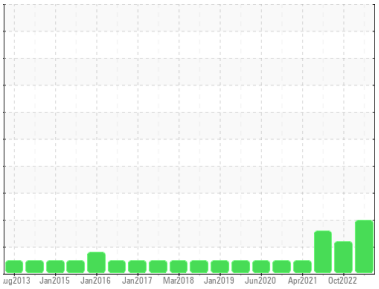
PROBLEM SUMMARY

Area
A3
Machine Id
Shipping Pump-31009B
Component
Pump
Fluid
NOT GIVEN (--- GAL)

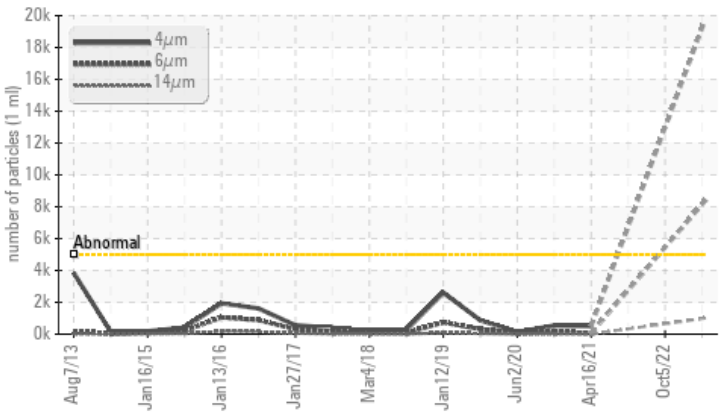
Sample Rating Trend



ISO

COMPONENT CONDITION SUMMARY

Particle Trend



RECOMMENDATION

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

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL
Particles >4µm		ASTM D7647	>5000	▲ **19210**	---	---
Particles >6µm		ASTM D7647	>1300	▲ **8146**	---	---
Particles >14µm		ASTM D7647	>160	▲ **974**	---	---
Particles >21µm		ASTM D7647	>40	▲ **292**	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **21/20/17**	---	---

Customer Id: CONANCAK
Sample No.: WC0745571
Lab Number: 05935380
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Doug Bogart +1 (800)237-1369 x4016
dougb@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 Filter	---	---	?	We recommend you service the filters on this component.

HISTORICAL DIAGNOSIS

05 Oct 2022 Diag: Doug Bogart

VISUAL METAL

We recommend you service the filters on this component if applicable. We advise that you inspect for the source(s) of metal. Resample at the next service interval to monitor. We were unable to perform a particle count due to metal particles present in this sample.Moderate concentration of visible metal present. All component wear rates are normal. No other contaminants were detected in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

---

28 Jan 2022 Diag: Doug Bogart

VISUAL METAL

We recommend you service the filters on this component if applicable. We advise that you inspect for the source(s) of metal. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.Moderate concentration of visible metal present. All component wear rates are normal. Light concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

---

16 Apr 2021 Diag: Angela Borella

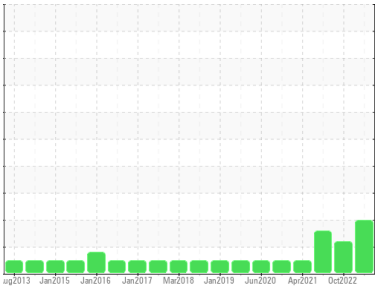
NORMAL

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

view report

OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Area
A3
Machine Id
Shipping Pump-31009B
Component
Pump
Fluid
NOT GIVEN (--- GAL)

DIAGNOSIS

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

Wear
All component wear rates are normal.

Contamination
There is a high amount of particulates 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		**WC0745571**	WC0670613	WC05477923
Sample Date		Client Info		**24 Aug 2023**	05 Oct 2022	28 Jan 2022
Machine Age	mths	Client Info		**0**	0	0
Oil Age	mths	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	**0**	<1	<1
Chromium	ppm	ASTM D5185m	>5	**0**	0	0
Nickel	ppm	ASTM D5185m	>5	**0**	0	0
Titanium	ppm	ASTM D5185m	>3	**0**	0	0
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>7	**0**	<1	0
Lead	ppm	ASTM D5185m	>12	**0**	<1	1
Copper	ppm	ASTM D5185m	>30	**4**	4	4
Tin	ppm	ASTM D5185m	>9	**0**	0	<1
Antimony	ppm	ASTM D5185m		**---**	---	0
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	<1
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**0**	0	0
Magnesium	ppm	ASTM D5185m		**80**	82	98
Calcium	ppm	ASTM D5185m		**2**	2	2
Phosphorus	ppm	ASTM D5185m		**3**	6	24
Zinc	ppm	ASTM D5185m		**0**	<1	0
Sulfur	ppm	ASTM D5185m		**20479**	19932	17474

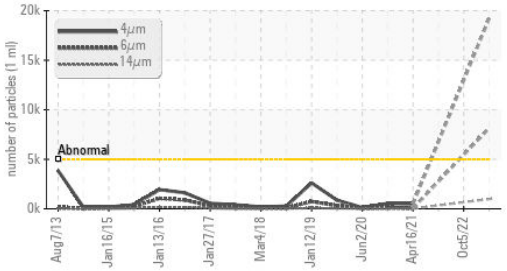
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>60	**5**	7	9
Sodium	ppm	ASTM D5185m		**1**	0	0
Potassium	ppm	ASTM D5185m	>20	**0**	0	1
Water	%	ASTM D6304		**0.027**	---	---
ppm Water	ppm	ASTM D6304	>.1	**278.4**	---	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **19210**	---	---
Particles >6µm		ASTM D7647	>1300	▲ **8146**	---	---
Particles >14µm		ASTM D7647	>160	▲ **974**	---	---
Particles >21µm		ASTM D7647	>40	▲ **292**	---	---
Particles >38µm		ASTM D7647	>10	**7**	---	---
Particles >71µm		ASTM D7647	>3	**0**	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **21/20/17**	---	---

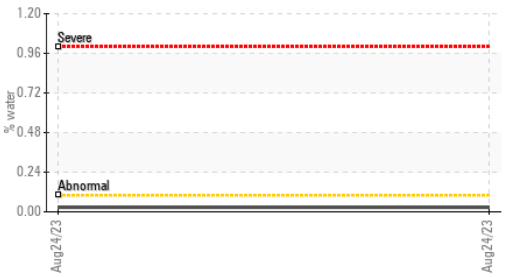
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.455**	0.39	0.35

OIL ANALYSIS REPORT

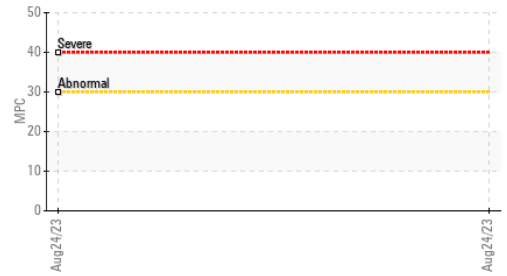
Particle Trend



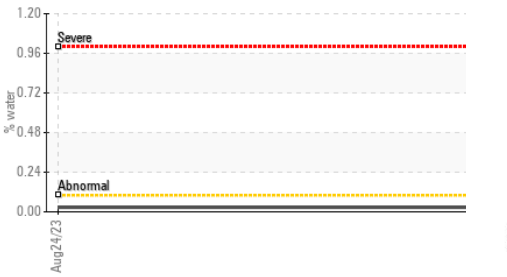
Water



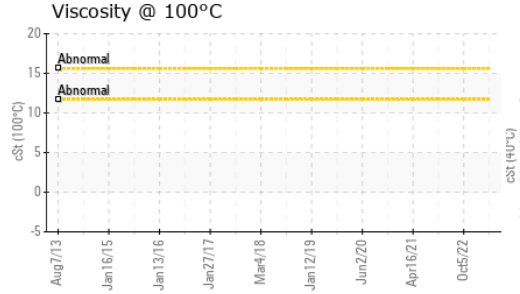
Varnish Potential



Water

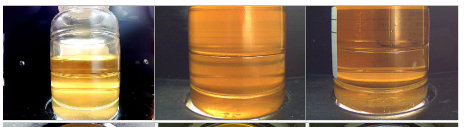
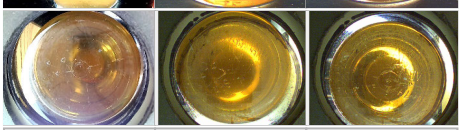


Viscosity @ 100°C



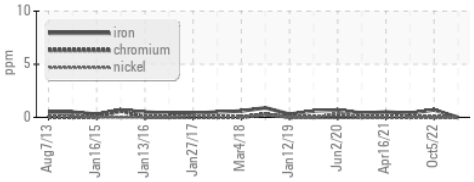
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	▲ MODER	▲ MODER
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	▲ LIGHT
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		**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**30.6**	32.5	37.1

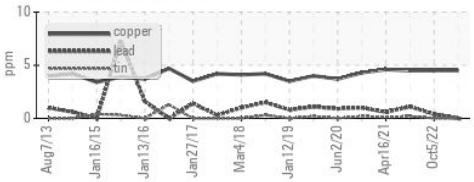
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					
MPC			*no image*	*no image*	*no image*

GRAPHS

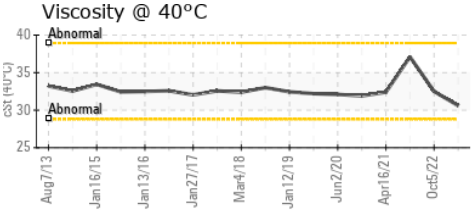
Ferrous Alloys



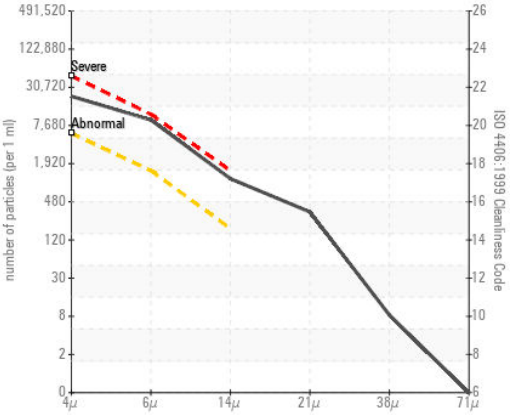
Non-ferrous Metals



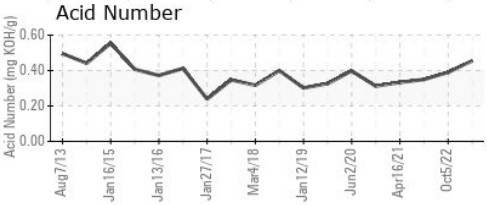
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0745571 **Received** : 25 Aug 2023
Lab Number : 05935380 **Diagnosed** : 05 Sep 2023
Unique Number : 10620651 **Diagnostician** : Doug Bogart
Test Package : IND 2 (Additional Tests: KF, KV100, MPC, PrtCount, RULER, VN)

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)

Conoco Phillips ALASKA INC
C/O LAF (ALPINE), 6441 S AIRPARK PL
ANCHORAGE, AK
US 99502
Contact: Chris Van Ryzin Ben DeRaeve
alp1084@conocophillips.com
T: (907)670-4128
F: (907)670-4137