

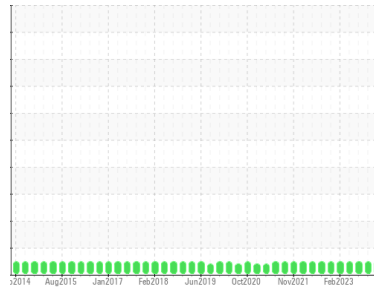


# OIL ANALYSIS REPORT



Area  
**COLORADO/443/EG - LOADER**  
 Machine Id  
**46.69L [COLORADO^443^EG - LOADER]**  
 Component  
**Diesel Engine**  
 Fluid  
**MOBIL DELVAC 1300 SUPER15W40 (--- GAL)**

### Sample Rating Trend



**NORMAL**



### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

#### 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.

### SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0928704</b>	WC0884016	WC0859560
Sample Date	Client Info		<b>31 May 2024</b>	19 Feb 2024	19 Oct 2023
Machine Age	hrs	Client Info	<b>15410</b>	15172	14882
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

### CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	NEG	NEG

### WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>8</b>	15	14
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>2</b>	4	2
Lead	ppm	ASTM D5185m >40	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m >330	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	<1

### ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>68</b>	78	57
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	3
Molybdenum	ppm	ASTM D5185m 0	<b>39</b>	58	46
Manganese	ppm	ASTM D5185m	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m 0	<b>465</b>	733	522
Calcium	ppm	ASTM D5185m	<b>1601</b>	2283	1750
Phosphorus	ppm	ASTM D5185m	<b>747</b>	1080	786
Zinc	ppm	ASTM D5185m	<b>866</b>	1308	955
Sulfur	ppm	ASTM D5185m	<b>2554</b>	3799	2822

### CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>4</b>	6	4
Sodium	ppm	ASTM D5185m	<b>0</b>	2	0
Potassium	ppm	ASTM D5185m >20	<b>1</b>	2	1
Fuel	%	ASTM D3524 >5	<b>&lt;1.0</b>	<1.0	<1.0

### INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.5</b>	0.7	0.8
Nitration	Abs/cm	*ASTM D7624 >20	<b>6.7</b>	7.4	7.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>22.5</b>	22.9	23.9

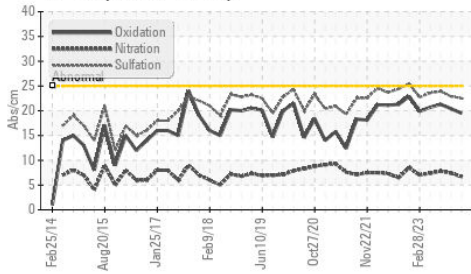
### FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>19.5</b>	20.4	21.3
Base Number (BN)	mg KOH/g	ASTM D2896 9.4	<b>9.5</b>	9.7	9.6

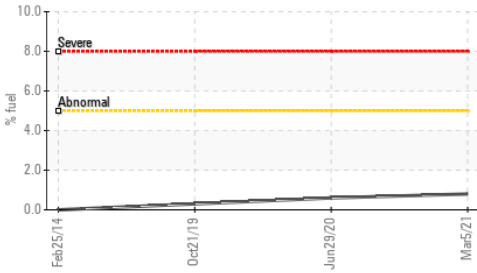


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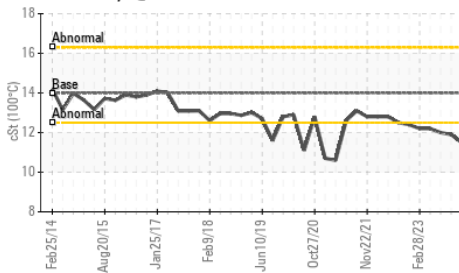
FT-IR (Direct Trend)



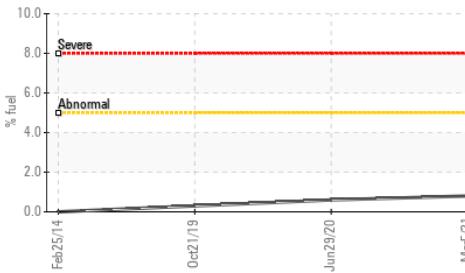
Fuel Dilution



Viscosity @ 100°C



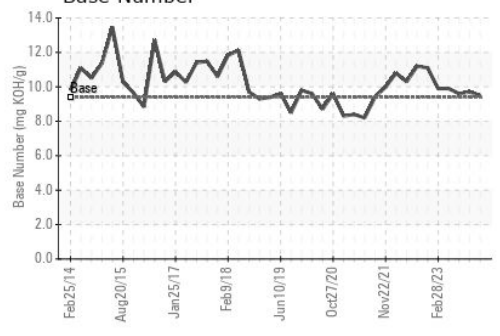
Fuel Dilution



Viscosity @ 100°C



Base Number

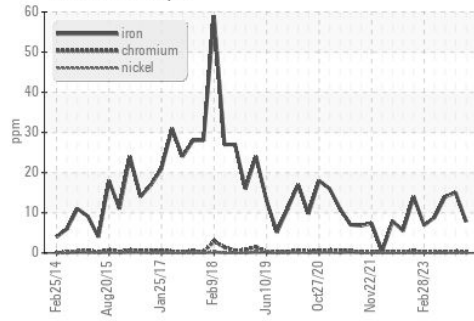


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

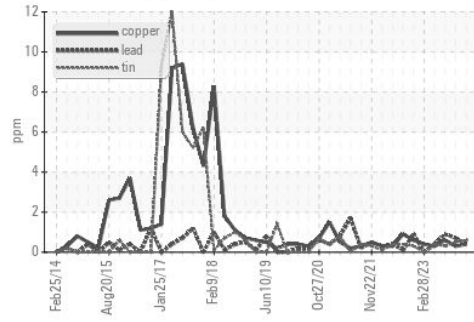
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445 14	11.5	11.9	12.0

## GRAPHS

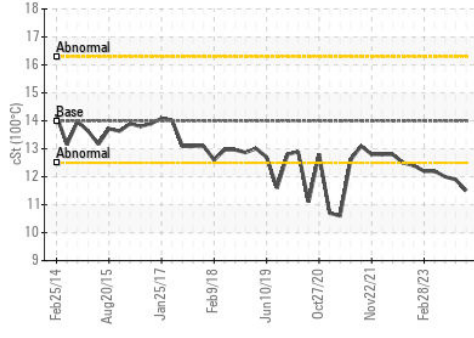
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Certificate L2367

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

Sample No. : WC0928704

Lab Number : 06207644

Unique Number : 11075105

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

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)

Received : 12 Jun 2024

Tested : 14 Jun 2024

Diagnosed : 14 Jun 2024 - Angela Borella

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