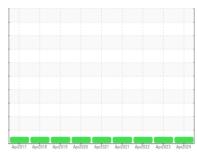


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



RK 317
Component
Hydraulic System

Fluid

AW HYDRAULIC OIL ISO 32 (--- LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. 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 oil.

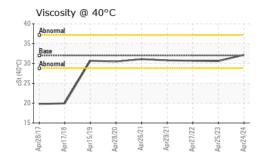
Fluid Condition

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

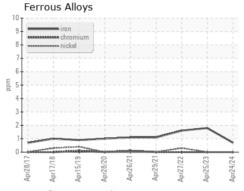
Sample Number			ADIZOT7 AD	ZOTO APIZOTO APIZOZO	MPIZUZI MPIZUZI MPIZUZZ MPIZ	.023 Api2024	
Sample Date	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Client Info	Sample Number		Client Info		WC0917759	WC0790390	WC0684010
Oil Age mIs Client Info Not Changed Not Changed Not Changed Nort Changed			Client Info		24 Apr 2024	25 Apr 2023	27 Apr 2022
Oil Changed Client Info Nort Changed Nort Changed NORMAL NORMAL NORMAL	Machine Age	mls	Client Info		0	0	0
Sample Status	Oil Age	mls	Client Info		0	0	0
Water WC Method Imilitase current history1 history2	Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Wear Wideling Wear We	Sample Status				NORMAL	NORMAL	NORMAL
WEAR METALS	CONTAMINATION	٧	method	limit/base	current	history1	history2
Iron	Water		WC Method	>0.1	NEG	NEG	NEG
Chromium ppm ASTM D5185m >10 0 0 0 0 1 1 0 0 0 0 0 1 1 0 0 0 0 0 0 1 1 1 0 0 0 0 1 1 1 0 0 0 2 1 1 1 0 0 0 2 1 1 0 0 2 1 1 0 0 2 1 1 0	WEAR METALS		method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>20	<1	2	2
Titanium ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m 0 0 <1 AILminium ppm ASTM D5185m >10 0 2 <1 Lead ppm ASTM D5185m >10 0 0 0 0 Copper ppm ASTM D5185m >10 0 0 <1 1 Tin ppm ASTM D5185m >10 0 0 <1 1 ATM D5185m >10 0 0 <1	Chromium	ppm	ASTM D5185m	>10	0	0	0
Silver	Nickel	ppm	ASTM D5185m	>10	0	0	<1
Aluminum	Titanium	ppm	ASTM D5185m		0	0	0
Lead	Silver	ppm	ASTM D5185m		0	0	<1
Copper	Aluminum	ppm	ASTM D5185m	>10	0	2	<1
Tin	Lead	ppm	ASTM D5185m	>10	0	0	0
Antimony ppm ASTM D5185m Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 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 2 2 Manganese ppm ASTM D5185m 5 <1 2 2 Manganesium ppm ASTM D5185m 25 8 16 16 Calcium ppm ASTM D5185m 200 72 72 78 Phosphorus ppm ASTM D5185m 300 279 297 309 Zinc ppm ASTM D5185m 370 325 363	Copper	ppm	ASTM D5185m	>75	0	0	<1
Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 5 0 0 <1	Tin	ppm	ASTM D5185m	>10	0	0	<1
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 5 0 0 <1	Antimony	ppm	ASTM D5185m				
ADDITIVES	Vanadium	ppm	ASTM D5185m		0	0	0
Boron	Cadmium	ppm	ASTM D5185m		0	0	0
Barium ppm ASTM D5185m 5 0 0 0 Molybdenum ppm ASTM D5185m 5 <1 2 2 Manganese ppm ASTM D5185m 0 <1 0 Magnesium ppm ASTM D5185m 25 8 16 16 Calcium ppm ASTM D5185m 200 72 72 78 Phosphorus ppm ASTM D5185m 300 279 297 309 Zinc ppm ASTM D5185m 370 325 363 343 Sulfur ppm ASTM D5185m 2500 1503 1786 1368 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 0 <1 <1 Sodium ppm ASTM D5185m >20 0 <1 <1 <1 Potassium ppm ASTM D5185m >20<	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 5 <1	Boron	ppm	ASTM D5185m	5	0	0	<1
Manganese ppm ASTM D5185m 0 <1	Barium	ppm	ASTM D5185m	5	0	0	0
Magnesium ppm ASTM D5185m 25 8 16 16 Calcium ppm ASTM D5185m 200 72 72 78 Phosphorus ppm ASTM D5185m 300 279 297 309 Zinc ppm ASTM D5185m 370 325 363 343 Sulfur ppm ASTM D5185m 2500 1503 1786 1368 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 0 <1	Molybdenum	ppm	ASTM D5185m	5	<1	2	2
Calcium ppm ASTM D5185m 200 72 72 78 Phosphorus ppm ASTM D5185m 300 279 297 309 Zinc ppm ASTM D5185m 370 325 363 343 Sulfur ppm ASTM D5185m 2500 1503 1786 1368 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 0 <1 <1 Sodium ppm ASTM D5185m >20 0 0 0 0 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE Vis	Manganese	ppm	ASTM D5185m		0	<1	0
Phosphorus ppm ASTM D5185m 300 279 297 309 Zinc ppm ASTM D5185m 370 325 363 343 Sulfur ppm ASTM D5185m 2500 1503 1786 1368 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 0 <1 <1 Sodium ppm ASTM D5185m >20 0 0 0 VISUAL method limit/base current history1 history2 VISUAL method limit/base current history1 history2 VISUAL method limit/base current history1 history2 VISUAL NONE NONE NONE NONE Visual NONE NONE NONE NONE Precipitate scalar *Visual NONE N	Magnesium	ppm	ASTM D5185m	25	8	16	16
Zinc ppm ASTM D5185m 370 325 363 343 Sulfur ppm ASTM D5185m 2500 1503 1786 1368 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 0 <1 <1 Sodium ppm ASTM D5185m >20 0 0 0 VISUAL method limit/base current history1 history2 White Metal scalar *Visual 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	Calcium	ppm	ASTM D5185m	200	72	72	78
Sulfur ppm ASTM D5185m 2500 1503 1786 1368 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 0 <1 <1 Sodium ppm ASTM D5185m >20 0 0 0 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE Silt scalar *Visual NONE NONE NONE Debris scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NORML NORML NORML NORML	Phosphorus	ppm	ASTM D5185m	300	279	297	309
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 0 <1 <1 Sodium ppm ASTM D5185m >20 0 0 <1 <1 Potassium ppm ASTM D5185m >20 0 0 0 0 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE NONE NONE NONE NON	Zinc	ppm	ASTM D5185m	370	325	363	343
Silicon ppm ASTM D5185m >20 0 <1	Sulfur	ppm	ASTM D5185m	2500	1503	1786	1368
Sodium	CONTAMINANTS		method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 0 0 0 0 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 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 >0.1 NEG NEG Free Water Scalar *Visual NEG NEG NEG NEG	Silicon	ppm	ASTM D5185m	>20	0	<1	<1
White Metal scalar *Visual NONE NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE NONE NONE NONE NON	Sodium	ppm	ASTM D5185m		<1	<1	<1
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 Emulsified Water scalar *Visual >0.1 NEG NEG Free Water Scalar *Visual NORMC NEG NEG NORE NONE NORML NORML NORML NORML NORML	Potassium	ppm	ASTM D5185m	>20	0	0	0
Yellow Metal scalar *Visual NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE 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 NORML Odor scalar *Visual NORML NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG Free Water scalar *Visual NEG NEG NEG	VISUAL		method	limit/base	current	history1	history2
Precipitate scalar *Visual NONE 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 >0.1 NEG NEG NEG Free Water scalar *Visual NEG NEG NEG	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silt scalar *Visual NONE 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 NORML Odor scalar *Visual NORML NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG Free Water scalar *Visual NEG NEG NEG NEG NEG NEG	Yellow Metal	scalar	*Visual	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 NORML Odor scalar *Visual NORML NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG NEG Free Water scalar *Visual *NEG NEG NEG NEG	Precipitate	scalar	*Visual	NONE		NONE	NONE
Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG NEG Free Water scalar *Visual NEG	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance scalar *Visual NORML NORML NORML NORML NORML Odor scalar *Visual NORML NO	Debris	scalar	*Visual	NONE		NONE	
Odor scalar *Visual NORML NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG NEG Free Water scalar *Visual NEG MESUMONTERA - COMESOLCO	Sand/Dirt	scalar	*Visual			NONE	NONE
Emulsified Water scalar *Visual >0.1 NEG NEG NEG Free Water scalar *Visual NEG MESNEGONTERA - COLLOCO		scalar	*Visual			NORML	NORML
Free Water scalar *Visual NEG MESIMONTERA - GOLGO	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
1.20		scalar					
	Free Water	scalar	*Visual		NEG	INIE PARONIEK	

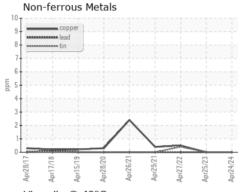


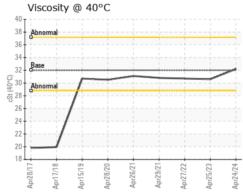
OIL ANALYSIS REPORT



FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	32	32.2	30.6	30.7
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color				no image	no image	no image
Bottom				no image	no image	no image











Certificate 12367

Laboratory

Sample No. : WC0917759 Lab Number : 06176367 Unique Number : 11022420 Test Package : FLEET

To discuss this sample report, contact Customer Service at 1-800-237-1369.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 10 May 2024

Tested : 13 May 2024 : 13 May 2024 - Wes Davis Diagnosed

3667 E. BIJOU ST. COLORADO SPRINGS, CO US 80911

COLORADO SPRINGS FIRE DEPT.

Contact: JAMES MONTERA jmontera@springsgov.com T: (719)385-7380

* - 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)

Report Id: COLCOLCO [WUSCAR] 06176367 (Generated: 05/13/2024 17:29:47) Rev: 1

Contact/Location: JAMES MONTERA - COLCOLCO

F: (719)385-7382