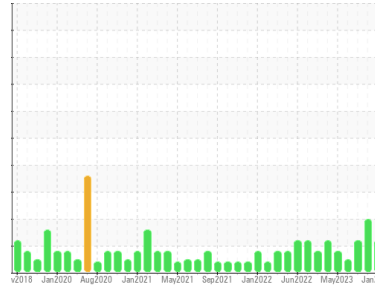




# OIL ANALYSIS REPORT

Sample Rating Trend



INSOLUBLES



Machine Id  
**PRESS 2**

Component  
**Main Hydraulic System**

Fluid  
**TEXACO RANDO OIL HD 68 (--- QTS)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please submit a sample of the new (unused) oil to establish a new baseline.

### Wear

All component wear rates are normal.

### Contamination

MPC (Membrane Patch Colorimetry) test indicates a light concentration of varnish present. There is a moderate amount of silt (particulates < 6 microns in size) present in the oil.

### Fluid Condition

Linear Sweep Voltammetry (RULER – ASTM D6971) testing indicates normal levels of anti-oxidants present in the oil. 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>WC0887692</b>	WC0887683	WC0782204
Sample Date	Client Info	<b>15 Jan 2024</b>	10 Dec 2023	03 Nov 2023
Machine Age	hrs	<b>0</b>	0	0
Oil Age	hrs	<b>0</b>	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>ATTENTION</b>	SEVERE	ABNORMAL

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >20	<b>3</b>	2	1
Chromium	ppm	ASTM D5185m >20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m >20	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>1</b>	0	0
Lead	ppm	ASTM D5185m >20	<b>1</b>	2	2
Copper	ppm	ASTM D5185m >20	<b>13</b>	12	11
Tin	ppm	ASTM D5185m >20	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 0.2	<b>0</b>	0	0
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m 0	<b>90</b>	114	104
Calcium	ppm	ASTM D5185m 49	<b>90</b>	88	85
Phosphorus	ppm	ASTM D5185m 247	<b>438</b>	451	414
Zinc	ppm	ASTM D5185m 323	<b>493</b>	538	520
Sulfur	ppm	ASTM D5185m 4717	<b>1248</b>	1344	1238

## CONTAMINANTS

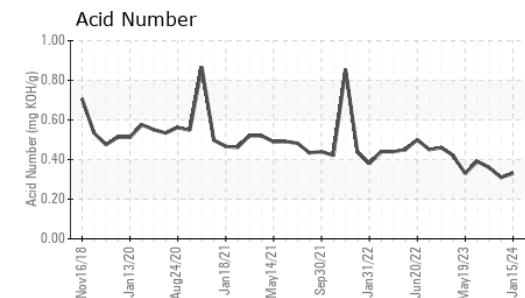
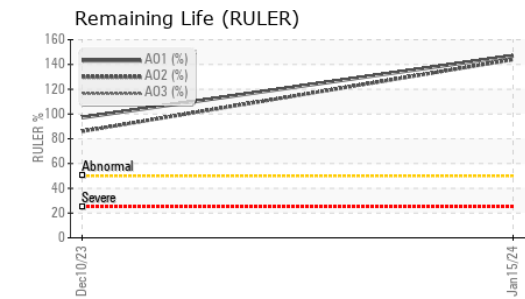
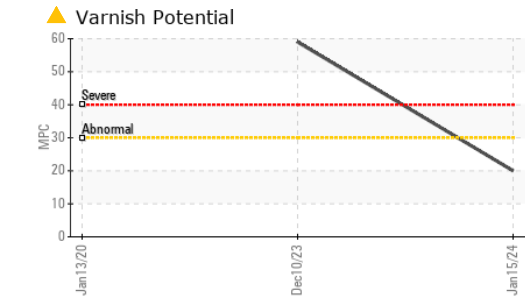
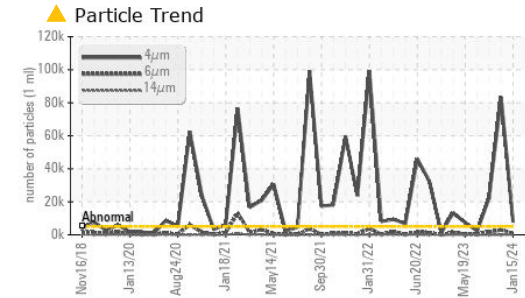
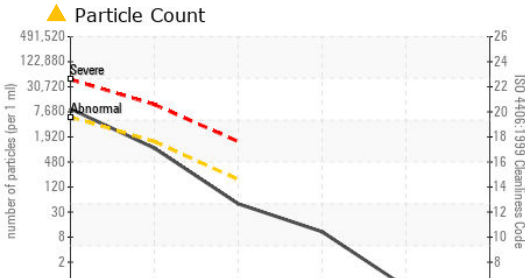
method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >15	<b>1</b>	<1	0
Sodium	ppm	ASTM D5185m	<b>1</b>	2	3
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	0
Water	%	ASTM D6304 >0.05	<b>0.003</b>	0.004	---
ppm Water	ppm	ASTM D6304 >500	<b>40</b>	40	---

## INFRA-RED

method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	<b>0</b>	0	0
Nitration	Abs/cm	*ASTM D7624	<b>2.1</b>	2.1	2.1
Sulfation	Abs/.1mm	*ASTM D7415	<b>10.3</b>	10.1	10.1



# OIL ANALYSIS REPORT



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0887692 **Received** : 17 Jan 2024  
**Lab Number** : 06062679 **Diagnosed** : 25 Jan 2024  
**Unique Number** : 10834061 **Diagnostician** : Doug Bogart  
**Test Package** : AOM 1 ( Additional Tests: FT-IR, KF )

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)

**KAISER ALUMINUM**  
 1901 REYMET RD  
 NORTH CHESTERFIELD, VA  
 US 23237  
 Contact: Yong Quan  
 Yong.Quan@kaiseraluminum.com  
 T: (804)743-6485  
 F:

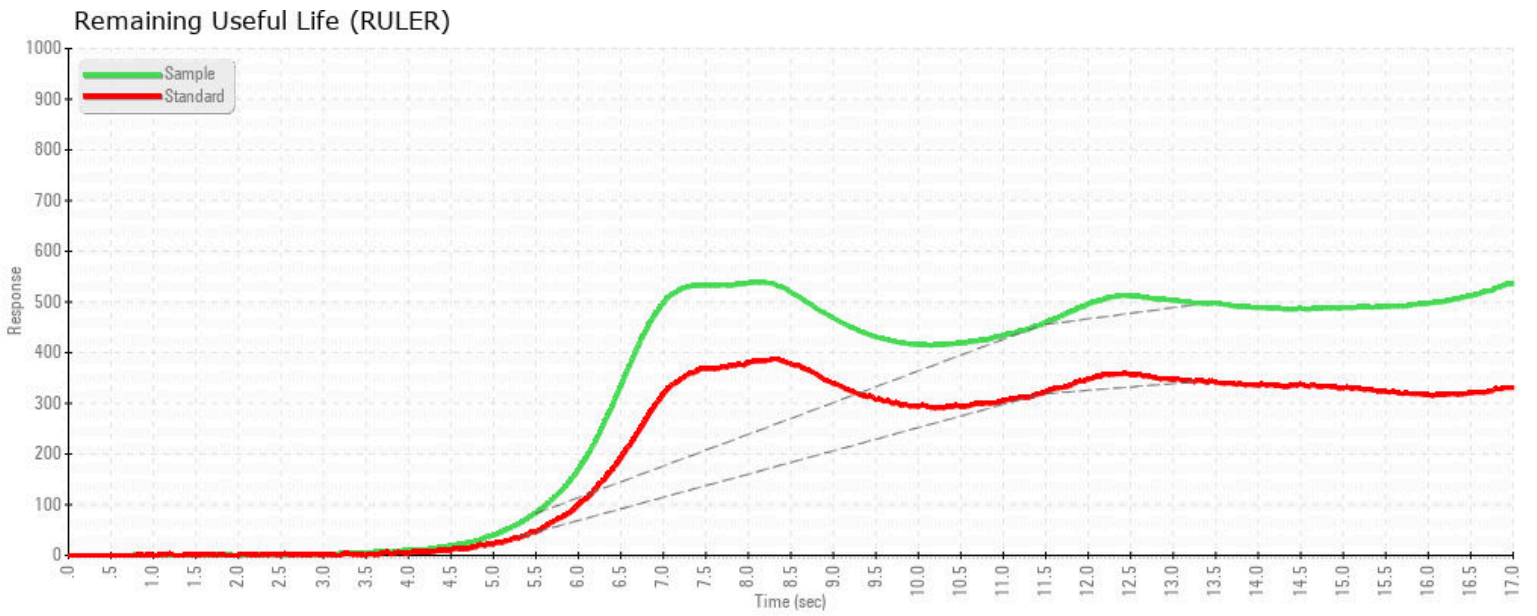
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ 7884	▲ 83384	▲ 22388
Particles >6µm	ASTM D7647	>1300	904	▲ 2896	▲ 1825
Particles >14µm	ASTM D7647	>160	42	27	27
Particles >21µm	ASTM D7647	>40	9	4	5
Particles >38µm	ASTM D7647	>10	0	0	1
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 20/17/13	▲ 24/19/12	▲ 22/18/12

FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs./1mm *ASTM D7414		1.8	1.8	1.7
Acid Number (AN)	mg KOH/g ASTM D8045		0.33	0.31	0.36
Anti-Oxidant 1	% ASTM D6971	<25	147	97	---
Anti-Oxidant 2	% ASTM D6971	<25	144	86	---
MPC Varnish Potential	Scale ASTM D7843	>15	▲ 20	◆ 59	---

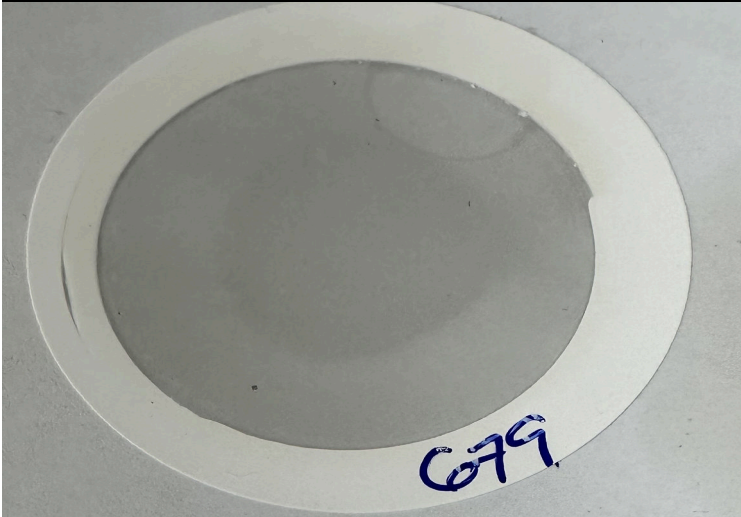
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar *Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar *Visual	NONE	NONE	NONE	NONE
Precipitate	scalar *Visual	NONE	NONE	NONE	NONE
Silt	scalar *Visual	NONE	NONE	NONE	NONE
Debris	scalar *Visual	NONE	NONE	NONE	LIGHT
Sand/Dirt	scalar *Visual	NONE	NONE	NONE	NONE
Appearance	scalar *Visual	NORML	NORML	NORML	NORML
Odor	scalar *Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar *Visual	>0.05	NEG	NEG	NEG
Free Water	scalar *Visual		NEG	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt ASTM D445	65.5	70.1	70.0	70.8

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					
MPC					



MPC (Varnish Test)



Sample Color & Clarity



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