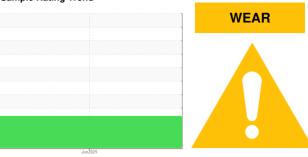


OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

ACL 3 PRESS 4

Hydraulic System

SHELL TELLUS 46 (--- GAL)

DIAGNOSIS

Recommendation

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

Wear

The copper level is abnormal. All other 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.

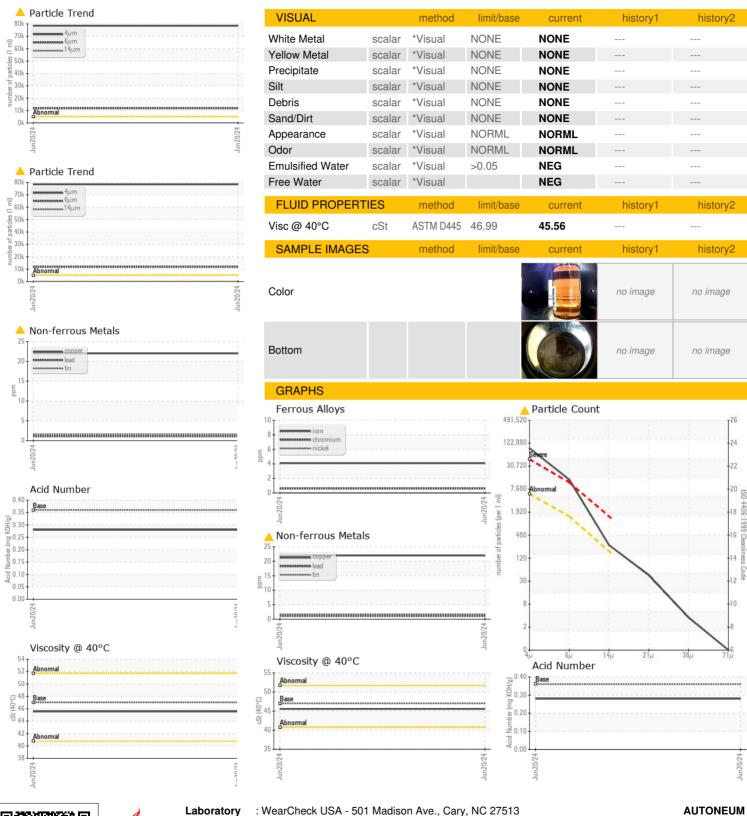
			J	lun 2024		
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		TLC0001861		
Sample Date		Client Info		20 Jun 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				ABNORMAL		
CONTAMINATION	٧	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG		
WEAR METALS		method	limit/base	current	history1	history2
lvon		ASTM D5185m	>20	4		
Iron	ppm			-		
Chromium	ppm	ASTM D5185m	>20	<1		
Nickel	ppm	ASTM D5185m	>20	0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>20	0		
Lead	ppm	ASTM D5185m	>20	1		
Copper	ppm	ASTM D5185m	>20	<u> </u>		
Tin	ppm	ASTM D5185m	>20	2		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0.0	2		
Barium	ppm	ASTM D5185m	0	0		
Molybdenum	ppm	ASTM D5185m	0	1		
Manganese	ppm	ASTM D5185m				
				<1		
•			11	<1 70		
Magnesium	ppm	ASTM D5185m	11 35	70		
Magnesium Calcium	ppm	ASTM D5185m ASTM D5185m	35	70 54		
Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	35 266	70 54 297		
Magnesium Calcium Phosphorus Zinc	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	35 266 276	70 54 297 340		
Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	35 266 276 1847	70 54 297		
Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	35 266 276	70 54 297 340		
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	35 266 276 1847 limit/base	70 54 297 340 877		
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	35 266 276 1847 limit/base	70 54 297 340 877 current	 history1	 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	35 266 276 1847 limit/base >15	70 54 297 340 877 current	 history1	 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m	35 266 276 1847 limit/base >15	70 54 297 340 877 current <1	 history1	 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m	35 266 276 1847 limit/base >15 >20 limit/base	70 54 297 340 877 current <1 2 2 current 78466	 history1	 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m MEthod ASTM D5185m	35 266 276 1847 limit/base >15 >20 limit/base	70 54 297 340 877 current <1 2 2 current	 history1 history1	history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m	35 266 276 1847 limit/base >15 >20 limit/base >5000	70 54 297 340 877 current <1 2 2 current 78466	history1 history1	history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m METHOD METHOD ASTM D5185m	35 266 276 1847 limit/base >15 >20 limit/base >5000 >1300	70 54 297 340 877 current <1 2 2 current ^ 78466 ^ 11850	history1 history1	history2 history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	35 266 276 1847 limit/base >15 >20 limit/base >5000 >1300 >160	70 54 297 340 877 current <1 2 2 current ^ 78466 ^ 11850 ^ 232	history1 history1	history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >21µm	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	35 266 276 1847 limit/base >15 >20 limit/base >5000 >1300 >160 >40	70 54 297 340 877 current <1 2 2 current ^ 78466 ^ 11850 ^ 232 38	history1 history1	history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	35 266 276 1847 limit/base >15 >20 limit/base >5000 >1300 >160 >40 >10	70 54 297 340 877 current <1 2 2 current ^ 78466 ^ 11850 ^ 232 38 3	history1 history1	history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647	35 266 276 1847 limit/base >15 >20 limit/base >5000 >1300 >160 >40 >10 >3	70 54 297 340 877 current <1 2 2 current ^ 78466 ^ 11850 ^ 232 38 3 0	history1 history1	history2 history2

Acid Number (AN)

mg KOH/g ASTM D8045 0.36



OIL ANALYSIS REPORT





Certificate 12367

Laboratory

Sample No. : TLC0001861 Lab Number : 06218163 Unique Number : 11096360

Test Package : PLANT

Received : 24 Jun 2024 **Tested** : 27 Jun 2024

Diagnosed : 27 Jun 2024 - Jonathan Hester

To discuss this sample report, contact Customer Service at 1-800-237-1369. st - 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)

1103 POWDERHOUSE RD AIKEN, SC

US 29803

Contact: JEFFREY WASHICK jeffrey.washick@autoneum.com

T:

F: