



# OIL ANALYSIS REPORT

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

Machine Id  
**CAPACITY 0891014**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0911081</b>	WC0708121	WC0526014
Sample Date		Client Info		<b>12 Apr 2024</b>	22 Jan 2023	01 Dec 2020
Machine Age	hrs	Client Info		<b>12269</b>	11770	10516
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	N/A
Filter Changed		Client Info		<b>Changed</b>	Changed	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	<b>21</b>	22	19
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	2	2
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	2	0
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	<1	2
Tin	ppm	ASTM D5185m	>15	<b>2</b>	2	2
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

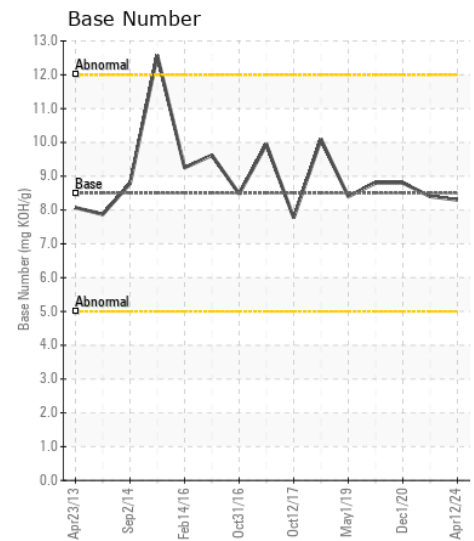
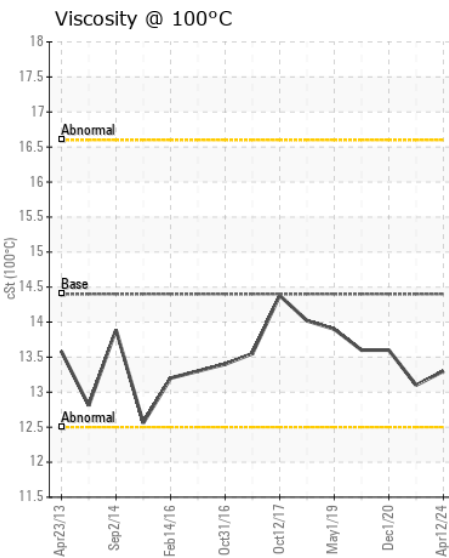
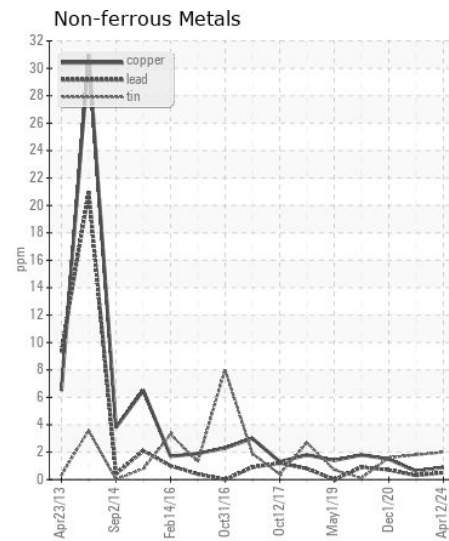
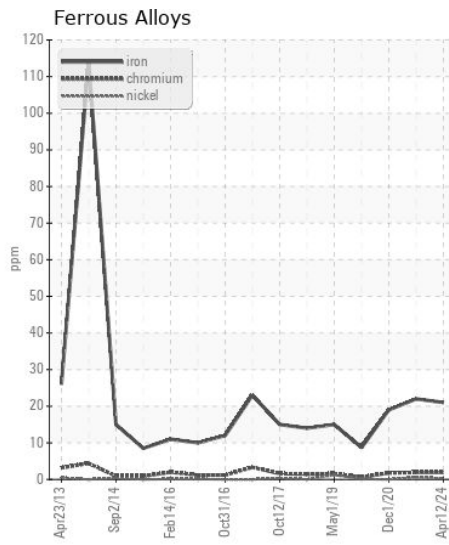
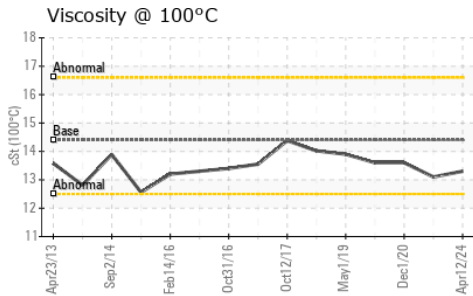
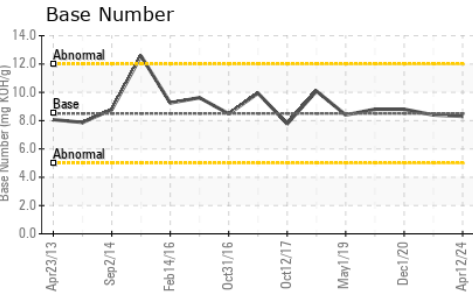
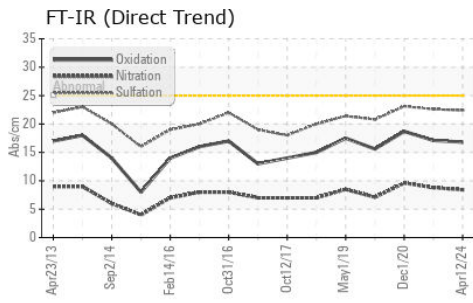
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	6	16
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	3	5
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>6	<b>0.8</b>	0.8	0.7
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.4</b>	8.8	9.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.4</b>	22.6	23.1
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. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>158	<b>5</b>	3	5
Boron	ppm	ASTM D5185m	250	<b>366</b>	306	283
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m	100	<b>90</b>	91	117
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>423</b>	443	540
Calcium	ppm	ASTM D5185m	3000	<b>1407</b>	1542	1513
Phosphorus	ppm	ASTM D5185m	1150	<b>999</b>	1029	752
Zinc	ppm	ASTM D5185m	1350	<b>1225</b>	1285	876
Sulfur	ppm	ASTM D5185m	4250	<b>3572</b>	4069	2269
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.8</b>	17.1	18.7
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>8.3</b>	8.4	8.8
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.3</b>	13.1	13.6



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0911081  
**Lab Number** : 06188470  
**Unique Number** : 11045222  
**Test Package** : FLEET

**Received** : 22 May 2024  
**Tested** : 24 May 2024  
**Diagnosed** : 24 May 2024 - Wes Davis

**DOLE FRESH FRUIT**  
 PO BOX 725, ATTN: MAINTENANCE AND REPAIR  
 NEW CASTLE, DE  
 US 19720

Contact: LUIS LAPIERRE  
 luis.lapierre@dole.com

T: (302)652-6344  
 F: (302)652-6061

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)