

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	NORMAL

## Machine Id 62500 Component Diesel Engine Fluid DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
No corrective action is recommended at this time. Resample at the next service interval to monitor. Please specify the component make and model with your next sample.	Sample Number		Client Info		DC0036306	DC0036192	
	Sample Date		Client Info		11 Jun 2024	29 Apr 2024	
	Machine Age	hrs	Client Info		14411	14341	
	Oil Age	hrs	Client Info		0	250	
	Filter Age	hrs	Client Info		0	0	
	Oil Changed		Client Info		N/A	Changed	
	Filter Changed		Client Info		Not Changd	Changed	
	Sample Status				MARGINAL	ABNORMAL	
WEAR	Iron	ppm	ASTM D5185m	>100	6	14	
All component wear rates are normal.	Chromium	ppm	ASTM D5185m		۰ <1	<1	
	Nickel	ppm	ASTM D5185m		<1	0	
	Titanium	ppm	ASTM D5185m	- 1	<1	<1	
	Silver	ppm	ASTM D5185m	>3	0	0	
	Aluminum	ppm	ASTM D5185m		2	1	
	Lead	ppm	ASTM D5185m		_ <1	<1	
	Copper	ppm	ASTM D5185m		<1	<1	
	Tin	ppm	ASTM D5185m		<1	0	
	Vanadium	ppm	ASTM D5185m		<1	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m		4	4	
Light fuel dilution occurring. No other contaminants were detected in the oil.	Potassium	ppm	ASTM D5185m		5	5	
	Fuel	%	ASTM D3524		<b>3</b> .0	<b>▲</b> 5.3	
	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	6.5	8.5	
	Sulfation	Abs/.1mm	*ASTM D7415		16.8	21.8	
	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	>158	6	10	
	Boron	ppm	ASTM D5185m	250	9	33	
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	10	0	0	
	Molybdenum	ppm	ASTM D5185m	100	10	39	
	Manganese	ppm	ASTM D5185m		<1	<1	
	Magnesium	ppm	ASTM D5185m	450	116	514	
	Calcium	ppm	ASTM D5185m		2073	1761	
	Phosphorus	ppm	ASTM D5185m	1150	809	808	
	Zinc	ppm	ASTM D5185m	1350	982	969	
	Sulfur	ppm	ASTM D5185m	4250	3370	2998	
				~ -			

Oxidation

Visc @ 100°C cSt

Abs/.1mm \*ASTM D7414 >25

ASTM D445 14.4

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

20.3

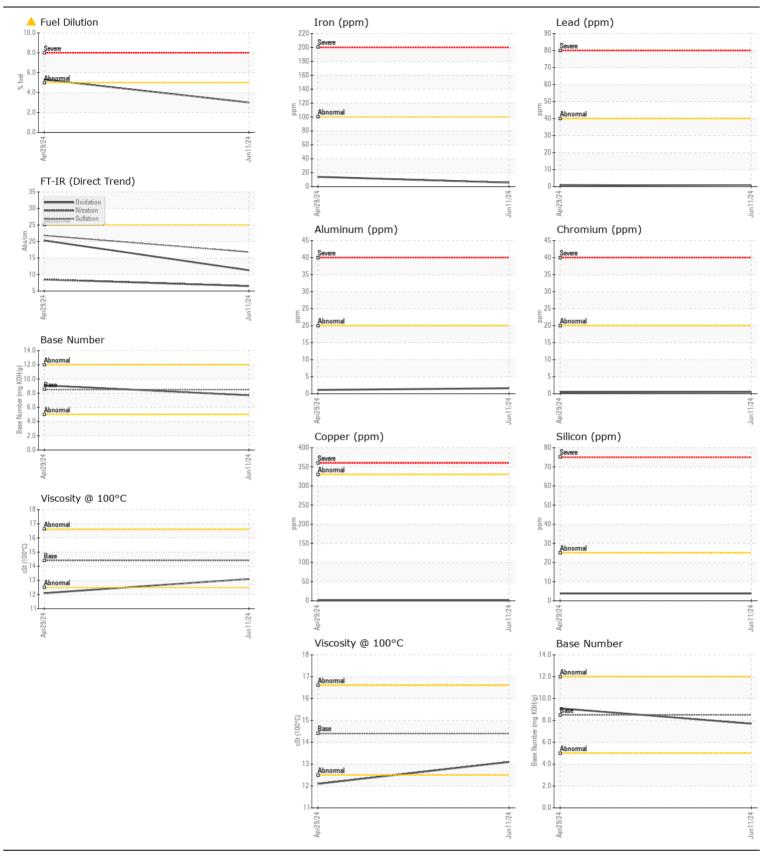
9.1

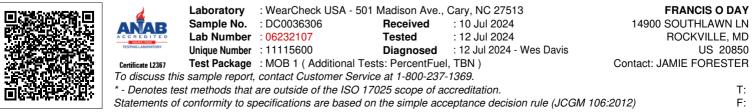
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11.3

7.7

13.1





Contact/Location: JAMIE FORESTER - FRAROCDC Page 2 of 2