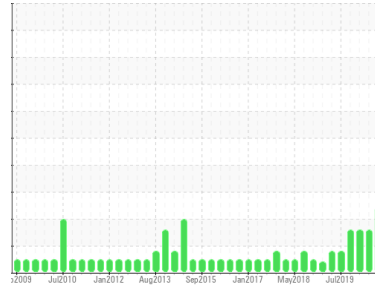




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
AREA I [500168796]
 Machine Id
TOLHURST S1001A (S/N C-48-8)
 Component
Hydraulic System
 Fluid
ESSO NUTO H ISO 68 (20 GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a high amount of particulates 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 INFORMATION

	method	limit/base	current	history 1	history 2
Sample Number	Client Info		WC0487758	WC0428785	WC0395564
Sample Date	Client Info		30 Jul 2020	08 Apr 2020	09 Jan 2020
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	history 1	history 2
Iron	ppm	ASTM D5185m >20	1	1	1
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	0	<1	0
Aluminum	ppm	ASTM D5185m >20	0	0	0
Lead	ppm	ASTM D5185m >20	0	0	0
Copper	ppm	ASTM D5185m >20	<1	<1	<1
Tin	ppm	ASTM D5185m >20	0	0	0
Antimony	ppm	ASTM D5185m	0	0	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m 0	0	10	0
Barium	ppm	ASTM D5185m 0	0	<1	<1
Molybdenum	ppm	ASTM D5185m 0	0	0	0
Manganese	ppm	ASTM D5185m	0	0	0
Magnesium	ppm	ASTM D5185m 5	0	0	<1
Calcium	ppm	ASTM D5185m 50	49	59	51
Phosphorus	ppm	ASTM D5185m 330	321	352	326
Zinc	ppm	ASTM D5185m 420	436	491	408
Sulfur	ppm	ASTM D5185m 3100	5921	6311	8230

CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >15	0	<1	<1
Sodium	ppm	ASTM D5185m	<1	0	<1
Potassium	ppm	ASTM D5185m >20	<1	<1	<1

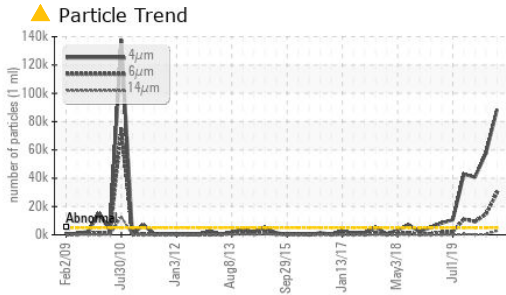
FLUID CLEANLINESS

	method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647	>5000	▲ 88678	▲ 57770	▲ 40677
Particles >6µm	ASTM D7647	>1300	▲ 29926	▲ 14689	▲ 9263
Particles >14µm	ASTM D7647	>160	▲ 2782	▲ 408	▲ 308
Particles >21µm	ASTM D7647	>40	▲ 841	▲ 67	▲ 56
Particles >38µm	ASTM D7647	>10	▲ 44	5	9
Particles >71µm	ASTM D7647	>3	▲ 3	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 24/22/19	▲ 23/21/16	▲ 23/20/15

FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Acid Number (AN)	mg KOH/g	ASTM D8045 .40	0.273	0.330	0.312

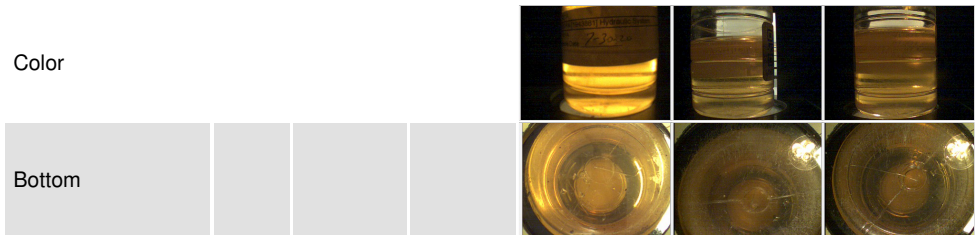
OIL ANALYSIS REPORT



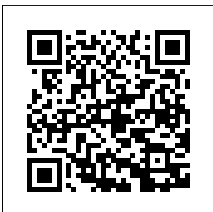
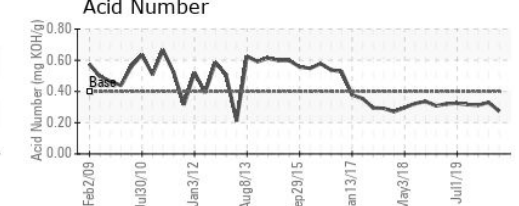
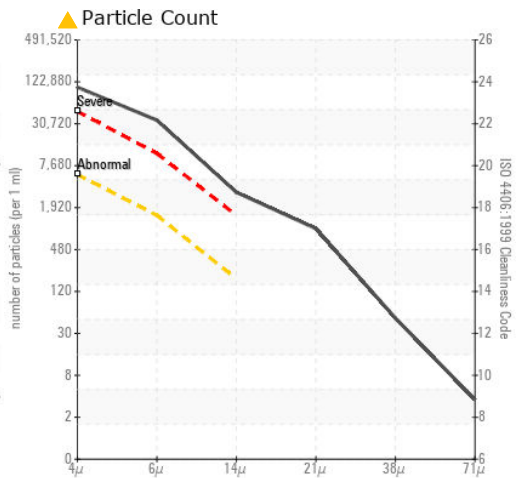
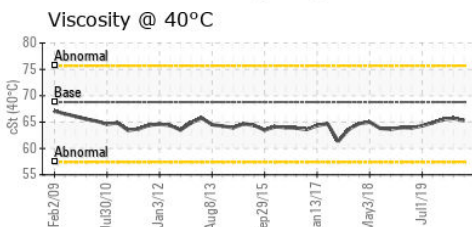
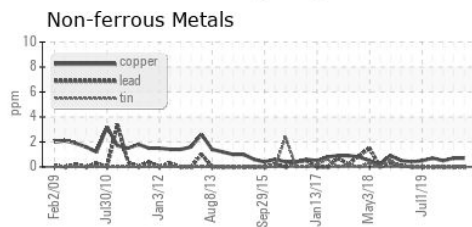
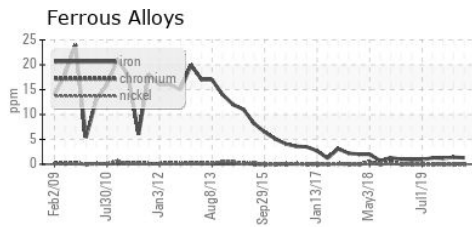
VISUAL	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	68.8	65.3	65.7

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. : WC1234567
 Lab Number : 01234567
 Unique Number : 12345678
 Test Package : IND 2

Received : 27 Aug 2020
 Diagnosed : 28 Aug 2020
 Diagnostician : Don Baldrige

Cusany Logistics Inc.
 1212 Industrial Place
 Centerville, OH
 USA 75900
 Contact: Jim Leduc
 jim.leduc@cusanylogisticsinc.com
 T: (305)555-1212
 F: (305)555-1222

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)