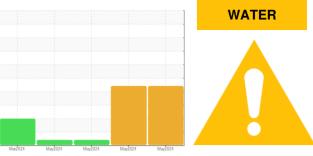


OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

BONE CANNON 2

Component Hydraulic System AW HYDRAULIC OIL ISO 46 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

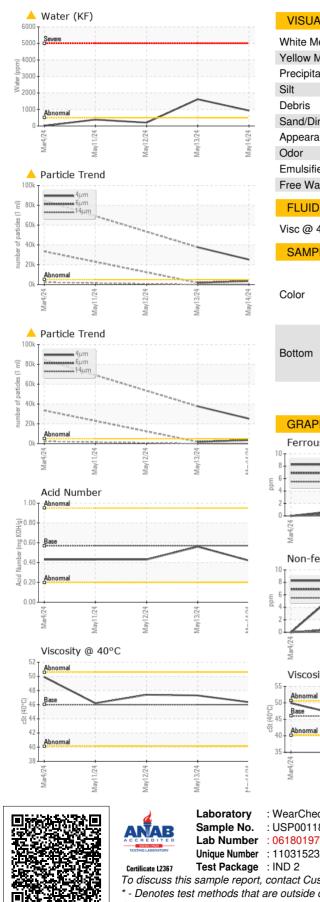
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		USP0011883	USP0011868	USP0011887
Sample Date		Client Info		14 May 2024	13 May 2024	12 May 2024
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	<1	1	1
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>20	<1	<1	<1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m		<1	<1	<1
Aluminum	ppm	ASTM D5185m	>20	2	2	2
Lead	ppm	ASTM D5185m	>20	- <1	<1	<1
Copper	ppm	ASTM D5185m		7	7	8
Tin	ppm	ASTM D5185m	>20	, <1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
Cadmium	ppm	ASTM D5185m		<1	<1	<1
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	0	0	0
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	5	<1	<1	<1
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m	25	1	<1	1
Calcium	ppm	ASTM D5185m	200	38	28	50
Phosphorus	ppm	ASTM D5185m	300	361	379	482
Zinc		ASTM D5185m	370	416	371	549
	DDIII					
-	ppm ppm		2500	900	956	1248
-	ppm			900 current		
Sulfur CONTAMINANTS	ppm	ASTM D5185m method	2500		956	1248
Sulfur CONTAMINANTS Silicon	ppm	ASTM D5185m method	2500 limit/base	current	956 history1	1248 history2
Sulfur CONTAMINANTS Silicon Sodium	ppm ppm	ASTM D5185m method ASTM D5185m	2500 limit/base	current <1	956 history1 <1	1248 history2 <1
Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m	2500 limit/base >15 >20	current <1 9	956 <mark>history1</mark> <1 6	1248 history2 <1 12
Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	2500 limit/base >15 >20 >0.05	current <1 9 2	956 history1 <1 6 1	1248 history2 <1 12 2
Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm % ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	2500 limit/base >15 >20 >0.05	current <1 9 2 ▲ 0.093	956 history1 <1 6 1 ▲ 0.162	1248 history2 <1 12 2 0.020
Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN	ppm ppm ppm ppm % ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304	2500 limit/base >15 >20 >0.05 >500	current <1 9 2 ▲ 0.093 ▲ 930 current ▲ 25229	956 history1 <1 6 1 ▲ 0.162 ▲ 1620	1248 history2 <1 12 2 0.020 204
Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm % ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 method	2500 limit/base >15 >20 >0.05 >500 limit/base	<1 9 2 ▲ 0.093 ▲ 930 current	956 history1 <1 6 1 0.162 ▲ 0.162 ▲ 1620 history1	1248 history2 <1 12 2 0.020 204 history2
Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm % ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 Method ASTM D7647	2500 limit/base >15 >20 >0.05 >500 limit/base >5000	current <1 9 2 ▲ 0.093 ▲ 930 current ▲ 25229	956 history1 <1 6 1 ▲ 0.162 ▲ 1620 history1 ▲ 37653	1248 history2 <1 12 2 0.020 204 history2
Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm % ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 Method ASTM D7647 ASTM D7647	2500 limit/base >15 >20 >0.05 >500 limit/base >5000 >1300 >160	<1 9 2 0.093 300 current 25229 3565	956 history1 <1 6 1 ▲ 0.162 ▲ 1620 history1 ▲ 37653 ● 1840	1248 history2 <1 12 2 0.020 204 history2
Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm	ppm ppm ppm ppm % ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 Method ASTM D7647 ASTM D7647 ASTM D7647	2500 limit/base >15 >20 >0.05 >500 limit/base >5000 >1300 >160	<1 9 2 ▲ 0.093 ▲ 930 current ▲ 25229 ▲ 3565 18	956 history1 <1 6 1 ▲ 0.162 ▲ 1620 history1 ▲ 37653 ● 1840 58	1248 history2 <1 12 2 0.020 204 history2
Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	2500 limit/base >15 >20 >0.05 >500 limit/base >5000 >1300 >1300 >160 >40 >10	<1 9 2 0.093 930 current 25229 3565 18 3	956 history1 <1 6 1 0.162 ▲ 0.162 ▲ 1620 history1 ▲ 37653 ■ 1840 58 14	1248 history2 <1 12 2 0.020 204 history2
Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water	ppm ppm ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	2500 limit/base >15 >20 >0.05 >500 limit/base >5000 >1300 >1300 >160 >40 >10	<1 9 2 0.093 930 current 25229 3565 18 3 0	956 history1 <1 6 1 0.162 ▲ 0.162 ▲ 1620 history1 ▲ 37653 ■ 1840 58 14 0	1248 history2 <1 12 2 0.020 204 history2
Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm % ppm ESS	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	2500 limit/base >15 >20 >0.05 >500 limit/base >5000 >1300 >160 >40 >10 >3	<1 9 2 0.093 930 current 25229 3565 18 3 0 0 0	956 history1 <1 6 1 0.162 ▲ 0.162 ▲ 1620 history1 ▲ 37653 ■ 1840 58 1840 58 14 0 0 0	1248 history2 <1 12 2 0.020 204 history2

Contact/Location: SERVICE MANAGER - SMITAR Page 1 of 2



OIL ANALYSIS REPORT



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	🔺 MODER
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	0.2%	0.2%	NEG
Free Water	scalar	*Visual		2.0	▲ 2.0	NEG
	Jouran				_ 2.0	
FLUID PROPERT		method	limit/base	current	history1	history2
		method ASTM D445	limit/base 46			
FLUID PROPERT	IES cSt			current	history1	history2
FLUID PROPERT Visc @ 40°C	IES cSt	ASTM D445	46	current 46.35	history1 47.3	history2 47.4

GRAPHS Ferrous Alloys Particle Count 491 520 122,880 30,72 20 2 May14/24 Aav12/24 Aav13/24 4406 (per 1 1,920 Mav1 19999 Non-ferrous Metals 480 120 30 May12/24 May13/24 Mav14/24 Mav1 Viscosity @ 40°C Acid Number (B/1.00 KOH/0) Abnom Ë 0.60 Base ළි 0.40 Abnorma JU 0.20 Abn 0.00 P May14/24 -Mav11/24 May13/24 May11/24 May12/24 May12/24 May13/24 May14/24 Mar4 **SMITHFIELD FOOD - TARHEEL** : WearCheck USA - 501 Madison Ave., Cary, NC 27513 : USP0011883 Received : 15 May 2024 15855 HWY. 87 WEST Tested : 23 May 2024 TARHEEL, NC Diagnosed : 23 May 2024 - Jonathan Hester US 28392 Contact: SERVICE MANAGER

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)

T: F:

Contact/Location: SERVICE MANAGER - SMITAR