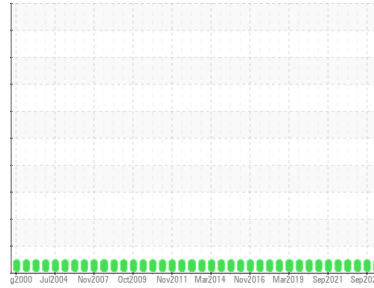




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**WQR [10000152261]**  
 Machine Id  
**CATHGEN5BRGUPP (S/N 211148-1)**  
 Component  
**Upper Bearing**  
 Fluid  
**ESSO TERESSTIC ISO 100 (37 LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is 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>WC0429476</b>	WC0429473	WC0779222
Sample Date	Client Info		<b>06 Mar 2024</b>	14 Sep 2023	06 Mar 2023
Machine Age	hrs	Client Info	<b>150840</b>	146696	142200
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		<b>0</b>	0	0
Iron	ppm	ASTM D5185(m) >20	<b>0</b>	0	0
Chromium	ppm	ASTM D5185(m) >20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m) >20	<b>0</b>	0	0
Titanium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185(m) >20	<b>0</b>	<1	0
Copper	ppm	ASTM D5185(m) >20	<b>0</b>	0	0
Tin	ppm	ASTM D5185(m) >20	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m)	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) .2	<b>0</b>	0	0
Barium	ppm	ASTM D5185(m) 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m) 0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m) 1.2	<b>0</b>	0	0
Calcium	ppm	ASTM D5185(m) .2	<b>&lt;1</b>	<1	0
Phosphorus	ppm	ASTM D5185(m) 2.4	<b>0</b>	<1	0
Zinc	ppm	ASTM D5185(m) 1.9	<b>&lt;1</b>	1	<1
Sulfur	ppm	ASTM D5185(m) 2250	<b>2174</b>	2097	2174
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

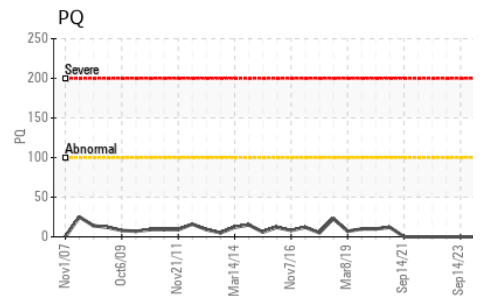
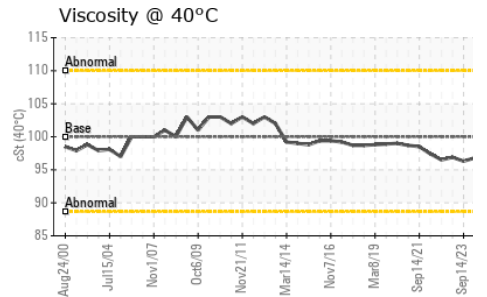
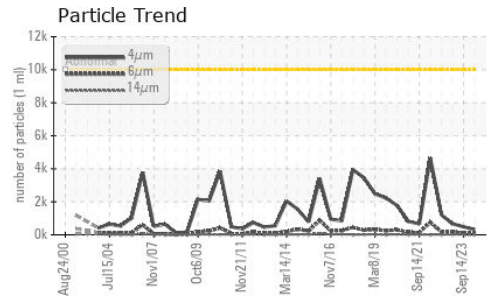
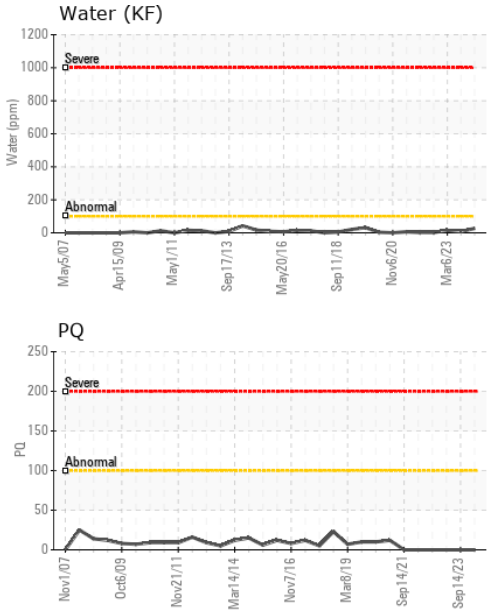
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >15	<b>1</b>	1	1
Sodium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Potassium	ppm	ASTM D5185(m) >20	<b>1</b>	<1	<1
Water	%	ASTM D6304* >2	<b>0.003</b>	0.001	0.001
ppm Water	ppm	ASTM D6304*	<b>27</b>	7.9	14.9

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	<b>317</b>	488	674
Particles >6µm	ASTM D7647	>2500	<b>80</b>	109	178
Particles >14µm	ASTM D7647	>160	<b>11</b>	11	26
Particles >21µm	ASTM D7647	>40	<b>3</b>	4	8
Particles >38µm	ASTM D7647	>10	<b>1</b>	0	1
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	1
Oil Cleanliness	ISO 4406 (c)	>20/18/14	<b>15/13/11</b>	16/14/11	17/15/12



# OIL ANALYSIS REPORT



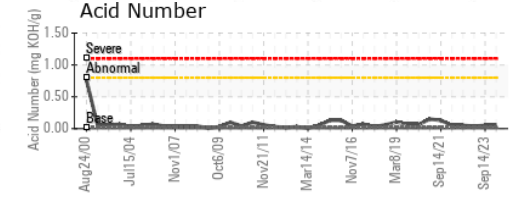
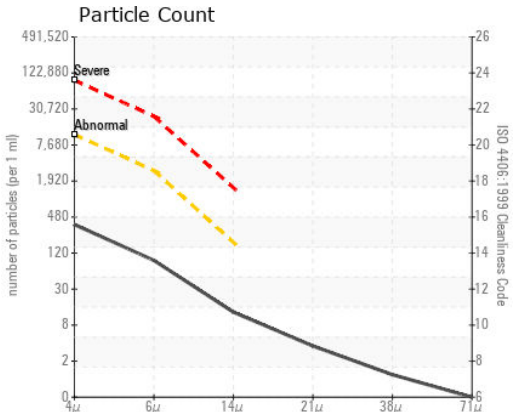
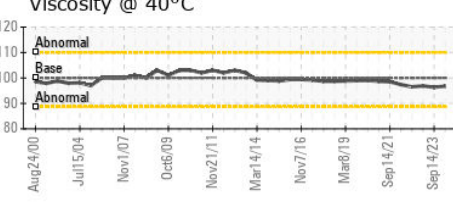
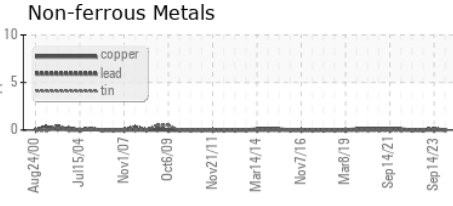
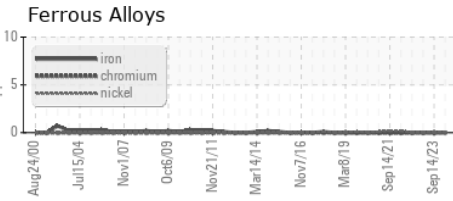
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.02	<b>0.06</b>	0.05	0.04

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*	>2	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	100	<b>96.8</b>	96.3	96.9

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						
Bottom						

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0429476  
**Lab Number** : **02620868**  
**Unique Number** : 5745987  
**Test Package** : IND 2 ( Additional Tests: KF, PQ, PrtCount, TAN Man )  
**Received** : 08 Mar 2024  
**Tested** : 11 Mar 2024  
**Diagnosed** : 11 Mar 2024 - Wes Davis

**ALGONQUIN POWER SYSTEMS INC.**  
 354 DAVIS ROAD  
 OAKVILLE, ON  
 CA L6J 2X1  
 Contact: Antonino Champ Fernando  
 antoninoChamp.fernando@algonquinpower.com  
 T: (905)465-7065  
 F: x:

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.