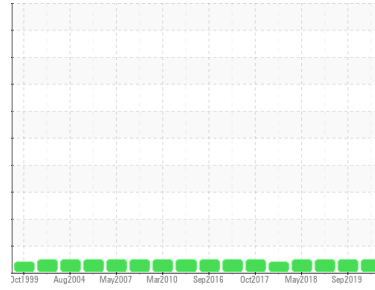




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area

**WQR**

Machine Id

**BELLHPU**

Component

**Hydraulic System**

Fluid

**SHELL TELLUS S2 VX 46 (200 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>WC0906599</b>	WC815438	WC815440
Sample Date	Client Info		<b>11 Apr 2024</b>	26 Sep 2019	31 Dec 2018
Machine Age	mths	Client Info	<b>328</b>	0	0
Oil Age	mths	Client Info	<b>100</b>	0	42
Oil Changed	Client Info		<b>N/A</b>	N/A	Not Chngd
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

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

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	<1
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>20	<b>2</b>	2	2
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>0</b>	0	0
Lead	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	0
Tin	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m)		<b>0</b>	<1	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)		<b>0</b>	<1	<1
Barium	ppm	ASTM D5185(m)		<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)		<b>18</b>	18	18
Calcium	ppm	ASTM D5185(m)		<b>46</b>	49	49
Phosphorus	ppm	ASTM D5185(m)		<b>222</b>	216	209
Zinc	ppm	ASTM D5185(m)		<b>256</b>	264	266
Sulfur	ppm	ASTM D5185(m)		<b>2778</b>	2994	2899
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	0

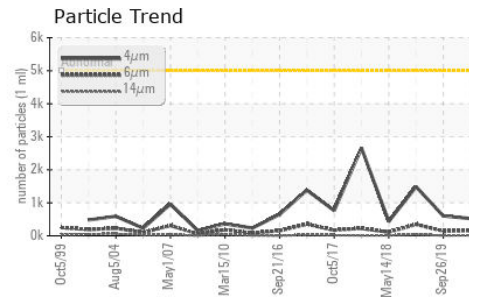
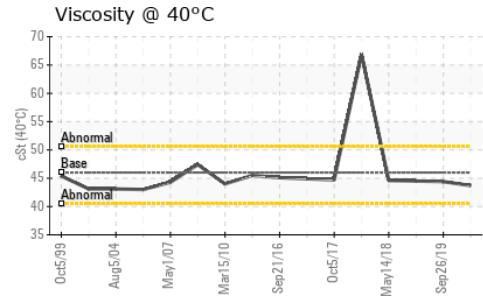
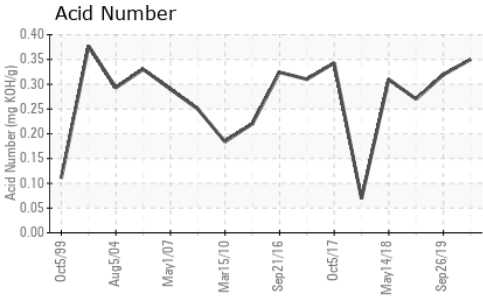
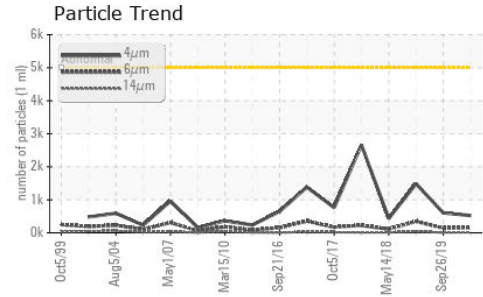
## CONTAMINANTS

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

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>523</b>	603	1485
Particles >6µm	ASTM D7647	>1300	<b>158</b>	142	346
Particles >14µm	ASTM D7647	>160	<b>14</b>	9	36
Particles >21µm	ASTM D7647	>40	<b>5</b>	3	11
Particles >38µm	ASTM D7647	>10	<b>0</b>	0	0
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>16/14/11</b>	16/14/10	18/16/12

# OIL ANALYSIS REPORT

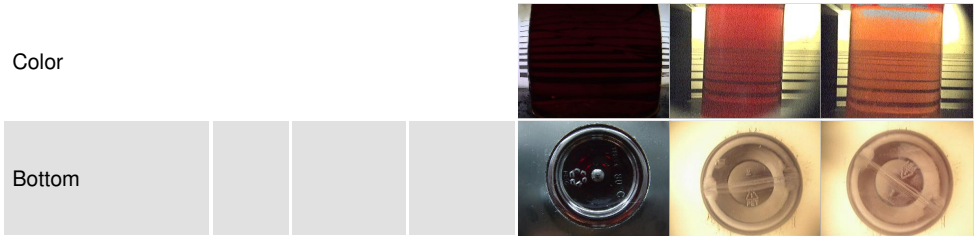


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		<b>0.35</b>	0.319	0.27

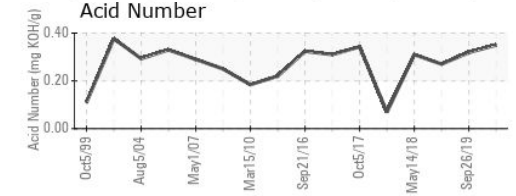
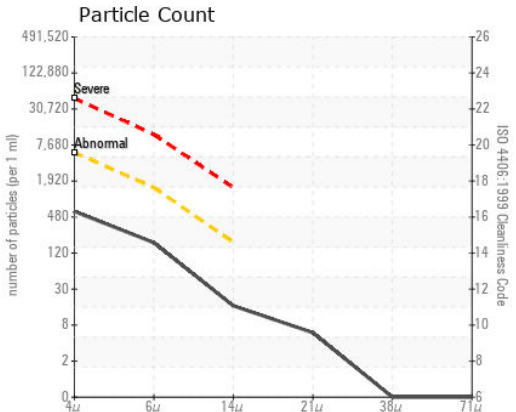
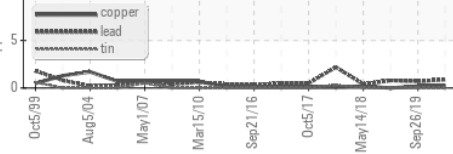
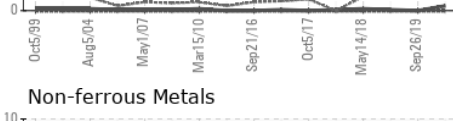
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	VLITE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>VLITE</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*	>0.05	<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)	46	<b>43.7</b>	44.4	44.5

### SAMPLE IMAGES



### GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0906599  
**Lab Number** : 02629220  
**Unique Number** : 5762352  
**Test Package** : IND 2  
**Received** : 16 Apr 2024  
**Tested** : 17 Apr 2024  
**Diagnosed** : 17 Apr 2024 - Wes Davis

**ALGONQUIN POWER SYSTEMS INC.**  
 354 DAVIS ROAD  
 OAKVILLE, ON  
 CA L6J 2X1

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.

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 T: (905)465-7065  
 F: x: