

Machine Id **4583** Component **Diesel Engine** Filuid **CITGO CITGUARD 600 15W40 (--- GAL)**

CIIGO CIIGUARD 600 15W40 (GAL)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.	Sample Number	00101	Client Info	Ennio/ ton	WC0901423	WC0901408	,
	Sample Date		Client Info		27 Jun 2024	24 Apr 2024	
	Machine Age	mls	Client Info		559017	16331	
	Oil Age	mls	Client Info		14957	16331	
	Filter Age	mls	Client Info		14957	16331	
	Oil Changed	1110	Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				ATTENTION	NORMAL	
	Gampie Glatas						
WEAR	Iron	ppm	ASTM D5185m	>100	6	4	
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>20	<1	0	
	Nickel	ppm	ASTM D5185m	>4	0	0	
	Titanium	ppm	ASTM D5185m		<1	2	
	Silver	ppm	ASTM D5185m	>3	0	0	
	Aluminum	ppm	ASTM D5185m	>20	2	2	
	Lead	ppm	ASTM D5185m	>40	<1	0	
	Copper	ppm	ASTM D5185m	>330	1	0	
	Tin	ppm	ASTM D5185m	>15	<1	<1	
	Vanadium	ppm	ASTM D5185m		0	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m		5	5	
Fuel content negligible. There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m		0	0	
	Fuel	%	ASTM D3524		0.2	<1.0	
	Water		WC Method	>0.2	NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	*ASTM D7844		0.1	0.2	
	Nitration	Abs/cm	*ASTM D7624	>20	7.1	7.7	
	Sulfation	Abs/.1mm	*ASTM D7415		17.6	18.6	
	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	scalar	*Visual	>0.2	NEG	NEG	
FLUID CONDITION	Sodium	ppm	ASTM D5185m		<1	0	
	Boron	ppm	ASTM D5185m	13	5	9	
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.	Barium	ppm	ASTM D5185m		0	0	
	Molybdenum	ppm	ASTM D5185m		22	76	
	Manganese	ppm	ASTM D5185m	-	<1	0	
	Magnesium	ppm	ASTM D5185m	825	157	466	
	Calcium	ppm	ASTM D5185m		2359	1761	
	Phosphorus	ppm	ASTM D5185m		989	1068	
	Zinc	ppm	ASTM D5185m		1195	1244	
	Sulfur	ppm	ASTM D5185m		4437	3665	

Oxidation

Visc @ 100°C cSt

Abs/.1mm *ASTM D7414 >25

ASTM D445 15.4

Base Number (BN) mg KOH/g ASTM D2896 11.0

15.1

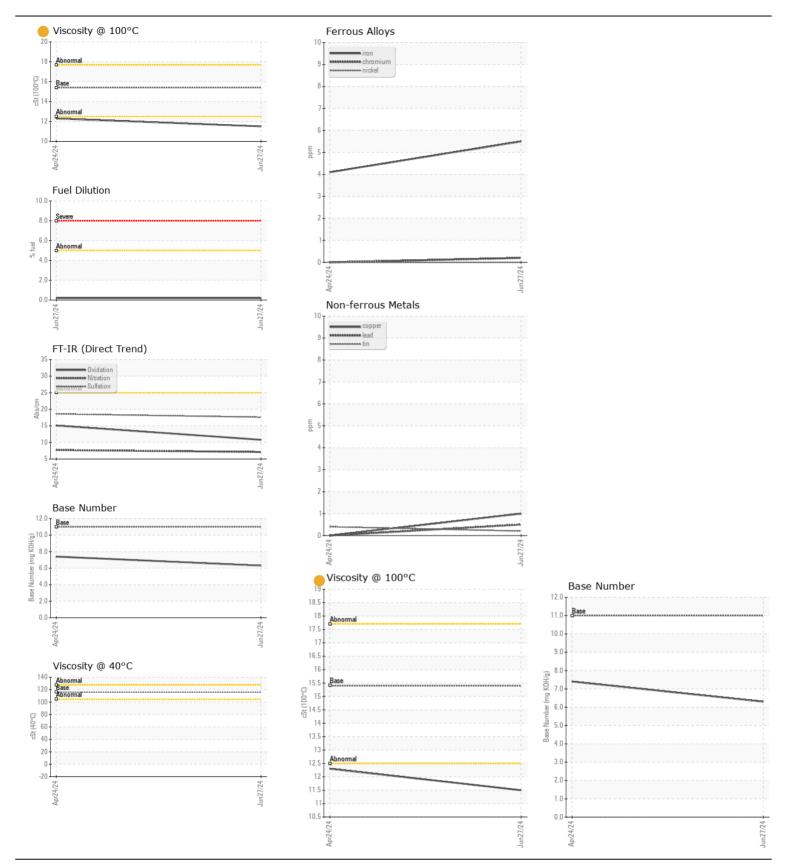
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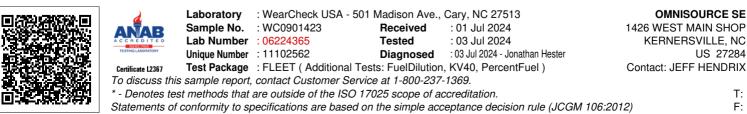
12.3

10.8

6.3

11.5





Contact/Location: JEFF HENDRIX - OMNKER Page 2 of 2