



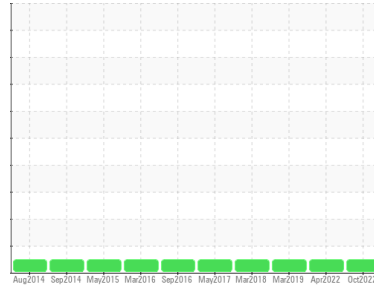
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**GEN OIL SAMPLE**  
 Machine Id  
**CATERPILLAR PLANT 3516 GEN**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 15W40 (80 GAL)**



## DIAGNOSIS

### Recommendation

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

### Wear

Metal levels are typical for a new component breaking in.

### 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>WC0749225</b>	WC0685694	WCI2330202
Sample Date	Client Info		<b>06 Oct 2022</b>	13 Apr 2022	05 Mar 2019
Machine Age	hrs	Client Info	<b>903</b>	880	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Not Chngd</b>	N/A	N/A
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>6	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>4</b>	4	3
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m >2	<b>2</b>	1	1
Silver	ppm	ASTM D5185m >2	<b>&lt;1</b>	<1	0
Aluminum	ppm	ASTM D5185m >25	<b>1</b>	<1	1
Lead	ppm	ASTM D5185m >40	<b>8</b>	2	1
Copper	ppm	ASTM D5185m >330	<b>211</b>	139	34
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	<1
Antimony	ppm	ASTM D5185m	<b>---</b>	---	0
Vanadium	ppm	ASTM D5185m	<b>1</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 250	<b>35</b>	36	36
Barium	ppm	ASTM D5185m 10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 100	<b>23</b>	19	19
Manganese	ppm	ASTM D5185m	<b>1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 450	<b>339</b>	329	311
Calcium	ppm	ASTM D5185m 3000	<b>1972</b>	1977	1885
Phosphorus	ppm	ASTM D5185m 1150	<b>1062</b>	984	941
Zinc	ppm	ASTM D5185m 1350	<b>1208</b>	1160	1041
Sulfur	ppm	ASTM D5185m 4250	<b>4293</b>	3174	3745

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>4</b>	3	3
Sodium	ppm	ASTM D5185m >158	<b>6</b>	5	6
Potassium	ppm	ASTM D5185m >20	<b>1</b>	0	3

## INFRA-RED

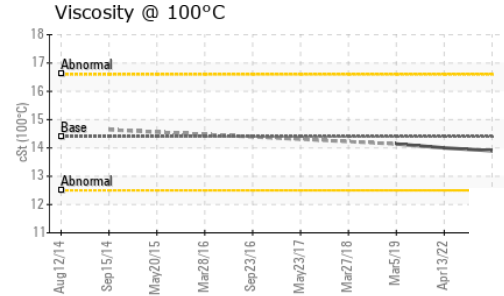
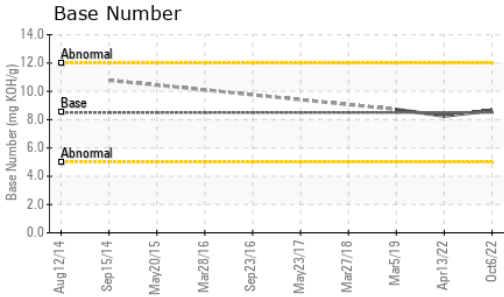
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>8.2</b>	8.2	6.5
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>21.7</b>	21.4	18.4

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>18.1</b>	17.7	14.7
Base Number (BN)	mg KOH/g	ASTM D2896 8.5	<b>8.65</b>	8.25	8.72



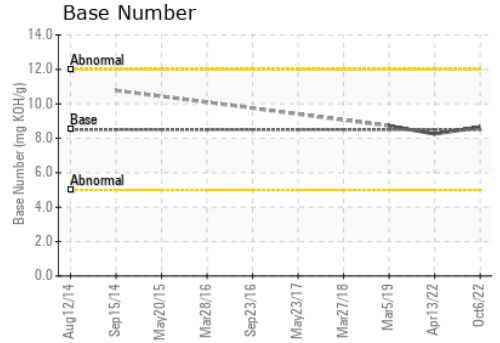
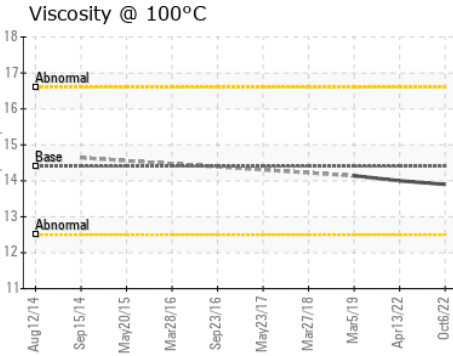
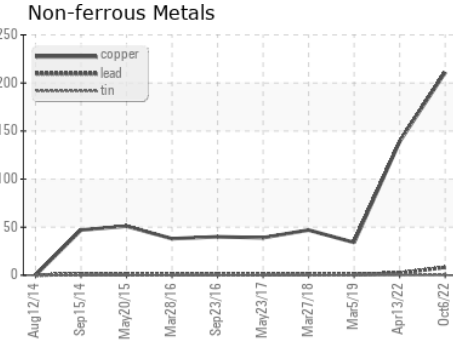
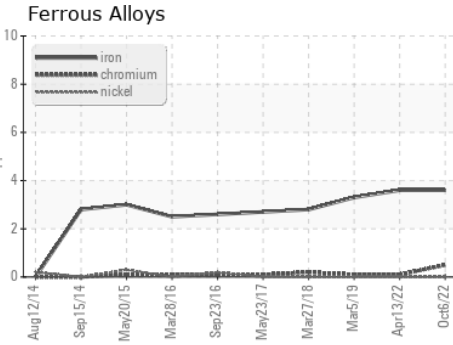
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	LIGHT
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	14.4	<b>13.9</b>	14.0	14.14

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0749225 **Received** : 07 Oct 2022  
**Lab Number** : 05660991 **Diagnosed** : 10 Oct 2022  
**Unique Number** : 10165560 **Diagnostician** : Wes Davis  
**Test Package** : IND 2

**NORTH CARY WATER RECLAMATION FACILITY**  
 1900 OLD REEDY CREEK RD  
 CARY, NC  
 US 27513  
 Contact: BRIAN CARTWRIGHT  
 brian.cartwright@townofcary.org  
 T: (919)677-0850  
 F: (919)677-0920

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)