

WEAR	
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Limit/Abn Current

Historv1

History₂

Machine Id MACK 404972 Component Diesel Engine Fluid

{not provided} (--- GAL)

Test

LIOM

Method

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is SAE 30 Diesel Engine Oil. Please confirm the oil type and grade, and specify the brand of the oil on your next sample.

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

Light fuel dilution occurring. No other contaminants were detected in the oil.

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	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		WC0818940		
1	Sample Date		Client Info		26 Feb 2024		
	Machine Age	kms	Client Info		60292		
	Oil Age	kms	Client Info		0		
	Filter Age	kms	Client Info		0		
	Oil Changed		Client Info		N/A		
	Filter Changed		Client Info		N/A		
	Sample Status				NORMAL		
	Iron	nom	ASTM D5185(m)	>120	12		
	Chromium	ppm	ASTM D5185(m)	>20	<1		
	Nickel	ppm	ASTM D5185(m)	>5	<1		
	Titanium	ppm	ASTM D5185(m)	>2	0		
	Silver	ppm	ASTM D5185(m)	>2	۰ <1		
	Aluminum	ppm	ASTM D5185(m)		2		
	Lead	ppm	ASTM D5185(m)	>20	2 <1		
		ppm	ASTM D5185(m)	>40 >330	6		
	Copper Tin	ppm			0 <1		
	Vanadium	ppm	ASTM D5185(m)	>15			
	vanadium	ppm	ASTM D5185(m)		0		
	Silicon	ppm	ASTM D5185(m)	>25	3		
	Potassium	ppm	ASTM D5185(m)	>20	1		
	Fuel	%	ASTM D7593*	>3.0	1.4		
	Water		WC Method	>0.2	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	ASTM D7844*	>4	0.2		
	Nitration	Abs/cm	ASTM D7624*	>20	9.9		
	Sulfation	Abs/.1mm	ASTM D7415*	>30	19.6		
	Emulsified Water	scalar	Visual*	>0.2	NEG		
	Sodium				7		
	Boron	ppm	ASTM D5185(m)		7		
		ppm	ASTM D5185(m)		5		
	Barium	ppm	ASTM D5185(m)		0 59		
	Molybdenum Manganese	ppm	ASTM D5185(m) ASTM D5185(m)		0		
	Magnesium	ppm	ASTM D5185(m)		921		
	Calcium	ppm	ASTM D5185(m)		1047		
	Phosphorus	ppm	ASTM D5185(m)		959		
	Zinc	ppm	ASTM D5185(m)		959 1129		
	Sulfur	ppm	ASTM D5185(m)		2578		
	Oxidation	ppm Abs/.1mm	ASTM D5165(III) ASTM D7414*	>25	2578 15.9		
	Visc @ 100°C	cSt	ASTM D7414 ASTM D7279(m)	220	10.9		
		001	AGTINI D7219(III)		10.9		

FLUID CONDITION

Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the oil is acceptable for the time in service.

Contact/Location: Clinton Stevens - SUROTT





