

WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

R2 Component Diesel Engine

Machine Id

DIESEL ENGINE OIL SAE 15W40 (--- GAL)

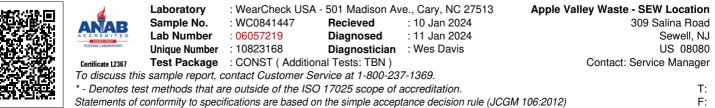
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RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.	Sample Number		Client Info		WC0841447		
	Sample Date		Client Info		18 Dec 2023		
	Machine Age	hrs	Client Info		11175		
	Oil Age	hrs	Client Info		521		
	Filter Age	hrs	Client Info		521		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				NORMAL		
VEAR	Iron	ppm	ASTM D5185m	>120	6		
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>20	<1		
	Nickel	ppm	ASTM D5185m		0		
	Titanium	ppm	ASTM D5185m		0		
	Silver	ppm	ASTM D5185m		0		
	Aluminum	ppm	ASTM D5185m		2		
	Lead	ppm	ASTM D5185m		0		
	Copper	ppm	ASTM D5185m		4		
	Tin	ppm	ASTM D5185m		0		
	Vanadium	ppm	ASTM D5185m	>15	0		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal		*Visual	NONE	NONE		
		scalar	visuai				
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	4		
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	2		
	Fuel		WC Method	>3.0	<1.0		
	Water		WC Method	>0.2	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	*ASTM D7844	>4	0.3		
	Nitration	Abs/cm	*ASTM D7624	>20	7.7		
	Sulfation	Abs/.1mm	*ASTM D7415	>30	19.1		
	Silt	scalar	*Visual	NONE	NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
	Appearance	scalar	*Visual	NORML	NORML		
	Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water	scalar	*Visual	>0.2	NEG		
FLUID CONDITION	Sodium	ppm	ASTM D5185m	>158	<1		
	Boron	ppm	ASTM D5185m		1		
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		0		
	Molybdenum	ppm	ASTM D5185m		72		
	Manganese	ppm	ASTM D5185m		0		
	Magnesium	ppm	ASTM D5185m	450	363		
	Calcium	ppm	ASTM D5185m		1845		
	Phosphorus	ppm	ASTM D5185m		1043		
	Zinc	ppm	ASTM D5185m	1350	1276		
	Sulfur	ppm	ASTM D5185m		3609		
	Oxidation		*ASTM D5165111		14.9		
	Base Number (BN)	Abs/.1mm	ASTM D7414 ASTM D2896		8.1		
	Dase Nulliber (DN)	niy Kon/g	AG TWI D2090	0.0	0.1		

Visc@100°C cSt

ASTM D445 14.4

13.6





Contact/Location: Service Manager - AVWSEW