

OIL ANALYSIS REPORT

Sample Rating Trend



Area **PHASE 2 PH 2** Machine Id **HT 28** Component **Agitator Gearbox**

PETRO CANADA PURITY FG SYN GEAR ISO 220 (--- LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

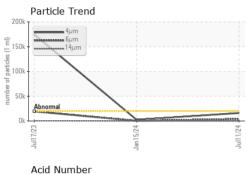
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0111025	PCA0111024	USP244667
Sample Date		Client Info		11 Jul 2024	15 Jan 2024	17 Jul 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	N/A
Sample Status				NORMAL	NORMAL	ABNORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>150	5	0	57
Chromium	ppm	ASTM D5185m	>10	0	0	<1
Nickel	ppm	ASTM D5185m	>10	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>25	0	0	<1
Lead	ppm	ASTM D5185m	>100	0	0	0
Copper	ppm	ASTM D5185m	>50	4	6	38
Tin	ppm	ASTM D5185m	>10	0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	13
Barium	ppm	ASTM D5185m		0	<1	1
Molybdenum	ppm	ASTM D5185m		4	5	13
-	ppm ppm	ASTM D5185m ASTM D5185m		4 0	5 <1	13 <1
Manganese						
Manganese Magnesium	ppm	ASTM D5185m		0	<1	<1
Manganese Magnesium Calcium	ppm ppm	ASTM D5185m ASTM D5185m		0 <1	<1 <1	<1 6
Manganese Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		0 <1 0	<1 <1 4	<1 6 136
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 <1 0 427	<1 <1 4 421	<1 6 136 441
Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 <1 0 427 9	<1 <1 4 421 14	<1 6 136 441 83
Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 <1 0 427 9 3223	<1 <1 4 421 14 2604	<1 6 136 441 83 15939
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method		0 <1 0 427 9 3223 current	<1 <1 4 421 14 2604 history1	<1 6 136 441 83 15939 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	>50	0 <1 0 427 9 3223 current 13	<1 <1 4 421 14 2604 history1 11	<1 6 136 441 83 15939 history2 8
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>50	0 <1 0 427 9 3223 current 13 <1	<1 <1 4 421 14 2604 history1 11 0	<1 6 136 441 83 15939 history2 8 2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>50 >20	0 <1 0 427 9 3223 current 13 <1 0	<1 <1 4 421 14 2604 history1 11 0 0	<1 6 136 441 83 15939 history2 8 2 20
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>50 >20 limit/base >20000	0 <1 0 427 9 3223 current 13 <1 0 current	<1 <1 <1 4 421 14 2604 history1 11 0 0 history1	<1 6 136 441 83 15939 history2 8 2 20 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANI Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	>50 >20 limit/base >20000	0 <1 0 427 9 3223 current 13 <1 0 current 16131	<1 <1 4 421 14 2604 history1 11 0 0 history1 2531	<1 6 136 441 83 15939 history2 8 2 20 history2 k 174698
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANI Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	>50 >20 limit/base >20000 >5000 >640	0 <1 0 427 9 3223 current 13 <1 0 current 16131 4054	<1 <1 <1 4 421 14 2604 history1 11 0 0 history1 2531 322	<1 6 136 441 83 15939 history2 8 2 20 history2 174698 19351
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANI Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	>50 >20 limit/base >20000 >5000 >640	0 <1 0 427 9 3223 <i>current</i> 13 <1 0 <i>current</i> 16131 4054 36	<1 <1 <1 4 421 14 2604 history1 11 0 0 kistory1 2531 322 36	<1 6 136 441 83 15939 history2 8 2 20 history2 174698 19351 516
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANI	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>50 >20 limit/base >20000 >5000 >5000 >640 >160 >40	0 <1 0 427 9 3223 current 13 <1 0 current 16131 4054 36 6	<1 <1 <1 4 421 14 2604 history1 11 0 0 kistory1 2531 322 36 13	<1 6 136 441 83 15939 history2 8 20 history2 174698 19351 516 121
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANI Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>50 >20 limit/base >20000 >5000 >5000 >640 >160 >40	0 <1 0 427 9 3223 current 13 <1 0 current 16131 4054 36 6 1	<1 <1 <1 4 421 14 2604 history1 11 0 0 0 history1 2531 322 36 13 1	<1 6 136 441 83 15939 history2 8 20 history2 4 174698 19351 516 121 3
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANI Particles >4µm Particles >6µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647	>50 >20 limit/base >20000 >5000 >640 >160 >40 >40 >10	0 <1 0 427 9 3223 current 13 <1 0 current 16131 4054 36 6 1 1 0	<1 <1 <1 4 421 14 2604 history1 11 0 0 history1 2531 322 36 13 1 0 0	<1 6 136 441 83 15939 history2 8 20 history2 ▲ 174698 ▲ 19351 516 121 3 0
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANI Particles >4µm Particles >4µm Particles >14µm Particles >38µm Particles >38µm Particles >71µm Oil Cleanliness	ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647	>50 >20 linit/base >20000 >5000 >640 >160 >40 >10 >10 >10 >21/19/16	0 <1 0 427 9 3223 current 13 <1 0 current 16131 4054 36 6 1 1 0 21/19/12	<1 <1 4 421 14 2604 history1 11 0 0 history1 2531 322 36 13 1 1 0 19/16/12	<1 6 136 441 83 15939 history2 8 20 history2 4 174698 19351 516 121 3 0 25/21/16

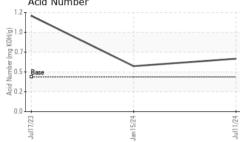
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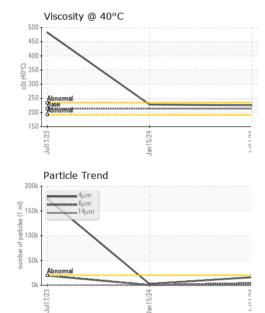
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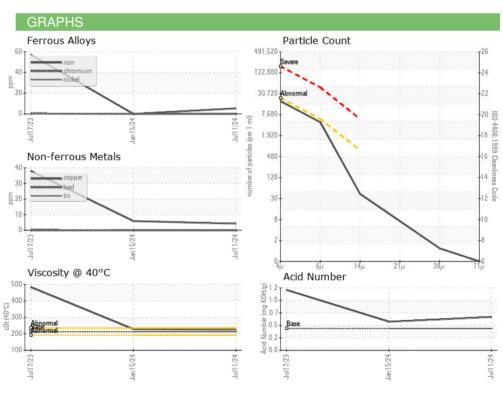






VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	213	225	228	483
SAMPLE IMAG	ies	method	limit/base	current	history1	history2
Color					a.	3

Bottom



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 KraftHeinz - Mason City - Plant 8360 Sample No. : PCA0111025 Received 1022 12TH ST : 16 Jul 2024 Lab Number : 06237762 Tested : 17 Jul 2024 MASON CITY, IA Unique Number : 11126596 Diagnosed : 18 Jul 2024 - Jonathan Hester US 50401 Test Package : IND 2 (Additional Tests: PrtCount) Contact: Service Manager Certificate 12367 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. Т: F: (641)421-2936

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Submitted By: Zachary Patterson

Page 2 of 2

