

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area ARIZONA GROUPING **MACK 7137** Component

Diesel Engine Fluic

NAPA 15W40 (9 GAL)

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.

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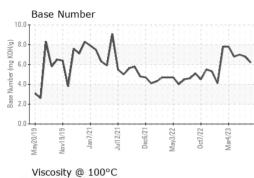


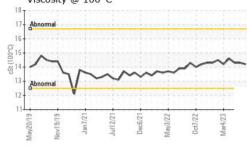
v2019 Nov2019 Jan2021 Jul2021 Dec2021 May2022 Oct2022 Mar2023

Sample Number Client Info VC0820343 WC0820338 WC0820338 Sample Date Client Info 11 Jul 2023 12 Jun 2023 19 May 2023 Machine Age hrs Client Info 384 277 218 Oil Age hrs Client Info Not Changd Not Changd Not Changd Sample Status Client Info Not Changd Not Changd Not Changd GOI CANTAMINATION method inni/base current history history Fuel WC Method >3.0 <1.0 <1.0 <1.0 Glycol WC Method >3.0 <1.0 <1.0 <1.0 Stample METALS method inni/base current historyt historyt Iron ppm ASTM D51555 >2.0 <1 <1 <1 Irtanium ppm ASTM D51555 >2.0 <1 1 <1 Irtanium ppm ASTM D51555 >2.0 <1 1 <1	SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
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Aluminum ppm ASTM D5185m >20 2 <1	Titanium	ppm	ASTM D5185m	>2	0	<1	<1
Lead ppm ASTM D5185m >40 0 0 <1	Silver	ppm	ASTM D5185m	>2	0	0	<1
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Base Number (BN) mg KOH/g ASTM D2896 6.2 6.8 7.0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >20 limit/base >4 >20 >30	93 0 24 <1 51 2208 936 1215 3845 <u>current</u> 8 6 4 <u>current</u> 0.5 8.6 21.5	119 0 23 <1 49 2146 887 1151 3844 history1 7 5 4 history1 0.4 8.0 21.1	132 0 24 <1 101 2041 931 1220 3838 history2 7 5 6 6 history2 0.3 7.5 20.4
	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7844	limit/base >25 >20 limit/base >4 >20 >30 limit/base	93 0 24 <1 51 2208 936 1215 3845 <i>current</i> 8 6 4 <i>current</i> 0.5 8.6 21.5 <i>current</i>	119 0 23 <1 49 2146 887 1151 3844 history1 7 5 4 history1 0.4 8.0 21.1 history1	132 0 24 <1 101 2041 931 1220 3838 history2 7 5 6 history2 0.3 7.5 20.4 history2



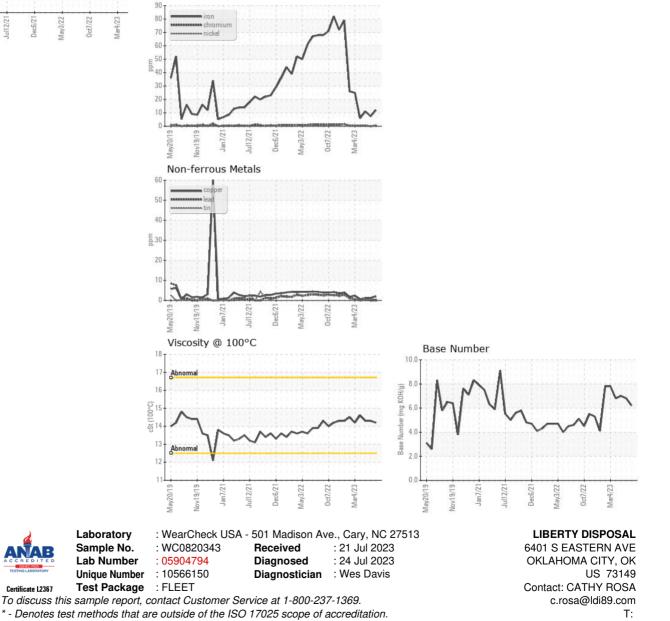
OIL ANALYSIS REPORT





VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPER	TIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445		14.2	14.3	14.3
GRAPHS						

Ferrous Alloys





F: