



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
Rockaway
Machine Id
MACK 6757
Component
Diesel Engine
Fluid
GIBRALTAR 15W/40 SUPER S-3 LX (11)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0858417	WC0840414	WC0774747
Sample Date		Client Info		27 Jun 2024	30 May 2024	01 Sep 2023
Machine Age	hrs	Client Info		201822	175428	175428
Oil Age	hrs	Client Info		19053	175428	175428
Filter Age	hrs	Client Info		19053	175428	175428
Oil Changed		Client Info		N/A	Changed	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	12	25	4
Chromium	ppm	ASTM D5185m	>20	<1	1	0
Nickel	ppm	ASTM D5185m	>5	<1	1	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	0
Silver	ppm	ASTM D5185m	>2	<1	<1	0
Aluminum	ppm	ASTM D5185m	>20	2	4	<1
Lead	ppm	ASTM D5185m	>40	1	2	0
Copper	ppm	ASTM D5185m	>330	2	2	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

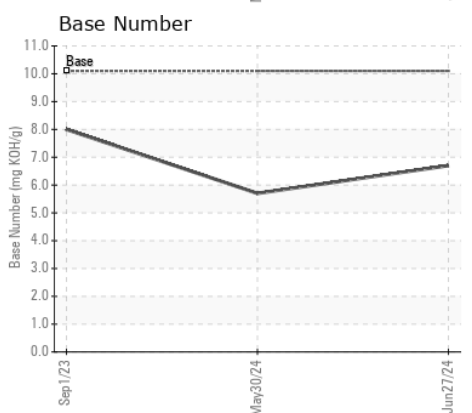
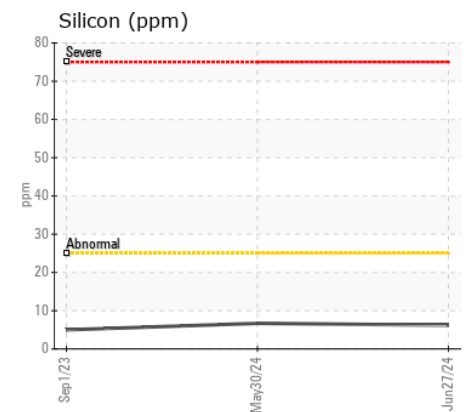
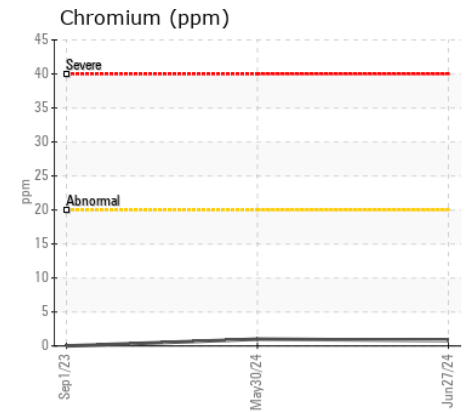
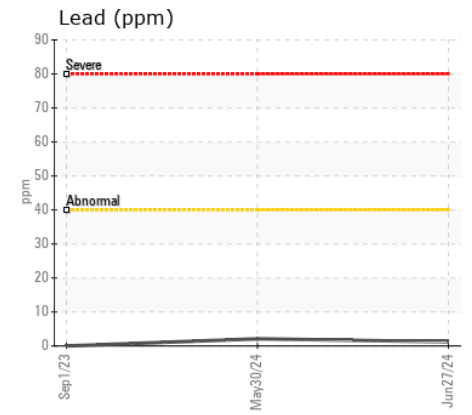
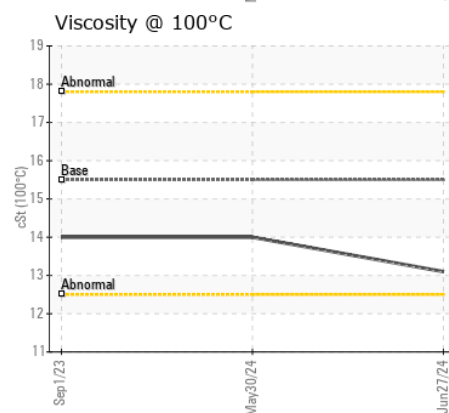
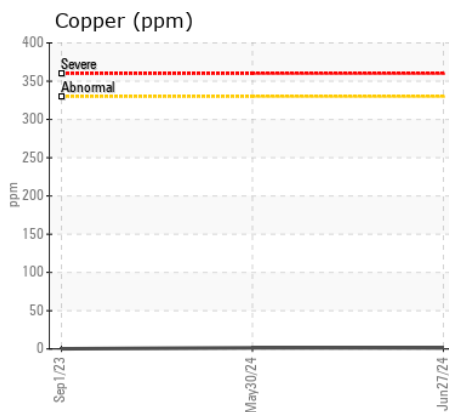
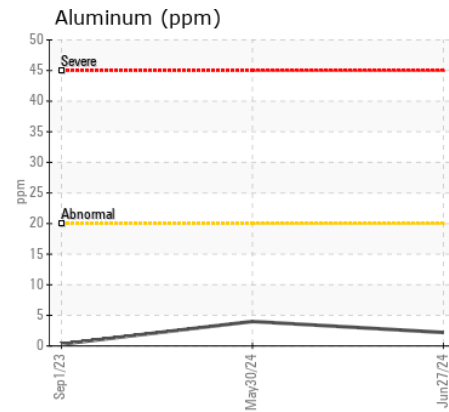
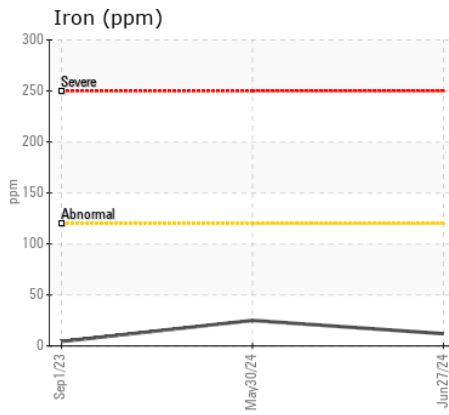
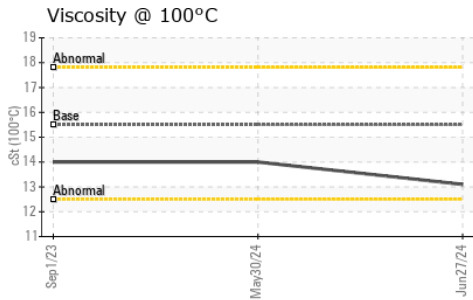
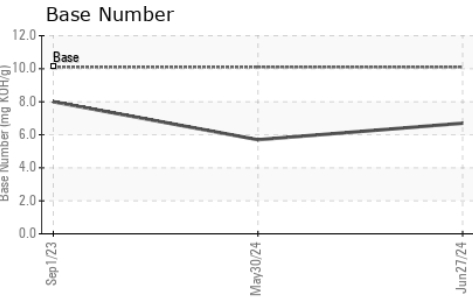
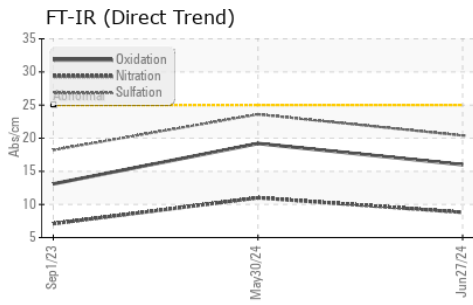
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	7	5
Potassium	ppm	ASTM D5185m	>20	2	6	3
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>4	0.4	0.7	0.3
Nitration	Abs/cm	*ASTM D7624	>20	8.8	11.0	7.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.4	23.6	18.2
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

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.

Sodium	ppm	ASTM D5185m		2	4	1
Boron	ppm	ASTM D5185m		10	7	10
Barium	ppm	ASTM D5185m		1	1	0
Molybdenum	ppm	ASTM D5185m	66	59	64	64
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m	1000	829	799	846
Calcium	ppm	ASTM D5185m	1050	1208	1222	1327
Phosphorus	ppm	ASTM D5185m	1150	1002	961	1007
Zinc	ppm	ASTM D5185m	1270	1200	1220	1255
Sulfur	ppm	ASTM D5185m		3037	2826	3746
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.0	19.2	13.1
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	6.7	5.7	8.0
Visc @ 100°C	cSt	ASTM D445	15.5	13.1	14.0	14.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : WC0858417
 Lab Number : 06223111
 Unique Number : 11101308
 Test Package : MOB 1 (Additional Tests: TBN)

Received : 28 Jun 2024
 Tested : 28 Jun 2024
 Diagnosed : 28 Jun 2024 - Wes Davis

INTERSTATE WASTE-ROCKAWAY
 311 WEST MAIN STREET, STE 8
 ROCKAWAY, NJ
 US 07866
 Contact: Service Manager

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)

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