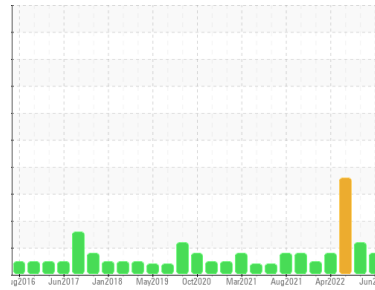




PROBLEM SUMMARY

Sample Rating Trend



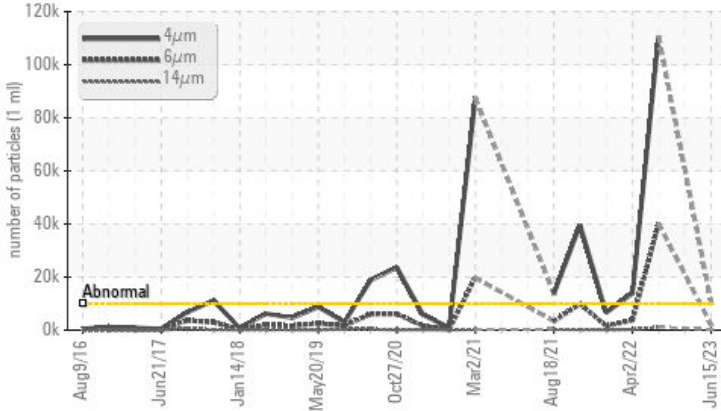
ISO



Area
MP-105
 Machine Id
B45056 - PUMP VACUUM MAIN BUSCH RA 630 HAM LINE 2 (TOP) B45056 (S/N 200008547)
 Component
Top Vacuum Pump
 Fluid
PETRO CANADA PURITY FG SYNTHETIC 100 (15 LTR)

COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

No corrective action is recommended at this time.
 Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status		ATTENTION	ABNORMAL	ABNORMAL
Particles >4µm	ASTM D7647 >10000	▲ 10794	---	▲ 110699
Oil Cleanliness	ISO 4406 (c) >20/18/15	▲ 21/18/14	---	▲ 24/23/17

Customer Id: HORAUS
 Sample No.: WC0799676
 Lab Number: 05881442
 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

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

25 Mar 2023 Diag: Don Baldrige

VISUAL METAL



We advise that you inspect for possible wear. 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 acceptable for the time in service.

view report



12 Feb 2023 Diag: Doug Bogart

WATER



We advise that you follow the water drain-off procedure for this component. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. Free water present. Additive levels indicate the addition of a different brand, or type of oil. Confirm oil type. The AN level is acceptable for this fluid.

view report



02 Apr 2022 Diag: Jonathan Hester

ISO



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

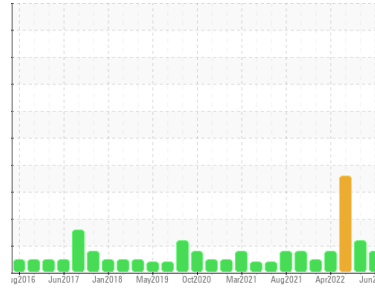
view report





OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
MP-105
 Machine Id
B45056 - PUMP VACUUM MAIN BUSCH RA 630 HAM LINE 2 (TOP) B45056 (S/N 200008547)
 Component
Top Vacuum Pump
 Fluid
PETRO CANADA PURITY FG SYNTHETIC 100 (15 LTR)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 6 microns in size) 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	history 1	history 2
Sample Number	Client Info		WC0799676	WC0781498	WC0774933
Sample Date	Client Info		15 Jun 2023	25 Mar 2023	12 Feb 2023
Machine Age	wks	Client Info	0	0	0
Oil Age	wks	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ATTENTION	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >20	<1	6	2
Chromium	ppm	ASTM D5185m >20	<1	0	0
Nickel	ppm	ASTM D5185m >20	<1	<1	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >20	0	1	0
Lead	ppm	ASTM D5185m >20	0	0	0
Copper	ppm	ASTM D5185m >20	0	<1	0
Tin	ppm	ASTM D5185m >20	0	0	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m	0	0	0
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	<1	0	0
Magnesium	ppm	ASTM D5185m	0	0	<1
Calcium	ppm	ASTM D5185m	12	0	9
Phosphorus	ppm	ASTM D5185m	74	369	▲ 5
Zinc	ppm	ASTM D5185m	0	4	8
Sulfur	ppm	ASTM D5185m	267	1179	120

CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >15	7	3	10
Sodium	ppm	ASTM D5185m	<1	0	0
Potassium	ppm	ASTM D5185m >20	3	<1	<1

FLUID CLEANLINESS

	method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647	>10000	▲ 10794	---	▲ 110699
Particles >6µm	ASTM D7647	>2500	2244	---	▲ 40032
Particles >14µm	ASTM D7647	>320	95	---	▲ 1111
Particles >21µm	ASTM D7647	>80	15	---	59
Particles >38µm	ASTM D7647	>20	0	---	0
Particles >71µm	ASTM D7647	>4	0	---	0
Oil Cleanliness	ISO 4406 (c)	>20/18/15	▲ 21/18/14	---	▲ 24/23/17

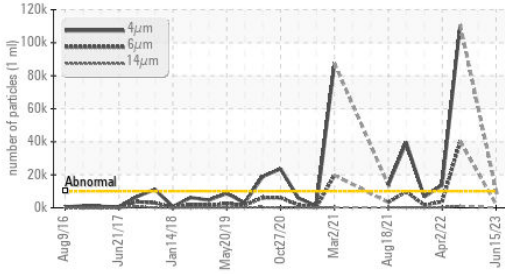
FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.5	0.06	0.05	0.11

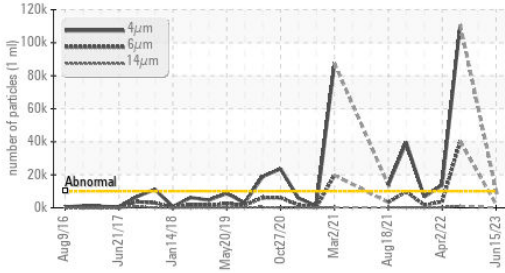


OIL ANALYSIS REPORT

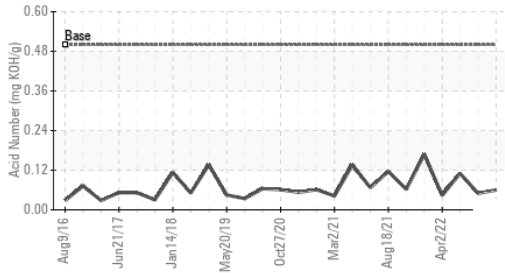
▲ Particle Trend



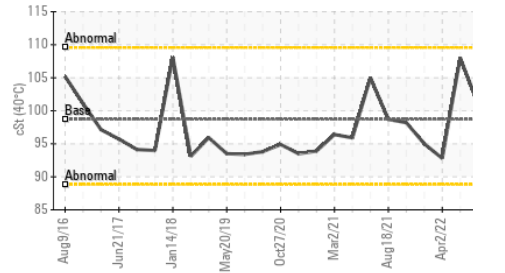
▲ Particle Trend



Acid Number



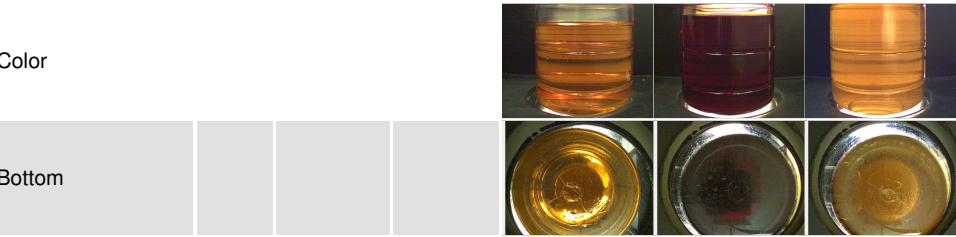
Viscosity @ 40°C



VISUAL	method	limit/base	current	history 1	history 2	
White Metal	scalar	*Visual	NONE	NONE	▲ MODER	VLITE
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	0.2%	
Free Water	scalar	*Visual	NEG	NEG	▲ 1.0	

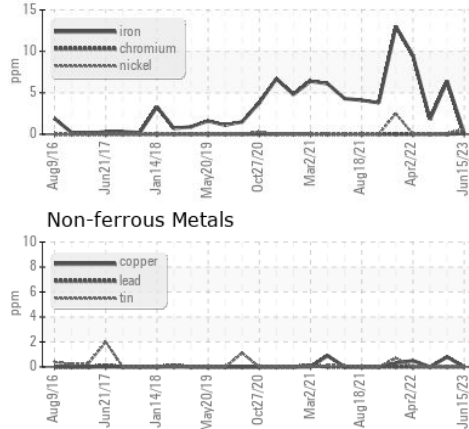
FLUID PROPERTIES	method	limit/base	current	history 1	history 2	
Visc @ 40°C	cSt	ASTM D445	98.7	113	101	108

SAMPLE IMAGES	method	limit/base	current	history 1	history 2
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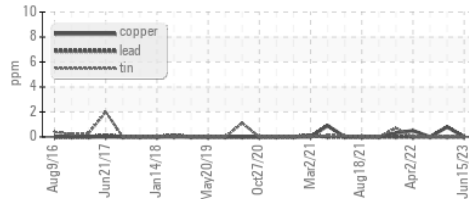


GRAPHS

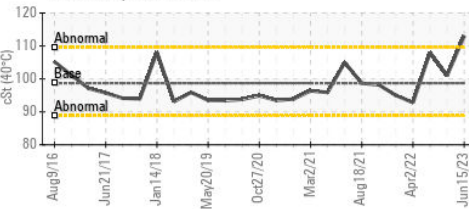
Ferrous Alloys



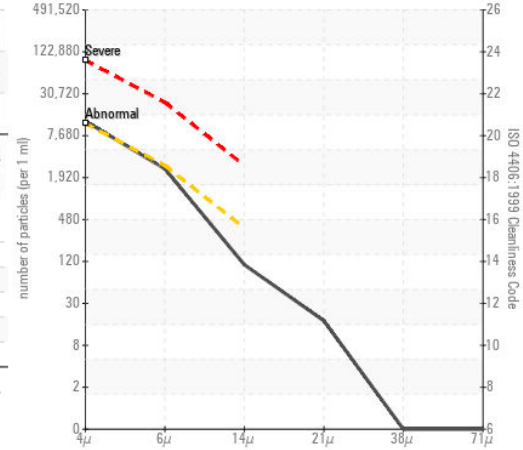
Non-ferrous Metals



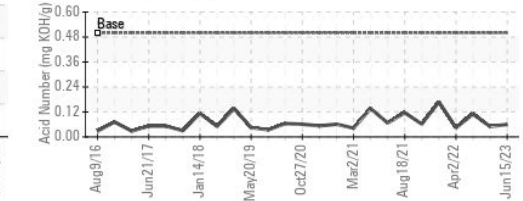
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0799676 **Received** : 22 Jun 2023
Lab Number : 05881442 **Diagnosed** : 30 Jun 2023
Unique Number : 10526545 **Diagnostician** : Jonathan Hester

HORMEL FOODS - AUSTIN
 1101 NORTH MAIN ST
 AUSTIN, MN
 US 55912
 Contact: RYAN LOWE
 rslowe@hormel.com
 T: (507)437-5674
 F: (507)437-9805

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)