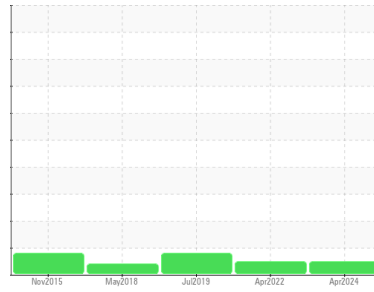


# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Area  
**PRODUCTION**  
 Machine Id  
**WIFAG TOWER 9**  
 Component  
**Hydraulic System**  
 Fluid  
**TULCO LUBSOIL SUPER HYDRAULIC AW 100 (90 GAL)**

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness 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	history1	history2
Sample Number	Client Info			<b>TO50000809</b>	TO5000708	TO5010833
Sample Date	Client Info			<b>17 Apr 2024</b>	20 Apr 2022	09 Jul 2019
Machine Age	yrs	Client Info		<b>6</b>	0	0
Oil Age	yrs	Client Info		<b>0</b>	4	0
Oil Changed	Client Info			<b>Not Changed</b>	Not Changed	N/A
Sample Status				<b>NORMAL</b>	NORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	<b>0</b>	<1	3
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m		<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Lead	ppm	ASTM D5185m	>10	<b>&lt;1</b>	1	<1
Copper	ppm	ASTM D5185m	>75	<b>11</b>	12	10
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	<1
Antimony	ppm	ASTM D5185m		<b>---</b>	---	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

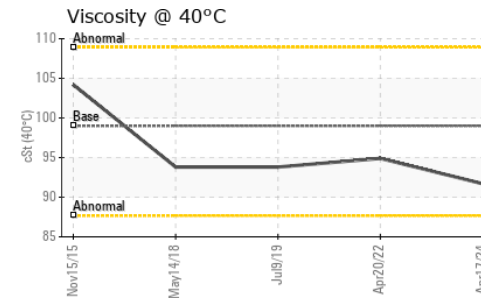
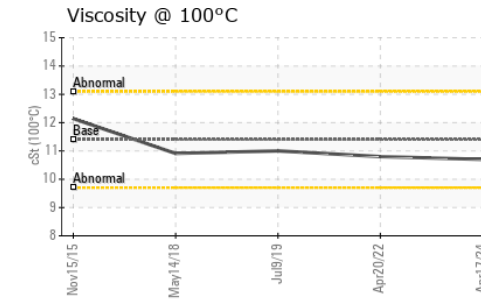
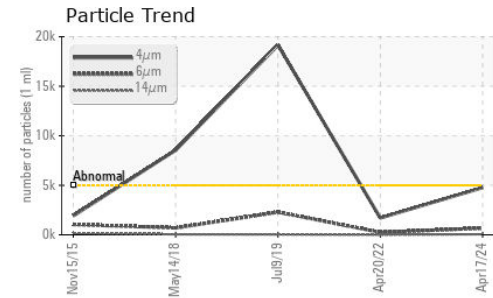
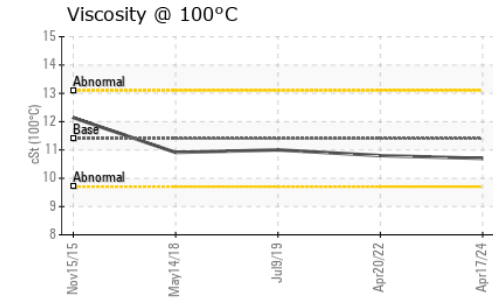
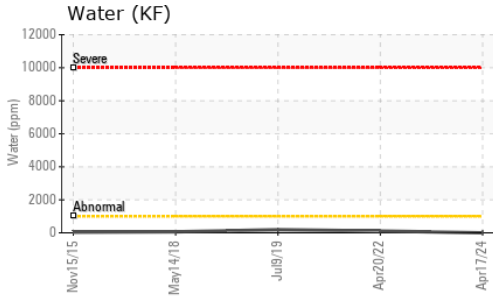
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>0</b>	<1	<1
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Molybdenum	ppm	ASTM D5185m		<b>0</b>	<1	0
Manganese	ppm	ASTM D5185m		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m		<b>4</b>	6	10
Calcium	ppm	ASTM D5185m		<b>29</b>	30	74
Phosphorus	ppm	ASTM D5185m	380	<b>316</b>	333	365
Zinc	ppm	ASTM D5185m	490	<b>337</b>	365	372
Sulfur	ppm	ASTM D5185m	2150	<b>1816</b>	1160	1889

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	<b>2</b>	2	2
Sodium	ppm	ASTM D5185m		<b>18</b>	19	48
Potassium	ppm	ASTM D5185m	>20	<b>7</b>	9	20
Water	%	ASTM D6304	>0.1	<b>0.00</b>	0.011	0.019
ppm Water	ppm	ASTM D6304	>1000	<b>0</b>	111.6	190

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	<b>4768</b>	1699	▲ 19156
Particles >6µm		ASTM D7647	>1300	<b>675</b>	242	▲ 2292
Particles >14µm		ASTM D7647	>160	<b>53</b>	12	35
Particles >21µm		ASTM D7647	>40	<b>11</b>	1	6
Particles >38µm		ASTM D7647	>10	<b>0</b>	0	0
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>19/17/13</b>	18/15/11	▲ 21/18/12

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.6	<b>0.41</b>	0.39	0.360

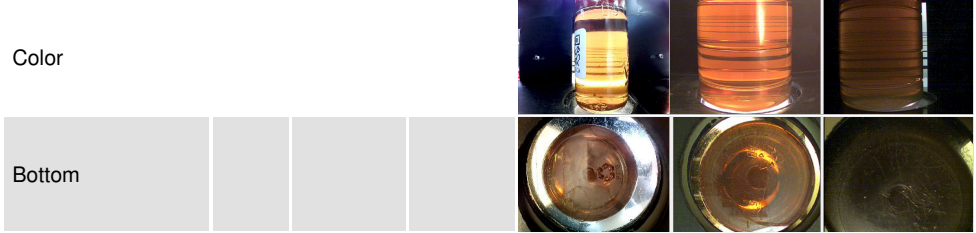
# OIL ANALYSIS REPORT



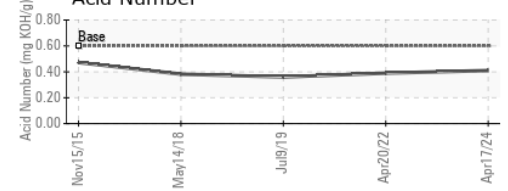
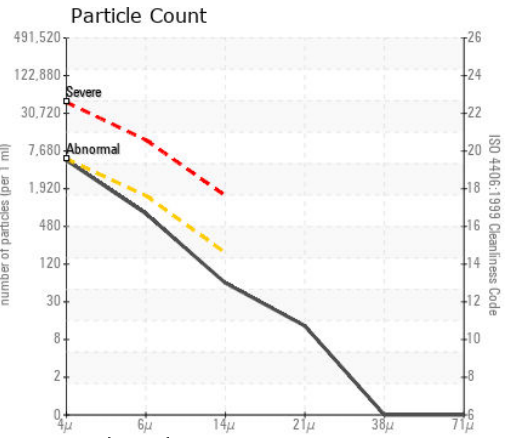
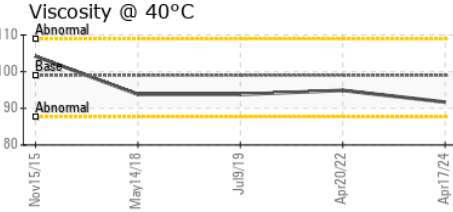
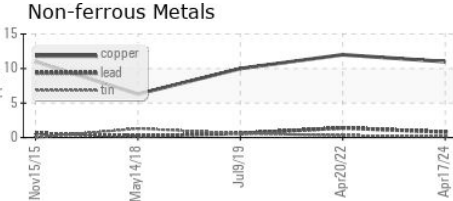
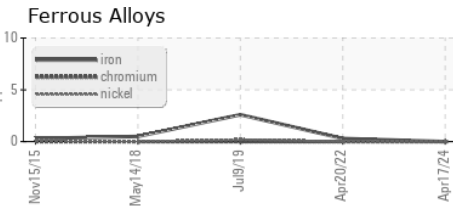
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	99	94.9	93.8
Visc @ 100°C	cSt	ASTM D445	11.4	10.7	11.0
Viscosity Index (VI)	Scale	ASTM D2270	101	97	101

### SAMPLE IMAGES



### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TO50000809 **Received** : 22 Apr 2024  
**Lab Number** : 06155917 **Tested** : 23 Apr 2024  
**Unique Number** : 10991340 **Diagnosed** : 23 Apr 2024 - Wes Davis  
**Test Package** : IND 2 ( Additional Tests: KF, KV100, VI )

**DALLAS MORNING NEWS**  
 3900 W PLANO PKWY  
 PLANO, TX  
 US 75075  
 Contact: KENNY CLARK  
 kclark@dallasnews.com  
 T: (214)977-6929  
 F: (214)977-6888

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)