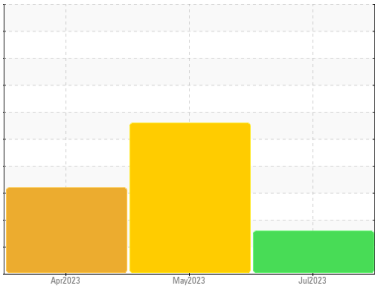
PROBLEM SUMMARY

Sample Rating Trend

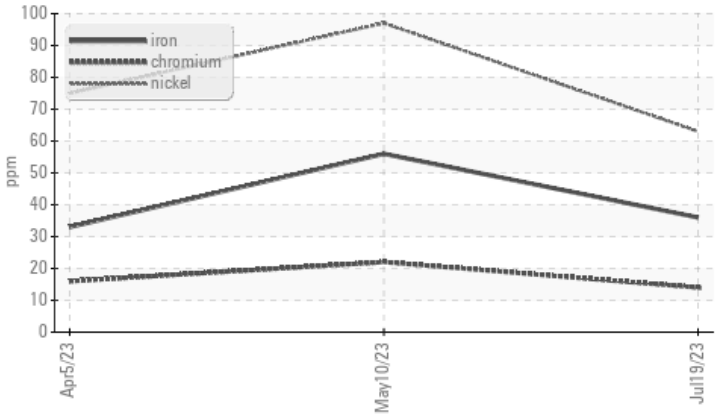


WEAR

Area
MEK
Machine Id
[MEK] MEKU-C-0002B COMPRESSOR, VACUUM, "B", SOUTH
Component
Compressor
Fluid
BELRAY Turbine Oil 150 (--- QTS)

COMPONENT CONDITION SUMMARY

▲ Ferrous Alloys



RECOMMENDATION

We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL
Chromium	ppm	ASTM D5185m	>10	▲ **14**	▲ 22	▲ 16
Nickel	ppm	ASTM D5185m		▲ **63**	▲ 97	▲ 75

Customer Id: CALSHR
Sample No.: RP0034844
Lab Number: 05904437
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Angela Borella +1 800-237-1369
angela.borella@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
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

10 May 2023 Diag: Angela Borella

DIRT

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.Chromium and iron and tin ppm levels are abnormal. Aluminum ppm levels are noted. Nickel ppm levels are marginal. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

view report

05 Apr 2023 Diag: Angela Borella

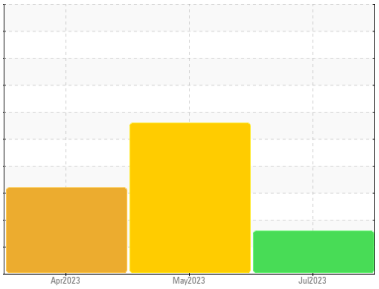
DIRT

We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.Chromium ppm levels are abnormal. Nickel ppm levels are marginal. Elemental level of silicon (Si) above normal indicating ingress of seal material. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Area
MEK
Machine Id
[MEK] MEKU-C-0002B COMPRESSOR, VACUUM, "B", SOUTH
Component
Compressor
Fluid
BELRAY Turbine Oil 150 (--- QTS)

DIAGNOSIS

Recommendation

We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Wear

Chromium ppm levels are abnormal. Nickel ppm levels are marginal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**RP0034844**	RP0034814	RP0031616
Sample Date		Client Info		**19 Jul 2023**	10 May 2023	05 Apr 2023
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Not Changd**	N/A	Not Changd
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**36**	▲ 56	33
Chromium	ppm	ASTM D5185m	>10	▲ **14**	▲ 22	▲ 16
Nickel	ppm	ASTM D5185m		▲ **63**	▲ 97	▲ 75
Titanium	ppm	ASTM D5185m		**<1**	<1	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	**10**	▲ 22	3
Lead	ppm	ASTM D5185m	>25	**2**	4	5
Copper	ppm	ASTM D5185m	>50	**9**	11	10
Tin	ppm	ASTM D5185m	>15	**8**	▲ 19	13
Vanadium	ppm	ASTM D5185m		**<1**	<1	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**1**	5	3
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**2**	2	2
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m		**10**	19	3
Calcium	ppm	ASTM D5185m		**25**	24	19
Phosphorus	ppm	ASTM D5185m		**39**	43	28
Zinc	ppm	ASTM D5185m		**18**	36	15

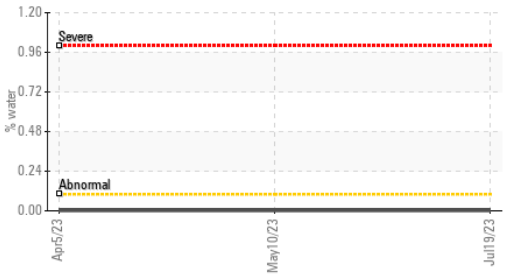
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**15**	▲ 31	▲ 27
Sodium	ppm	ASTM D5185m		**4**	2	0
Potassium	ppm	ASTM D5185m	>20	**0**	5	1
Water	%	ASTM D6304	>0.1	**0.002**	0.002	0.002
ppm Water	ppm	ASTM D6304	>1000	**16.0**	24.4	15.6

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.125**	0.18	0.379

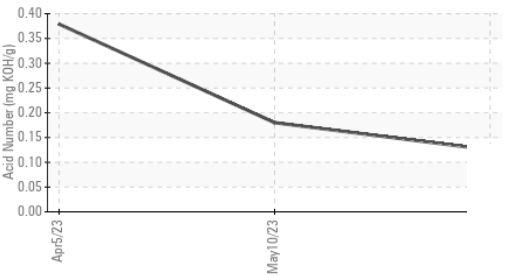
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

OIL ANALYSIS REPORT

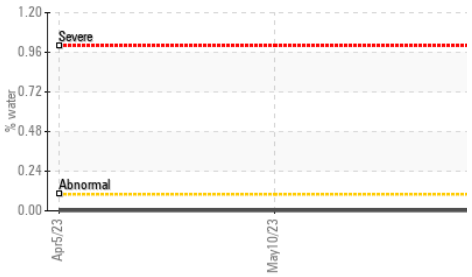
Water



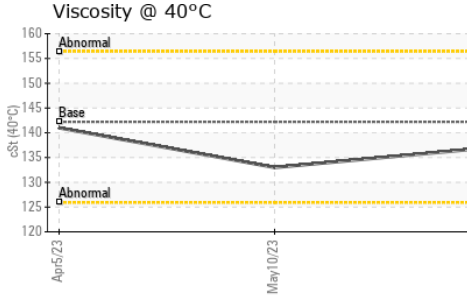
Acid Number



Water

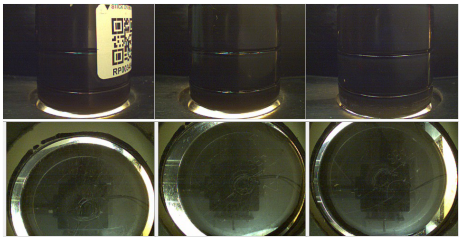


Viscosity @ 40°C



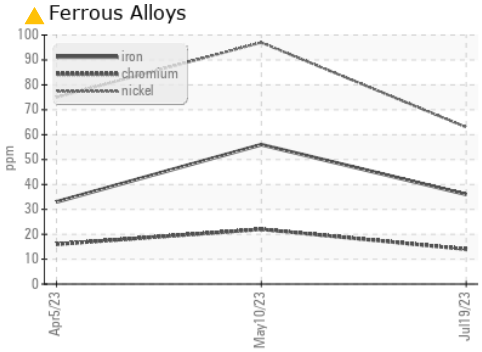
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	142.2	**137**	133	141

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

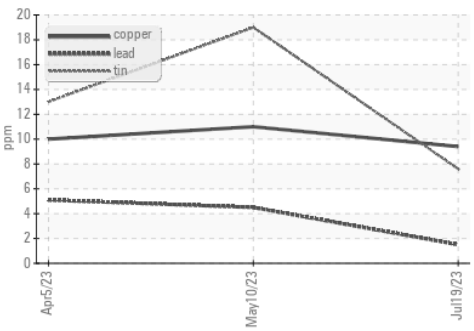


GRAPHS

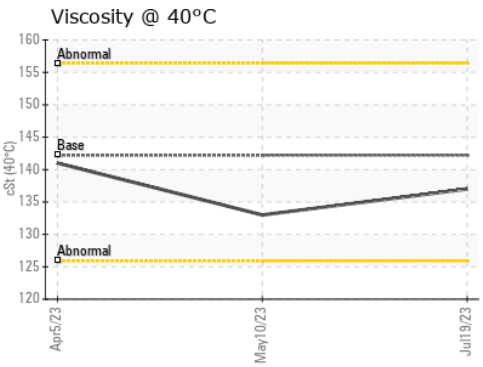
Ferrous Alloys



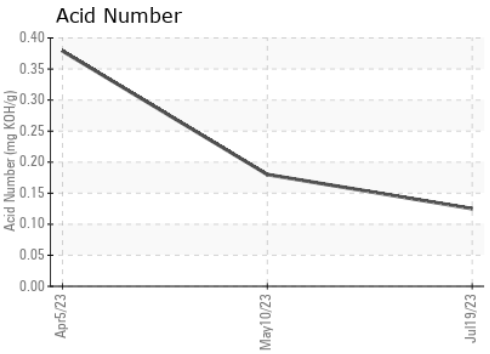
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0034844
Lab Number : 05904437
Unique Number : 10565793
Test Package : IND 2

Received : 21 Jul 2023
Diagnosed : 25 Jul 2023
Diagnostician : Angela Borella

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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