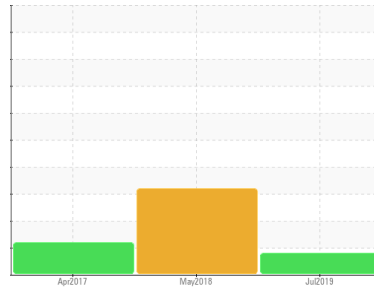


# OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id  
**TKS PRESS 1 UNIT 3**

Component  
**Hydraulic System**

Fluid  
**TULCO LUBSOIL SUPER HYDRAULIC AW 68 (50 GAL)**

## DIAGNOSIS

### Recommendation

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

### Wear

All component wear rates are normal.

### Contamination

There is a high amount of silt (particulates < 14 microns in size) 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	history1	history2
Sample Number	Client Info		<b>TO5000393</b>	TO5010021	TO5008009
Sample Date	Client Info		<b>23 Jul 2019</b>	14 May 2018	03 Apr 2017
Machine Age	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

WEAR METALS	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	<b>17</b>	▲ 15	<1
Chromium	ppm	ASTM D5185m >10	<b>&lt;1</b>	0	2
Nickel	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m >10	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185m >10	<b>3</b>	3	1
Copper	ppm	ASTM D5185m >75	<b>14</b>	14	6
Tin	ppm	ASTM D5185m >10	<b>0</b>	0	0
Antimony	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0

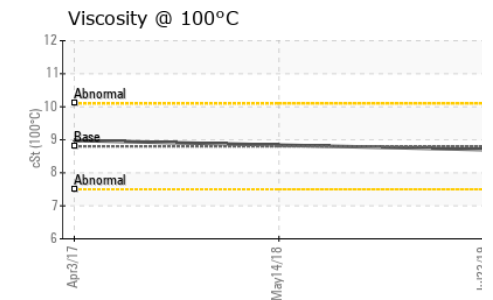
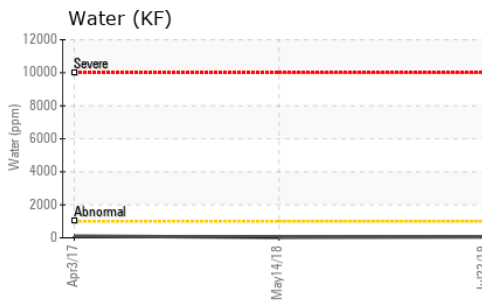
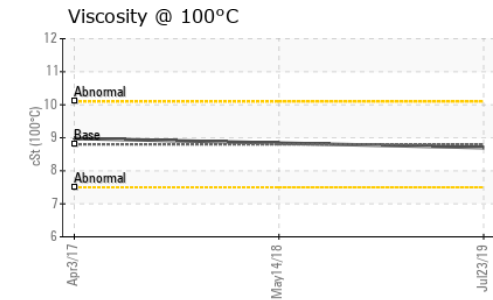
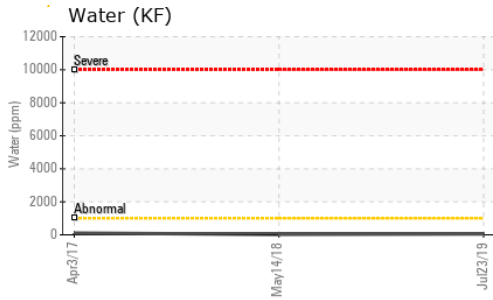
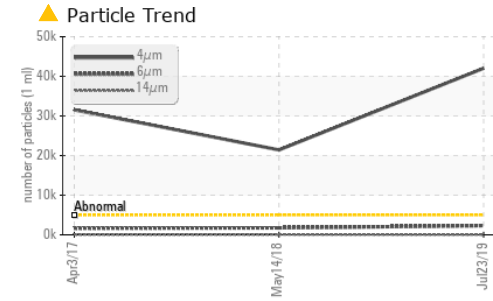
ADDITIVES	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m	<b>6</b>	6	9
Calcium	ppm	ASTM D5185m	<b>5</b>	5	13
Phosphorus	ppm	ASTM D5185m 425	<b>199</b>	202	324
Zinc	ppm	ASTM D5185m 500	<b>190</b>	190	407
Sulfur	ppm	ASTM D5185m 1900	<b>5108</b>	2735	1526

CONTAMINANTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	<b>23</b>	▲ 20	<1
Sodium	ppm	ASTM D5185m	<b>2</b>	2	0
Potassium	ppm	ASTM D5185m >20	<b>2</b>	2	0
Water	%	ASTM D6304 >0.1	<b>0.005</b>	0.002	0.011
ppm Water	ppm	ASTM D6304 >1000	<b>50</b>	20	110

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ <b>42037</b>	▲ 21423	▲ 31541
Particles >6µm	ASTM D7647	>1300	● <b>2315</b>	● 1752	● 1650
Particles >14µm	ASTM D7647	>160	<b>19</b>	53	45
Particles >21µm	ASTM D7647	>40	<b>3</b>	22	17
Particles >38µm	ASTM D7647	>10	<b>0</b>	8	7
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	1
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ <b>23/18/11</b>	▲ 22/18/13	▲ 22/18/13

FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.7	<b>0.426</b>	0.414	0.515

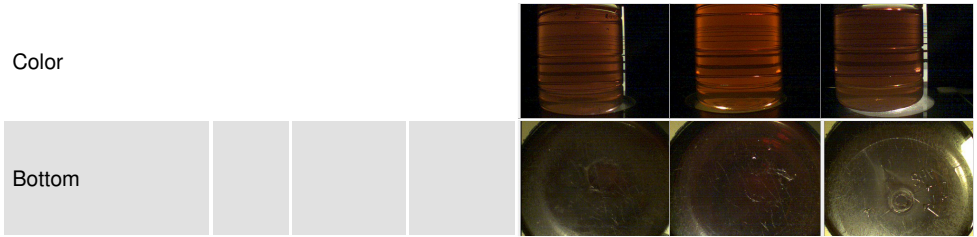
# OIL ANALYSIS REPORT



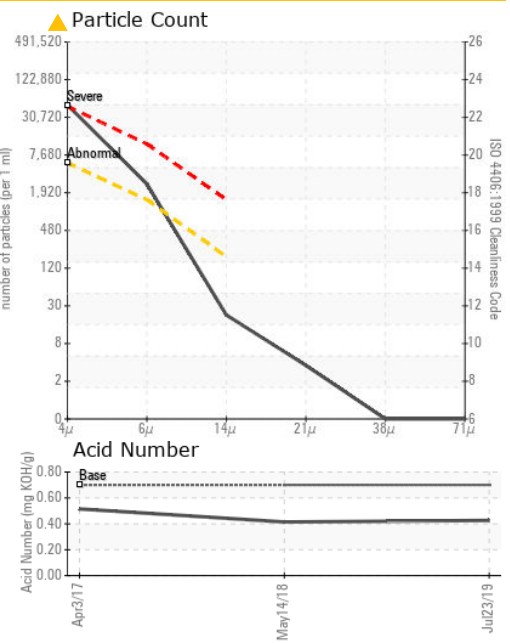
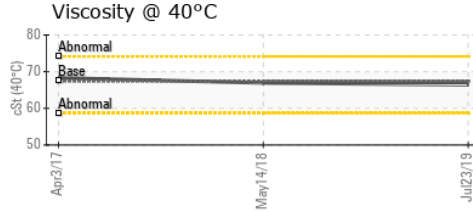
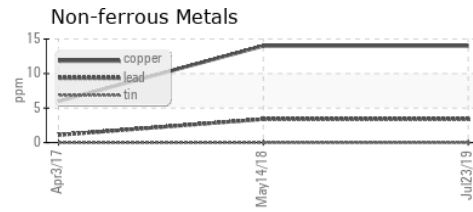
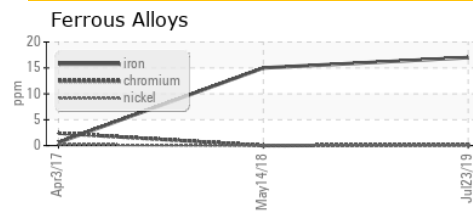
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	67.4	66.93	68.31
Visc @ 100°C	cSt	ASTM D445	8.8	8.84	8.98
Viscosity Index (VI)	Scale	ASTM D2270	102	105	105

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TO5000393 **Received** : 24 Jul 2019  
**Lab Number** : **04761305** **Tested** : 25 Jul 2019  
**Unique Number** : 8674031 **Diagnosed** : 25 Jul 2019 - Doug Bogart  
**Test Package** : IND 2 ( Additional Tests: KF, KV100, VI )

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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)