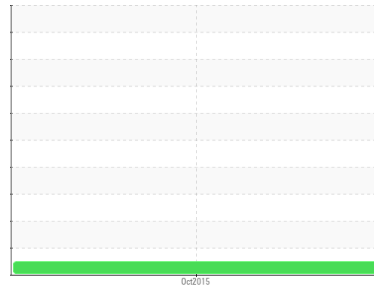


# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**TULSA DIVISION - TO1**  
Machine Id  
**LUBSOIL SUP HYD AW 46 - FROM TULCO**  
Component  
**New (Unused) Oil**  
Fluid  
**TULCO LUBSOIL SUPER HYDRAULIC AW 46 (--- QTS)**

## DIAGNOSIS

**Recommendation**  
This is a baseline read-out on the submitted sample.

**Contamination**  
The water content is negligible. There is no indication of any contamination in the component.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>TO1005086</b>	---	---
Sample Date	Client Info		<b>05 Oct 2015</b>	---	---
Machine Age	mls	Client Info	<b>0</b>	---	---
Oil Age	mls	Client Info	<b>0</b>	---	---
Oil Changed	Client Info		<b>N/A</b>	---	---
Sample Status			<b>NORMAL</b>	---	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >10	<b>0</b>	---	---
Chromium	ppm	ASTM D5185m >10	<b>0</b>	---	---
Nickel	ppm	ASTM D5185m >2	<b>&lt;1</b>	---	---
Titanium	ppm	ASTM D5185m >2	<b>0</b>	---	---
Silver	ppm	ASTM D5185m >2	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m >10	<b>0</b>	---	---
Lead	ppm	ASTM D5185m >10	<b>&lt;1</b>	---	---
Copper	ppm	ASTM D5185m >50	<b>0</b>	---	---
Tin	ppm	ASTM D5185m >10	<b>0</b>	---	---
Antimony	ppm	ASTM D5185m	<b>0</b>	---	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	---	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	---	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>0</b>	---	---
Barium	ppm	ASTM D5185m	<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m	<b>0</b>	---	---
Manganese	ppm	ASTM D5185m	<b>0</b>	---	---
Magnesium	ppm	ASTM D5185m	<b>0</b>	---	---
Calcium	ppm	ASTM D5185m	<b>0</b>	---	---
Phosphorus	ppm	ASTM D5185m 450	<b>379</b>	---	---
Zinc	ppm	ASTM D5185m 540	<b>456</b>	---	---
Sulfur	ppm	ASTM D5185m 1825	<b>1786</b>	---	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	<b>&lt;1</b>	---	---
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	---	---
Potassium	ppm	ASTM D5185m >20	<b>0</b>	---	---
Water	%	ASTM D6304	<b>0.004</b>	---	---
ppm Water	ppm	ASTM D6304	<b>40</b>	---	---

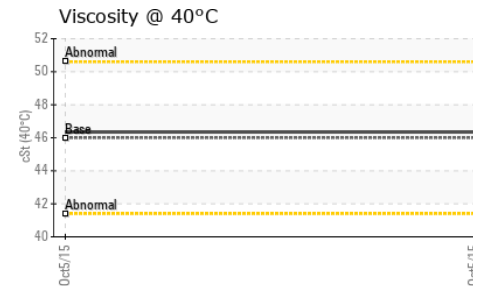
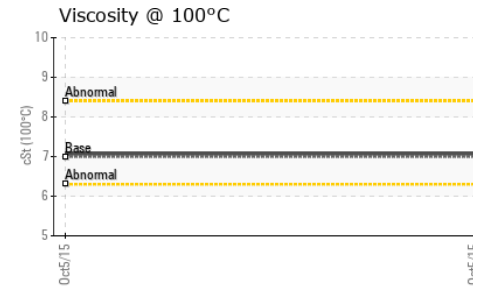
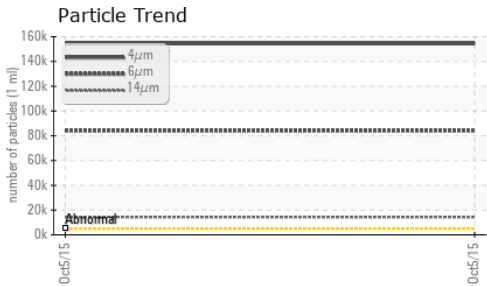
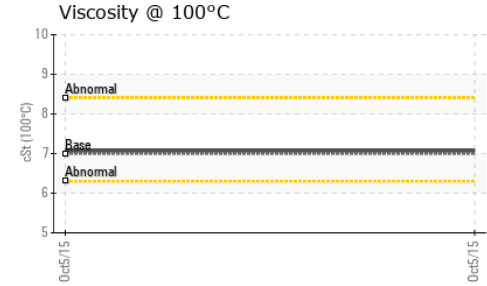
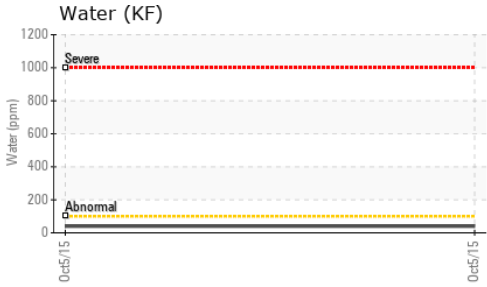
## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>154377</b>	---	---
Particles >6µm	ASTM D7647	>1300	<b>84096</b>	---	---
Particles >14µm	ASTM D7647	>160	<b>14328</b>	---	---
Particles >21µm	ASTM D7647	>40	<b>4835</b>	---	---
Particles >38µm	ASTM D7647	>10	<b>745</b>	---	---
Particles >71µm	ASTM D7647	>3	<b>77</b>	---	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>24/24/21</b>	---	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 .7	<b>0.450</b>	---	---

# OIL ANALYSIS REPORT

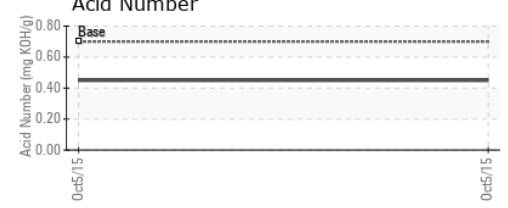
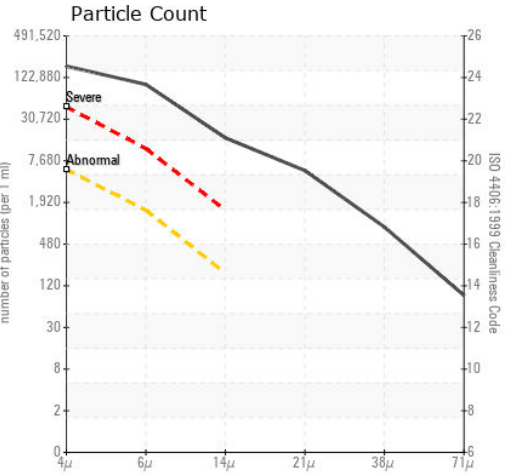
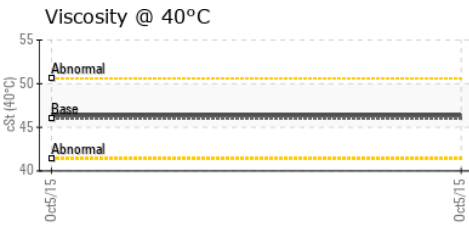
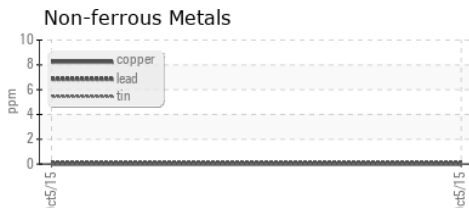


VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Precipitate	scalar	*Visual	NONE	<b>NONE</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual	NONE	<b>VLITE</b>	---	---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

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445	46	<b>46.35</b>	---	---
Visc @ 100°C	cSt	ASTM D445	7	<b>7.07</b>	---	---
Viscosity Index (VI)	Scale	ASTM D2270	109	<b>110</b>	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2	
Color				no image	no image	no image
Bottom				no image	no image	no image

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TO1005086 **Received** : 07 Oct 2015  
**Lab Number** : 03838326 **Tested** : 08 Oct 2015  
**Unique Number** : 7163522 **Diagnosed** : 08 Oct 2015 - Doug Bogart  
**Test Package** : MOB 2 ( Additional Tests: KF, KV100, PrtCount, VI )

**TULCO OILS INC CORPORATE - BASELINE SAMPLES**  
 5240 EAST PINE  
 TULSA, OK  
 US 74115  
 Contact: DARRYL THOMPSON

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)

T:  
F: