

OIL ANALYSIS REPORT

Sample Rating Trend







12899 Component

Hydraulic System

SHELL TELLUS 32 (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear

All component wear rates are normal.

Contamination

Moderate concentration of visible dirt/debris present in the oil.

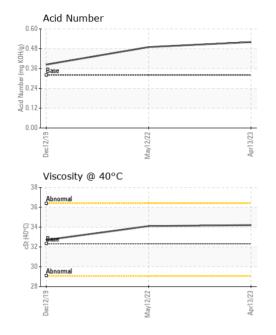
Fluid Condition

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

		Dec2019 May2022 Apr2023				
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0778461	WC0655069	WC0348471
Sample Date		Client Info		13 Apr 2023	12 May 2022	12 Dec 2019
Machine Age	yrs	Client Info		0	4	18
Oil Age	yrs	Client Info		0	4	6
Oil Changed		Client Info		N/A	N/A	Changed
Sample Status				ABNORMAL	ATTENTION	ABNORMAL
CONTAMINATIO	N	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	1	1	1
Chromium	ppm	ASTM D5185m	>20	0	0	<1
Nickel	ppm	ASTM D5185m	>20	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m		0	0	0
Lead	ppm	ASTM D5185m	>20	0	0	<1
Copper	ppm	ASTM D5185m		21	20	<u>^</u> 29
Tin	ppm	ASTM D5185m	>20	0	<1	<1
Antimony	ppm	ASTM D5185m				<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
Cadmium ADDITIVES		ASTM D5185m method	limit/base			0 history2
			limit/base	0	0	
ADDITIVES	ppm	method	limit/base	o current	0 history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 0	0 history1 0	history2 <1
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base	current 0 0	0 history1 0 0	history2 <1 0
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 0 0 0	0 history1 0 0 0	history2 <1 0 <1
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 current 0 0 0 0 <1	0 history1 0 0 0 0 0 0 0	history2 <1 0 <1 <1 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm ppm	method ASTM D5185m	11	0 current 0 0 0 c current	0 history1 0 0 0 0 0 0 < 1	history2 <1 0 <1 <1 <1 2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	11 35 259 277	0 current 0 0 0 0 <1 2 11 313 270	0 history1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	history2 <1 0 <1 <1 2 41 274 351
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	11 35 259	0 current 0 0 0 0 <1 2 11 313	0 history1 0 0 0 0 0 <1 10 325	history2 <1 0 <1 <1 2 41 274
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm	method ASTM D5185m	11 35 259 277	0 current 0 0 0 0 <1 2 11 313 270	0 history1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	history2 <1 0 <1 <1 2 41 274 351
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm	method ASTM D5185m	11 35 259 277 1865 limit/base	0 current 0 0 0 0 <1 2 11 313 270 1161	0 history1 0 0 0 0 0 <1 10 325 283 677	history2 <1 0 <1 <1 2 41 274 351 783
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm	method ASTM D5185m	11 35 259 277 1865 limit/base	0 current 0 0 0 0 <1 2 11 313 270 1161 current	0 history1 0 0 0 0 0 0 <1 10 325 283 677 history1 1 0	history2 <1 0 <1 <1 2 41 274 351 783 history2 <1 0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm	method ASTM D5185m	11 35 259 277 1865 limit/base	0 current 0 0 0 0 <1 2 11 313 270 1161 current 0	0 history1 0 0 0 0 0 0 <1 10 325 283 677 history1	history2 <1 0 <1 <1 2 41 274 351 783 history2 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm	method ASTM D5185m	11 35 259 277 1865 limit/base >15	0 current 0 0 0 0 <1 2 11 313 270 1161 current 0 <1	0 history1 0 0 0 0 0 0 <1 10 325 283 677 history1 1 0	history2 <1 0 <1 <1 2 41 274 351 783 history2 <1 0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm	method ASTM D5185m	111 35 259 277 1865 limit/base >15 >20	0 current 0 0 0 -<1 2 11 313 270 1161 current 0 -<1 0	0 history1 0 0 0 0 0 0 <1 10 325 283 677 history1 1 0 <1	history2 <1 0 <1 <1 2 41 274 351 783 history2 <1 0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm	method ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	11 35 259 277 1865 limit/base >15 >20	0 current 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 history1 0 0 0 0 0 0 <1 10 325 283 677 history1 1 0 <1	history2 <1 0 <1 <1 2 41 274 351 783 history2 <1 0 0 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm	method ASTM D5185m method ASTM D5185m ASTM D7647 ASTM D7647	111 35 259 277 1865 limit/base >15 >20 limit/base >2500 >320 >40	0 current 0 0 0 0 <1 2 11 313 270 1161 current 0 <1 0 current	0 history1 0 0 0 0 0 0 0 <1 10 325 283 677 history1 1 0 <1 history1 ▲ 3540 ▲ 595 ▲ 43	history2 <1 0 <1 2 41 274 351 783 history2 <1 0 0 history2 ▲ 6038 ▲ 1671 ▲ 102
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm	method ASTM D5185m method ASTM D5185m	111 35 259 277 1865 limit/base >15 >20 limit/base >2500 >320	0 current 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 history1 0 0 0 0 0 0 0 <1 10 325 283 677 history1 1 0 <1 history1 ▲ 3540 ▲ 595	history2 <1 0 <1 2 41 274 351 783 history2 <1 0 0 history2 ▲ 6038 ▲ 1671 ▲ 102 ▲ 24
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm	method ASTM D5185m method ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	111 35 259 277 1865 limit/base >15 >20 limit/base >2500 >320 >40 >10 >3	0 current 0 0 0 0 <1 2 11 313 270 1161 current 0 <1 0 current	0 history1 0 0 0 0 0 0 0 <1 10 325 283 677 history1 1 0 <1 history1 ▲ 3540 ▲ 595 ▲ 43	history2 <1 0 <1 2 41 274 351 783 history2 <1 0 0 history2 ▲ 6038 ▲ 1671 ▲ 102
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm	method ASTM D5185m method ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	111 35 259 277 1865 limit/base >15 >20 limit/base >2500 >320 >40 >10 >3	0 current 0 0 0 0 <1 2 11 313 270 1161 current 0 <1 0 current	0 history1 0 0 0 0 0 <1 10 325 283 677 history1 1 0 <1 history1 ▲ 3540 ▲ 595 ▲ 43 10	history2 <1 0 <1 2 41 274 351 783 history2 <1 0 0 history2 ▲ 6038 ▲ 1671 ▲ 102 ▲ 24



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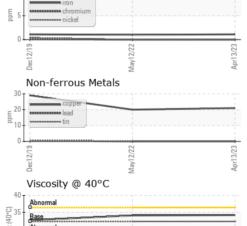


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.32	0.52	0.49	0.384
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	▲ MODER	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	TES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	32.32	34.2	34.1	32.7
SAMPLE IMAGES	3	method	limit/base	current	history1	history2
Color						

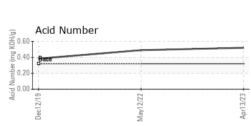


Ferrous Alloys

Bottom



May12/22







Laboratory Sample No.

Lab Number : 05824913

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0778461

Tested Unique Number : 10432996 Diagnosed

Received : 20 Apr 2023 : 24 Apr 2023

: 24 Apr 2023 - Doug Bogart

Apr13/23

ST. LOUIS, MO US 63133 Contact: JON SCHMIDT

jschmidt@neffpress.com

T: (314)288-6860 F: (314)725-2230

NEFF PRESS INC.

6510 PAGE AVE

Test Package : IND 2 Certificate L2367 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)