



OIL ANALYSIS REPORT

Sample Rating Trend

VISCOSITY

Area
11

Machine Id

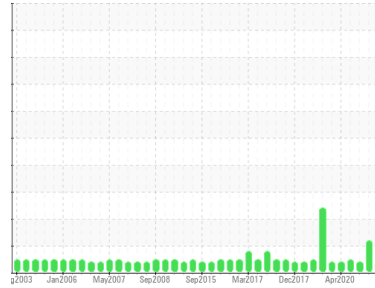
11-0020-010-000 NEG AIR HYD UNIT (11M34)

Component

11 Hydraulic System

Fluid

SHELL TELLUS S2 MX 32 (250 GAL)



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Fluid Condition

Viscosity of sample indicates oil is within ISO 68 range, advise investigate. 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		WC0857982	WC0754083	WC0582655
Sample Date	Client Info		06 Mar 2024	02 Dec 2022	24 Jun 2021
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		Filtered	N/A	N/A
Sample Status			ABNORMAL	ABNORMAL	ATTENTION

CONTAMINATION

	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 D5185(m) >20	4	3	4
Chromium	ppm	ASTM D5185(m) >20	0	<1	<1
Nickel	ppm	ASTM D5185(m) >20	<1	<1	0
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m)	0	0	<1
Aluminum	ppm	ASTM D5185(m) >20	<1	0	<1
Lead	ppm	ASTM D5185(m) >20	<1	<1	1
Copper	ppm	ASTM D5185(m) >20	7	9	18
Tin	ppm	ASTM D5185(m) >20	0	0	<1
Antimony	ppm	ASTM D5185(m)	0	0	<1
Vanadium	ppm	ASTM D5185(m)	0	0	0
Beryllium	ppm	ASTM D5185(m)	0	0	0
Cadmium	ppm	ASTM D5185(m)	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	<1	0	<1
Barium	ppm	ASTM D5185(m)	9	10	0
Molybdenum	ppm	ASTM D5185(m)	0	0	0
Manganese	ppm	ASTM D5185(m)	0	0	0
Magnesium	ppm	ASTM D5185(m)	55	53	2
Calcium	ppm	ASTM D5185(m)	7	10	18
Phosphorus	ppm	ASTM D5185(m)	320	342	305
Zinc	ppm	ASTM D5185(m)	326	372	290
Sulfur	ppm	ASTM D5185(m)	934	977	2352
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

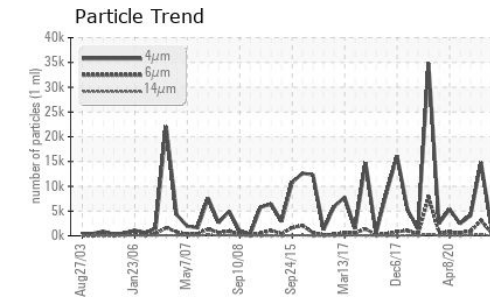
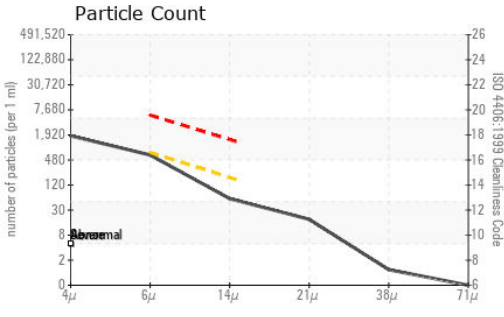
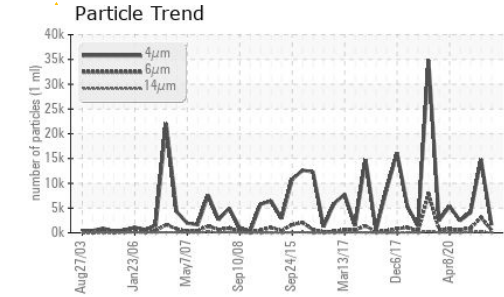
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >15	0	<1	<1
Sodium	ppm	ASTM D5185(m)	0	<1	1
Potassium	ppm	ASTM D5185(m) >20	<1	<1	<1

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		1599	14802	4077
Particles >6µm	ASTM D7647	>640	555	▲ 3071	● 944
Particles >14µm	ASTM D7647	>160	50	● 192	139
Particles >21µm	ASTM D7647	>40	16	47	34
Particles >38µm	ASTM D7647	>10	1	2	2
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>--/16/14	18/16/13	▲ 21/19/15	● 19/17/14

OIL ANALYSIS REPORT



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0857982
Lab Number : 02621995
Unique Number : 5747114
Test Package : IND 2

Received : 14 Mar 2024
Tested : 15 Mar 2024
Diagnosed : 15 Mar 2024 - Kevin Marson

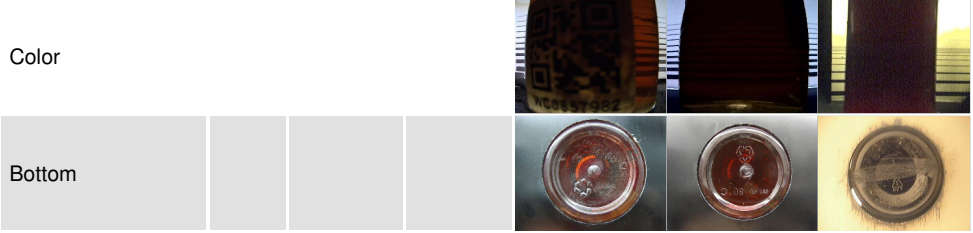
To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		0.37	0.39	0.40

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	VLITE	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 PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	32.0	▲ 61.8	63.2	65.6

SAMPLE IMAGES



GRAPHS

