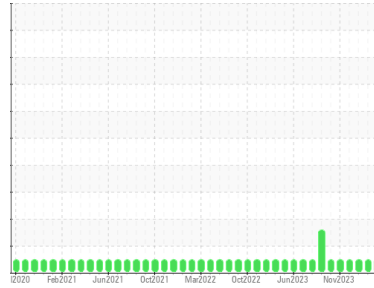




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
Mt. Vernon
 Machine Id
[Mt. Vernon] Oil - Port Main Engine
 Component
Port Main Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (250 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. (Customer Sample Comment: Top Up Amount: 20)

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	WC0845782	WC0845785	WC0735851
Sample Date	Client Info	16 Mar 2024	15 Feb 2024	30 Dec 2023
Machine Age	hrs Client Info	11252	10533	9808
Oil Age	hrs Client Info	11252	10533	9808
Oil Changed	Client Info	Oil Added	Not Changd	Not Changd
Sample Status		NORMAL	NORMAL	NORMAL

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >75	34	32	27
Chromium	ppm ASTM D5185m >8	2	2	1
Nickel	ppm ASTM D5185m >2	<1	<1	0
Titanium	ppm ASTM D5185m >3	0	<1	0
Silver	ppm ASTM D5185m >2	0	0	0
Aluminum	ppm ASTM D5185m >15	5	5	4
Lead	ppm ASTM D5185m >18	32	30	32
Copper	ppm ASTM D5185m >80	77	70	69
Tin	ppm ASTM D5185m >14	16	17	17
Vanadium	ppm ASTM D5185m	0	0	0
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 250	<1	<1	3
Barium	ppm ASTM D5185m 10	0	0	0
Molybdenum	ppm ASTM D5185m 100	1	2	2
Manganese	ppm ASTM D5185m	0	<1	0
Magnesium	ppm ASTM D5185m 450	19	30	49
Calcium	ppm ASTM D5185m 3000	3368	3270	3145
Phosphorus	ppm ASTM D5185m 1150	20	20	35
Zinc	ppm ASTM D5185m 1350	14	19	49
Sulfur	ppm ASTM D5185m 4250	4651	4463	4147

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >20	6	7	11
Sodium	ppm ASTM D5185m >158	4	4	3
Potassium	ppm ASTM D5185m >20	2	0	<1
Water	% ASTM D6304 >0.1	NEG	NEG	NEG

INFRA-RED

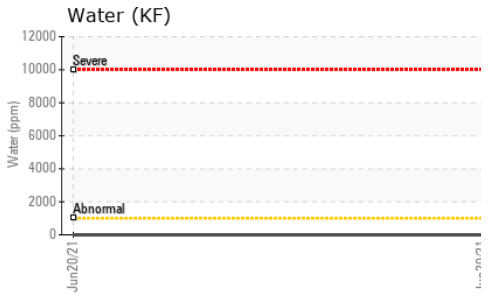
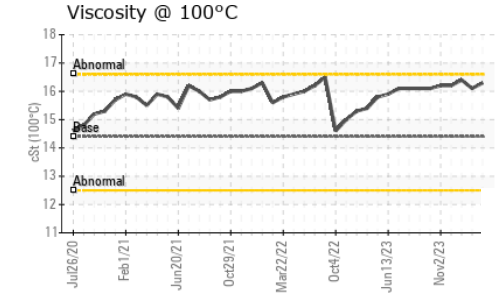
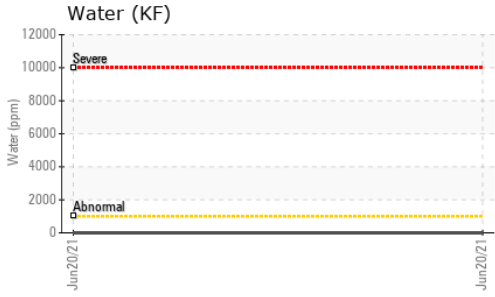
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844	0.4	0.4	0.4
Nitration	Abs/cm *ASTM D7624 >20	14.0	13.7	14.0
Sulfation	Abs/.1mm *ASTM D7415 >30	21.9	21.8	22.1

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	22.2	21.5	22.1
Base Number (BN)	mg KOH/g ASTM D2896 8.5	8.80	8.66	8.73



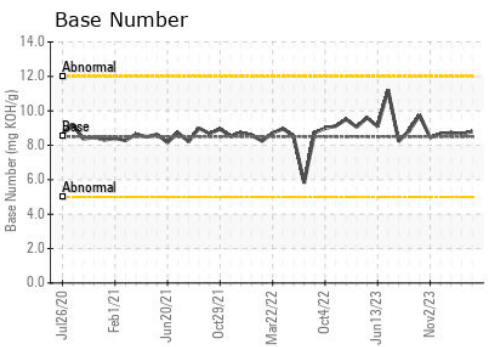
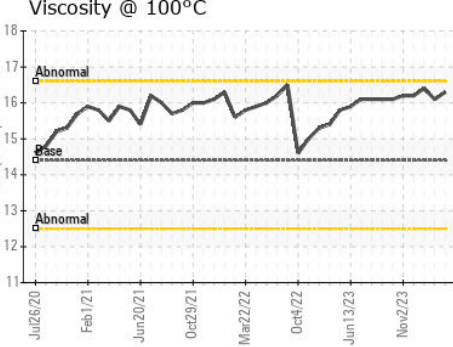
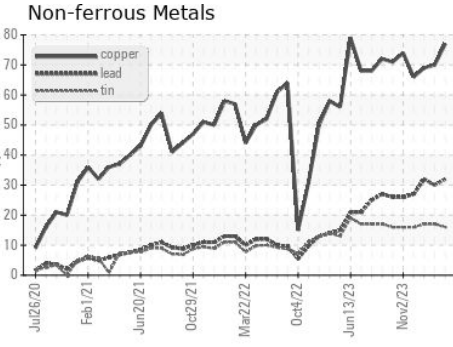
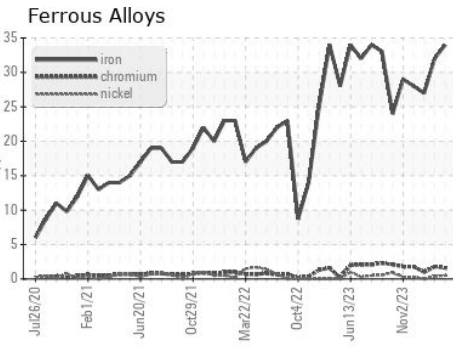
OIL ANALYSIS REPORT



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	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	14.4	16.3	16.1	16.4

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0845782 **Received** : 27 Mar 2024
Lab Number : **06130813** **Tested** : 01 Apr 2024
Unique Number : 10950278 **Diagnosed** : 01 Apr 2024 - Jonathan Hester
Test Package : IND 2 (Additional Tests: KF)

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 CATLETTSBURG, KY
 US 41169
 Contact: CORY GUMBERT
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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)