs	Client Info		700		
Oil Changed	1110	Client Info		Changed		
Sample Status				SEVERE		
CONTAMINATIO	N	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG		
Glycol		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	17		
Chromium	ppm	ASTM D5185m	>6	<1		
Nickel	ppm	ASTM D5185m	>2	<1		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m	>2	<1		
Aluminum	ppm	ASTM D5185m	>20	3		
Lead	ppm	ASTM D5185m	>95	<1		
Copper	ppm		>85	2		
Tin	ppm	ASTM D5185m	>9	 <1		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		<1		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 22	history1	history2
	ppm		limit/base			•
Boron		ASTM D5185m	limit/base	22		
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m	limit/base	22 1		
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	22 1 56		
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	22 1 56 <1		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	22 1 56 <1 20		
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	22 1 56 <1 20 2195		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	22 1 56 <1 20 2195 953		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	22 1 56 <1 20 2195 953 1070		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		22 1 56 <1 20 2195 953 1070 3559		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	22 1 56 <1 20 2195 953 1070 3559		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	22 1 56 <1 20 2195 953 1070 3559 current		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >25	22 1 56 <1 20 2195 953 1070 3559 current 8 <1		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm	ASTM D5185m	limit/base >25 >20	22 1 56 <1 20 2195 953 1070 3559 current 8 <1 11		history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel	ppm	ASTM D5185m	limit/base >25 >20 >4.0	22 1 56 <1 20 2195 953 1070 3559 current 8 <1 11 11.		history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >25 >20 >4.0	22 1 56 <1 20 2195 953 1070 3559 current 8 <1 11 12.9 current	history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm	ASTM D5185m	limit/base >25 >20 >4.0 limit/base	22 1 56 <1 20 2195 953 1070 3559 current 8 <1 11 ▲ 12.9 current 0.2		history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm	ASTM D5185m ASTM D7844 *ASTM D7844	limit/base >25 >20 >4.0 limit/base >20	22 1 56 <1 20 2195 953 1070 3559 current 8 <1 11 12.9 current 0.2 18.8	history1 history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7624	limit/base >25 >20 >4.0 limit/base >20 >30	22 1 56 <1 20 2195 953 1070 3559 current 8 <1 11 12.9 current 0.2 18.8 27.3		history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7824 *ASTM D7844 *ASTM D7624 *ASTM D7415 method	limit/base >25 >20 >4.0 limit/base >20 >30 limit/base	22 1 56 <1 20 2195 953 1070 3559 current 8 <1 11 ▲ 12.9 current 0.2 18.8 27.3 current	history1 history1 history1	history2 history2 history2



OIL ANALYSIS REPORT







Certificate 12367

Laboratory Sample No.

: WC0904997 Lab Number

: 06217407 Unique Number : 11090271

Received : 21 Jun 2024 **Tested** : 26 Jun 2024 Diagnosed

: 26 Jun 2024 - Jonathan Hester Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel) To discuss this sample report, contact Customer Service at 1-800-237-1369.

 st - 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)

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Contact: ELAM SWAREY JR cealey@cebridge.net

T: (765)597-2237

Report Id: PARMARIN [WUSCAR] 06217407 (Generated: 06/26/2024 20:30:23) Rev: 1

Contact/Location: ELAM SWAREY JR - PARMARIN