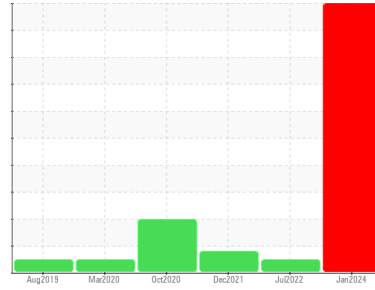




PROBLEM SUMMARY

Sample Rating Trend

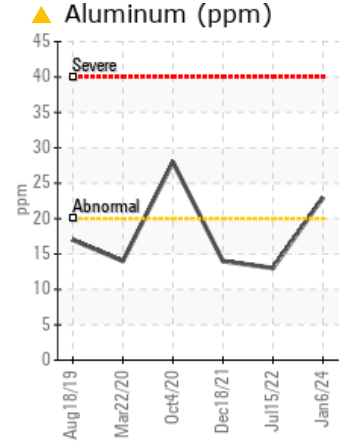
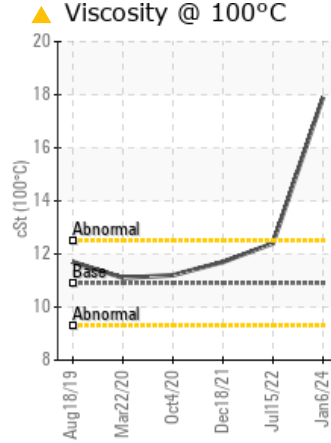
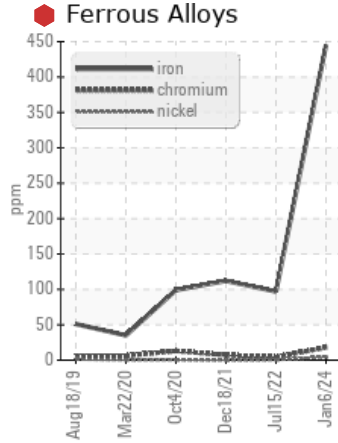
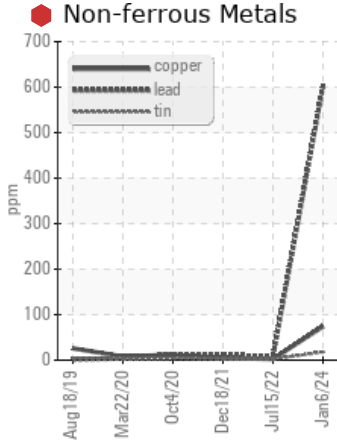


Machine Id
1817

Component
Diesel Engine

Fluid
DIESEL ENGINE OIL SAE 5W30 (--- QTS)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	NORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>100	445	97	112
Chromium	ppm	ASTM D5185m	>20	18	4	7
Nickel	ppm	ASTM D5185m	>4	4	<1	0
Aluminum	ppm	ASTM D5185m	>20	23	13	14
Lead	ppm	ASTM D5185m	>40	602	8	12
Copper	ppm	ASTM D5185m	>330	74	2	5
Tin	ppm	ASTM D5185m	>15	18	2	2
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	0	4.1	9
Visc @ 100°C	cSt	ASTM D445	10.9	17.9	12.4	11.7

Customer Id: MABEDE
Sample No.: WC0876667
Lab Number: 06064914
Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
Doug Bogart +1 (800)237-1369 x4016
dougb@wearcheckusa.com

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

15 Jul 2022 Diag: Don Baldrige

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

view report



18 Dec 2021 Diag: Don Baldrige

WEAR



No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Cylinder, crank, or cam shaft wear is indicated. All other component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



04 Oct 2020 Diag: Jonathan Hester

GLYCOL



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The aluminum level is abnormal. Sodium and/or potassium levels are high. Test for glycol is negative. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

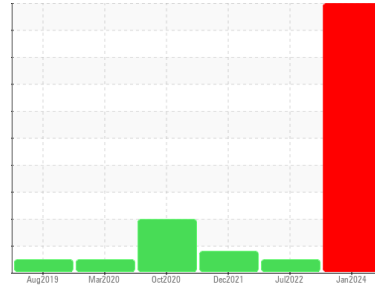
view report





OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id
1817

Component

Diesel Engine

Fluid

DISEL ENGINE OIL SAE 5W30 (--- QTS)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Wear

Piston, ring and cylinder wear is indicated. Bearing and/or bushing wear is indicated.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The oil viscosity is higher than normal. The BN level is low.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0876667	WC0686077	WC0639592
Sample Date	Client Info		06 Jan 2024	15 Jul 2022	18 Dec 2021
Machine Age	mls	Client Info	477732	318054	242041
Oil Age	mls	Client Info	50000	100000	100000
Oil Changed	Client Info		Changed	Not Changd	Changed
Sample Status			SEVERE	NORMAL	ABNORMAL

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	445	97	112
Chromium	ppm	ASTM D5185m >20	18	4	7
Nickel	ppm	ASTM D5185m >4	4	<1	0
Titanium	ppm	ASTM D5185m	<1	<1	<1
Silver	ppm	ASTM D5185m >3	<1	0	<1
Aluminum	ppm	ASTM D5185m >20	23	13	14
Lead	ppm	ASTM D5185m >40	602	8	12
Copper	ppm	ASTM D5185m >330	74	2	5
Tin	ppm	ASTM D5185m >15	18	2	2
Antimony	ppm	ASTM D5185m	---	---	0
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 250	18	29	10
Barium	ppm	ASTM D5185m 10	0	0	0
Molybdenum	ppm	ASTM D5185m 100	57	53	61
Manganese	ppm	ASTM D5185m	5	1	2
Magnesium	ppm	ASTM D5185m 450	1031	996	1149
Calcium	ppm	ASTM D5185m 3000	1398	1169	924
Phosphorus	ppm	ASTM D5185m 1150	1251	1015	1052
Zinc	ppm	ASTM D5185m 1350	1560	1332	1240
Sulfur	ppm	ASTM D5185m 4250	3062	3652	2455

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	17	7	8
Sodium	ppm	ASTM D5185m	6	5	5
Potassium	ppm	ASTM D5185m >20	21	15	32

INFRA-RED

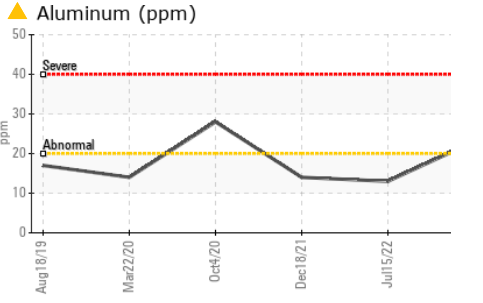
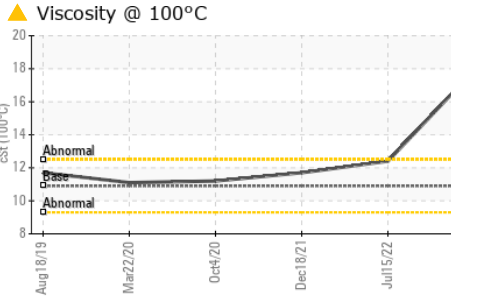
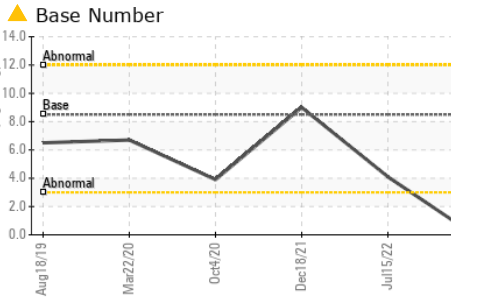
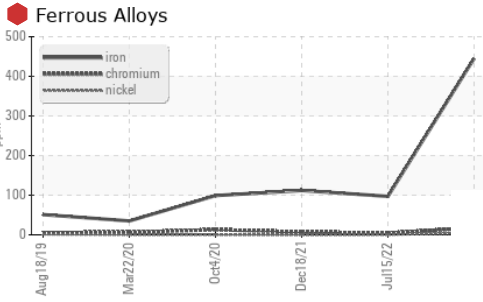
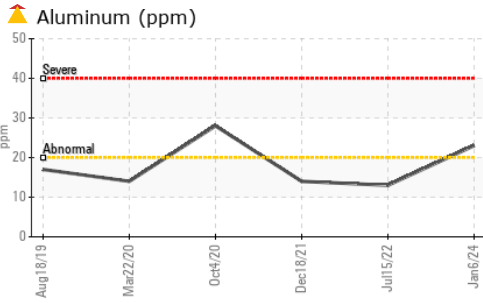
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	1.5	0.7	0.4
Nitration	Abs/cm	*ASTM D7624 >20	28.0	14.9	7.6
Sulfation	Abs/.1mm	*ASTM D7415 >30	51.8	33.0	19.5

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	85.1	36.5	15.6
Base Number (BN)	mg KOH/g	ASTM D2896 8.5	0	4.1	9



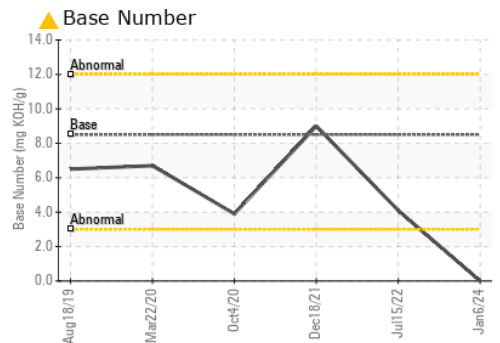
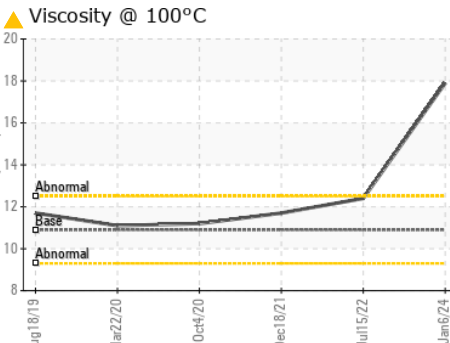
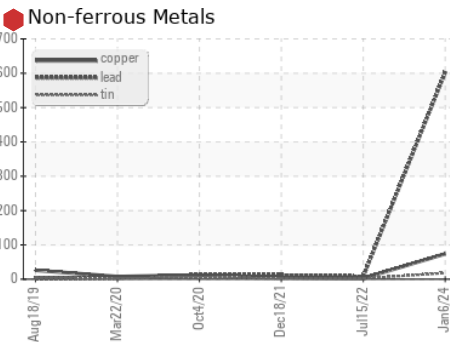
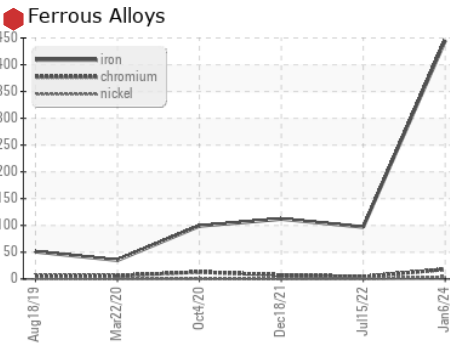
OIL ANALYSIS REPORT



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	▲ 17.9	12.4	11.7

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0876667 **Recieved** : 18 Jan 2024
Lab Number : 06064914 **Diagnosed** : 24 Jan 2024
Unique Number : 10836296 **Diagnostician** : Doug Bogart
Test Package : FLEET

MABE TRUCKING
 PO BOX 1081
 EDEN, NC
 US 27289

Contact: MAINTENANCE
 maintenancemanager@mabetrucking.com

T:
 F: (336)635-1791

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)