



# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**STEAM AND POWER**  
 Machine Id  
**269.0080 #1 BOILER FEED WATER PUMP BOWSER**  
 Component  
**Bearing Lube**  
 Fluid  
**SHELL MORLINA S4 B 68 (--- 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		<b>PE0001416</b>	---	---
Sample Date	Client Info		<b>20 Sep 2023</b>	---	---
Machine Age	hrs	Client Info	<b>0</b>	---	---
Oil Age	hrs	Client Info	<b>0</b>	---	---
Oil Changed	Client Info		<b>N/A</b>	---	---
Sample Status			<b>NORMAL</b>	---	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	<b>NEG</b>	---	---

## WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184		<b>12</b>	---	---
Iron	ppm	ASTM D5185m >120	<b>1</b>	---	---
Chromium	ppm	ASTM D5185m >5	<b>0</b>	---	---
Nickel	ppm	ASTM D5185m >20	<b>0</b>	---	---
Titanium	ppm	ASTM D5185m	<b>0</b>	---	---
Silver	ppm	ASTM D5185m	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m >4	<b>2</b>	---	---
Lead	ppm	ASTM D5185m >30	<b>&lt;1</b>	---	---
Copper	ppm	ASTM D5185m >17	<b>&lt;1</b>	---	---
Tin	ppm	ASTM D5185m >10	<b>0</b>	---	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	---	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	---	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>0</b>	---	---
Barium	ppm	ASTM D5185m	<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m	<b>0</b>	---	---
Manganese	ppm	ASTM D5185m	<b>0</b>	---	---
Magnesium	ppm	ASTM D5185m	<b>1</b>	---	---
Calcium	ppm	ASTM D5185m	<b>19</b>	---	---
Phosphorus	ppm	ASTM D5185m	<b>287</b>	---	---
Zinc	ppm	ASTM D5185m	<b>13</b>	---	---
Sulfur	ppm	ASTM D5185m	<b>788</b>	---	---

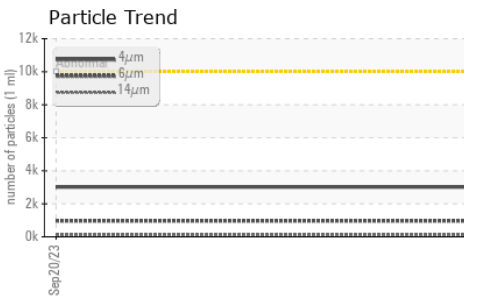
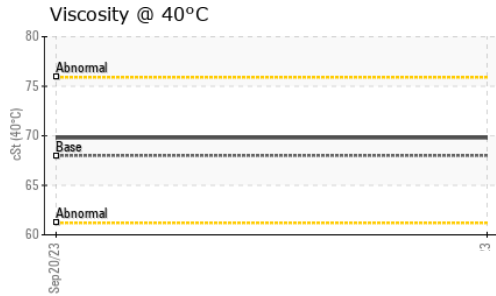
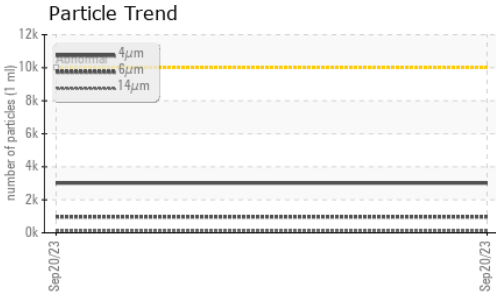
## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>3</b>	---	---
Sodium	ppm	ASTM D5185m	<b>1</b>	---	---
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	---	---

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	<b>3014</b>	---	---
Particles >6µm	ASTM D7647	>2500	<b>969</b>	---	---
Particles >14µm	ASTM D7647	>160	<b>117</b>	---	---
Particles >21µm	ASTM D7647	>40	<b>42</b>	---	---
Particles >38µm	ASTM D7647	>10	<b>5</b>	---	---
Particles >71µm	ASTM D7647	>3	<b>0</b>	---	---
Oil Cleanliness	ISO 4406 (c)	>20/18/14	<b>19/17/14</b>	---	---

# OIL ANALYSIS REPORT



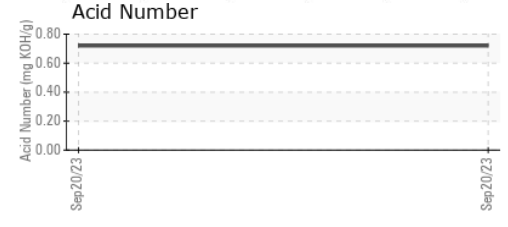
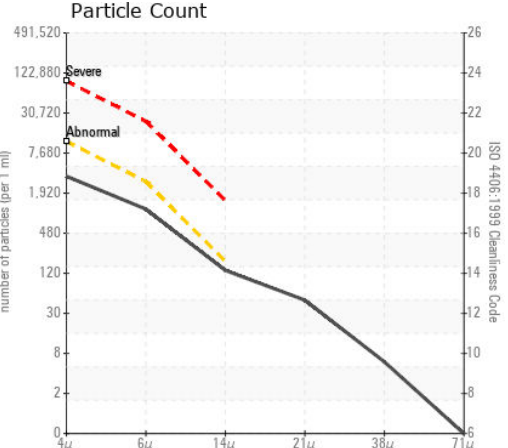
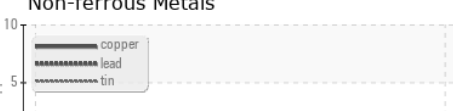
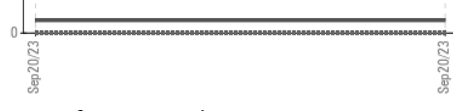
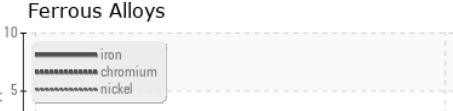
FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>0.72</b>	---	---

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	>0.2	NEG	---	---
Free Water	scalar	*Visual		NEG	---	---

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445	68	<b>69.8</b>	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2	
Color					no image	no image
Bottom					no image	no image

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PE0001416      **Received** : 04 Oct 2023  
**Lab Number** : 05968796      **Diagnosed** : 06 Oct 2023  
**Unique Number** : 10675347      **Diagnostician** : Don Baldrige  
**Test Package** : PLANT ( Additional Tests: ICP, KV40, PQ, PrtCount, SCREEN )  
 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)

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