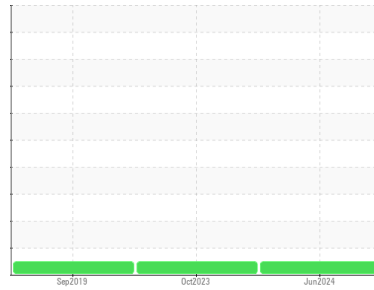




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
CUMMINS 5.9
 Component
Port Main Engine
 Fluid
SHELL ROTELLA T 15W40 (12 QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0830776	WC0830777	WC0394161
Sample Date	Client Info			17 Jun 2024	05 Oct 2023	30 Sep 2019
Machine Age	hrs	Client Info		0	2830	2377
Oil Age	hrs	Client Info		300	352	150
Oil Changed	Client Info			Changed	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>4.0		<1.0	<1.0	<1.0
Water	WC Method	>0.1		NEG	NEG	NEG
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>75	10	12	15
Chromium	ppm	ASTM D5185m	>8	4	2	5
Nickel	ppm	ASTM D5185m	>2	<1	<1	<1
Titanium	ppm	ASTM D5185m	>3	<1	<1	1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>15	2	11	1
Lead	ppm	ASTM D5185m	>18	<1	1	<1
Copper	ppm	ASTM D5185m	>80	<1	2	2
Tin	ppm	ASTM D5185m	>14	<1	<1	0
Antimony	ppm	ASTM D5185m		---	---	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
Cadmium	ppm	ASTM D5185m		<1	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	316	56	251	136
Barium	ppm	ASTM D5185m	0.0	<1	0	0
Molybdenum	ppm	ASTM D5185m	1.2	33	<1	0
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	24	358	20	44
Calcium	ppm	ASTM D5185m	2292	1552	2713	2170
Phosphorus	ppm	ASTM D5185m	1064	970	1269	903
Zinc	ppm	ASTM D5185m	1160	1104	1582	1094
Sulfur	ppm	ASTM D5185m	4996	3073	5542	2974

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	4	6	8
Sodium	ppm	ASTM D5185m	>75	5	11	12
Potassium	ppm	ASTM D5185m	>20	5	15	4

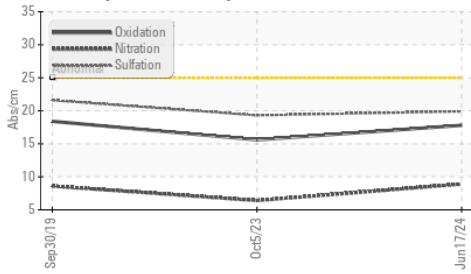
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		0.2	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	8.9	6.4	8.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.9	19.3	21.6

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.8	15.6	18.4
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	8.0	7.8	7.67

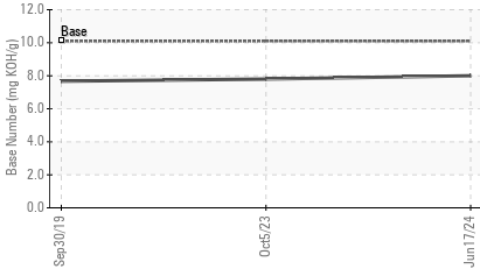


OIL ANALYSIS REPORT

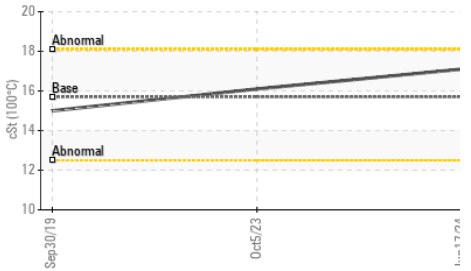
FT-IR (Direct Trend)



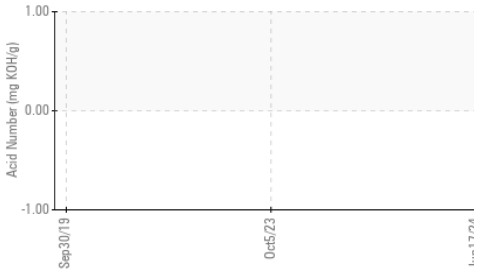
Base Number



Viscosity @ 100°C



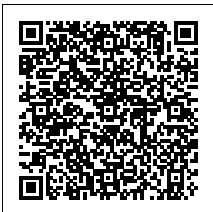
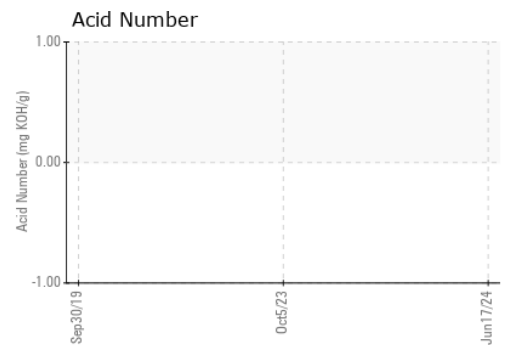
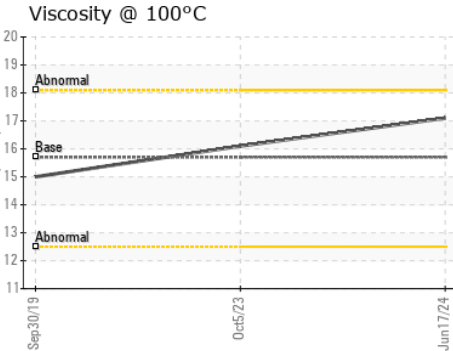
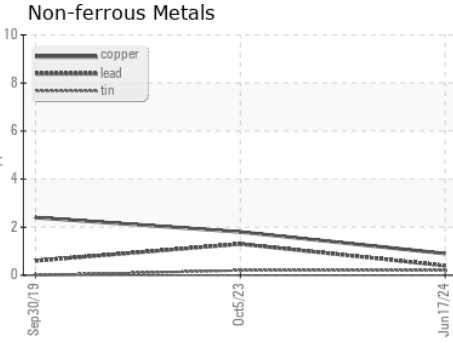
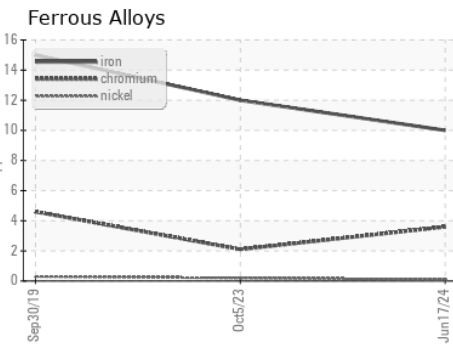
Acid Number



PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
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	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.7	17.1	16.1

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0830776
Lab Number : 06212918
Unique Number : 11085782
Test Package : MAR 2 (Additional Tests: TAN Man)

Received : 17 Jun 2024
Tested : 19 Jun 2024
Diagnosed : 19 Jun 2024 - Angela Borella

PRESTON J SALTALAMACCHIA
 155 ROBERT ST
 SLIDELL, LA
 US 70458

Contact: PRESTON SALTALAMACCHIA
 prestonandhisboat@gmail.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T: (504)599-9384

F: