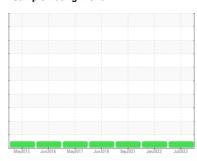


OIL ANALYSIS REPORT

Sample Rating Trend







B1300

Component **Hydraulic System**

AW HYDRAULIC OIL ISO 46 (--- QTS)

Α	\sim	10	0	10
VA.	G١	XII	15	15
ν×	u.	v		\cdot

Recommendation

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

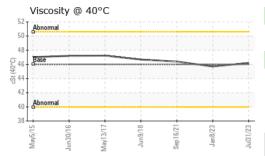
Fluid Condition

The condition of the oil is acceptable for the time in service.

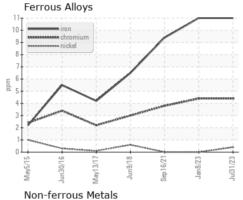
Sample Date Client Info 31 Jul 2023 08 Jan 2023 16 Sep 2021 Machine Age hrs Client Info 0 0 0 Oil Age hrs Client Info 0 0 0 Oil Changed Client Info N/A N/A N/A			May2015	Jun2016 May2017	Jun2018 Sep2021 Jan2023	Jul2023	
Sample Date	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 0 0 0 0 Oil Age hrs Client Info 0 0 0 0 Oil Changed Client Info N/A N/A N/A N/A Sample Status Description N/A N/A N/A N/A WEAR METALS method Imitibase current history1 history2 Iron ppm ASTM D5185m >20 11 11 9 Chromium ppm ASTM D5185m >20 4 4 4 Nickel ppm ASTM D5185m >20 41 0 0 Silver ppm ASTM D5185m >20 <1	Sample Number		Client Info		WC0799371	WC0771377	WC0573632
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 Image: Client Info N/A N/A N/A N/A VEAR METALS Image: Client Info N/A N/A N/A N/A N/A WEAR METALS Image: Client Info N/A N/A N/A N/A N/A N/A Compare Total Color Info N/A N/A N/A N/A N/A N/A Iron ppm ASTM D5185m >20 4	Sample Date		Client Info		31 Jul 2023	08 Jan 2023	16 Sep 2021
Cilient Info	Machine Age	hrs	Client Info		0	0	0
Oil Changed Client Info N/A N/A N/A NORMAL NORMAL	Oil Age	hrs	Client Info		0	0	0
WEAR METALS	-		Client Info		N/A	N/A	N/A
Iron	Sample Status				NORMAL	NORMAL	NORMAL
Chromium ppm ASTM D5185m >20 4 4 4 Nickel ppm ASTM D5185m >20 <1 0 0 Tittanium ppm ASTM D5185m <20 <1 0 <1 Silver ppm ASTM D5185m >20 <1 <1 0 Aluminum ppm ASTM D5185m >20 <1 <1 0 Lead ppm ASTM D5185m >20 <1 <1 0 Lead ppm ASTM D5185m >20 <1 <1 0 Copper ppm ASTM D5185m >20 <1 <1 <1 Antimony ppm ASTM D5185m >20 <1 <1 <1 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 5 0 0 0 Barium ppm ASTM D5185m 5 1 1	WEAR METALS		method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>20	11	11	9
Titanium	Chromium	ppm	ASTM D5185m	>20	4	4	4
Silver	Nickel	ppm	ASTM D5185m	>20	<1	0	0
Aluminum	Titanium	ppm	ASTM D5185m		<1	0	<1
Lead	Silver	ppm	ASTM D5185m		0	0	0
Copper ppm ASTM D5185m >20 10 10 10 Tin ppm ASTM D5185m >20 <1	Aluminum	ppm	ASTM D5185m	>20	<1	<1	0
Tin ppm ASTM D5185m >20 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	Lead	ppm	ASTM D5185m	>20	<1	<1	0
Antimony ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 5 0 0 3 Barium ppm ASTM D5185m 5 1 1 0 Molybdenum ppm ASTM D5185m 5 <1	Copper	ppm	ASTM D5185m	>20	10	10	10
Vanadium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 5 0 0 3 Barium ppm ASTM D5185m 5 1 1 0 Molybdenum ppm ASTM D5185m 5 1 1 0 Manganese ppm ASTM D5185m 0 0 <1 1 Magnesium ppm ASTM D5185m 25 4 5 4 Calcium ppm ASTM D5185m 200 43 50 45 Phosphorus ppm ASTM D5185m 370 366 398 354 Sulfur ppm ASTM D5185m 2500 2162 2090 2083 CONTAMINANTS method limit/base current history1 history2 <	Tin	ppm	ASTM D5185m	>20	<1	<1	<1
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 5 0 0 3 Barium ppm ASTM D5185m 5 1 1 0 Molyddenum ppm ASTM D5185m 5 -1 -1 -1 -1 Manganese ppm ASTM D5185m 0 0 0 -1 Magnesium ppm ASTM D5185m 200 43 50 45 Calcium ppm ASTM D5185m 200 43 50 45 Phosphorus ppm ASTM D5185m 300 302 328 329 Zinc ppm ASTM D5185m 370 366 398 354 Sulfur ppm ASTM D5185m 2500 2162 2090 2083 CONTAMINANTS method limit/base current	Antimony	ppm	ASTM D5185m				0
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 5 0 0 3 Barium ppm ASTM D5185m 5 1 1 0 Molybdenum ppm ASTM D5185m 0 0 <1 <1 Magnesium ppm ASTM D5185m 0 0 <1 <1 Magnesium ppm ASTM D5185m 25 4 5 4 Calcium ppm ASTM D5185m 200 43 50 45 Phosphorus ppm ASTM D5185m 300 302 328 329 Zinc ppm ASTM D5185m 370 366 398 354 Sulfur ppm ASTM D5185m 2500 2162 2090 2083 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 2 </th <th>Vanadium</th> <th>ppm</th> <th>ASTM D5185m</th> <th></th> <th>0</th> <th>0</th> <th>0</th>	Vanadium	ppm	ASTM D5185m		0	0	0
Boron	Cadmium	ppm	ASTM D5185m		0	0	0
Barium ppm ASTM D5185m 5 1 1 0 Molybdenum ppm ASTM D5185m 5 <1 <1 <1 Manganese ppm ASTM D5185m 25 4 5 4 Calcium ppm ASTM D5185m 200 43 50 45 Phosphorus ppm ASTM D5185m 300 302 328 329 Zinc ppm ASTM D5185m 370 366 398 354 Sulfur ppm ASTM D5185m 2500 2162 2090 2083 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 2 2 <1 Sodium ppm ASTM D5185m >20 <1 <1 0 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE <	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 5 <1 <1 <1 Manganese ppm ASTM D5185m 0 0 <1 Magnesium ppm ASTM D5185m 25 4 5 4 Calcium ppm ASTM D5185m 200 43 50 45 Phosphorus ppm ASTM D5185m 300 302 328 329 Zinc ppm ASTM D5185m 370 366 398 354 Sulfur ppm ASTM D5185m 2500 2162 2090 2083 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 2 2 <1 Sodium ppm ASTM D5185m >20 <1 <1 0 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE	Boron	ppm	ASTM D5185m	5	0	0	3
Manganese ppm ASTM D5185m 0 0 <1	Barium	ppm	ASTM D5185m	5	1	1	0
Magnesium ppm ASTM D5185m 25 4 5 4 Calcium ppm ASTM D5185m 200 43 50 45 Phosphorus ppm ASTM D5185m 300 302 328 329 Zinc ppm ASTM D5185m 370 366 398 354 Sulfur ppm ASTM D5185m 2500 2162 2090 2083 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 2 2 <1 Sodium ppm ASTM D5185m >20 <1 <1 0 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE NONE NONE Vellow Metal scalar *Visual NONE NONE NONE NONE NONE Precipitate <t< td=""><th>Molybdenum</th><td>ppm</td><td>ASTM D5185m</td><td>5</td><th><1</th><td><1</td><td><1</td></t<>	Molybdenum	ppm	ASTM D5185m	5	<1	<1	<1
Calcium ppm ASTM D5185m 200 43 50 45 Phosphorus ppm ASTM D5185m 300 302 328 329 Zinc ppm ASTM D5185m 370 366 398 354 Sulfur ppm ASTM D5185m 2500 2162 2090 2083 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 2 2 <1	Manganese	ppm	ASTM D5185m		0	0	<1
Phosphorus ppm ASTM D5185m 300 302 328 329 Zinc ppm ASTM D5185m 370 366 398 354 Sulfur ppm ASTM D5185m 2500 2162 2090 2083 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 2 2 <1 Sodium ppm ASTM D5185m >20 <1 <1 0 VISUAL method limit/base current history1 history2 VISUAL method limit/base current history1 history2 VISUAL NONE NONE NONE NONE NONE Visual NONE NONE NONE NONE NONE Visual NONE NONE NONE NONE NONE Visual NONE NONE<	Magnesium	ppm	ASTM D5185m	25	4	5	4
Zinc ppm ASTM D5185m 370 366 398 354 Sulfur ppm ASTM D5185m 2500 2162 2090 2083 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 2 2 <1 Sodium ppm ASTM D5185m >0 0 0 0 Potassium ppm ASTM D5185m >20 <1 <1 0 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE	Calcium	ppm	ASTM D5185m	200	43	50	45
Sulfur ppm ASTM D5185m 2500 2162 2090 2083 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 2 2 <1 Sodium ppm ASTM D5185m >0 0 0 0 Potassium ppm ASTM D5185m >20 <1 <1 0 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE	Phosphorus	ppm	ASTM D5185m	300	302	328	329
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 2 2 <1 Sodium ppm ASTM D5185m >20 <1 <1 0 Potassium ppm ASTM D5185m >20 <1 <1 0 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE	Zinc	ppm	ASTM D5185m	370	366	398	354
Silicon ppm ASTM D5185m >15 2 2 <1	Sulfur	ppm	ASTM D5185m	2500	2162	2090	2083
Sodium ppm ASTM D5185m 0 0 0 0 Potassium ppm ASTM D5185m >20 <1 <1 0 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 NORML NORML NORML NORML NORML Appearance scalar *Visual NORML NORML NORML NORML NORML Odor scalar *Visual >0.05 NEG NEG	CONTAMINANTS	3	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 <1 <1 0 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE 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 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	Silicon	ppm	ASTM D5185m	>15	2	2	<1
White Metal scalar *Visual NONE NONE NONE NONE LIGHT 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 Sand/Dirt 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 Emulsified Water scalar *Visual >0.05 NEG NEG	Sodium	ppm	ASTM D5185m		0	0	0
White Metal scalar *Visual NONE NONE NONE LIGHT 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 Emulsified Water scalar *Visual >0.05 NEG NEG	Potassium	ppm	ASTM D5185m	>20	<1	<1	0
Yellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.05NEGNEGNEG	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 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							
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 Emulsified Water scalar *Visual >0.05 NEG NEG	Yellow Metal		*Visual			NONE	NONE
Debrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.05NEGNEGNEG							
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.05NEGNEGNEG		scalar	*Visual		NONE	NONE	NONE
Appearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.05NEGNEGNEG	Debris	scalar	*Visual				
Odor scalar *Visual NORML NORML NORML NORML NORML Emulsified Water scalar *Visual >0.05 NEG NEG NEG	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Emulsified Water scalar *Visual >0.05 NEG NEG NEG	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Free Water scalar *Visual NEG NEG NEG	Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	NEG
	Free Water	scalar	*Visual		NEG	NEG	NEG

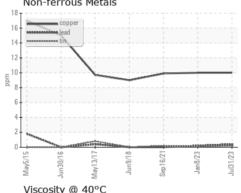


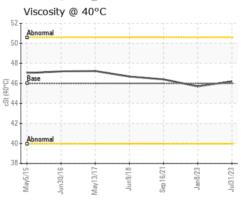
OIL ANALYSIS REPORT



FLUID PROPE	ERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	46.2	45.7	46.4
SAMPLE IMAG	GES	method	limit/base	current	history1	history2
Color						no image
Bottom						no image











Certificate L2367

Laboratory Sample No. Lab Number

Unique Number : 10602544 Test Package : IND 1

: WC0799371 : 05922597

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 11 Aug 2023 Diagnosed Diagnostician : Wes Davis

: 13 Aug 2023

TAZEWELL, TN US 37879 Contact: JEREMY COLLINS jcollins@us.sumiriko.com

SUMIRIKO TENNESSEE INC

T: (423)626-8805 F: (423)626-2065

150 HESTER LN

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)