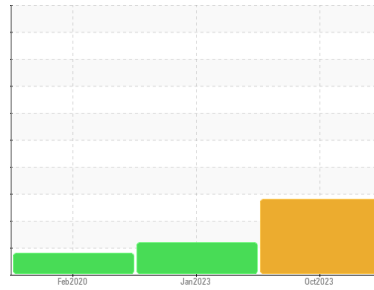


# PROBLEM SUMMARY

## Sample Rating Trend



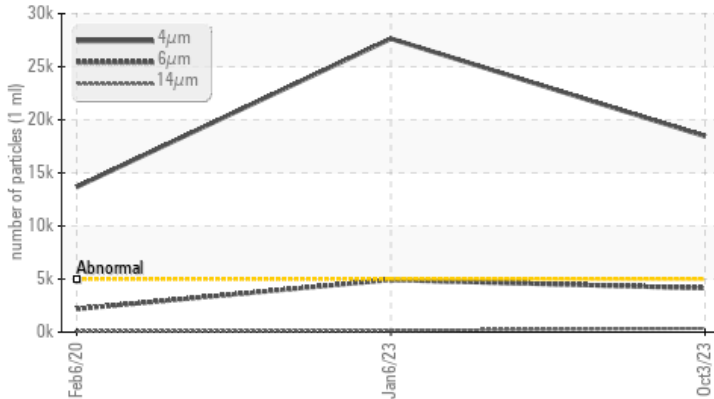
ISO



Machine Id  
**811**  
Component  
**Hydraulic System**  
Fluid  
**SHELL TELLUS S2 MX 46 (--- GAL)**

## COMPONENT CONDITION SUMMARY

### ▲ Particle Trend



## RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

Sample Status	ASTM D7647	ABNORMAL	ABNORMAL	ABNORMAL
Particles >4µm	>5000	▲ <b>18452</b>	▲ 27642	▲ 13673
Particles >6µm	>1300	▲ <b>4141</b>	▲ 4926	▲ 2187
Particles >14µm	>160	▲ <b>358</b>	158	71
Particles >21µm	>40	▲ <b>133</b>	32	18
Particles >38µm	>10	▲ <b>19</b>	2	3
Particles >71µm	>3	▲ <b>4</b>	0	2
Oil Cleanliness	ISO 4406 (c) >19/17/14	▲ <b>21/19/16</b>	▲ 22/19/14	▲ 21/18/13

Customer Id: AISCRO  
Sample No.: PCA0108014  
Lab Number: 05975712  
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
Don Baldrige +1  
[don.b505@comcast.net](mailto:don.b505@comcast.net)

To change component or sample information:  
Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.

## HISTORICAL DIAGNOSIS

### 06 Jan 2023 Diag: Don Baldrige

ISO



The oil change at the time of sampling has been noted. We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



### 06 Feb 2020 Diag: Doug Bogart

ISO



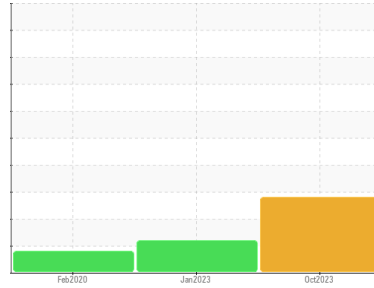
We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report





Machine Id  
**811**  
 Component  
**Hydraulic System**  
 Fluid  
**SHELL TELLUS S2 MX 46 (--- GAL)**



## DIAGNOSIS

**Recommendation**  
 We recommend you service the filters on this component. Resample at the next service interval to monitor.

**Wear**  
 All component wear rates are normal.

**Contamination**  
 There is a high amount of particulates present in the oil.

**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>PCA0108014</b>	PCA0090058	PCA0015676
Sample Date	Client Info	<b>03 Oct 2023</b>	06 Jan 2023	06 Feb 2020
Machine Age	yrs	Client Info	0	0
Oil Age	yrs	Client Info	1	0
Oil Changed	Client Info	<b>N/A</b>	Changed	N/A
Sample Status		<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >20	<b>0</b>	<1	<1
Chromium	ppm	ASTM D5185m >20	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m >20	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m >20	<b>0</b>	0	0
Lead	ppm	ASTM D5185m >20	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	<1
Antimony	ppm	ASTM D5185m	<b>---</b>	---	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 0	<b>0</b>	0	1
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 0	<b>0</b>	0	<1
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185m 70	<b>1</b>	<1	4
Calcium	ppm	ASTM D5185m 10	<b>39</b>	38	49
Phosphorus	ppm	ASTM D5185m 300	<b>268</b>	281	266
Zinc	ppm	ASTM D5185m 325	<b>319</b>	328	313
Sulfur	ppm	ASTM D5185m 665	<b>666</b>	835	1271

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >15	<b>0</b>	<1	<1
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Potassium	ppm	ASTM D5185m >20	<b>0</b>	0	0

## FLUID CLEANLINESS

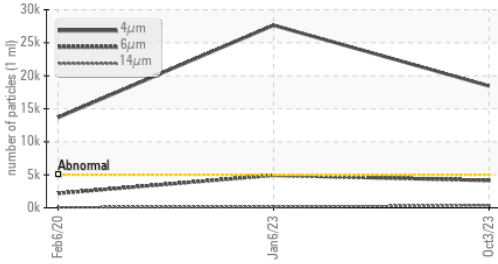
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	<b>▲ 18452</b>	▲ 27642	▲ 13673
Particles >6µm	ASTM D7647 >1300	<b>▲ 4141</b>	▲ 4926	▲ 2187
Particles >14µm	ASTM D7647 >160	<b>▲ 358</b>	158	71
Particles >21µm	ASTM D7647 >40	<b>▲ 133</b>	32	18
Particles >38µm	ASTM D7647 >10	<b>▲ 19</b>	2	3
Particles >71µm	ASTM D7647 >3	<b>▲ 4</b>	0	2
Oil Cleanliness	ISO 4406 (c) >19/17/14	<b>▲ 21/19/16</b>	▲ 22/19/14	▲ 21/18/13

## FLUID DEGRADATION

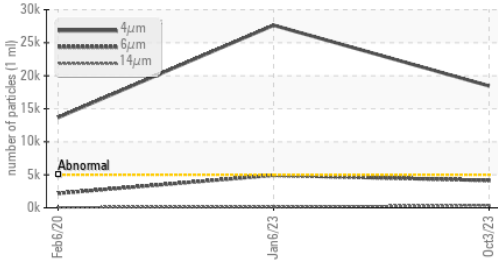
method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045 0.35	<b>0.29</b>	0.34	0.268

# OIL ANALYSIS REPORT

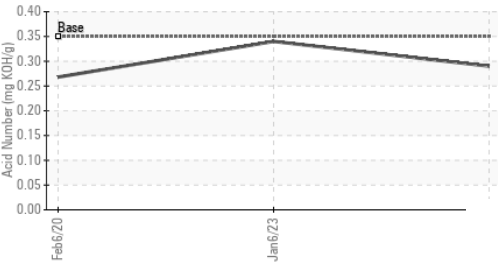
### ▲ Particle Trend



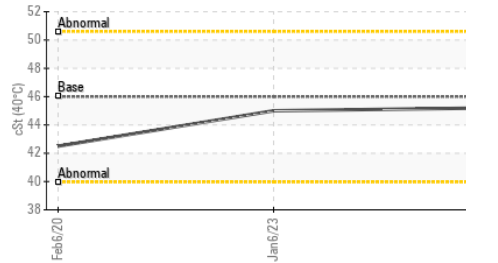
### ▲ Particle Trend



### Acid Number



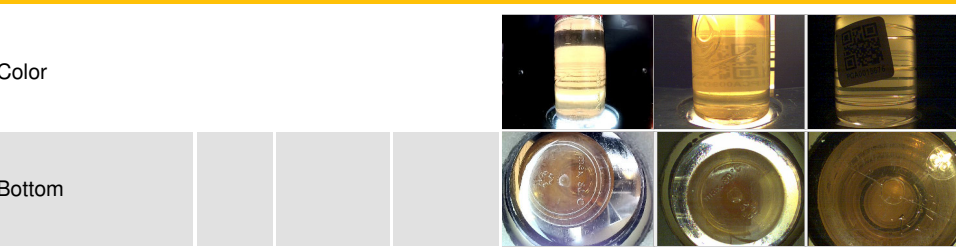
### Viscosity @ 40°C



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

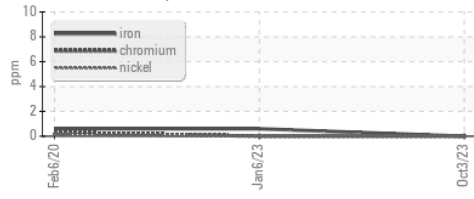
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46.0	<b>45.2</b>	45.0

### SAMPLE IMAGES

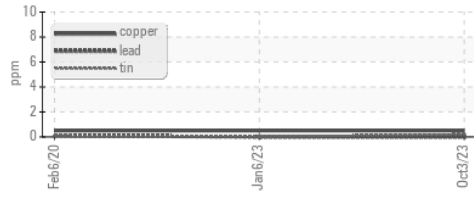


### GRAPHS

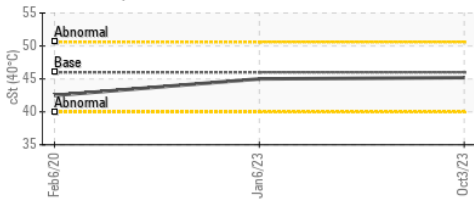
#### Ferrous Alloys



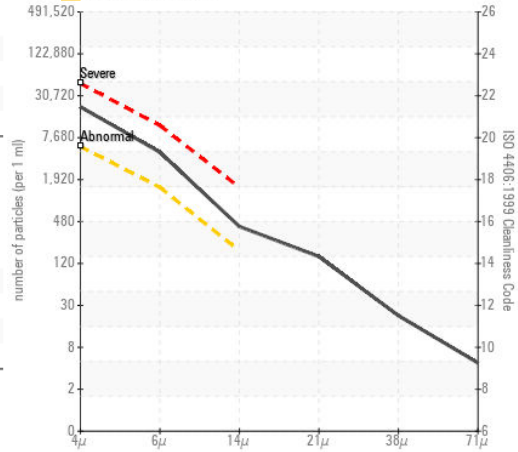
#### Non-ferrous Metals



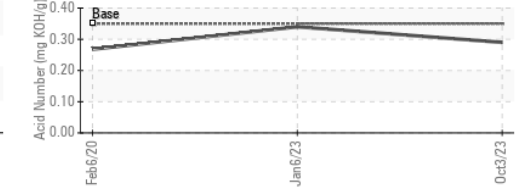
#### Viscosity @ 40°C



#### ▲ Particle Count



#### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0108014 **Received** : 11 Oct 2023  
**Lab Number** : **05975712** **Diagnosed** : 13 Oct 2023  
**Unique Number** : 10687662 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2

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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