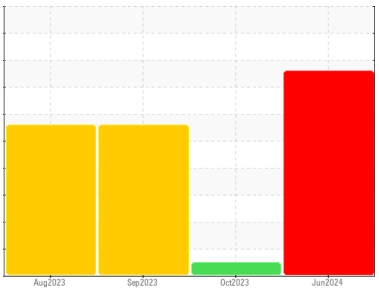
PROBLEM SUMMARY

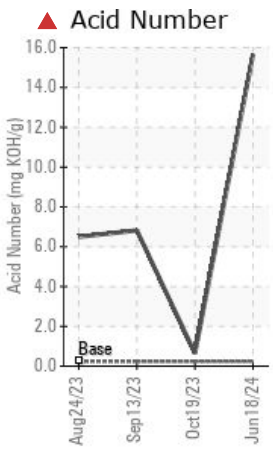
Sample Rating Trend

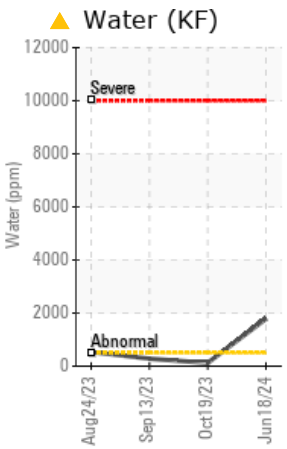


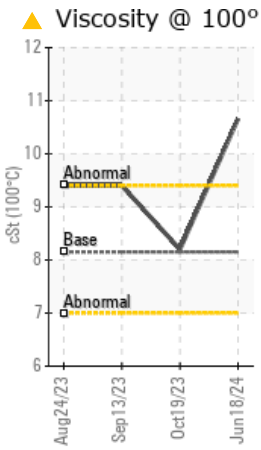
DEGRADATION

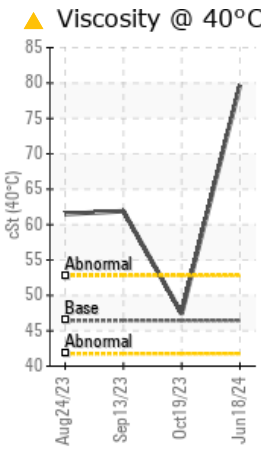
Area
[TO10002649]
Machine Id
SOUTH COMP 21000-50-02 (S/N 1106-5717)
Component
Compressor
Fluid
TULCO LUBSOIL SYNTHETIC COMPRESSOR 46 (--- GAL)

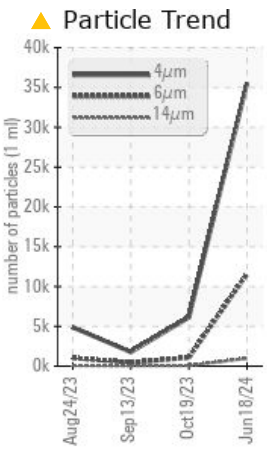
COMPONENT CONDITION SUMMARY











RECOMMENDATION

We advise that you check for a possible overheat condition. Recommend drain oil if not already done and flush with cleaner before refilling with oil. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	NORMAL	SEVERE
Water	%	ASTM D6304	>0.05	▲ **0.178**	0.012	0.028
ppm Water	ppm	ASTM D6304	>500	▲ **1786**	121.3	281.5
Particles >6µm		ASTM D7647	>1300	▲ **11578**	1080	452
Particles >14µm		ASTM D7647	>80	▲ **977**	61	41
Particles >21µm		ASTM D7647	>20	▲ **228**	17	9
Particles >38µm		ASTM D7647	>4	▲ **7**	1	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	▲ **22/21/17**	20/17/13	18/16/13
Acid Number (AN)	mg KOH/g	ASTM D8045	0.236	▲ **15.66**	0.65	▲ 6.82
Visc @ 40°C	cSt	ASTM D445	46.44	▲ **79.69**	47.4	▲ 61.9
Visc @ 100°C	cSt	ASTM D445	8.15	▲ **10.66**	8.2	9.4

Customer Id: WEBSAN
Sample No.: TO10003287
Lab Number: 06216231
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Recommend drain oil if not already done and flush with cleaner before refilling with oil.
Flush System	---	---	?	Recommend drain oil if not already done and flush with cleaner before refilling with oil.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check For Overheating	---	---	?	We advise that you check for a possible overheat condition.

HISTORICAL DIAGNOSIS

NORMAL

19 Oct 2023 Diag: Don Baldridge

Resample at the next service interval to monitor.All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

DEGRADATION

13 Sep 2023 Diag: Doug Bogart

Recommend drain oil if not already done and flush with cleaner before refilling with oil. We recommend an early resample to monitor this condition.Copper ppm levels are abnormal. Iron ppm levels are marginal. Zinc noted. The amount and size of particulates present in the system are acceptable. The AN level is above the recommended limit. The oil viscosity is higher than normal. The oil is no longer serviceable.

view report

DEGRADATION

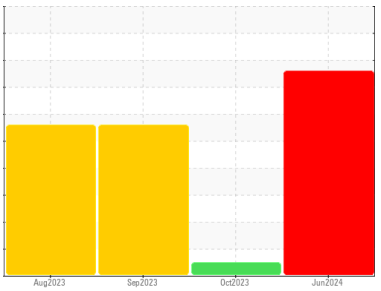
24 Aug 2023 Diag: Doug Bogart

Recommend drain oil if not already done and flush with cleaner before refilling with oil. We recommend an early resample to monitor this condition.Copper ppm levels are abnormal. Iron ppm levels are marginal. Zinc noted. The amount and size of particulates present in the system are acceptable. The AN level is above the recommended limit. The oil viscosity is higher than normal. The oil is no longer serviceable.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION

Area
[TO10002649]
Machine Id
SOUTH COMP 21000-50-02 (S/N 1106-5717)
Component
Compressor
Fluid
TULCO LUBSOIL SYNTHETIC COMPRESSOR 46 (--- GAL)

DIAGNOSIS

Recommendation
We advise that you check for a possible overheat condition. Recommend drain oil if not already done and flush with cleaner before refilling with oil. We recommend an early resample to monitor this condition.

Wear
All component wear rates are normal.

Contamination
There is a high amount of particulates present in the oil. There is a light concentration of water present in the oil.

Fluid Condition
The AN level is well above the recommended limit. The oil viscosity is higher than normal. The oil is no longer serviceable. The oil is no longer serviceable.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**TO10003287**	TO10002649	TO10002529
Sample Date		Client Info		**18 Jun 2024**	19 Oct 2023	13 Sep 2023
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				**SEVERE**	NORMAL	SEVERE

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**10**	2	▲ 45
Chromium	ppm	ASTM D5185m	>10	**0**	0	<1
Nickel	ppm	ASTM D5185m	>3	**<1**	<1	0
Titanium	ppm	ASTM D5185m	>3	**0**	0	0
Silver	ppm	ASTM D5185m	>2	**0**	0	0
Aluminum	ppm	ASTM D5185m	>10	**<1**	0	0
Lead	ppm	ASTM D5185m	>10	**0**	0	<1
Copper	ppm	ASTM D5185m	>50	**30**	7	▲ 112
Tin	ppm	ASTM D5185m	>10	**<1**	<1	0
Vanadium	ppm	ASTM D5185m		**0**	0	<1
Cadmium	ppm	ASTM D5185m		**0**	0	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**10**	0	<1
Barium	ppm	ASTM D5185m		**<1**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m		**4**	3	0
Calcium	ppm	ASTM D5185m		**23**	1	0
Phosphorus	ppm	ASTM D5185m	74	**58**	72	91
Zinc	ppm	ASTM D5185m		**69**	65	● 153
Sulfur	ppm	ASTM D5185m	1000	**322**	849	455

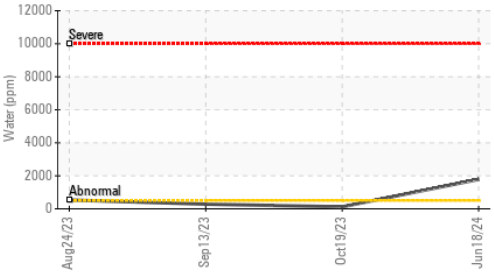
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**0**	<1	<1
Sodium	ppm	ASTM D5185m		**5**	2	6
Potassium	ppm	ASTM D5185m	>20	**5**	0	4
Water	%	ASTM D6304	>0.05	▲ **0.178**	0.012	0.028
ppm Water	ppm	ASTM D6304	>500	▲ **1786**	121.3	281.5

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**35540**	6133	1765
Particles >6µm		ASTM D7647	>1300	▲ **11578**	1080	452
Particles >14µm		ASTM D7647	>80	▲ **977**	61	41
Particles >21µm		ASTM D7647	>20	▲ **228**	17	9
Particles >38µm		ASTM D7647	>4	▲ **7**	1	0
Particles >71µm		ASTM D7647	>3	**1**	0	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	▲ **22/21/17**	20/17/13	18/16/13

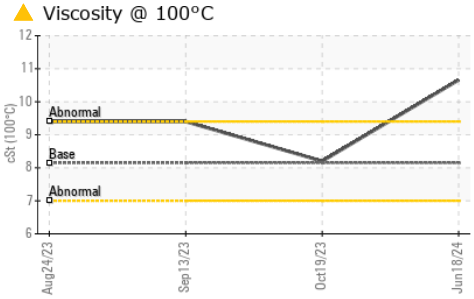
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.236	▲ **15.66**	0.65	▲ 6.82

OIL ANALYSIS REPORT

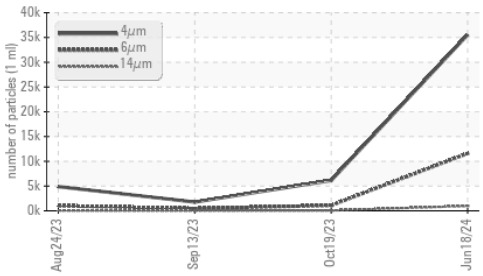
Water (KF)



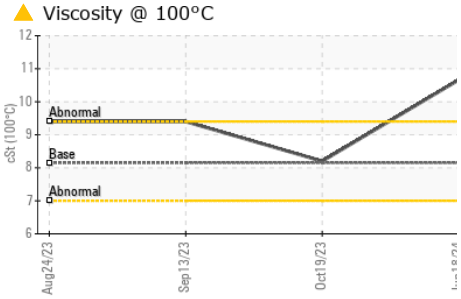
Viscosity @ 100°C



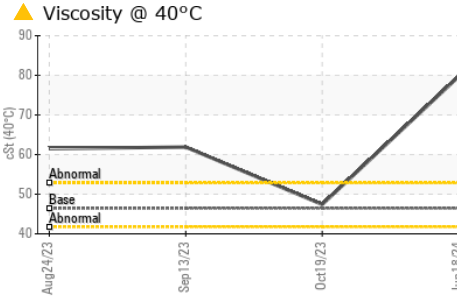
Particle Trend



Viscosity @ 100°C



Viscosity @ 40°C



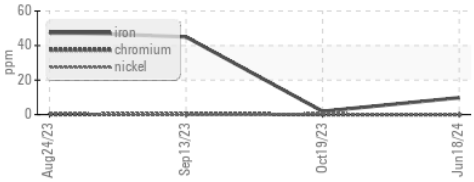
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**LIGHT**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46.44	▲ **79.69**	47.4	▲ 61.9
Visc @ 100°C	cSt	ASTM D445	8.15	▲ **10.66**	8.2	9.4
Viscosity Index (VI)	Scale	ASTM D2270	149	**119**	147	132

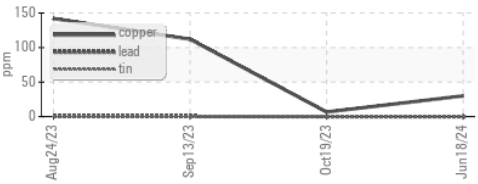
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

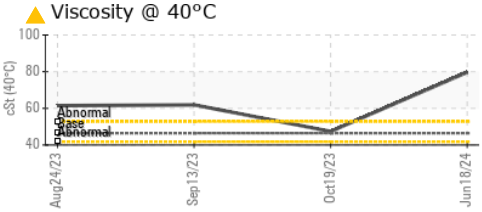
Ferrous Alloys



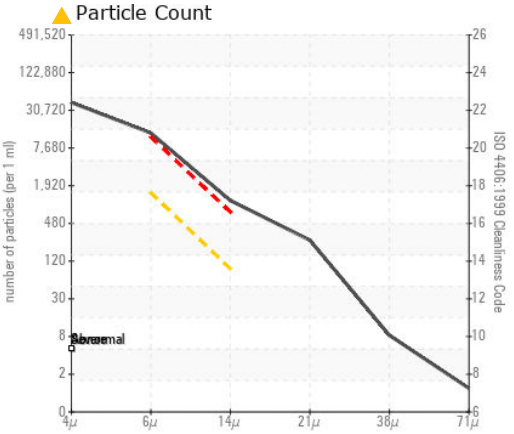
Non-ferrous Metals



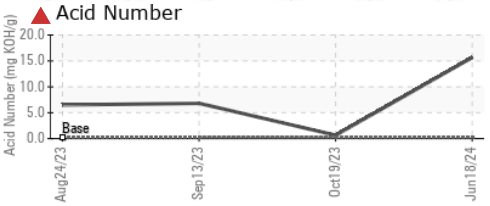
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO10003287 **Received** : 20 Jun 2024
Lab Number : 06216231 **Tested** : 24 Jun 2024
Unique Number : 11089095 **Diagnosed** : 24 Jun 2024 - Jonathan Hester
Test Package : IND 2 (Additional Tests: KF, KV100, PrtCount, 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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