



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
275 (S/N 1XKWP4TX1LR400417)

Component
Diesel Engine

Fluid
DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0851037	WC0850994	WC0834225
Sample Date		Client Info		31 Jan 2024	26 Oct 2023	17 Aug 2023
Machine Age	mls	Client Info		0	0	0
Oil Age	mls	Client Info		0	0	20000
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	39	30	66
Chromium	ppm	ASTM D5185m	>20	2	1	2
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	3	2	4
Lead	ppm	ASTM D5185m	>40	3	1	<1
Copper	ppm	ASTM D5185m	>330	1	2	4
Tin	ppm	ASTM D5185m	>15	2	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

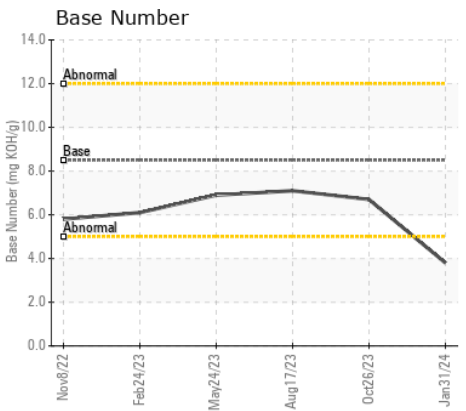
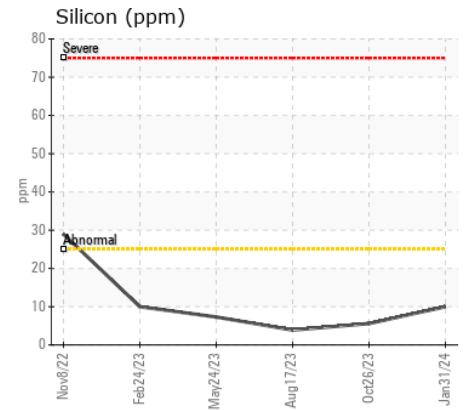
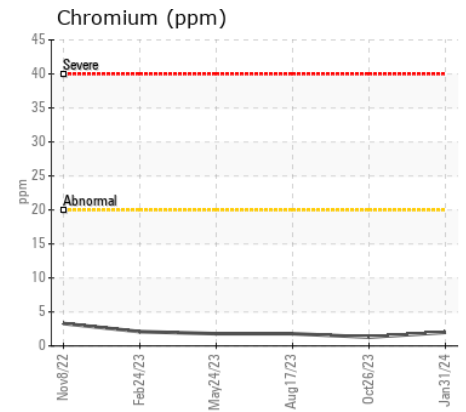
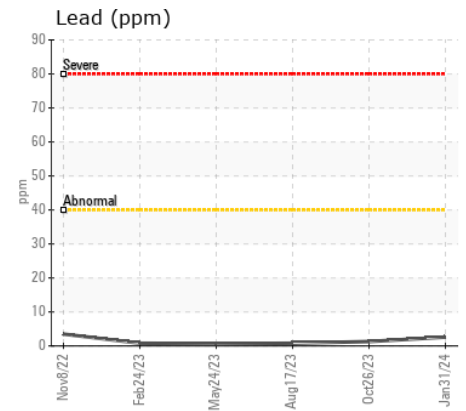
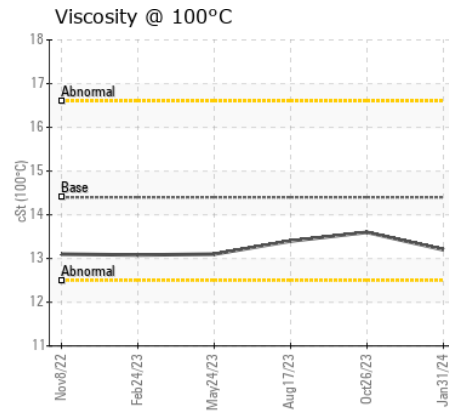
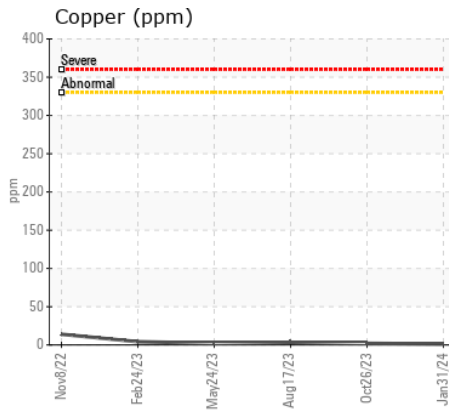
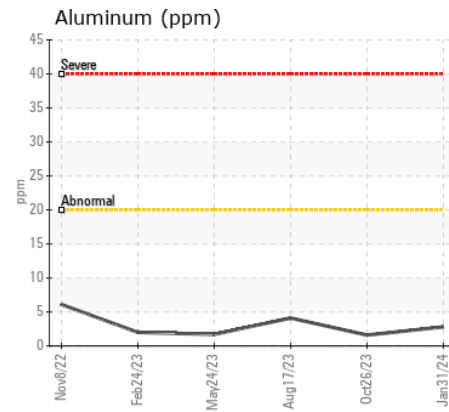
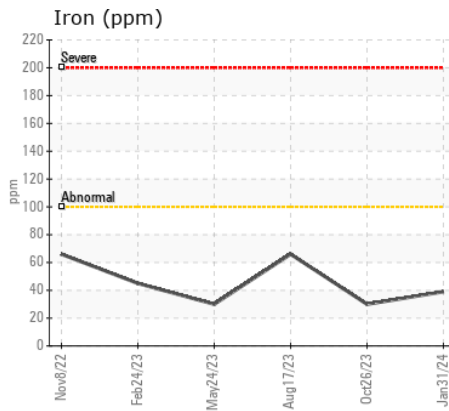
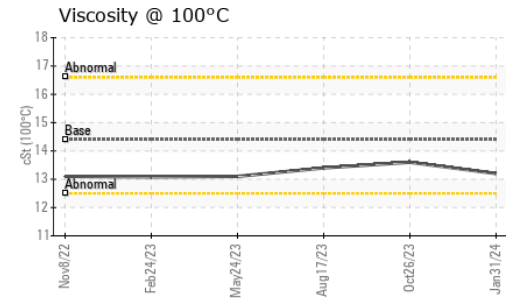
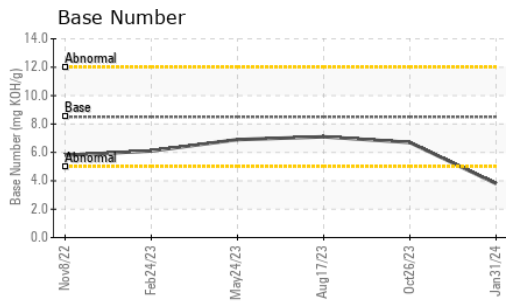
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	10	6	4
Potassium	ppm	ASTM D5185m	>20	1	5	7
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.9	0.9	0.7
Nitration	Abs/cm	*ASTM D7624	>20	12.0	10.5	10.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	28.3	22.8	21.1
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	>216	3	0	4
Boron	ppm	ASTM D5185m	250	11	7	7
Barium	ppm	ASTM D5185m	10	0	4	0
Molybdenum	ppm	ASTM D5185m	100	76	60	64
Manganese	ppm	ASTM D5185m		<1	<1	1
Magnesium	ppm	ASTM D5185m	450	550	873	933
Calcium	ppm	ASTM D5185m	3000	1561	1194	1120
Phosphorus	ppm	ASTM D5185m	1150	1045	1053	1014
Zinc	ppm	ASTM D5185m	1350	1199	1236	1256
Sulfur	ppm	ASTM D5185m	4250	2942	3236	3183
Oxidation	Abs/.1mm	*ASTM D7414	>25	24.8	18.3	17.0
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	3.8	6.7	7.1
Visc @ 100°C	cSt	ASTM D445	14.4	13.2	13.6	13.4



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0851037 **Received** : 01 Feb 2024
Lab Number : 06077418 **Diagnosed** : 02 Feb 2024
Unique Number : 10859509 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: TBN)

MANGUMS INC
 P.O. BOX 7177
 WILSON, NC
 US 27895
 Contact: ALAN BAGLEY
 alanb@mangumsinc.com
 T:
 F:

Certificate L2367
 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)