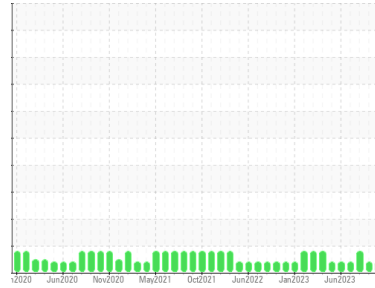


Machine Id  
**Press #2 6561082**

Component  
**Hydraulic System**

Fluid  
**KLUBER KLUBEROIL 4 UH1-46 N (251 GAL)**



**DIAGNOSIS**

**Recommendation**

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

**Wear**

All component wear rates are normal.

**Contamination**

MPC (Membrane Patch Colorimetry) test indicates a moderate concentration of varnish present. The amount and size of particulates present in the system are acceptable.

**Fluid Condition**

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

**SAMPLE INFORMATION**

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>PTK0004808</b>	PTK0004792	PTK0004802
Sample Date	Client Info		<b>19 Sep 2023</b>	06 Sep 2023	21 Aug 2023
Machine Age	hrs	Client Info	<b>60216</b>	59988	59614
Oil Age	hrs	Client Info	<b>14429</b>	14201	13827
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Sample Status			<b>ABNORMAL</b>	ABNORMAL	SEVERE

**WEAR METALS**

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	<b>4</b>	5	4
Chromium	ppm	ASTM D5185m >10	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >10	<b>0</b>	<1	<1
Lead	ppm	ASTM D5185m >10	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m >75	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m >10	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	<1	<1

**ADDITIVES**

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>0</b>	0	0
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	<b>0</b>	<1	6
Calcium	ppm	ASTM D5185m	<b>2</b>	<1	0
Phosphorus	ppm	ASTM D5185m	<b>74</b>	79	76
Zinc	ppm	ASTM D5185m	<b>25</b>	24	36
Sulfur	ppm	ASTM D5185m	<b>6</b>	53	37

**CONTAMINANTS**

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Sodium	ppm	ASTM D5185m	<b>0</b>	1	1
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	3	2

**FLUID CLEANLINESS**

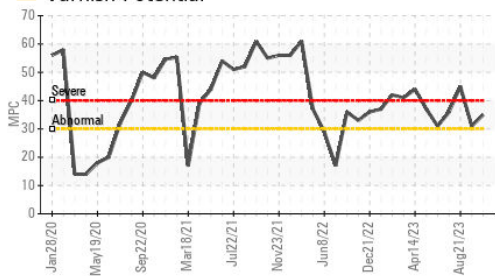
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>176</b>	409	202
Particles >6µm	ASTM D7647	>1300	<b>47</b>	53	63
Particles >14µm	ASTM D7647	>160	<b>7</b>	5	8
Particles >21µm	ASTM D7647	>40	<b>2</b>	1	3
Particles >38µm	ASTM D7647	>10	<b>0</b>	0	0
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>15/13/10</b>	16/13/10	15/13/10

**FLUID DEGRADATION**

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>0.43</b>	0.42	0.3
MPC Varnish Potential	Scale	ASTM D7843 >15	<b>▲ 35</b>	▲ 31	● 45

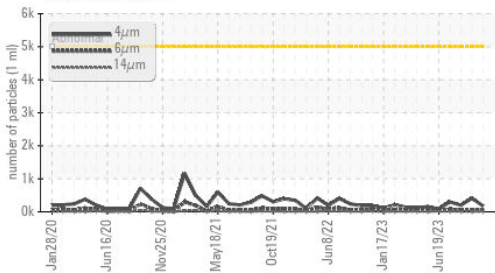
# OIL ANALYSIS REPORT

### ▲ Varnish Potential



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	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

### Particle Trend



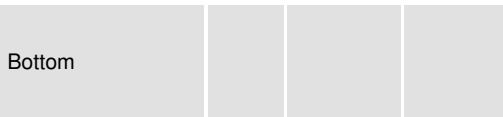
FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445	46	<b>45.7</b>	45.8	45.6

SAMPLE IMAGES	method	limit/base	current	history1	history2
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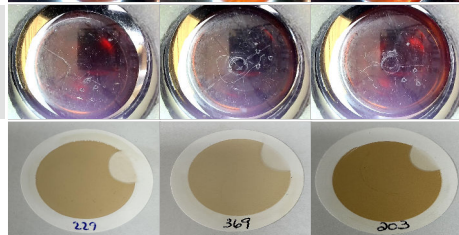
Color



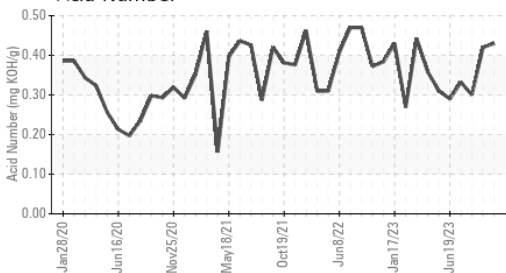
Bottom



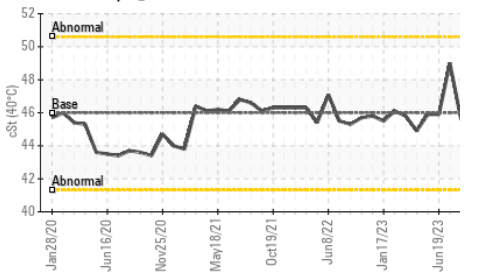
MPC



### Acid Number

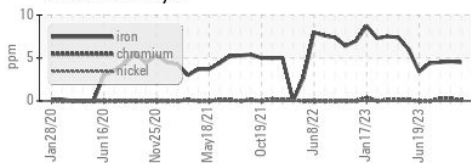


### Viscosity @ 40°C

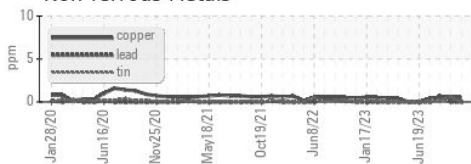


### GRAPHS

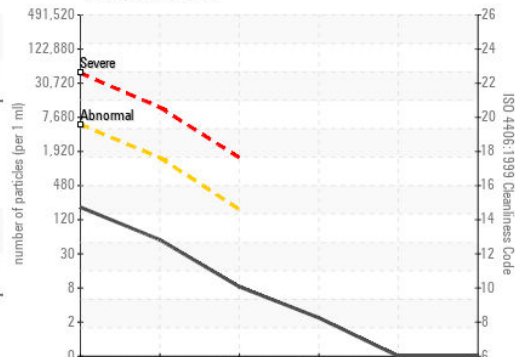
#### Ferrous Alloys



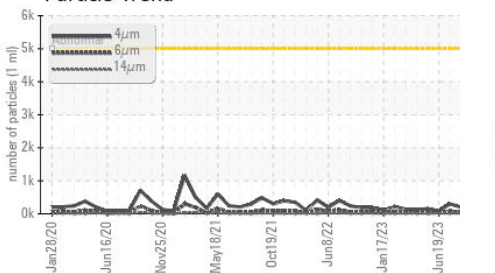
#### Non-ferrous Metals



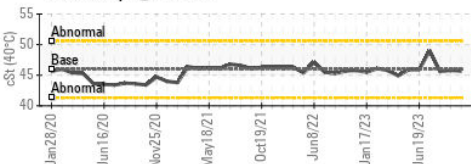
#### Particle Count



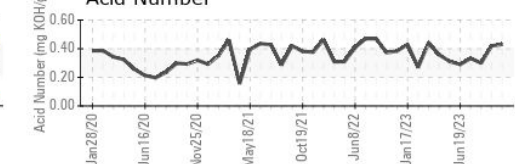
### Particle Trend



#### Viscosity @ 40°C



#### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PTK0004808 **Received** : 02 Oct 2023  
**Lab Number** : 05966229 **Diagnosed** : 10 Oct 2023  
**Unique Number** : 10672780 **Diagnostician** : Doug Bogart  
**Test Package** : MOB 2 ( Additional Tests: MPC )

**NIAGARA BOTTLING**  
 11031 88TH AVE  
 PLEASANT PRAIRIE, WI  
 US 53158  
 Contact: AJ

To discuss this sample report, contact Customer Service at 1-800-237-1369.

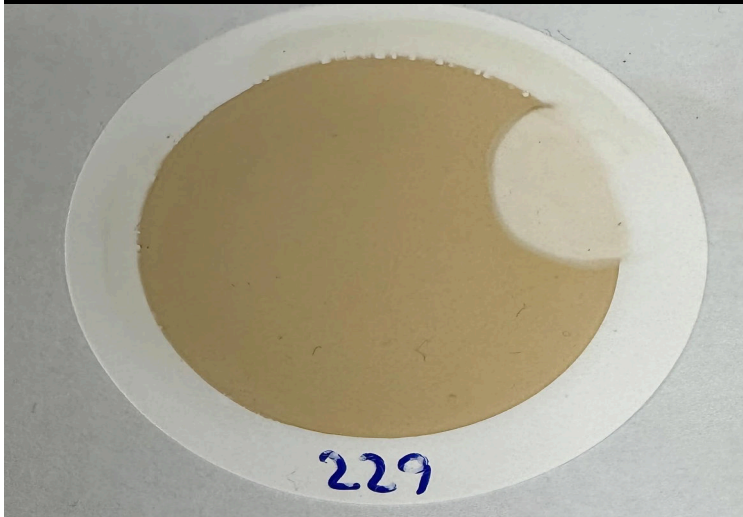
\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T: (909)239-7599

F:

MPC (Varnish Test)



Sample Color & Clarity



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