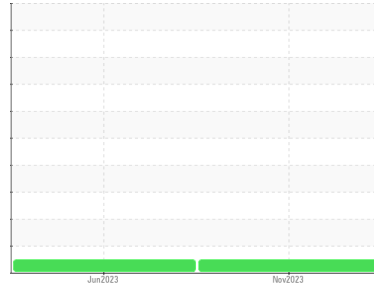




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**WC-9259-0105-5 Chiller #5**  
 Component  
**Chiller**  
 Fluid  
**YORK TYPE K (--- GAL)**

## 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. 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 acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0836492</b>	WC0784797	---
Sample Date	Client Info		<b>13 Nov 2023</b>	19 Jun 2023	---
Machine Age	hrs	Client Info	<b>13970</b>	13839	---
Oil Age	hrs	Client Info	<b>0</b>	0	---
Oil Changed	Client Info		<b>N/A</b>	N/A	---
Sample Status			<b>NORMAL</b>	NORMAL	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >8	<b>0</b>	2	---
Chromium	ppm	ASTM D5185m >2	<b>0</b>	0	---
Nickel	ppm	ASTM D5185m	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m	<b>0</b>	0	---
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m >3	<b>0</b>	0	---
Lead	ppm	ASTM D5185m >2	<b>0</b>	0	---
Copper	ppm	ASTM D5185m >8	<b>0</b>	<1	---
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	0	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>0</b>	0	---
Barium	ppm	ASTM D5185m 0	<b>0</b>	<1	---
Molybdenum	ppm	ASTM D5185m 0	<b>0</b>	0	---
Manganese	ppm	ASTM D5185m 0	<b>0</b>	0	---
Magnesium	ppm	ASTM D5185m 0	<b>0</b>	0	---
Calcium	ppm	ASTM D5185m 0	<b>0</b>	0	---
Phosphorus	ppm	ASTM D5185m 5	<b>1</b>	0	---
Zinc	ppm	ASTM D5185m 0	<b>0</b>	0	---
Sulfur	ppm	ASTM D5185m 10	<b>10</b>	0	---

## CONTAMINANTS

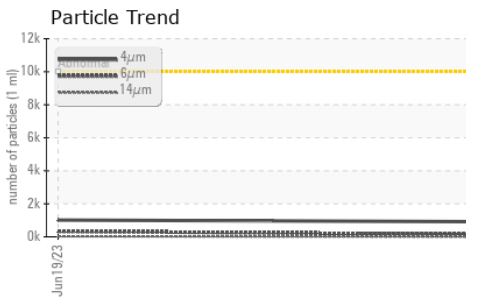
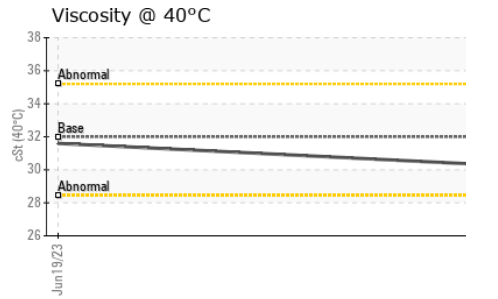
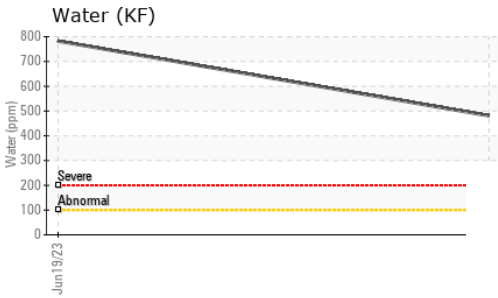
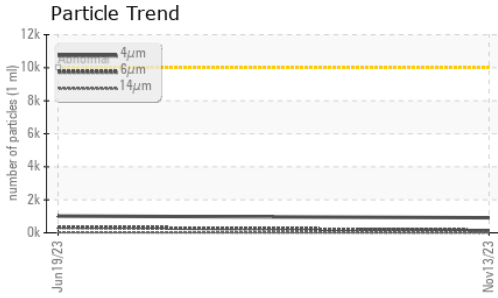
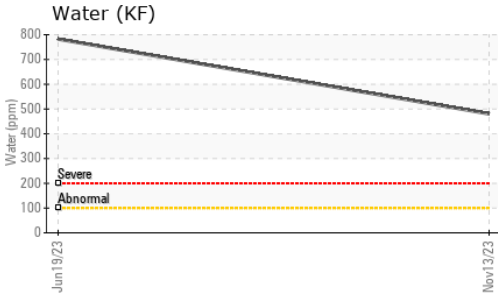
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>6</b>	9	---
Sodium	ppm	ASTM D5185m	<b>0</b>	0	---
Potassium	ppm	ASTM D5185m >20	<b>0</b>	0	---
Water	%	ASTM D6304 >0.01	<b>0.048</b>	0.078	---
ppm Water	ppm	ASTM D6304 >100	<b>480.4</b>	782.4	---

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	<b>914</b>	1015	---
Particles >6µm	ASTM D7647	>2500	<b>132</b>	335	---
Particles >14µm	ASTM D7647	>320	<b>7</b>	30	---
Particles >21µm	ASTM D7647	>80	<b>2</b>	8	---
Particles >38µm	ASTM D7647	>20	<b>0</b>	0	---
Particles >71µm	ASTM D7647	>4	<b>0</b>	0	---
Oil Cleanliness	ISO 4406 (c)	>20/18/15	<b>17/14/10</b>	17/16/12	---

## FLUID DEGRADATION

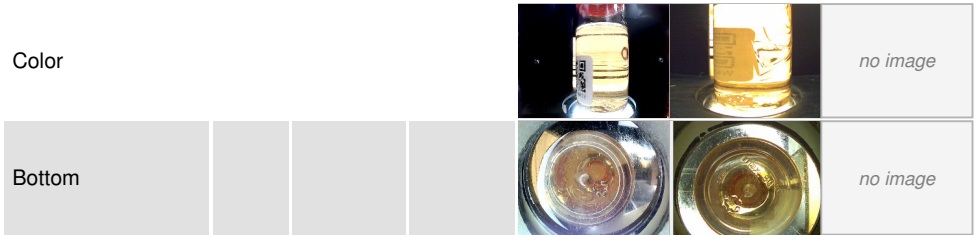
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.03	<b>0.016</b>	0.031	---



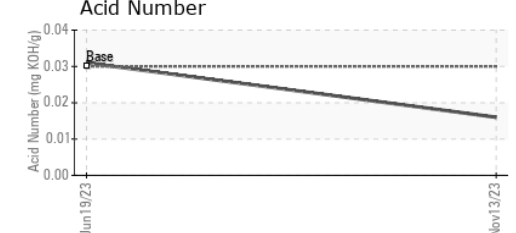
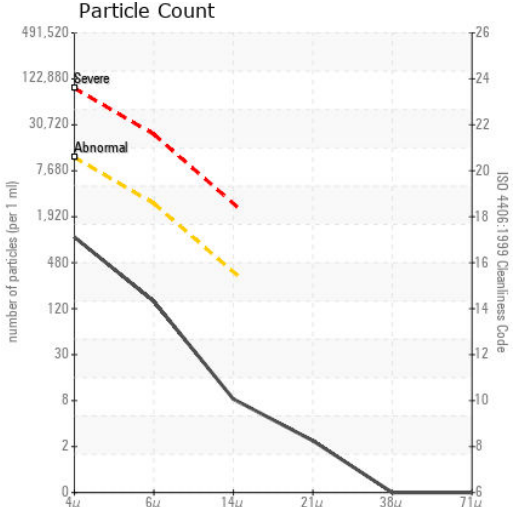
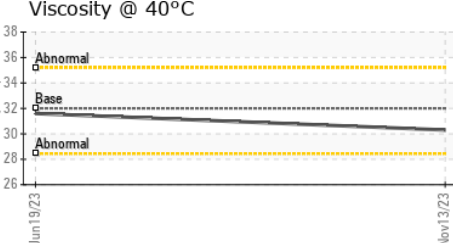
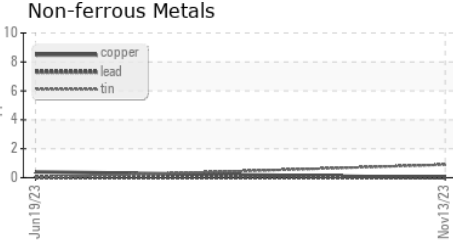
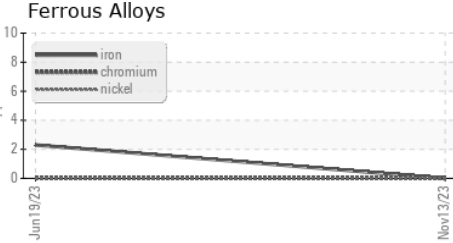
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.01	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	32.0	30.3	31.6

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0836492 **Received** : 17 Nov 2023  
**Lab Number** : 06010952 **Diagnosed** : 20 Nov 2023  
**Unique Number** : 10750096 **Diagnostician** : Doug Bogart  
**Test Package** : PLANT

**Chugach Consolidated Solutions - NSA**  
 10840 Guilford Road, Suites 406-407  
 Annapolis Junction, MD  
 US 20701  
 Contact: Susan Nord  
 susan.nord@chugachgov.com  
 T: (301)688-6363  
 F: (443)479-5666

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)