



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
Rockaway
Machine Id
KENWORTH 1237
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		WC0840413	WC0774752	---
Sample Date		Client Info		15 Jan 2024	03 Nov 2023	---
Machine Age	hrs	Client Info		650	450	---
Oil Age	hrs	Client Info		450	450	---
Filter Age	hrs	Client Info		450	450	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	15	26	---
Chromium	ppm	ASTM D5185m	>20	<1	1	---
Nickel	ppm	ASTM D5185m	>4	<1	<1	---
Titanium	ppm	ASTM D5185m		0	<1	---
Silver	ppm	ASTM D5185m	>3	0	<1	---
Aluminum	ppm	ASTM D5185m	>20	3	4	---
Lead	ppm	ASTM D5185m	>40	2	4	---
Copper	ppm	ASTM D5185m	>330	<1	1	---
Tin	ppm	ASTM D5185m	>15	<1	<1	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

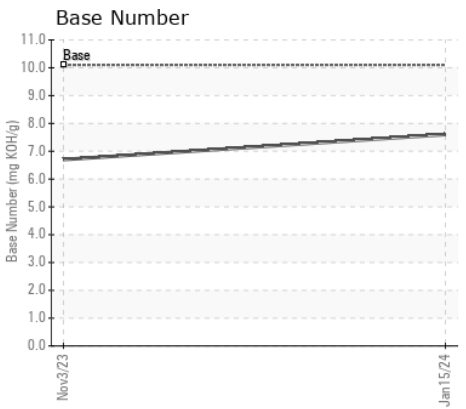
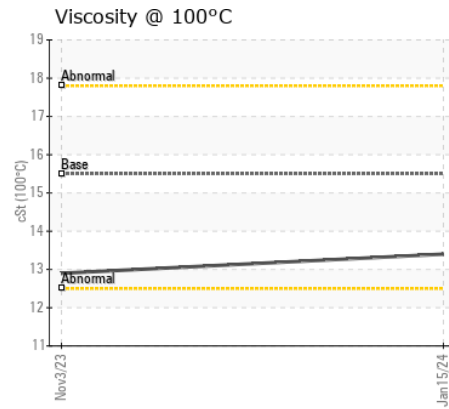
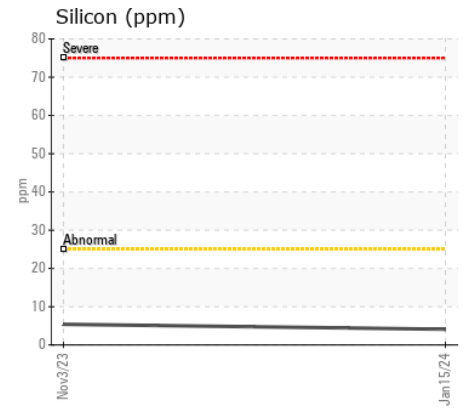
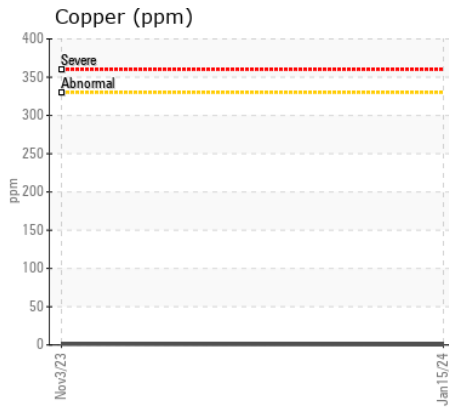
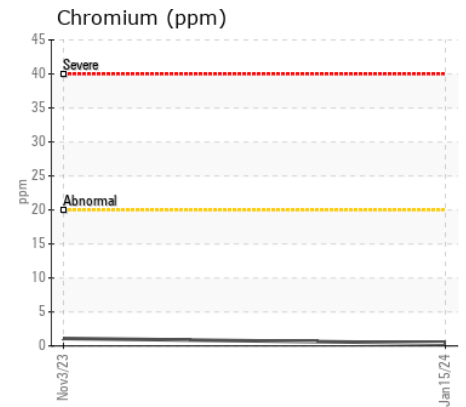
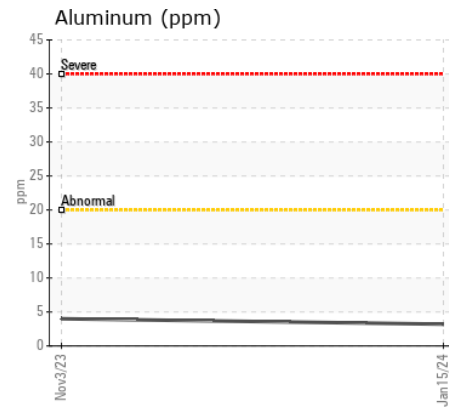
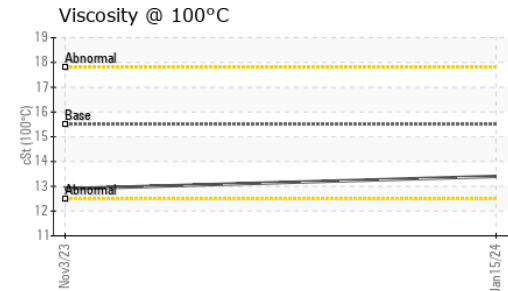
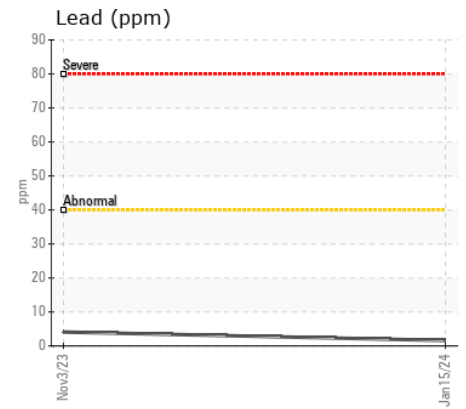
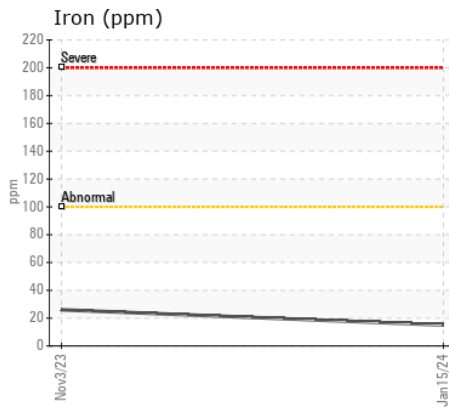
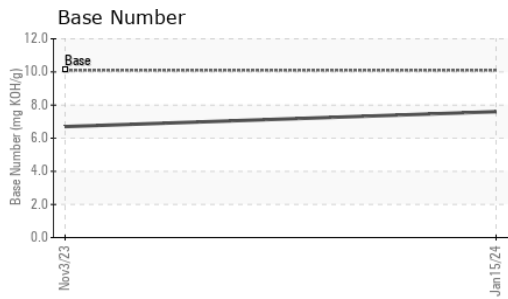
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	4	5	---
Potassium	ppm	ASTM D5185m	>20	6	16	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.3	0.5	---
Nitration	Abs/cm	*ASTM D7624	>20	8.1	10.3	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.3	22.4	---
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	---

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	0	---
Boron	ppm	ASTM D5185m		13	7	---
Barium	ppm	ASTM D5185m		0	<1	---
Molybdenum	ppm	ASTM D5185m	66	62	69	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m	1000	791	806	---
Calcium	ppm	ASTM D5185m	1050	1162	1341	---
Phosphorus	ppm	ASTM D5185m	1150	1032	1014	---
Zinc	ppm	ASTM D5185m	1270	1232	1255	---
Sulfur	ppm	ASTM D5185m		3141	3007	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.1	18.3	---
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	7.6	6.7	---
Visc @ 100°C	cSt	ASTM D445	15.5	13.4	12.9	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0840413 **Received** : 31 Jan 2024
Lab Number : 06075592 **Diagnosed** : 31 Jan 2024
Unique Number : 10857683 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: TBN)

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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F: