

CATERPILLAR 216-2101

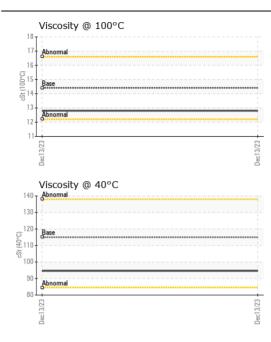
Diesel Engine

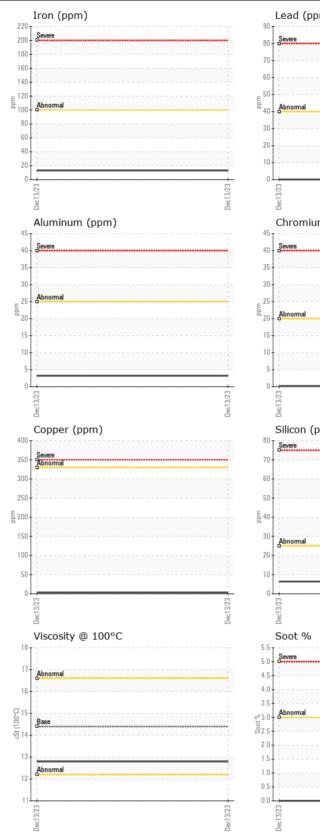
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

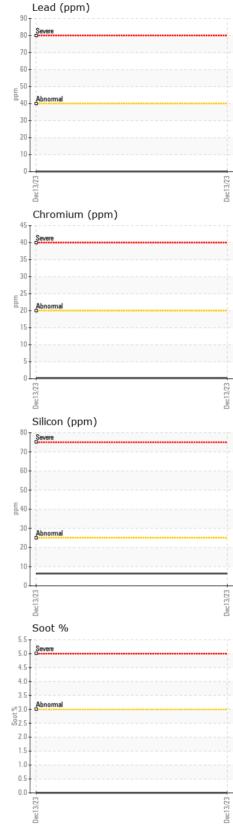
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		PC0072503		
Resample at the next service interval to monitor.	Sample Date		Client Info		13 Dec 2023		
	Machine Age	hrs	Client Info		2207		
	Oil Age	hrs	Client Info		200		
	Filter Age	hrs	Client Info		200		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				NORMAL		
WEAR	Iron	ppm	ASTM D5185(m)	>100	13		
All component wear rates are normal.	Chromium	ppm	ASTM D5185(m)	>20	<1		
	Nickel	ppm	ASTM D5185(m)	>2	<1		
	Titanium	ppm	ASTM D5185(m)	>2	0		
	Silver	ppm	ASTM D5185(m)	>2	0		
	Aluminum	ppm	ASTM D5185(m)	>25	3		
	Lead	ppm	ASTM D5185(m)	>40	0		
	Copper	ppm	ASTM D5185(m)	>330	2		
	Tin	ppm	ASTM D5185(m)	>15	0		
	Vanadium	ppm	ASTM D5185(m)		0		
	White Metal	scalar	Visual*	NONE	NONE		
	Yellow Metal	scalar	Visual*	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>25	6		
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185(m)	>20	<1		
	Fuel		WC Method	>5	<1.0		
	Water		WC Method	>0.2	NEG		
	Glycol	01	WC Method	0	NEG		
	Soot %	%	ASTM D7844*		0		
	Nitration	Abs/cm	ASTM D7624*	>20	8.1		
	Sulfation	Abs/.1mm	ASTM D7415*	>30	21.9		
	Silt	scalar	Visual*	NONE	NONE		
	Debris	scalar	Visual*	NONE	NONE		
	Sand/Dirt	scalar	Visual*	NONE	VLITE		
	Appearance	scalar	Visual*	NORML	NORML		
	Odor	scalar	Visual*	NORML	NORML		
	Emulsified Water	scalar	Visual*	>0.2	NEG		
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)	>158	3		
	Boron	ppm	ASTM D5185(m)		39		
The condition of the oil is acceptable for the time in service.	Barium	ppm	ASTM D5185(m)	10	0		
	Molybdenum	ppm	ASTM D5185(m)		41		
	Manganese	ppm	ASTM D5185(m)	100	0		
	Magnesium	ppm	ASTM D5185(m)	450	490		
	Calcium	ppm	ASTM D5185(m)	3000	1728		
	Phosphorus	ppm	ASTM D5185(m)		744		
	Zinc	ppm	ASTM D5185(m)		872		
	Sulfur	ppm	ASTM D5185(m)		2295		
	Oxidation	Abs/.1mm	ASTM D3103(III) ASTM D7414*	>25	2295		
	Visc @ 40°C	cSt	ASTM D7279(m)		94.6		
	Visc @ 40 C Visc @ 100°C	cSt	ASTM D7279(m)	14.4	12.8		
		Carla		14.4	12.0		

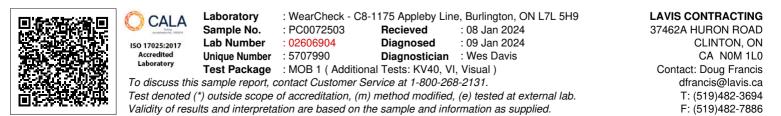
Viscosity Index (VI) Scale ASTM D2270* 126

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