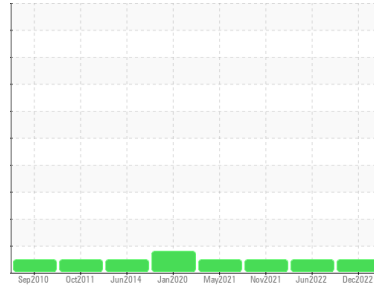




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
JHF STL METER (S/N EP041603)

Component
Hydraulic System

Fluid
ROYAL PURPLE SYNFILM 32 (45 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the component. The amount and size of particulates present in the system is acceptable.

Fluid Condition

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

SAMPLE INFORMATION		method	limit/base	current	history 1	history 2
Sample Number	Client Info			RP0002093	RP0001273	RP0001288
Sample Date	Client Info			20 Dec 2022	01 Jun 2022	10 Nov 2021
Machine Age	yrs	Client Info		0	0	1
Oil Age	yrs	Client Info		0	0	0
Oil Changed	Client Info			Not Changed	N/A	Not Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m	>20	3	<1	0
Chromium	ppm	ASTM D5185m	>20	0	0	0
Nickel	ppm	ASTM D5185m	>20	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		<1	0	<1
Aluminum	ppm	ASTM D5185m	>20	0	<1	0
Lead	ppm	ASTM D5185m	>20	0	0	0
Copper	ppm	ASTM D5185m	>20	8	6	5
Tin	ppm	ASTM D5185m	>20	0	0	0
Antimony	ppm	ASTM D5185m		---	---	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	<1

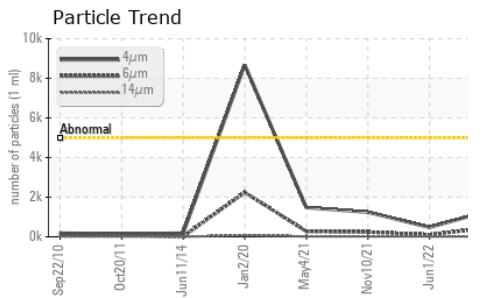
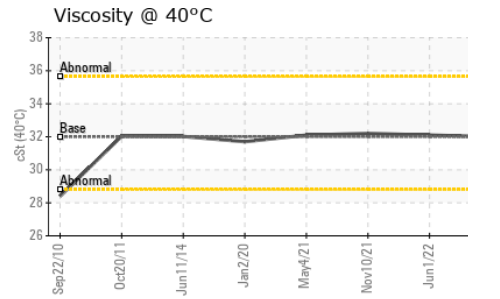
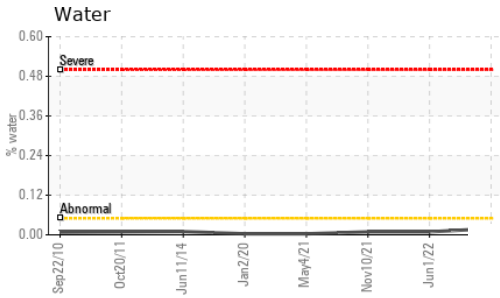
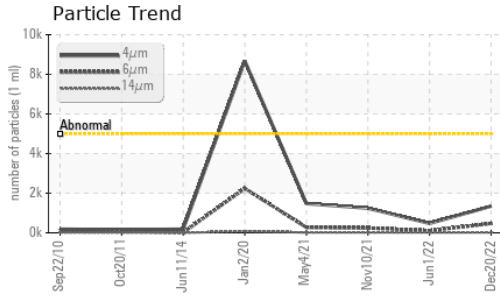
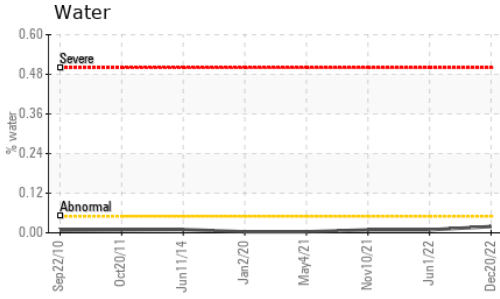
ADDITIVES		method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m		0	0	4
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m	90	30	25	30
Calcium	ppm	ASTM D5185m		<1	2	9
Phosphorus	ppm	ASTM D5185m		279	195	201
Zinc	ppm	ASTM D5185m		284	229	240

CONTAMINANTS		method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m	>15	4	0	0
Sodium	ppm	ASTM D5185m		0	1	1
Potassium	ppm	ASTM D5185m	>20	<1	0	0
Water	%	ASTM D6304	>0.05	0.019	0.009	0.009
ppm Water	ppm	ASTM D6304	>500	197.1	95.5	90.2

FLUID CLEANLINESS		method	limit/base	current	history 1	history 2
Particles >4µm		ASTM D7647	>5000	1345	474	1243
Particles >6µm		ASTM D7647	>1300	467	106	242
Particles >14µm		ASTM D7647	>160	22	17	16
Particles >21µm		ASTM D7647	>40	4	4	4
Particles >38µm		ASTM D7647	>10	0	0	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	18/16/12	16/14/11	17/15/11

FLUID DEGRADATION		method	limit/base	current	history 1	history 2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.33	0.37	0.342

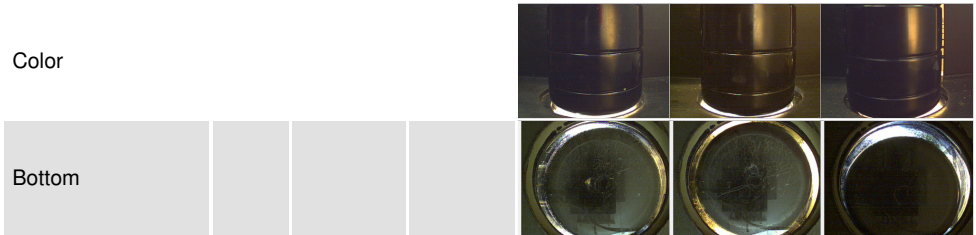
OIL ANALYSIS REPORT



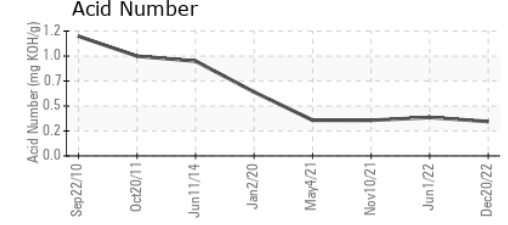
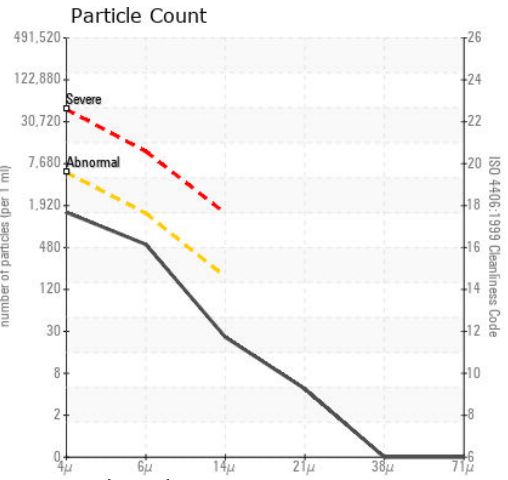
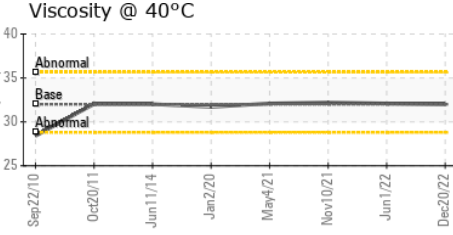
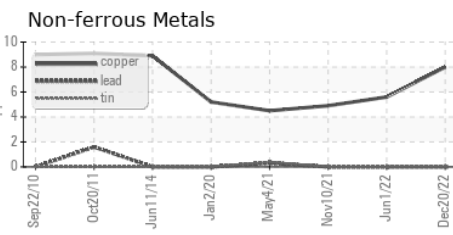
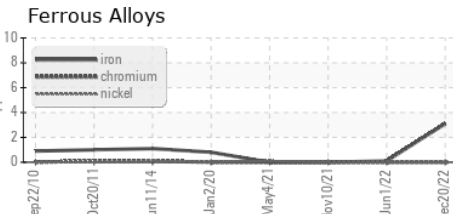
VISUAL	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 40°C	cSt	ASTM D445	32	32.0	32.1

SAMPLE IMAGES	method	limit/base	current	history 1	history 2
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GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0002093 **Received** : 23 Dec 2022
Lab Number : 05724923 **Diagnosed** : 27 Dec 2022
Unique Number : 10269504 **Diagnostician** : Doug Bogart
Test Package : IND 2

EXPLORER PIPELINE
 1355 ROBBINS RD
 HARTFORD, IL
 US 62048
 Contact: ROGELIO BERUMEN
 rberumen@expl.com
 T:
 F: (618)251-0270

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)