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1119

19.4 7.9

12.5

3134

Machine Id 44123 Component **Diesel Engine** DIESEL ENGINE OIL SAE 15W40 (--- QTS)

DECOMMENDATION	Teet		Mathad	Limit/Aba	Cumant	Llistond	Liston ()
RECOMMENDATION No corrective action is recommended at this time. Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		WC0946093	WC0906445	WC0847798
	Sample Date		Client Info		14 Jun 2024	09 Mar 2024	02 Dec 2023
	Machine Age	mls	Client Info		15746	151026	143176
	Oil Age	mls	Client Info		6941	7849	8560
	Filter Age	mls	Client Info		6941	7849	8560
	Oil Changed		Client Info		N/A	Changed	Changed
	Filter Changed		Client Info		N/A	Changed	Changed
	Sample Status				MARGINAL	NORMAL	MARGINAL
WEAR	Iron	ppm	ASTM D5185m	>100	13	13	19
Metal levels are typical for a new component breaking in.	Chromium		ASTM D5185m		<1	<1	<1
	Nickel	ppm ppm	ASTM D5185m		<1 <1	0	0
	Titanium	ppm	ASTM D5185m	>4	0	0	0
	Silver		ASTM D5185m	. 2		0	0
	Aluminum	ppm			<1 4	2	2
		ppm	ASTM D5185m		4	0	
	Lead	ppm	ASTM D5185m		0 <1	3	0<1
	Copper Tin	ppm	ASTM D5185m			0	0
		ppm	ASTM D5185m	>15	<1 0		
	Vanadium	ppm	ASTM D5185m		-		
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION Light fuel dilution occurring. No other contaminants were detected in the oil.	Silicon	ppm	ASTM D5185m	>25	7	4	8
	Potassium	ppm	ASTM D5185m	>20	6	<1	5
	Fuel	%	ASTM D3524	>5	3 .4	<1.0	3 .3
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	0.6	0.5	0.6
	Nitration	Abs/cm	*ASTM D7624	>20	9.6	10.1	11.5
	Sulfation	Abs/.1mm	*ASTM D7415	>30	22.8	22.5	20.9
	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
				150	•	4	0
FLUID CONDITION	Sodium	ppm	ASTM D5185m		2	<1	0
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Boron	ppm	ASTM D5185m		181	224	3
	Barium	ppm	ASTM D5185m	10	0	0	3
	Molybdenum	ppm	ASTM D5185m	100	87	71	65
	Manganese	ppm	ASTM D5185m	450	<1	<1	0
	Magnesium	ppm	ASTM D5185m		367	429	849
	Calcium	ppm	ASTM D5185m	3000	1362	1174	1011
	Phosphorus	ppm	ASTM D5185m	1150	1022	917	941

Zinc

Sulfur

Oxidation

Visc @ 100°C cSt

1112

2903

18.8

6.5

12.6

1206

3650

18.4

5.7

12.3

ASTM D5185m 1350

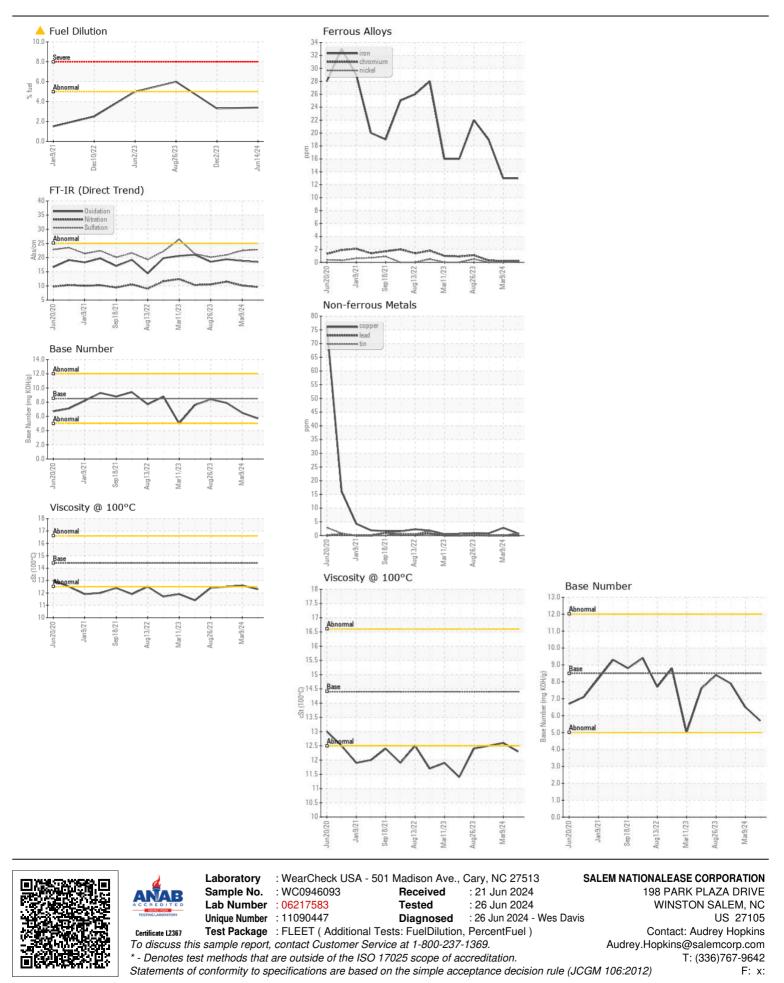
ASTM D445 14.4

ppm ASTM D5185m 4250

Abs/.1mm *ASTM D7414 >25

ppm

Base Number (BN) mg KOH/g ASTM D2896 8.5



Contact/Location: Audrey Hopkins - SALWIN Page 2 of 2