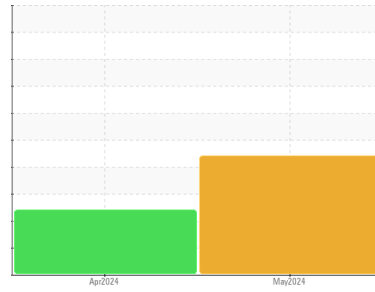




# OIL ANALYSIS REPORT

Sample Rating Trend



**WATER**



Area

**LOADER**

Machine Id

**CL-21**

Component

**Diesel Engine**

Fluid

**CHEVRON DELO 400 LE 15W40 (--- QTS)**

## DIAGNOSIS

### ▲ Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend an early resample to monitor this condition.

### ● Wear

All component wear rates are normal.

### ▲ Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. There is a light concentration of water present in the oil. Moderate concentration of visible dirt/debris present in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0922346</b>	WC0892699	---
Sample Date	Client Info		<b>10 May 2024</b>	01 Apr 2024	---
Machine Age	hrs	Client Info	<b>1304</b>	1250	---
Oil Age	hrs	Client Info	<b>1304</b>	250	---
Oil Changed	Client Info		<b>Not Chngd</b>	Changed	---
Sample Status			<b>ABNORMAL</b>	ABNORMAL	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	▲ 2.2	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	<b>30</b>	96
Chromium	ppm	ASTM D5185m	>20	<1	7
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0
Titanium	ppm	ASTM D5185m		<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0
Aluminum	ppm	ASTM D5185m	>20	● <b>12</b>	16
Lead	ppm	ASTM D5185m	>40	<b>0</b>	3
Copper	ppm	ASTM D5185m	>330	<b>21</b>	188
Tin	ppm	ASTM D5185m	>15	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>442</b>	● 16
Barium	ppm	ASTM D5185m		<b>11</b>	3
Molybdenum	ppm	ASTM D5185m		<b>113</b>	38
Manganese	ppm	ASTM D5185m		<b>3</b>	4
Magnesium	ppm	ASTM D5185m		<b>643</b>	● 489
Calcium	ppm	ASTM D5185m		<b>1760</b>	● 1813
Phosphorus	ppm	ASTM D5185m	1200	<b>780</b>	948
Zinc	ppm	ASTM D5185m	1300	<b>885</b>	1131
Sulfur	ppm	ASTM D5185m	3200	<b>3048</b>	3169

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	▲ <b>25</b>	18
Sodium	ppm	ASTM D5185m		<b>4</b>	3
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	9
Water	%	ASTM D6304	>0.2	▲ <b>0.287</b>	---
ppm Water	ppm	ASTM D6304	>2000	▲ <b>2870</b>	---
Glycol	%	*ASTM D2982		<b>NEG</b>	NEG

## INFRA-RED

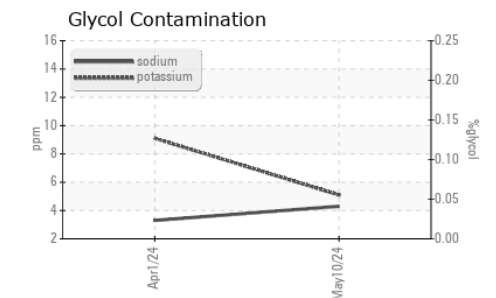
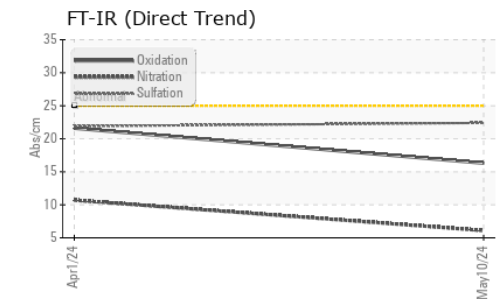
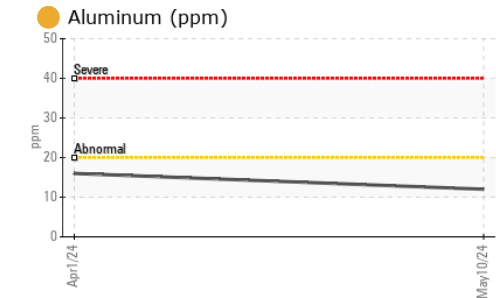
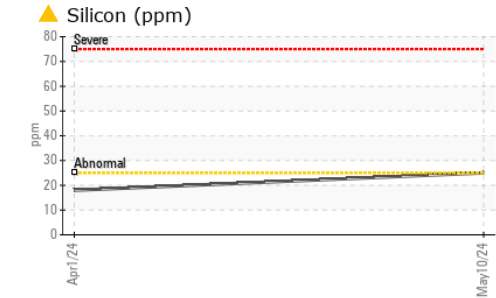
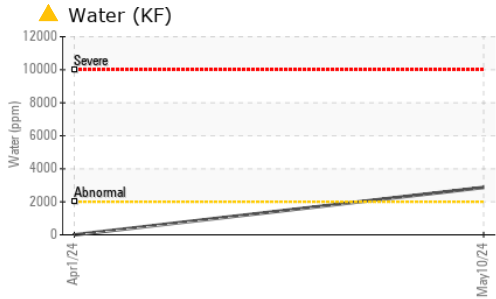
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.1</b>	10.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.4</b>	21.9

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.3</b>	21.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.6	<b>9.3</b>	7.1



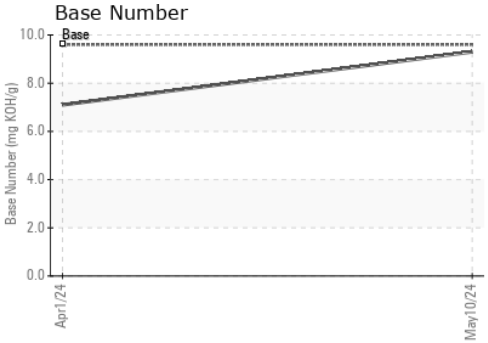
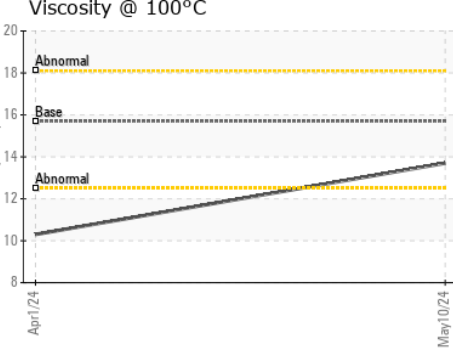
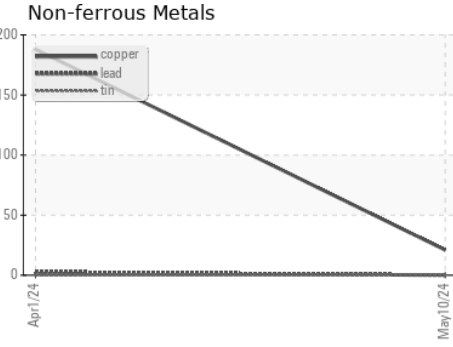
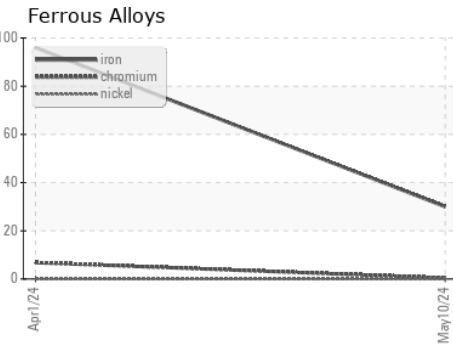
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	▲ MODER	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	▲ 0.2%	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.7	13.7	▲ 10.3

### GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0922346  
**Lab Number** : 06183699  
**Unique Number** : 11035025  
**Test Package** : FLEET ( Additional Tests: Glycol, KF )

**Received** : 17 May 2024  
**Tested** : 21 May 2024  
**Diagnosed** : 21 May 2024 - Sean Felton

**ASSOCIATED TERMINALS - MOBILE EQUIPMENT**

LAPLACE, LA  
 US 70068

Contact: LONNIE BECNEL  
 lbecnel@associatedterminals.com

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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