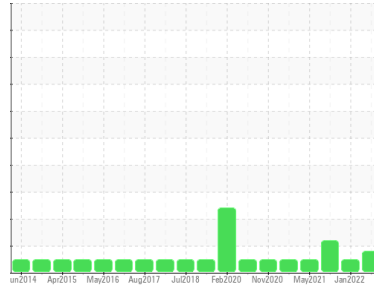




# PROBLEM SUMMARY

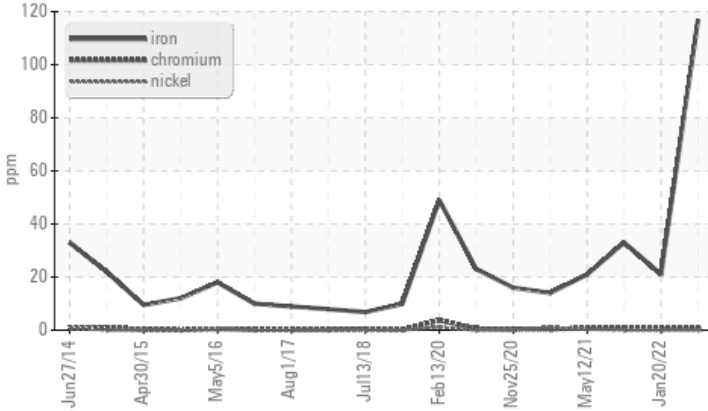
Sample Rating Trend



Area  
**Chester**  
 Machine Id  
**MACK 1174**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 15W40 (40 QTS)**

## COMPONENT CONDITION SUMMARY

### ▲ Ferrous Alloys



## RECOMMENDATION

No corrective action is recommended at this time.  
 Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

Sample Status				<b>MARGINAL</b>	NORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>120	▲ 117	21	33

Customer Id: INTCHE  
 Sample No.: WC0830947  
 Lab Number: 05998682  
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Don Baldrige +1  
[don.b505@comcast.net](mailto:don.b505@comcast.net)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS

**20 Jan 2022 Diag: Angela Borella**

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

view report



**20 Oct 2021 Diag: Jonathan Hester**

SOOT



We advise that you check for faulty combustion, plugged air filters, or aftercoolers. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The oil viscosity is higher than normal.

view report



**12 May 2021 Diag: Wes Davis**

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

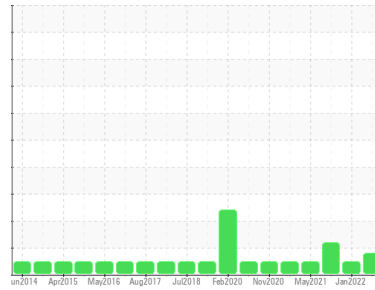
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



**WEAR**



Area  
**Chester**  
 Machine Id  
**MACK 1174**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 15W40 (40 QTS)**

## DIAGNOSIS

### ▲ Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### ▲ Wear

The iron level is marginal. All other 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		<b>WC0830947</b>	WC0650880	WC0603418
Sample Date	Client Info		<b>05 Nov 2023</b>	20 Jan 2022	20 Oct 2021
Machine Age	mls	Client Info	<b>430665</b>	41000	40000
Oil Age	mls	Client Info	<b>0</b>	450	450
Oil Changed	Client Info		<b>Not Chngd</b>	Changed	Changed
Sample Status			<b>MARGINAL</b>	NORMAL	ABNORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >120	<b>▲ 117</b>	21	33
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m >2	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	2
Aluminum	ppm	ASTM D5185m >20	<b>2</b>	2	1
Lead	ppm	ASTM D5185m >40	<b>6</b>	1	2
Copper	ppm	ASTM D5185m >330	<b>8</b>	1	2
Tin	ppm	ASTM D5185m >15	<b>2</b>	<1	<1
Antimony	ppm	ASTM D5185m	<b>---</b>	0	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 250	<b>6</b>	10	6
Barium	ppm	ASTM D5185m 10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 100	<b>67</b>	56	58
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 450	<b>807</b>	938	896
Calcium	ppm	ASTM D5185m 3000	<b>1226</b>	1250	1087
Phosphorus	ppm	ASTM D5185m 1150	<b>944</b>	1048	941
Zinc	ppm	ASTM D5185m 1350	<b>1185</b>	1186	1143
Sulfur	ppm	ASTM D5185m 4250	<b>2767</b>	2745	2559

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>16</b>	3	<1
Sodium	ppm	ASTM D5185m >158	<b>4</b>	1	2
Potassium	ppm	ASTM D5185m >20	<b>0</b>	0	<1

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>3.2</b>	2.6	<b>▲ 4</b>
Nitration	Abs/cm	*ASTM D7624 >20	<b>10.2</b>	8.6	9.6
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>23.9</b>	23.4	25.2

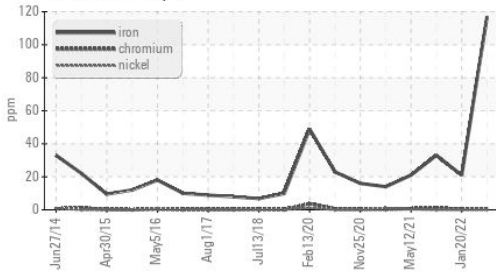
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.2</b>	14.6	14
Base Number (BN)	mg KOH/g	ASTM D2896 8.5	<b>6.9</b>	---	---



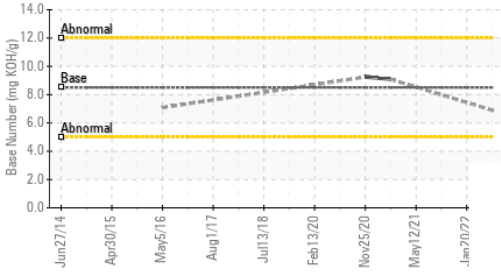
# OIL ANALYSIS REPORT

## ▲ Ferrous Alloys



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

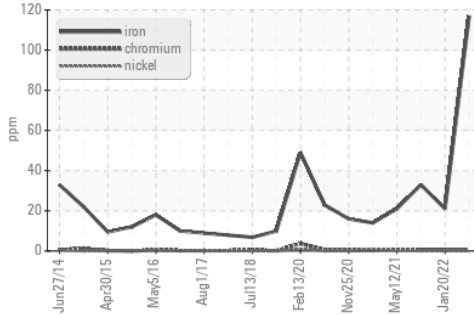
## Base Number



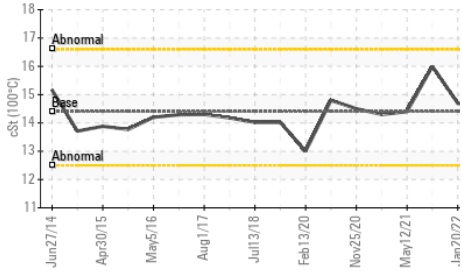
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	14.5	14.7 ▲ 16.0

## GRAPHS

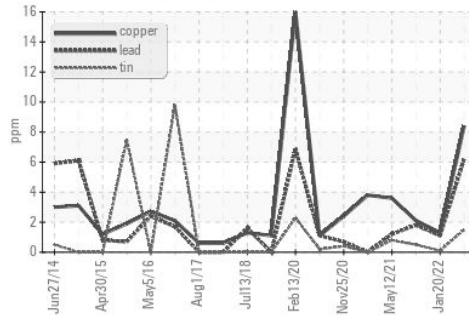
### ▲ Ferrous Alloys



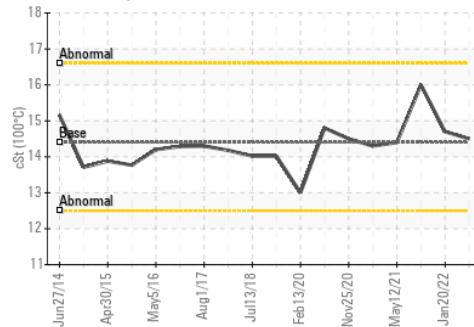
## Viscosity @ 100°C



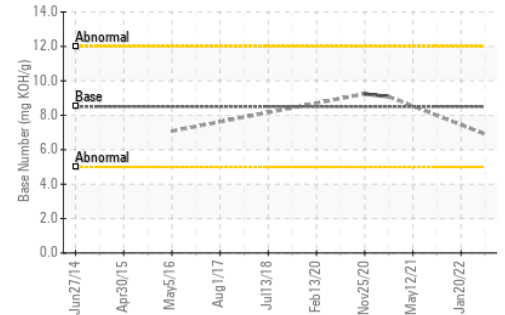
### Non-ferrous Metals



### Viscosity @ 100°C



### Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : WC0830947  
 Lab Number : 05998682  
 Unique Number : 10727042  
 Test Package : FLEET

**INTERSTATE WASTE-CHESTER**  
 89 BLACK MEADOW RD  
 CHESTER, NY  
 US 10918  
 Contact: ROB CLARKE  
 rclarke@interstatewaste.com  
 T:  
 F: (845)572-3301

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)