

## Machine Id 31224

## Component Diesel Engine

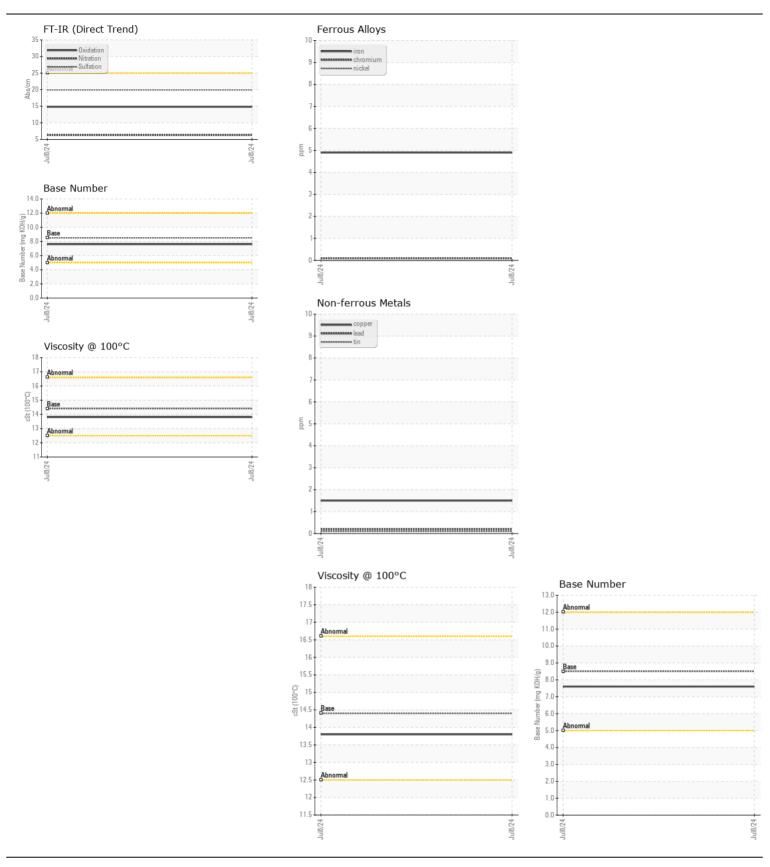
## DIESEL ENGINE OIL SAE 15W40 (--- QTS)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		WC0950514		
	Sample Date		Client Info		08 Jul 2024		
	Machine Age	hrs	Client Info		12892		
	Oil Age	hrs	Client Info		500		
	Filter Age	hrs	Client Info		500		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				NORMAL		
	lron			. 100	-		
WEAR	Iron Chromium	ppm	ASTM D5185m		5		
All component wear rates are normal.	Nickel	ppm	ASTM D5185m ASTM D5185m		<1 0		
	Titanium	ppm	ASTM D5185m	>4	۰ <1		
	Silver	ppm	ASTM D5185m	. 2	<1 <1		
	Aluminum	ppm	ASTM D5185m		2		
	Lead	ppm	ASTM D5185m		∠ <1		
	Copper	ppm ppm	ASTM D5185m		2		
	Tin	ppm	ASTM D5185m		 <1		
	Vanadium	ppm	ASTM D5185m	210	<1		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185m		5		
There is no indication of any contamination in the oil.	Potassium Fuel	ppm	ASTM D5185m WC Method		6		
	Water		WC Method		<1.0 NEG		
	Glycol		WC Method	>0.2	NEG		
	Soot %	%	*ASTM D7844	13	0.5		
	Nitration	Abs/cm	*ASTM D7624		6.3		
	Sulfation	Abs/.1mm	*ASTM D7024		19.9		
	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 The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.							
	Sodium	ppm	ASTM D5185m		1		
	Boron	ppm	ASTM D5185m		280		
	Barium	ppm	ASTM D5185m	10	0		
	Molybdenum	ppm	ASTM D5185m	100	38		
	Manganese	ppm	ASTM D5185m	450	<1		
	Magnesium	ppm	ASTM D5185m		321		
	Calcium	ppm	ASTM D5185m		1683		
	Phosphorus	ppm	ASTM D5185m		980		
	Zinc	ppm	ASTM D5185m		1131		
	Sulfur	ppm	ASTM D5185m		3262		
	Oxidation	Abs/.1mm	*ASTM D7414		14.8		
	Base Number (BN)	mg KOH/g	ASTM D2896	0.0	7.6		

Visc @ 100°C cSt

ASTM D445 14.4

13.8



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 SULLIVAN EASTERN INC Sample No. : WC0950514 Received 2860 C SLATER RD : 11 Jul 2024 Lab Number : 06233034 Tested MORRISVILLE, NC : 15 Jul 2024 Unique Number : 11116527 Diagnosed : 15 Jul 2024 - Sean Felton US 27560 Test Package : CONST (Additional Tests: TBN) Contact: SCOTT SULLIVAN Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. ssullivan@sullivaneastern.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (919)484-8993 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (919)484-2136

Contact/Location: SCOTT SULLIVAN - MSCDUR Page 2 of 2