



# PROBLEM SUMMARY

Sample Rating Trend



ISO



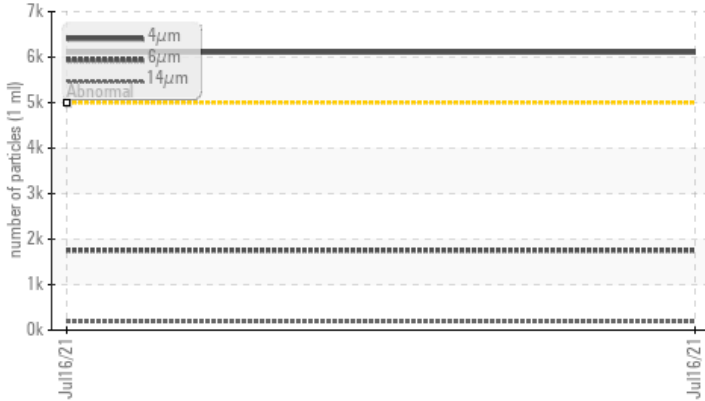
Machine Id  
**5-3-230**

Component  
**New (Unused) Oil**

Fluid  
**SHELL MORLINA S48 (--- GAL)**

## COMPONENT CONDITION SUMMARY

### ▲ Particle Trend



## RECOMMENDATION

This is the baseline readout on this new (unused) oil. The fluid is suitable for service. Resample at the next service interval to monitor. NOTE: New oils are not generally filtered or guaranteed to a certain cleanliness code. We advise that you verify the target cleanliness code for your application and recommend the use of a portable filter cart to fill any system with a target code below the ISO cleanliness code of this product.

## PROBLEMATIC TEST RESULTS

Sample Status	ASTM D7647	ISO 4406 (c)	ATTENTION	---	---
Particles >4µm	>5000	▲ <b>6104</b>	---	---	---
Particles >6µm	>1300	▲ <b>1754</b>	---	---	---
Particles >14µm	>160	▲ <b>184</b>	---	---	---
Oil Cleanliness	>19/17/14	▲ <b>20/18/15</b>	---	---	---

Customer Id: STMBOW  
 Sample No.: WC0530593  
 Lab Number: 02433872  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Kevin Marson +1 (289)291-4644 x4644  
[Kevin.Marson@wearcheck.com](mailto:Kevin.Marson@wearcheck.com)

To change component or sample information:  
 Gloria Gonzalez +1 (289)291-4643 x4643  
[gloria.gonzalez@wearcheck.com](mailto:gloria.gonzalez@wearcheck.com)

## RECOMMENDED ACTIONS

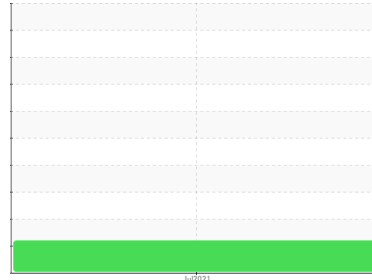
Action	Status	Date	Done By	Description
Alert	---	---	?	NOTE: New oils are not generally filtered or guaranteed to a certain cleanliness code. We advise that you verify the target cleanliness code for your application and recommend the use of a portable filter cart to fill any system with a target code below the ISO cleanliness code of this product.

## HISTORICAL DIAGNOSIS



# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id

**5-3-230**

Component

**New (Unused) Oil**

Fluid

**SHELL MORLINA S48 (--- GAL)**

## DIAGNOSIS

### ▲ Recommendation

This is the baseline readout on this new (unused) oil. The fluid is suitable for service. Resample at the next service interval to monitor. NOTE: New oils are not generally filtered or guaranteed to a certain cleanliness code. We advise that you verify the target cleanliness code for your application and recommend the use of a portable filter cart to fill any system with a target code below the ISO cleanliness code of this product.

### Wear

{not applicable}

### ▲ Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil.

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>WC0530593</b>	---	---
Sample Date	Client Info	<b>16 Jul 2021</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>ATTENTION</b>	---	---

## CONTAMINATION

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

## WEAR METALS

method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185(m)	>5	<b>0</b>	---	---
Chromium	ppm	ASTM D5185(m)	>5	<b>0</b>	---	---
Nickel	ppm	ASTM D5185(m)	>5	<b>0</b>	---	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Silver	ppm	ASTM D5185(m)	>5	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185(m)	>5	<b>0</b>	---	---
Lead	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	---	---
Copper	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	---	---
Tin	ppm	ASTM D5185(m)	>5	<b>0</b>	---	---
Antimony	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	---	---

## ADDITIVES

method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---
Barium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	---	---
Manganese	ppm	ASTM D5185(m)		<b>0</b>	---	---
Magnesium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Calcium	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---
Phosphorus	ppm	ASTM D5185(m)		<b>298</b>	---	---
Zinc	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---
Sulfur	ppm	ASTM D5185(m)		<b>537</b>	---	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---

## CONTAMINANTS

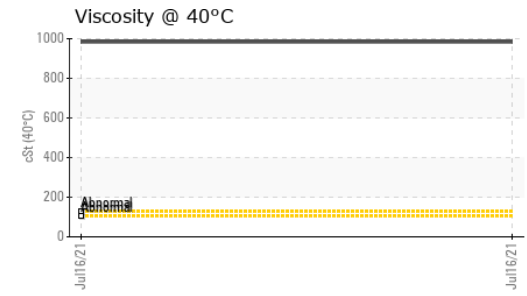
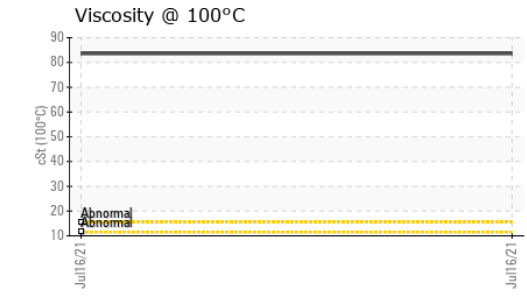
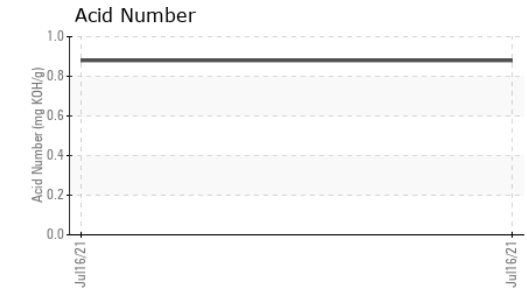
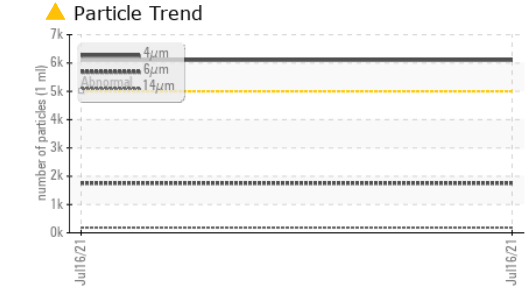
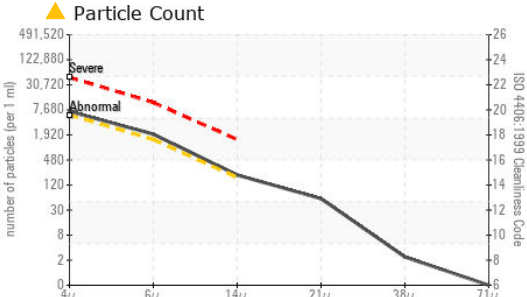
method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185(m)	>15	<b>4</b>	---	---
Sodium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	---	---

## INFRA-RED

method	limit/base	current	history1	history2		
Soot %	%	ASTM D7844*		<b>0</b>	---	---
Nitration	Abs/cm	ASTM D7624*		<b>2.3</b>	---	---
Sulfation	Abs./1mm	ASTM D7415*		<b>10.7</b>	---	---



# OIL ANALYSIS REPORT



FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ 6104	---	---
Particles >6µm	ASTM D7647	>1300	▲ 1754	---	---
Particles >14µm	ASTM D7647	>160	▲ 184	---	---
Particles >21µm	ASTM D7647	>40	50	---	---
Particles >38µm	ASTM D7647	>10	2	---	---
Particles >71µm	ASTM D7647	>3	0	---	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 20/18/15	---	---

FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	3.5	---	---
Acid Number (AN)	mg KOH/g	ASTM D974*	0.88	---	---

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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	984	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	83.6	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	166	---	---

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



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0530593 **Received** : 20 Jul 2021  
**Lab Number** : 02433872 **Diagnosed** : 22 Jul 2021  
**Unique Number** : 5253396 **Diagnostician** : Kevin Marson  
**Test Package** : IND 2 ( Additional Tests: FT-IR, ICP-NewOil, KV100, PrtCount, TAN Man, VI )

**ST. MARYS CEMENT CO.**  
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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.