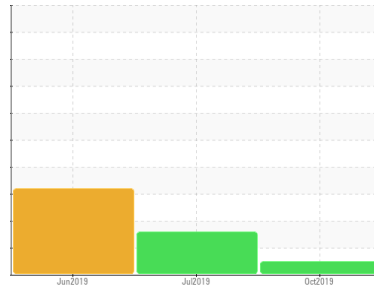


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
P-806
Component
Pump

Fluid
TULCO LUBSOIL PG 320 GEAR OIL (--- QTS)

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 oil.

Fluid Condition

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			TO5009202	TO5009193	TO204730362
Sample Date	Client Info			01 Oct 2019	24 Jul 2019	09 Jun 2019
Machine Age	hrs	Client Info		12105	9787	8848
Oil Age	hrs	Client Info		1000	0	1000
Oil Changed	Client Info			Changed	Not Changd	N/A
Sample Status				NORMAL	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>2.26	NEG	NEG	NEG

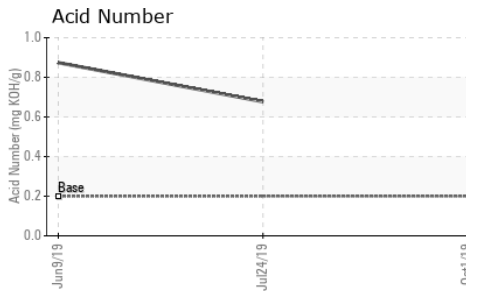
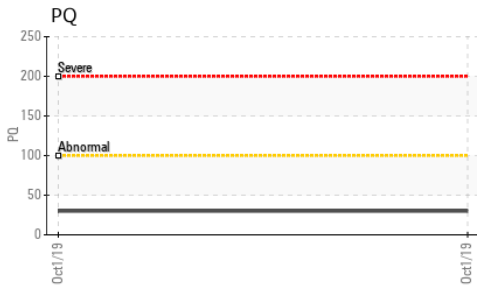
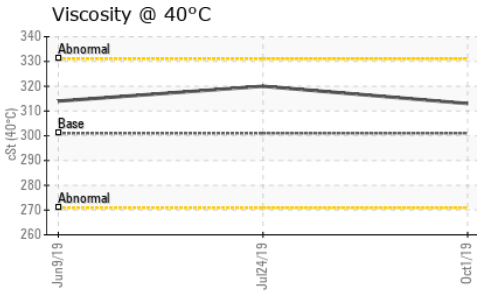
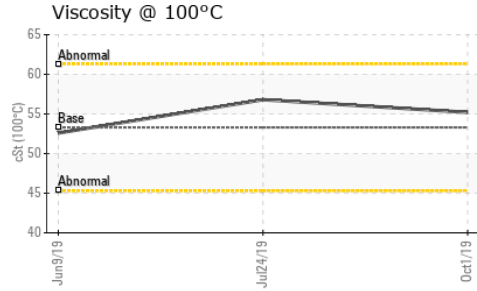
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		30	---	---
Iron	ppm	ASTM D5185m	>90	<1	3	<1
Chromium	ppm	ASTM D5185m		0	0	0
Nickel	ppm	ASTM D5185m		0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>7	0	0	0
Lead	ppm	ASTM D5185m	>12	<1	0	0
Copper	ppm	ASTM D5185m	>30	<1	<1	<1
Tin	ppm	ASTM D5185m	>9	0	0	0
Antimony	ppm	ASTM D5185m		2	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	8	9	<1	6
Barium	ppm	ASTM D5185m		2	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		3	<1	<1
Magnesium	ppm	ASTM D5185m		0	0	0
Calcium	ppm	ASTM D5185m		1	0	2
Phosphorus	ppm	ASTM D5185m	800	591	720	599
Zinc	ppm	ASTM D5185m	7	5	2	5
Sulfur	ppm	ASTM D5185m	400	339	844	591

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>60	3	8	6
Sodium	ppm	ASTM D5185m		0	<1	0
Potassium	ppm	ASTM D5185m	>20	2	2	2

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.2	---	0.677	0.874

OIL ANALYSIS REPORT

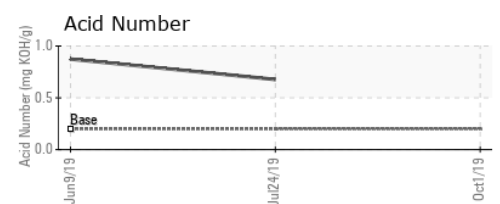
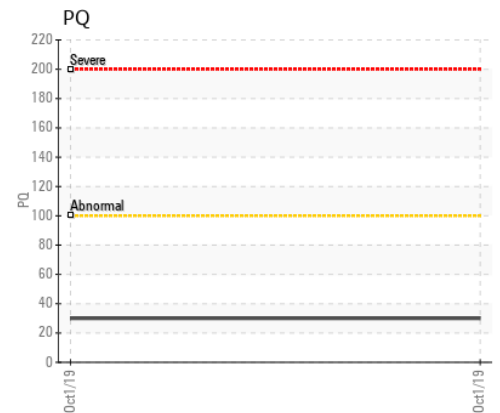
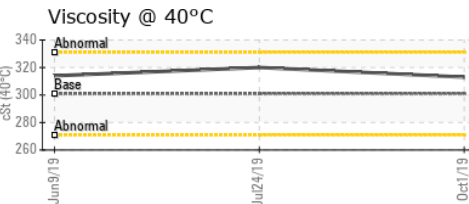
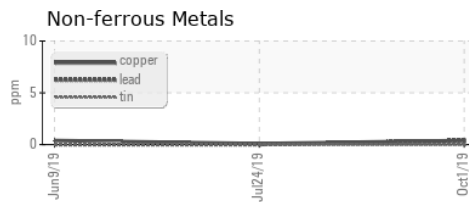
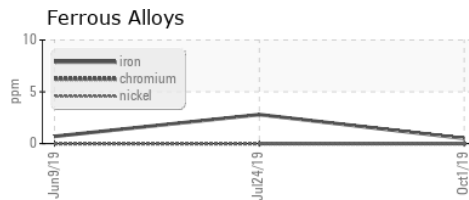


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>2.26	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	301	313	320
Visc @ 100°C	cSt	ASTM D445	53.3	55.2	52.59
Viscosity Index (VI)	Scale	ASTM D2270	242	243	245

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO5009202 **Received** : 22 Oct 2019
Lab Number : 04828916 **Tested** : 23 Oct 2019
Unique Number : 8788814 **Diagnosed** : 23 Oct 2019 - Jonathan Hester
Test Package : IND 2 (Additional Tests: KV100, PQ, VI)

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)

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 sam.richter@williams.com

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