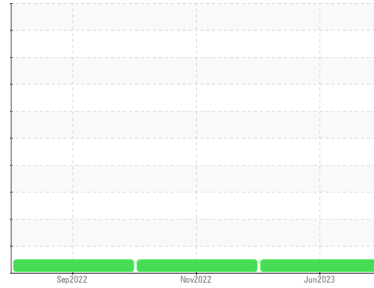




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
[62005587821]

Machine Id
109

Component
Diesel Engine

Fluid
DIESEL ENGINE OIL SAE 30 (--- 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			WC0799992	WC0723389	WC0723349
Sample Date	Client Info			01 Jun 2023	21 Nov 2022	23 Sep 2022
Machine Age	mls	Client Info		34711	14459	19668
Oil Age	mls	Client Info		0	0	0
Oil Changed	Client Info			Not Changed	Not Changed	Not Changed
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<1.0	<1.0	<1.0
Water	WC Method	>0.2		NEG	NEG	NEG
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	18	49	35
Chromium	ppm	ASTM D5185m	>20	<1	1	1
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m		47	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	4
Aluminum	ppm	ASTM D5185m	>20	6	22	19
Lead	ppm	ASTM D5185m	>40	0	<1	2
Copper	ppm	ASTM D5185m	>330	3	27	25
Tin	ppm	ASTM D5185m	>15	0	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	97	35	64
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	7	13	13
Manganese	ppm	ASTM D5185m		<1	1	2
Magnesium	ppm	ASTM D5185m	450	584	715	702
Calcium	ppm	ASTM D5185m	3000	1627	1351	1321
Phosphorus	ppm	ASTM D5185m	1150	1084	965	1042
Zinc	ppm	ASTM D5185m	1350	1291	1230	1239
Sulfur	ppm	ASTM D5185m	4250	4755	3817	4294

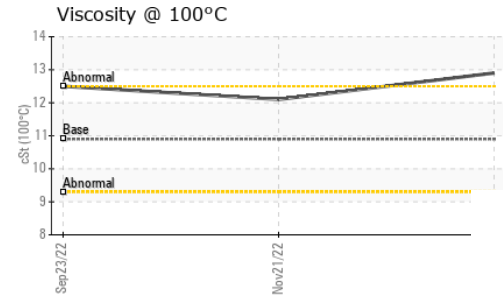
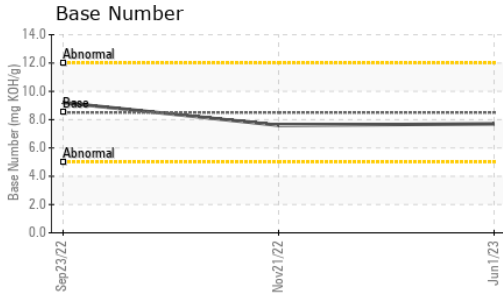
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	9	19	17
Sodium	ppm	ASTM D5185m	>75	2	6	4
Potassium	ppm	ASTM D5185m	>20	15	61	55

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.2	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	8.4	10.5	9.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.7	23.9	21.0

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.6	17.1	14.9
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.7	7.6	9.2



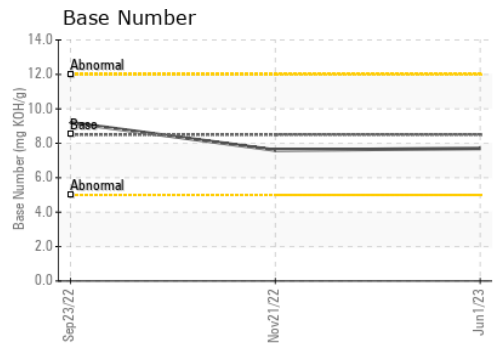
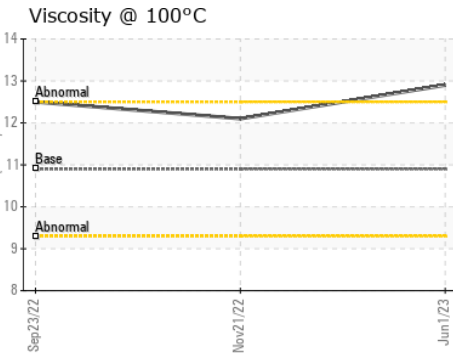
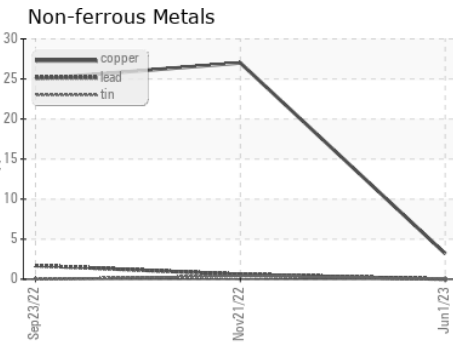
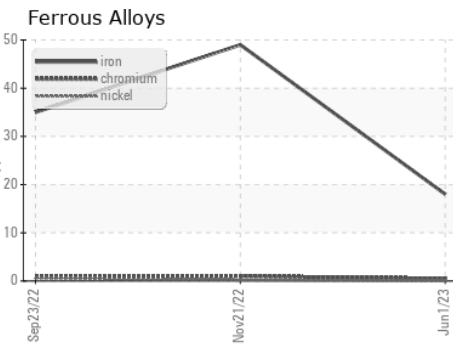
OIL ANALYSIS REPORT



VISUAL	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	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	10.9	12.9	12.1	12.5

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0799992 **Received** : 09 Jun 2023
Lab Number : **05870054** **Diagnosed** : 13 Jun 2023
Unique Number : 10509838 **Diagnostician** : Doug Bogart
Test Package : FLEET

CASWELL COUNTY SCHOOL BUS
 353 COUNTY HOME ROAD
 YANCEYVILLE, NC
 US 27379
 Contact: DEBRA MOORE
 debra.moore@caswell.k12.nc.us
 T: (336)694-4116
 F:

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)