



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>ABNORMAL</b>
FLUID CONDITION	<b>ABNORMAL</b>

Machine Id  
**G86**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

## RECOMMENDATION

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0874325</b>	WC0783970	WC0758900
Sample Date		Client Info		<b>15 Jun 2024</b>	27 Jul 2023	19 Jan 2023
Machine Age	mls	Client Info		<b>55780</b>	7621	7058
Oil Age	mls	Client Info		<b>0</b>	563	458
Filter Age	mls	Client Info		<b>0</b>	563	458
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	<b>16</b>	10	26
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m	>2	<b>1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185m	>30	<b>3</b>	2	4
Lead	ppm	ASTM D5185m	>30	<b>1</b>	<1	<1
Copper	ppm	ASTM D5185m	>150	<b>14</b>	70	3
Tin	ppm	ASTM D5185m	>5	<b>1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

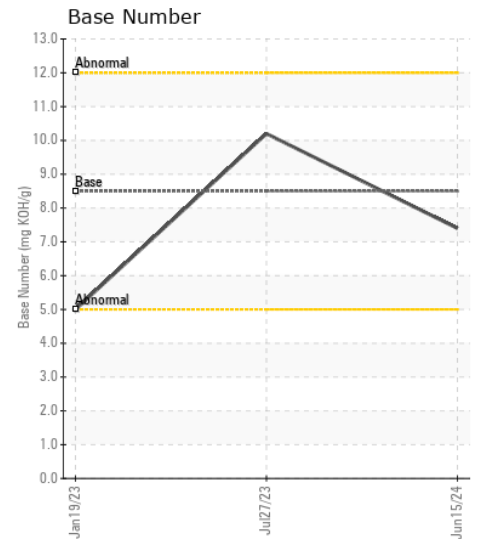
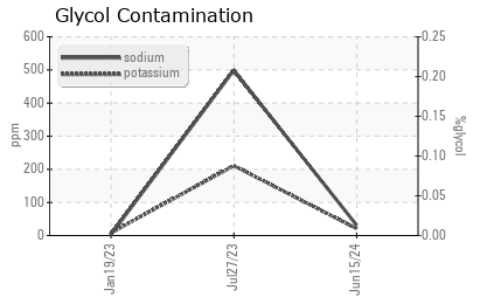
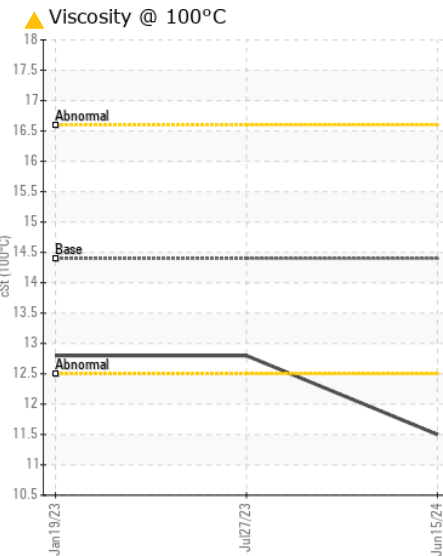
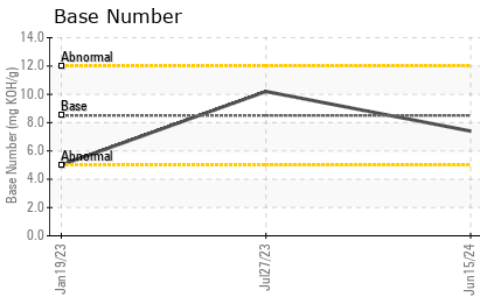
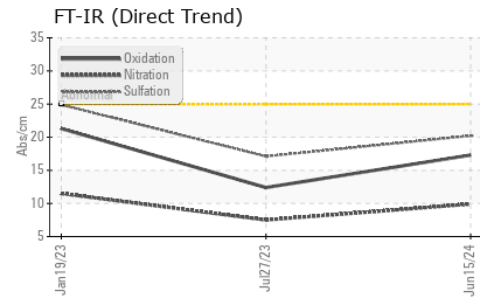
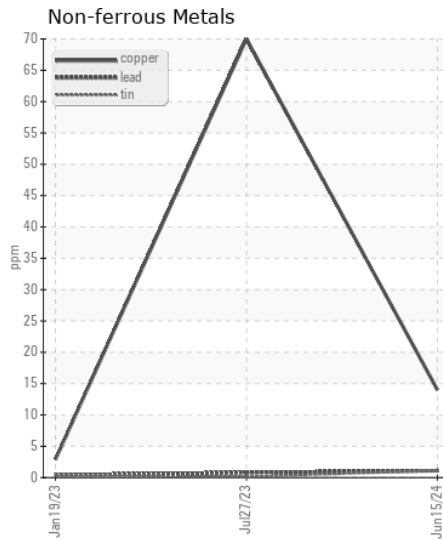
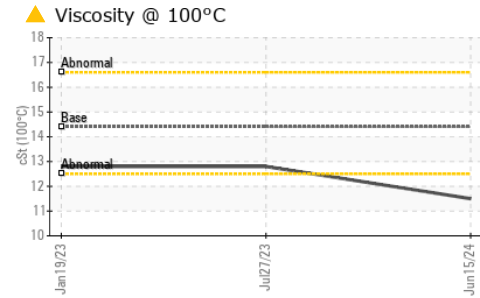
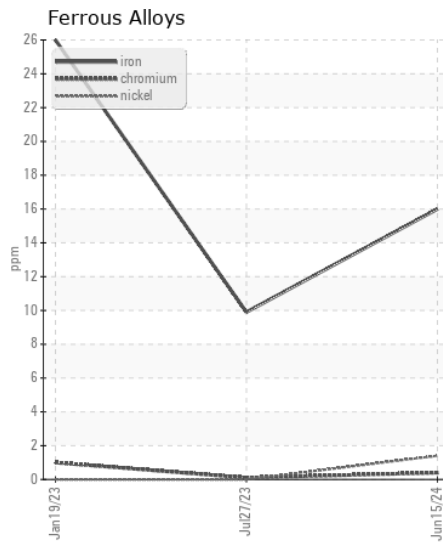
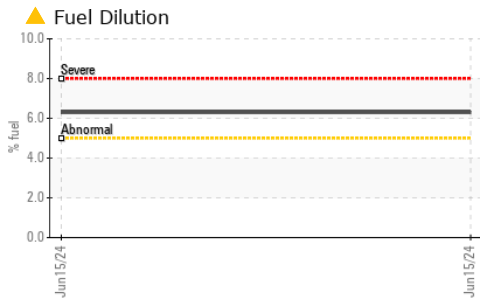
There is a moderate amount of fuel present in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>6</b>	7	6
Potassium	ppm	ASTM D5185m	>20	<b>21</b>	▲ 211	8
Fuel	%	ASTM D3524	>5	▲ <b>6.3</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	%	*ASTM D2982		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	0.1	0.9
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.9</b>	7.5	11.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.2</b>	17.1	24.9
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity.

Sodium	ppm	ASTM D5185m	>158	<b>31</b>	▲ 499	3
Boron	ppm	ASTM D5185m	250	<b>9</b>	9	12
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	100	<b>69</b>	122	75
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m	450	<b>877</b>	747	385
Calcium	ppm	ASTM D5185m	3000	<b>1119</b>	1303	1642
Phosphorus	ppm	ASTM D5185m	1150	<b>980</b>	968	873
Zinc	ppm	ASTM D5185m	1350	<b>1242</b>	1227	1150
Sulfur	ppm	ASTM D5185m	4250	<b>3618</b>	3766	3578
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.3</b>	12.4	21.3
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>7.4</b>	10.2	5.0
Visc @ 100°C	cSt	ASTM D445	14.4	▲ <b>11.5</b>	12.8	12.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0874325

Lab Number : 06225461

Unique Number : 11103658

Test Package : CONST ( Additional Tests: FuelDilution, Glycol, KV40, PercentFuel, TBN )

Received : 01 Jul 2024

Tested : 03 Jul 2024

Diagnosed : 03 Jul 2024 - Don Baldridge

Apple Valley Waste - EHT Location

6626 Delilah Road

Egg Harbor Township, NJ

US 08234

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: