

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id **TAYLOR WHARTON 92304** Component

Hydraulic System Fluid SHELL TELLUS S2 VX 22 (100 LTR)

DIAGNOSIS

Recommendation

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. We recommend an early resample to monitor this condition. NOTE: Test values may be askew due high concentration of free water present in sample.

Wear

The wear metal levels do not reflect the reported failure.

Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil. There is a moderate concentration of water present in the oil. Free water present.

Fluid Condition

The oil viscosity is higher than typical. The AN level is acceptable for this fluid. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		ST45603		
Sample Date		Client Info		12 Mar 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		10		
Oil Changed		Client Info		N/A		
Sample Status				ABNORMAL		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	2		
Chromium	ppm	ASTM D5185(m)	>20	0		
Nickel	ppm	ASTM D5185(m)	>20	<1		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)	>20	0		
Lead	ppm	ASTM D5185(m)	>20	<1		
Copper	ppm	ASTM D5185(m)		1		
Tin	ppm	ASTM D5185(m)	>20	0		
Antimony	ppm	ASTM D5185(m)		0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
	PP	()				
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		<1		
Barium	ppm	ASTM D5185(m)		<1		
Molybdenum	ppm	ASTM D5185(m)		0		
Manganese	ppm	ASTM D5185(m)		0		
Magnesium	ppm	ASTM D5185(m)		62		
Calcium	ppm	ASTM D5185(m)		15		
Phosphorus	ppm	ASTM D5185(m)		258		
Zinc	ppm	ASTM D5185(m)		315		
Sulfur	ppm	ASTM D5185(m)				
Lithium				637		
	ppm	ASTM D5185(m)		637 <1		
CONTAMINANTS		. /	limit/base			
		ASTM D5185(m)		<1		
CONTAMINANTS		ASTM D5185(m) method		<1 current		
CONTAMINANTS Silicon	ppm	ASTM D5185(m) method ASTM D5185(m)		<1 current 0		
CONTAMINANTS Silicon Sodium	ppm ppm	ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m)	>15	<1 current 0 <1	 history1 	 history2
CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm	ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>15 >20	<1 current 0 <1 <1	 history1 	 history2
CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm % ppm	ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D6304*	>15 >20 >0.05	<1 <u>current</u> 0 <1 <1 <1 • 0.174	 history1 	 history2
CONTAMINANTS Silicon Sodium Potassium Water ppm Water	ppm ppm ppm % ppm	ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D6304* ASTM D6304*	>15 >20 >0.05 >500	<1 current 0 <1 <1 <1 0.174 1748 current	 history1 	 history2
CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN	ppm ppm ppm % ppm	ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D6304* ASTM D6304* Method	>15 >20 >0.05 >500 limit/base	<1 Current 0 <1 <1 <1 0.174 1748 Current 8107	 history1 history1	 history2 history2
CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm	ppm ppm ppm % ppm	ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D6304* ASTM D6304* ASTM D6304* ASTM D6304*	>15 >20 >0.05 >500 limit/base >5000	<1 current 0 <1 <1 <1 0.174 1748 current	 history1 history1 	 history2 history2
CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm % ppm	ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D6304* ASTM D6304* Method ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 >0.05 >500 limit/base >5000 >1300 >160	<1 current 0 <1 <1 0.174 1748 current 8107 359 6	 history1 history1 history1	 history2 history2
CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm	ppm ppm ppm % ppm	ASTM D5185(m) Method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5304* ASTM D6304* ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 >0.05 >500 limit/base >5000 >1300 >160 >40	<1 Current 0 <1 <1 0.174 ▲ 0.174 ▲ 1748 Current 8107 359 6 3	history1 history1 history1 history1	history2 history2 history2
CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm % ppm	ASTM D5185(m) Method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5304* ASTM D6304* ASTM D6304* ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 >0.05 >500 limit/base >5000 >1300 >160 >40 >10	<1 Current 0 <1 <1 0.174 ▲ 0.174 ▲ 1748 Current ● 8107 359 6 3 1	history1 history1 history1 history1	history2 history2
CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm	ppm ppm ppm % ppm	ASTM D5185(m) Method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5304* ASTM D6304* ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 >0.05 >500 limit/base >5000 >1300 >160 >40	<1 Current 0 <1 <1 0.174 ▲ 0.174 ▲ 1748 Current 8107 359 6 3	history1 history1	history2 history2 history2



Severe 5000. € 4000 0002 Water (pp 1000

0.35 0.30 0.25 0.20 0.25 0.10 0.15

OIL ANALYSIS REPORT

6000	Water (KF)	FLUID DEGRADA	TION	method	limit/base	current	history1	history2
5000.	Severe	Acid Number (AN)	mg KOH/g	ASTM D974*		0.37		
e 4000 ·		VISUAL		method	limit/base	current	history1	history2
3000 · 30		White Metal	scalar	Visual*	NONE	NONE		
1000		Yellow Metal	scalar	Visual*	NONE	NONE		
0-	Abnormal	Precipitate	scalar	Visual*	NONE	NONE		
	Mar12/24	Silt	scalar	Visual*	NONE	NONE		
	Marl Marl	Debris	scalar	Visual*	NONE	NONE		
	Particle Trend	Sand/Dirt	scalar scalar	Visual* Visual*	NONE NORML			
10k -	4μm	Appearance Odor	scalar	Visual*	NORML	NORML		
([m 8k -	6μm 14μm	Emulsified Water	scalar	Visual*	>0.05	▲ .2%		
salciles 6k •	Abnormal	Free Water	scalar	Visual*		<u> </u>		
number of particles (1 ml) 78 k 79 k	-	FLUID PROPERT	IES	method	limit/base	current	history1	history2
₩n2k•		Visc @ 40°C	cSt	ASTM D7279(m)	22	24.3		
0k	2/24	SAMPLE IMAGES	5	method	limit/base	current	history1	history2
10k 10k	Particle Trend	Color					no image	no image
number of particles (1 78 78 78	Abnormal	Bottom					no image	no image
0k -		GRAPHS						
	Mari 2.72 	Ferrous Alloys			491,520	Particle Count		т26
	≥ 3	E 5-			122,880) - Severe		-24 -22
		Mar12/24			Mar12/24 particles (per 1 ml) 199	Abnormal		+20 58 +18 6:1
90.15 Acid Nump 0.10 0.05		Non-ferrous Metal	s		septimed 480			-20 (30 4406: 1999 Cleanfiness -16 cleanfiness -16 cleanfiness
0.00	Mar12/24 +	E 5			30 8			+12 ਵਿ +10
26 - 25 -	Viscosity @ 40°C	^{FZ/Z 1 JEP W Viscosity @ 40°C}			Mar12/24		4 _μ 21 _μ	
24.	Abnormal	26 T			문 _{0.40}	Acid Number		
(10°C)	Base	24 Base 222 Base			(PH0.40 PH0.30 B0.30]		
₹3 21. 20•	Abnormal	22 - Base ³ 20 - Abnormal		*****	a 0.20			
19-		18			<u>-</u> <u>-</u> <u>-</u> <u>-</u> <u>-</u> <u>-</u> <u>-</u> <u>-</u> <u>-</u>			
18-	. 124 - гал	Mar12/24			Mar12/24	5/27		Mar12/24
	Mar12/2	Ma			Ma	Marl		Ma
	Iso 17025:2017 Accredited Unique Number	: 5750425 : IND 2 (Additional Tes contact Customer Servi of accreditation, (m) m	Recei Teste Diagn ts: KF) ice at 1-8 ethod mo	ived : 28 id : 02 nosed : 02 800-268-213 bodified, (e) te	8 Mar 2024 2 Apr 2024 Apr 2024 - Kev 1. sted at extern	in Marson (nal lab.	2651 N SCARE Contact: MICH parts@fi T:	CANNING INC. MARKHAM RD. SOROUGH, ON CA M1X 1M4 AEL CANNING bacanning.com (416)299-1142 (416)299-1138