

## WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

## Machine Id **1218** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		PC0083199	PC0078434	
Resample at the next service interval to monitor. Please specify the component make and model with your next sample.	Sample Date		Client Info		01 May 2024	10 Dec 2023	
	Machine Age	hrs	Client Info		6452	5936	
	Oil Age	hrs	Client Info		0	0	
	Filter Age	hrs	Client Info		0	0	
	Oil Changed		Client Info		N/A	N/A	
	Filter Changed		Client Info		N/A	N/A	
	Sample Status				NORMAL	NORMAL	
				100		10	
WEAR	Iron	ppm	ASTM D5185(m)		14	16	
All component wear rates are normal.	Chromium	ppm	ASTM D5185(m)		<1	<1	
	Nickel	ppm	ASTM D5185(m)	>4	0	<1	
	Titanium	ppm	ASTM D5185(m)	0	0	0	
	Silver	ppm	ASTM D5185(m)		0	<1	
	Aluminum	ppm	ASTM D5185(m)		2	5	
	Lead	ppm	ASTM D5185(m)		0	1	
	Copper	ppm	ASTM D5185(m)		<1	<1	
	Tin	ppm	ASTM D5185(m)	>15	0	0	
	Vanadium	ppm	ASTM D5185(m)		0	0	
	White Metal	scalar	Visual*	NONE	NONE	NONE	
	Yellow Metal	scalar	Visual*	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>25	3	4	
	Potassium	ppm	ASTM D5185(m)		6	10	
There is no indication of any contamination in the oil.	Fuel	1-1-	WC Method	>5	<1.0	<1.0	
	Water		WC Method	>0.2	NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	ASTM D7844*	>3	0.2	0.2	
	Nitration	Abs/cm	ASTM D7624*	>20	8.0	8.0	
	Sulfation	Abs/.1mm	ASTM D7415*	>30	19.4	19.2	
	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	
	0			450	•		
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)	>158	2	3	
The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185(m)	250	2	4	
	Barium	ppm	ASTM D5185(m)	10	0	<1	
	Molybdenum	ppm	ASTM D5185(m)	100	57	57	
	Manganese	ppm	ASTM D5185(m)	1=0	<1	0	
	Magnesium	ppm	ASTM D5185(m)	450	924	890	
	Calcium	ppm	ASTM D5185(m)	3000	1074	1146	

Zinc

Sulfur

Oxidation

Visc @ 100°C cSt

973

1176

2563

15.0

90.6

13.5

150

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980

1158

2707

15.3

88.2

13.3

151

Phosphorus ppm ASTM D5185(m) 1150

ppm

Visc @ 40°C cSt ASTM D7279(m) 115

Viscosity Index (VI) Scale ASTM D2270\* 126

ASTM D5185(m) 1350

ASTM D7279(m) 14.4

ppm ASTM D5185(m) 4250

Abs/.1mm ASTM D7414\* >25



