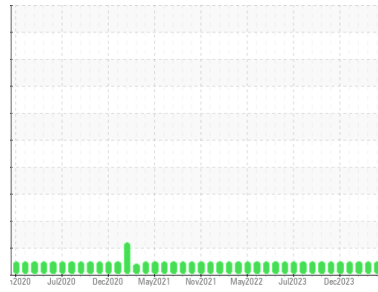




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**OKLAHOMA**  
 Machine Id  
**2013 MACK 10277**  
 Component  
**Diesel Engine**  
 Fluid  
**MYSTIK JT-8 SYN SUPER HD 15W40 (9 GAL)**

## 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			<b>WC0929930</b>	WC0899614	WC0899606
Sample Date	Client Info			<b>09 Apr 2024</b>	06 Mar 2024	05 Feb 2024
Machine Age	hrs	Client Info		<b>1300</b>	12975	6688
Oil Age	hrs	Client Info		<b>1126</b>	6706	1084
Oil Changed	Client Info			<b>Not Changed</b>	Not Changed	Not Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>3.0		<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.2		<b>NEG</b>	NEG	NEG
Glycol	WC Method			<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>120	<b>10</b>	10	10
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	2	3
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m	>330	<b>3</b>	3	3
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</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		<b>27</b>	31	31
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>18</b>	19	8
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>464</b>	417	292
Calcium	ppm	ASTM D5185m		<b>1731</b>	1805	1744
Phosphorus	ppm	ASTM D5185m		<b>1037</b>	999	923
Zinc	ppm	ASTM D5185m		<b>1196</b>	1162	1110
Sulfur	ppm	ASTM D5185m		<b>4085</b>	4062	3382

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>5</b>	5	6
Sodium	ppm	ASTM D5185m		<b>7</b>	7	8
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	2

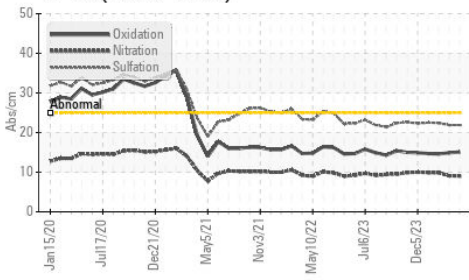
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>4	<b>0.2</b>	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.0</b>	9.1	9.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.9</b>	21.9	22.4

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.1</b>	14.9	14.6
Base Number (BN)	mg KOH/g	ASTM D2896		<b>6.2</b>	6.1	5.9

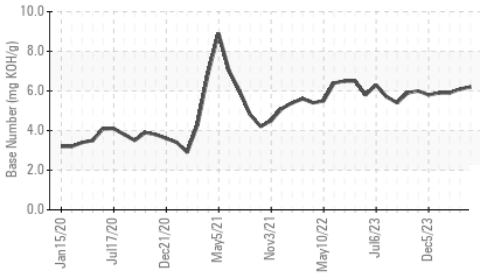


# OIL ANALYSIS REPORT

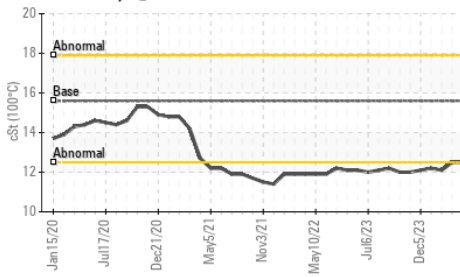
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

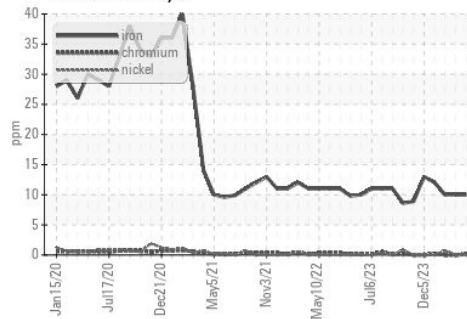


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

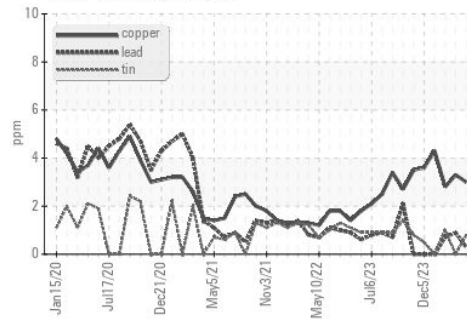
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.6	12.5	12.5

## GRAPHS

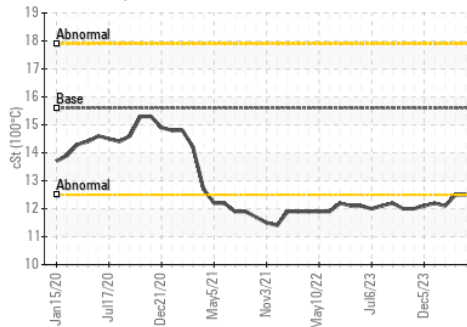
Ferrous Alloys



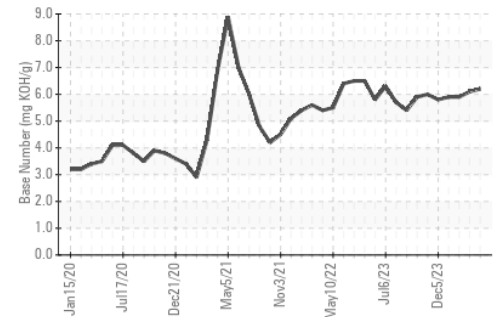
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0929930

Lab Number : 06149392

Unique Number : 10979470

Test Package : FLEET

Received : 15 Apr 2024

Tested : 16 Apr 2024

Diagnosed : 17 Apr 2024 - Don Baldrige

LIBERTY DISPOSAL

6401 S EASTERN AVE

OKLAHOMA CITY, OK

US 73149

Contact: M Rutherford

M.Rutherford@ldi89.com

T:

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)