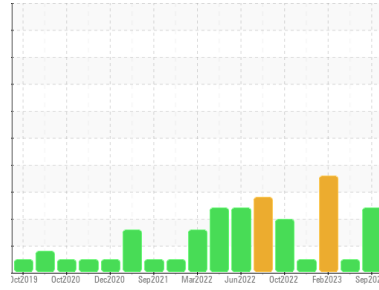




# OIL ANALYSIS REPORT

Sample Rating Trend



Area  
**GUAY SON [CONHER]**  
 Machine Id  
**BM CHUYITO 29 IBACO**  
 Component  
**Bottom Diesel Engine**  
 Fluid  
**XTRA REV 15W40 (160 LTR)**

## DIAGNOSIS

### Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is a high amount of particulates 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 suitable for further service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>KL0012854</b>	KL0012249	KL0011350
Sample Date	Client Info	<b>21 Sep 2023</b>	23 Jun 2023	24 Feb 2023
Machine Age	hrs	<b>10838</b>	10828	0
Oil Age	hrs	<b>10</b>	3	0
Oil Changed	Client Info	<b>Not Chngd</b>	Not Chngd	N/A
Sample Status		<b>ABNORMAL</b>	NORMAL	ABNORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<b>&lt;1.0</b>	1.1	▲ 4.3
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	<b>6</b>	4	9
Chromium	ppm ASTM D5185m >20	<b>0</b>	0	<1
Nickel	ppm ASTM D5185m >4	<b>0</b>	0	0
Titanium	ppm ASTM D5185m	<b>&lt;1</b>	0	0
Silver	ppm ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>3</b>	3	<1
Lead	ppm ASTM D5185m >40	<b>0</b>	0	2
Copper	ppm ASTM D5185m >330	<b>4</b>	4	1
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	0	<1
Vanadium	ppm ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm ASTM D5185m	<b>0</b>	<1	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	<b>85</b>	82	25
Barium	ppm ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m	<b>34</b>	34	15
Manganese	ppm ASTM D5185m	<b>&lt;1</b>	0	<1
Magnesium	ppm ASTM D5185m	<b>27</b>	21	67
Calcium	ppm ASTM D5185m	<b>3192</b>	3156	2944
Phosphorus	ppm ASTM D5185m	<b>922</b>	869	1189
Zinc	ppm ASTM D5185m	<b>1093</b>	1000	1505
Sulfur	ppm ASTM D5185m	<b>3452</b>	3590	4503

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>9</b>	6	8
Sodium	ppm ASTM D5185m	<b>2</b>	0	3
Potassium	ppm ASTM D5185m >20	<b>0</b>	2	2

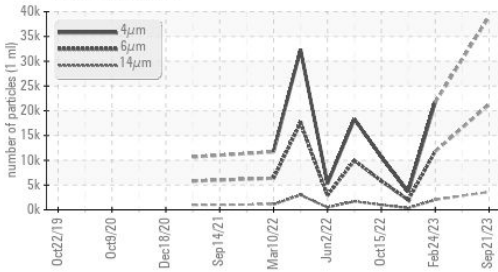
## INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.1</b>	0.1	0.2
Nitration	Abs/cm *ASTM D7624 >20	<b>5.9</b>	5.7	10.2
Sulfation	Abs./1mm *ASTM D7415 >30	<b>14.4</b>	15.1	20.0

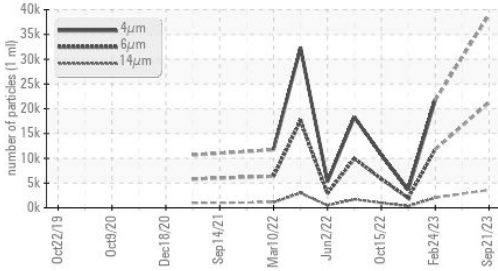


# OIL ANALYSIS REPORT

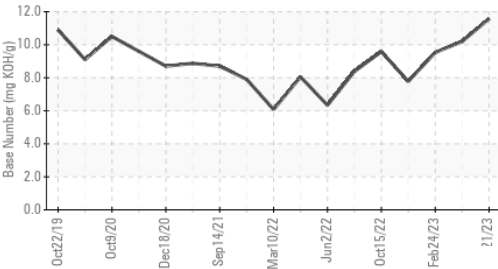
▲ Particle Trend



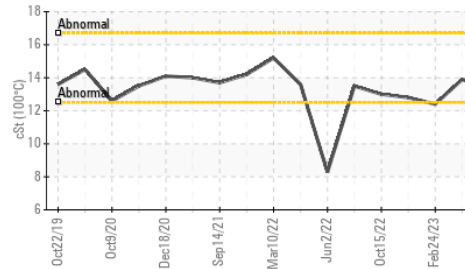
▲ Particle Trend



Base Number



Viscosity @ 100°C



**FLUID CLEANLINESS**    method    limit/base    current    history1    history2

Particles >4µm	ASTM D7647		<b>39061</b>	---	21688
Particles >6µm	ASTM D7647	>5000	<b>▲ 21279</b>	---	▲ 11815
Particles >14µm	ASTM D7647	>640	<b>▲ 3621</b>	---	▲ 2011
Particles >21µm	ASTM D7647	>160	<b>▲ 1220</b>	---	▲ 677
Particles >38µm	ASTM D7647	>40	<b>▲ 188</b>	---	▲ 105
Particles >71µm	ASTM D7647	>10	<b>▲ 19</b>	---	▲ 11
Oil Cleanliness	ISO 4406 (c)	>19/16	<b>▲ 22/19</b>	---	▲ 21/18

**FLUID DEGRADATION**    method    limit/base    current    history1    history2

Oxidation	Abs./1mm	*ASTM D7414	>25	<b>10.0</b>	11.1	15.8
Base Number (BN)	mg KOH/g	ASTM D2896		<b>11.58</b>	10.2	9.53

**VISUAL**    method    limit/base    current    history1    history2

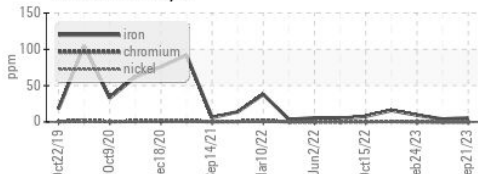
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	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
Free Water	scalar	*Visual		<b>NEG</b>	NEG	NEG

**FLUID PROPERTIES**    method    limit/base    current    history1    history2

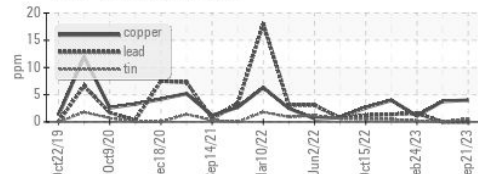
Visc @ 100°C	cSt	ASTM D445		<b>13.3</b>	13.9	▲ 12.4
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**GRAPHS**

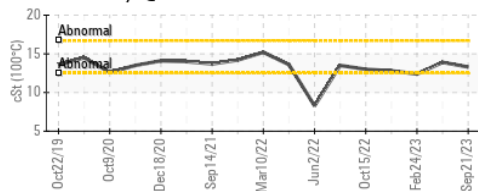
Ferrous Alloys



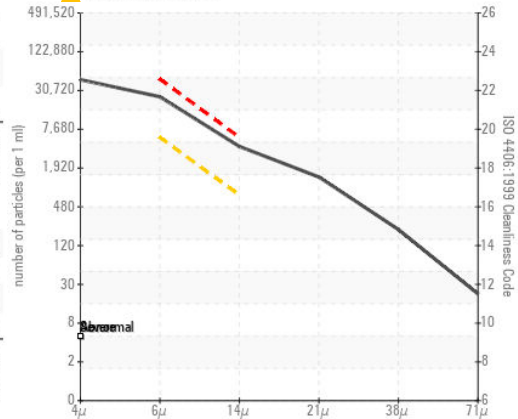
Non-ferrous Metals



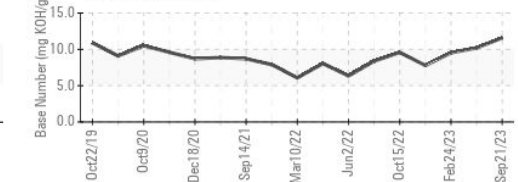
Viscosity @ 100°C



▲ Particle Count



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KL0012854    **Received** : 29 Sep 2023  
**Lab Number** : 05964792    **Diagnosed** : 03 Oct 2023  
**Unique Number** : 10671343    **Diagnostician** : Angela Borella  
**Test Package** : MOB 2 ( Additional Tests: PrtCount )

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)

**CONOR**  
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