WEAR CONTAMINATION FLUID CONDITION

NORMAL SEVERE ABNORMAL

Machine Id

1651

Component

Diesel Engine

Diesel Engine							
DIESEL ENGINE OIL SAE 15W40 (QTS)							
	_						
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.	Sample Number		Client Info		WC0870741	WC0806536	WC0743120
	Sample Date		Client Info		14 Nov 2023	11 May 2023	05 Oct 2022
	Machine Age	mls	Client Info		244077	234329	174229
	Oil Age	mls	Client Info		0	0	0
	Filter Age	mls	Client Info		0	0	0
	Oil Changed		Client Info		Not Changd	Not Changd	Not Change
	Filter Changed		Client Info		Not Changd	Not Changd	Not Change
	Sample Status				SEVERE	NORMAL	NORMAL
WEAR	Iron	ppm	ASTM D5185m	>100	16	13	10
	Chromium	ppm	ASTM D5185m	>20	1	<1	<1
All component wear rates are normal.	Nickel	ppm	ASTM D5185m	>4	0	0	0
	Titanium	ppm	ASTM D5185m		0	0	0
	Silver	ppm	ASTM D5185m	>3	0	0	0
	Aluminum	ppm	ASTM D5185m	>20	5	5	4
	Lead	ppm	ASTM D5185m	>40	0	0	<1
	Copper	ppm	ASTM D5185m	>330	1	<1	<1
	Tin	ppm	ASTM D5185m	>15	0	0	<1
	Vanadium	ppm	ASTM D5185m		<1	<1	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTANUNATION	0:1:		AOTH DE LOS		_		
CONTAMINATION There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.	Silicon	ppm	ASTM D5185m		5	5	3
	Potassium	ppm	ASTM D5185m		3	3	2
	Fuel	%	ASTM D3524		● 8.5	<1.0	<1.0
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol	0/	WC Method	0	NEG	NEG	NEG
	Soot %	%	*ASTM D7844		0.5	0.5	0.4
	Nitration	Abs/cm	*ASTM D7624		9.5	11.8 22.5	9.9
	Sulfation Silt	Abs/.1mm	*ASTM D7415		18.8 NONE		NONE
	Debris	scalar	*Visual *Visual	NONE	NONE	NONE NONE	NONE
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
		scalar		NORML	NORML	NORML	NORML
	Appearance Odor	scalar scalar	*Visual *Visual	NORML	NORML	NORML	NORML
	Emulsified Water			>0.2	NEG	NEG	NEG
	Emalomed Water		Vioudi				
FLUID CONDITION	Sodium	ppm	ASTM D5185m	>158	1	2	2
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.	Boron	ppm	ASTM D5185m		26	28	39
	Barium	ppm	ASTM D5185m		0	0	0
	Molybdenum	ppm	ASTM D5185m	100	73	86	72
	Manganese	ppm	ASTM D5185m		<1	<1	<1
	Magnesium	ppm	ASTM D5185m		166	76	44
	Calcium	ppm	ASTM D5185m		1890	2344	2102
	Phosphorus	ppm	ASTM D5185m		946	1025	966
	Zinc	ppm	ASTM D5185m		1128	1288	1145
	Sulfur	ppm	ASTM D5185m		3285	4565	4177
	Oxidation	Abs/.1mm	*ASTM D7414	>25	15.0	19.3	14.5

Base Number (BN) mg KOH/g ASTM D2896 8.5

ASTM D445 14.4

Visc @ 100°C cSt

6.5

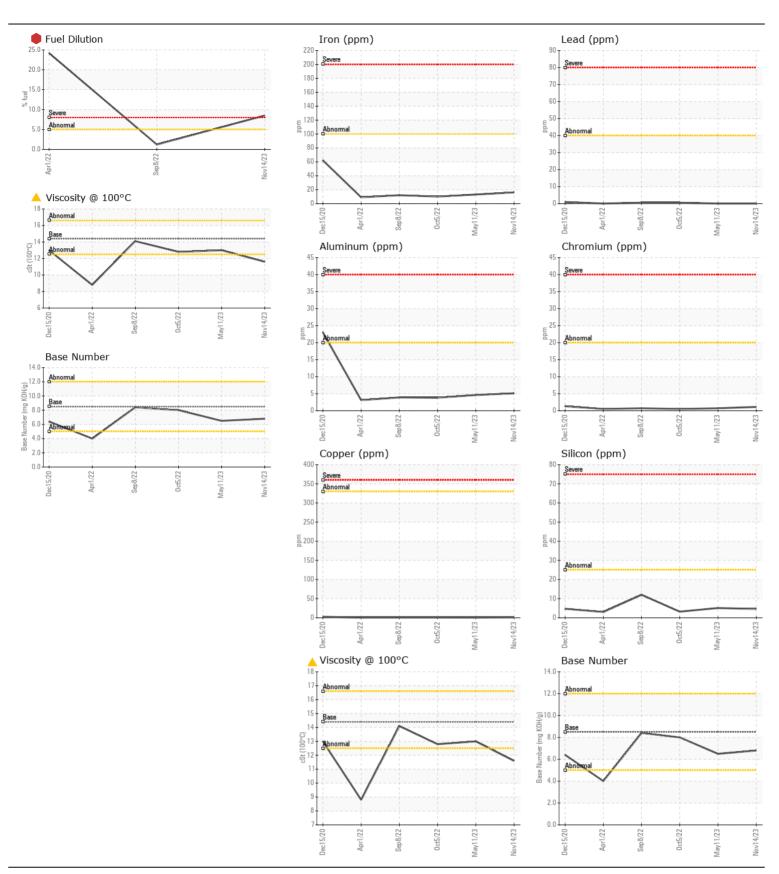
13.0

6.8

11.6

8.0

12.8





Certificate L2367

Report Id: WCPRAL [WUSCAR] 06061746 (Generated: 01/18/2024 09:38:01) Rev: 1

Laboratory Sample No. **Lab Number Unique Number**

: 06061746

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0870741 Recieved : 16 Jan 2024 Diagnosed : 18 Jan 2024

Diagnostician : Wes Davis : 10833128 Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, TBN)

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)

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