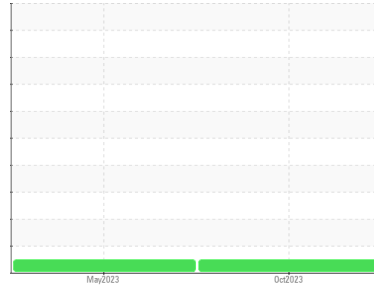




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
WC-9960-0102-5 Chiller #2
 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 suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0836511	WC0784785	---
Sample Date	Client Info		12 Oct 2023	03 May 2023	---
Machine Age	hrs	Client Info	0	47775	---
Oil Age	hrs	Client Info	0	0	---
Oil Changed	Client Info		N/A	N/A	---
Sample Status			NORMAL	NORMAL	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >8	0	0	---
Chromium	ppm	ASTM D5185m >2	0	0	---
Nickel	ppm	ASTM D5185m	0	0	---
Titanium	ppm	ASTM D5185m	0	0	---
Silver	ppm	ASTM D5185m >2	0	0	---
Aluminum	ppm	ASTM D5185m >3	0	6	---
Lead	ppm	ASTM D5185m >2	0	0	---
Copper	ppm	ASTM D5185m >8	0	0	---
Tin	ppm	ASTM D5185m >4	<1	0	---
Vanadium	ppm	ASTM D5185m	0	0	---
Cadmium	ppm	ASTM D5185m	0	0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	---
Barium	ppm	ASTM D5185m	0	0	---
Molybdenum	ppm	ASTM D5185m	0	0	---
Manganese	ppm	ASTM D5185m	<1	0	---
Magnesium	ppm	ASTM D5185m	0	2	---
Calcium	ppm	ASTM D5185m	1	0	---
Phosphorus	ppm	ASTM D5185m	<1	<1	---
Zinc	ppm	ASTM D5185m	0	0	---
Sulfur	ppm	ASTM D5185m	9	0	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	4	4	---
Sodium	ppm	ASTM D5185m	<1	0	---
Potassium	ppm	ASTM D5185m >20	0	1	---
Water	%	ASTM D6304 >0.01	0.035	0.047	---
ppm Water	ppm	ASTM D6304 >100	357.4	472.6	---

FLUID CLEANLINESS

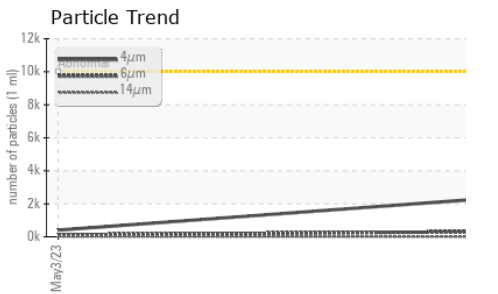
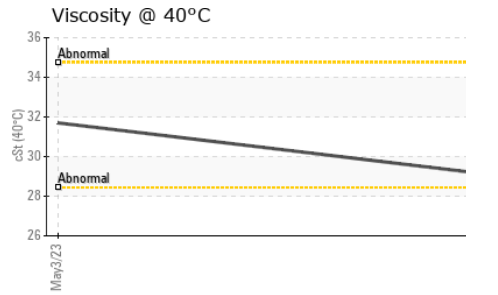
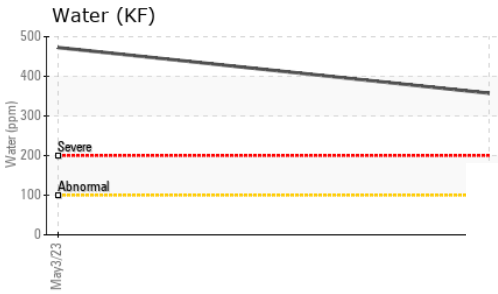
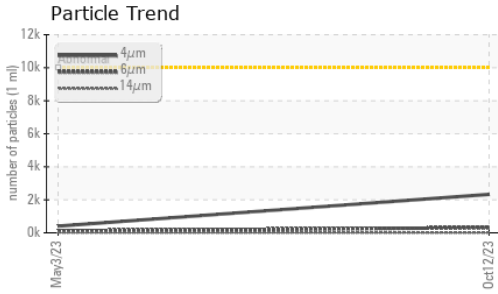
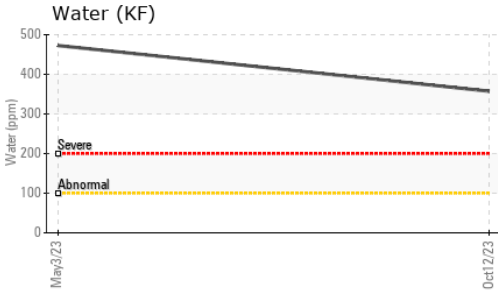
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	2329	407	---
Particles >6µm	ASTM D7647	>2500	310	119	---
Particles >14µm	ASTM D7647	>320	14	17	---
Particles >21µm	ASTM D7647	>80	3	4	---
Particles >38µm	ASTM D7647	>20	1	0	---
Particles >71µm	ASTM D7647	>4	0	0	---
Oil Cleanliness	ISO 4406 (c)	>20/18/15	18/15/11	16/14/11	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.012	0.015	---



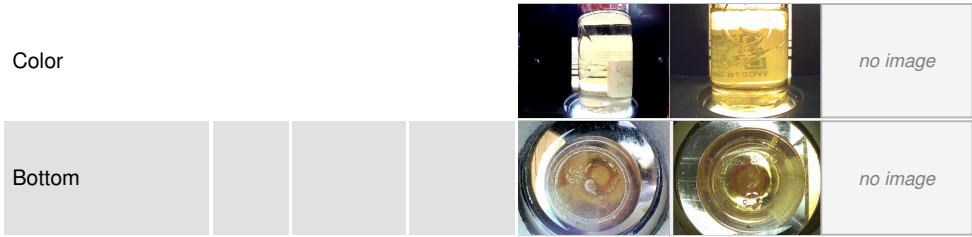
OIL ANALYSIS REPORT



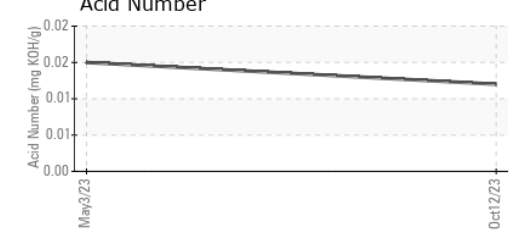
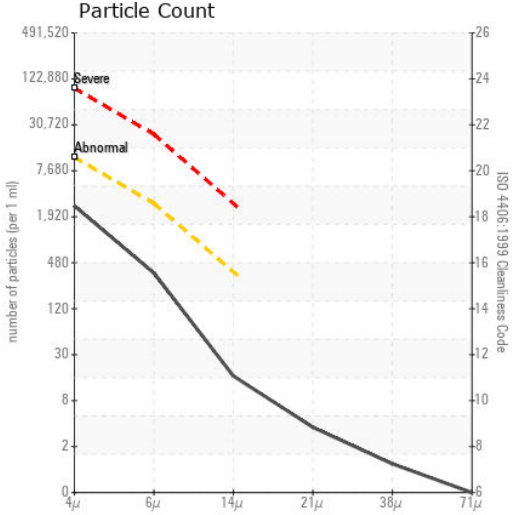
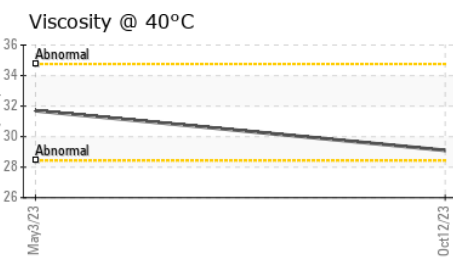
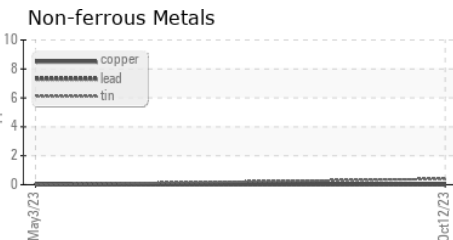
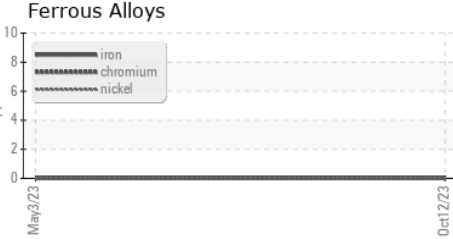
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*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	29.1	31.7	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0836511 **Received** : 13 Oct 2023
Lab Number : 05979015 **Diagnosed** : 16 Oct 2023
Unique Number : 10696310 **Diagnostician** : Doug Bogart
Test Package : PLANT

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

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)