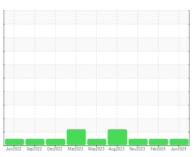


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id

CALE_U2 CALE_U2_M2

Drive End Bearing

SHELL TELLUS 32 (--- GAL)

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

The water content is negligible. There is no indication of any contamination in the oil.

Fluid Condition

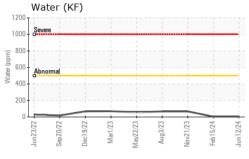
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

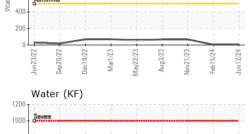
SAMPLE INFORMATION			Jun2022 Sep	2022 Dec2022 Mar2023	May2023 Aug2023 Nov2023 Feb20	124 Jun2024	
Sample Date	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Date Client Info 12 Jun 2024 15 Feb 2024 21 Nov 2023	Sample Number		Client Info		RP0037019	RP0037000	RP0032727
Machine Age hrs			Client Info		12 Jun 2024	15 Feb 2024	21 Nov 2023
Oil Changed Oil Changed Client Info N/A N/A		hrs					
Oil Changed Client Info N/A N/A N/A NORMAL NORMAL NORMAL NORMAL							
NORMAL NORMAL NORMAL NORMAL							
Iron							
Chromium ppm ASTM D5185m >20 <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>20	<1	<1	<1
Titanium	Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Silver	Nickel	ppm	ASTM D5185m	>20	<1	<1	<1
Aluminum	Titanium	ppm	ASTM D5185m		<1	<1	<1
Lead	Silver	ppm	ASTM D5185m		<1	<1	0
Lead	Aluminum		ASTM D5185m	>20	3	<1	<1
Copper ppm ASTM D5185m >20 2 2 <1	Lead	ppm	ASTM D5185m	>20	1	<1	<1
Tin	Copper		ASTM D5185m	>20	2	2	<1
Cadmium ppm ASTM D5185m <1		ppm	ASTM D5185m	>20	5	4	2
ADDITIVES	Vanadium	ppm	ASTM D5185m		<1	0	0
Boron ppm ASTM D5185m 0 0 0 0 0	Cadmium	ppm	ASTM D5185m		<1	<1	<1
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m <1	Boron	ppm	ASTM D5185m		0	0	0
Manganese ppm ASTM D5185m <1	Barium	ppm	ASTM D5185m		1	5	<1
Magnesium ppm ASTM D5185m 11 66 58 60 Calcium ppm ASTM D5185m 35 10 14 14 Phosphorus ppm ASTM D5185m 259 306 240 285 Zinc ppm ASTM D5185m 277 360 331 327 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m 20 0 0 0 Sodium ppm ASTM D5185m >20 1 <1 <1 Water % ASTM D6304 >0.05 0.001 0.001 0.006 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg K0H/g ASTM D8045 0.32 0.33 0.31 0.31 VISUAL method limit/base current history1 h	Molybdenum	ppm	ASTM D5185m		<1	<1	<1
Calcium ppm ASTM D5185m 35 10 14 14 Phosphorus ppm ASTM D5185m 259 306 240 285 Zinc ppm ASTM D5185m 277 360 331 327 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m 20 0 0 0 Sodium ppm ASTM D5185m 20 1 <1 <1 Water % ASTM D5185m >20 1 <1 <1 Water % ASTM D6304 >0.05 0.001 0.001 0.006 Ppm Water ppm ASTM D6304 >500 4 4 67 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.32 0.33 0.31 0.31	Manganese	ppm	ASTM D5185m		<1	<1	<1
Phosphorus ppm ASTM D5185m 259 306 240 285 Zinc ppm ASTM D5185m 277 360 331 327 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 5 4 2 Sodium ppm ASTM D5185m 0 0 0 0 Potassium ppm ASTM D5185m >20 1 <1 <1 Water % ASTM D6304 >0.05 0.001 0.001 0.006 ppm Water ppm ASTM D6304 >500 4 4 67 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg K0Hg ASTM D8045 0.32 0.33 0.31 0.31 VISUAL method limit/base current history1 history2 White Metal scalar	Magnesium	ppm	ASTM D5185m	11	66	58	60
Zinc ppm ASTM D5185m 277 360 331 327 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 5 4 2 Sodium ppm ASTM D5185m >0 0 0 Potassium ppm ASTM D5185m >20 1 <1 <1 Water % ASTM D6304 >0.05 0.001 0.001 0.006 ppm Water ppm ASTM D6304 >500 4 4 67 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg K0H/g ASTM D8045 0.32 0.33 0.31 0.31 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Visual NONE N	Calcium	ppm	ASTM D5185m	35	10	14	14
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 5 4 2 Sodium ppm ASTM D5185m 0 0 0 Potassium ppm ASTM D5185m >20 1 <1 <1 Water % ASTM D6304 >0.05 0.001 0.001 0.006 ppm Water ppm ASTM D6304 >500 4 4 67 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg K0H/g ASTM D8045 0.32 0.33 0.31 0.31 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE Yellow Metal scalar *V	Phosphorus	ppm	ASTM D5185m	259	306	240	285
Silicon ppm ASTM D5185m >15 5 4 2 Sodium ppm ASTM D5185m 0 0 0 0 Potassium ppm ASTM D5185m >20 1 <1	Zinc	ppm	ASTM D5185m	277	360	331	327
Sodium ppm ASTM D5185m 0 0 0 Potassium ppm ASTM D5185m >20 1 <1 <1 Water % ASTM D6304 >0.05 0.001 0.001 0.006 ppm Water ppm ASTM D6304 >500 4 4 67 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.32 0.33 0.31 0.31 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE NONE Silt	CONTAMINANTS	;	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 1 <1	Silicon	ppm	ASTM D5185m	>15	5	4	2
Water % ASTM D6304 >0.05 0.001 0.001 0.006 ppm Water ppm ASTM D6304 >500 4 4 67 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.32 0.33 0.31 0.31 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE NONE NONE Scalar *Visual NONE NONE NONE NONE NONE NONE NONE Scalar *Visual NONE NONE NONE NONE NONE NONE NONE Scalar *Visual NONE NONE NONE NONE NONE NONE NONE NON	Sodium	ppm	ASTM D5185m		0	0	0
ppm Water ppm ASTM D6304 >500 4 4 67 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.32 0.33 0.31 0.31 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor Scalar *Visual NORML NORML NORML NORML NORML	Potassium	ppm	ASTM D5185m	>20	1	<1	<1
FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.32 0.33 0.31 0.31 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE NONE Appearance scalar *Visual NONE NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML	Water	%	ASTM D6304	>0.05	0.001	0.001	0.006
Acid Number (AN) mg KOH/g ASTM D8045 0.32 0.33 0.31 0.31 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 NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor Scalar *Visual NORML NORML NORML NORML	ppm Water	ppm	ASTM D6304	>500	4	4	67
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 NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML	FLUID DEGRADA	TION	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 NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML	Acid Number (AN)	mg KOH/g	ASTM D8045	0.32	0.33	0.31	0.31
Yellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONELIGHTSand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORML	VISUAL		method	limit/base	current	history1	history2
Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE LIGHT Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML		scalar	*Visual		NONE	NONE	
Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE LIGHT Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML NORML NORML NORML	Yellow Metal	scalar	*Visual	NONE	NONE		NONE
Debrisscalar*VisualNONENONENONELIGHTSand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORML	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORML	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearancescalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLNORMLNORMLNORML	Debris	scalar	*Visual	NONE	NONE	NONE	LIGHT
Odor scalar *Visual NORML NORML NORML NORML	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water scalar *Visual >0.05 NEG NEG NEG	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	NEG

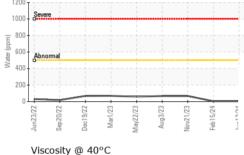
Submitted By: Nipplas Pucci

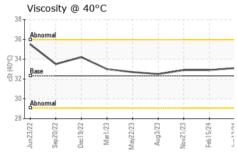


OIL ANALYSIS REPORT

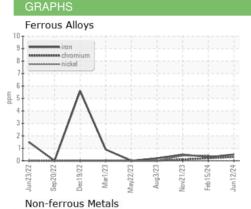


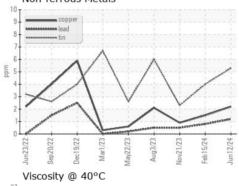


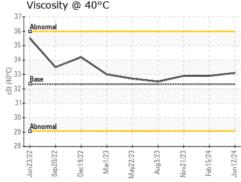


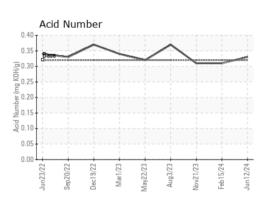
















Certificate 12367

Laboratory Sample No.

: RP0037019 Lab Number : 06217382 Unique Number : 11090246

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 21 Jun 2024

Tested : 25 Jun 2024 Diagnosed : 25 Jun 2024 - Don Baldridge

ENERGY TRANSFER - CALEDONIA 3591 COLD SPRING ROAD

CALEDONIA, NY US 14423

Contact: JERRY HIGGINS

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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