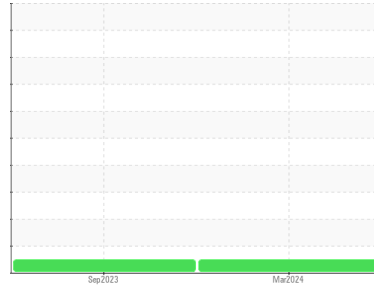




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**[152268]**  
 Machine Id  
**ALBA HPU A MONT**  
 Component  
**Hydraulic System**  
 Fluid  
**SHELL TELLUS 32 (245 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 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>WC0779177</b>	WC0779126	---
Sample Date	Client Info			<b>12 Mar 2024</b>	14 Sep 2023	---
Machine Age	mths	Client Info		<b>336</b>	28	---
Oil Age	mths	Client Info		<b>114</b>	9	---
Oil Changed	Client Info			<b>N/A</b>	Not Chngd	---
Sample Status				<b>NORMAL</b>	NORMAL	---

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.05	<b>NEG</b>	NEG	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	---
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	---
Nickel	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	---
Lead	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	---
Copper	ppm	ASTM D5185(m)	>20	<b>2</b>	2	---
Tin	ppm	ASTM D5185(m)	>20	<b>0</b>	0	---
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	---

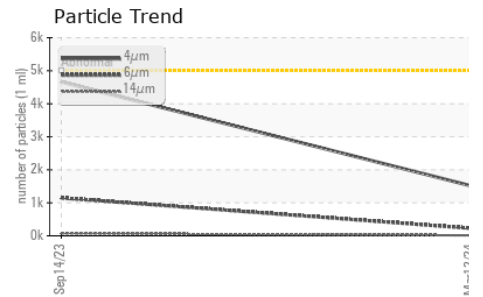
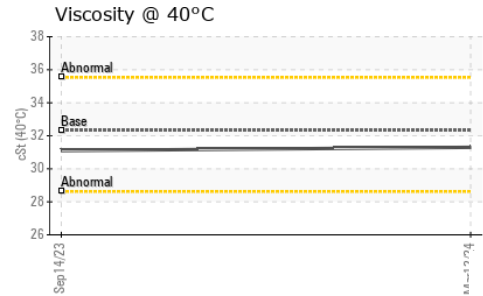
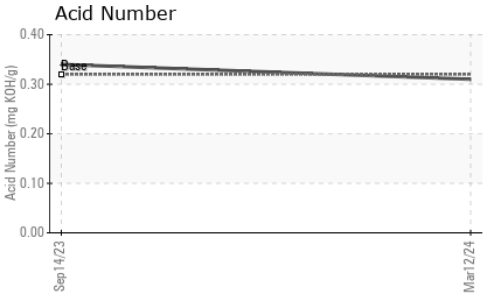
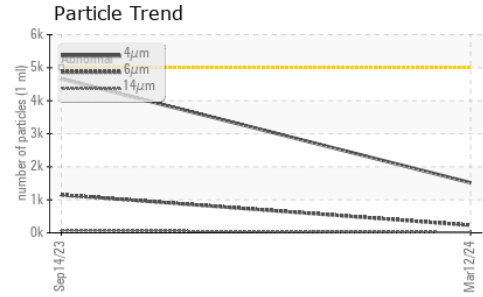
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		<b>0</b>	<1	---
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	0	---
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	---
Magnesium	ppm	ASTM D5185(m)	11	<b>6</b>	6	---
Calcium	ppm	ASTM D5185(m)	35	<b>45</b>	45	---
Phosphorus	ppm	ASTM D5185(m)	259	<b>273</b>	293	---
Zinc	ppm	ASTM D5185(m)	277	<b>309</b>	324	---
Sulfur	ppm	ASTM D5185(m)	1865	<b>2621</b>	2538	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	<b>2</b>	2	---
Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	---
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	<b>1517</b>	4661	---
Particles >6µm		ASTM D7647	>1300	<b>228</b>	1148	---
Particles >14µm		ASTM D7647	>160	<b>13</b>	71	---
Particles >21µm		ASTM D7647	>40	<b>3</b>	18	---
Particles >38µm		ASTM D7647	>10	<b>1</b>	1	---
Particles >71µm		ASTM D7647	>3	<b>1</b>	1	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>18/15/11</b>	19/17/13	---



# OIL ANALYSIS REPORT

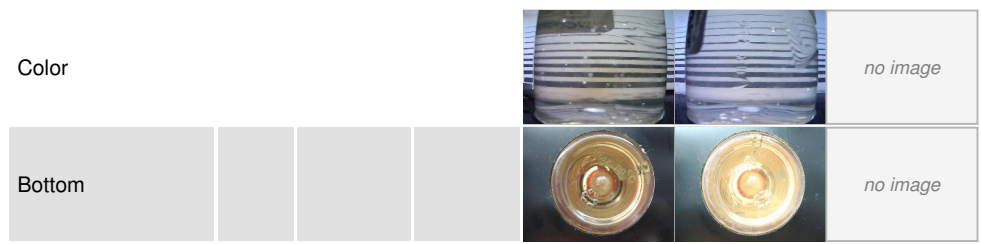


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D974*	0.32	<b>0.31</b>	0.34	---

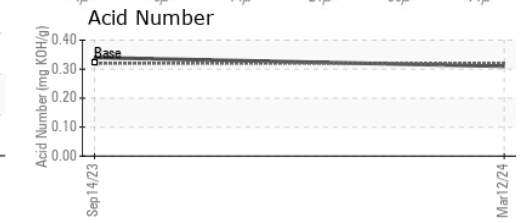
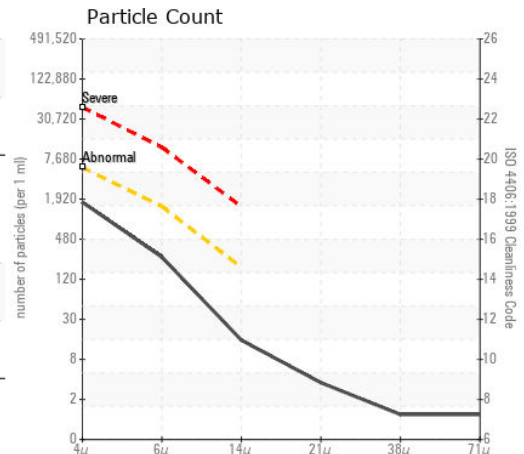
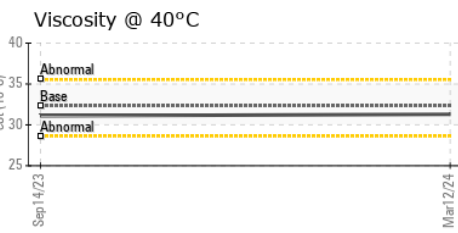
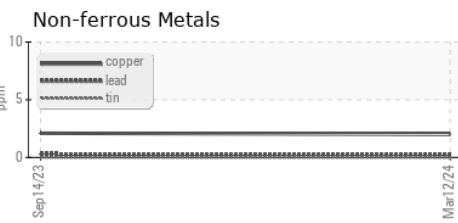
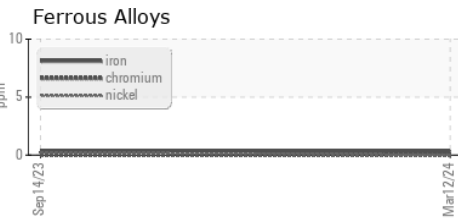
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar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

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	32.32	<b>31.3</b>	31.1	---

## SAMPLE IMAGES



## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0779177  
**Lab Number** : 02622333  
**Unique Number** : 5747452  
**Test Package** : IND 2  
**Received** : 15 Mar 2024  
**Tested** : 18 Mar 2024  
**Diagnosed** : 18 Mar 2024 - Wes Davis

**ALGONQUIN POWER SYSTEMS INC.**  
 354 DAVIS ROAD  
 OAKVILLE, ON  
 CA L6J 2X1  
 Contact: Gary Gazankas  
 gary.gazankas@algonquinpower.com  
 T: (905)465-6119  
 F: (905)273-4514

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.